REAPPROPRIATING THE RUNDBOGENSTIL: SUPPORTING COMMUNITY REVITALIZATION THROUGH THE ADAPTIVE REUSE OF A HISTORIC GERMAN BREWERY IN CINCINNATI, OHIO

by

DEQAH A. HUSSEIN

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THESIS APPROVAL PAGE

Student: Deqah A. Hussein

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This thesis has been accepted and approved in partial fulfillment of the requirements for the Master of Science degree in the Interdisciplinary Studies Program: Historic Preservation by:

Howard Davis	Chair
Chris Bell	Member

And

Scott L. Pratt	Dean of the Graduate School

Original Approved Signatures are on file with the University of Oregon Graduate School.

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THESIS ABSTRACT

Deqah A. Hussein

Master of Science

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Title: *Reappropriating the Rundbogenstil*: Supporting Community Revitalization Through the Adaptive reuse of a Historic German Brewery in Cincinnati, Ohio

Cincinnati, Ohio is a city with many architecturally significant, yet decrepit, historic brewery buildings. Most of these structures are centralized in Over-the-Rhine (OTR) and the West End, two adjoining neighborhoods bordering Cincinnati's Central Business District. Prohibition, in combination with anti-German sentiment from World War I, led to the decline of the brewery industry in Cincinnati in the beginning of the twentieth century. The decline left the formerly German concentrated OTR neighborhood vulnerable to economic instability.

Within the past ten years, gentrification has threatened the southern regions of the OTR neighborhood, forcing low-income families to relocate to the West End. This has left the West End community socially and economically disconnected from OTR. The purpose of this thesis is to present an adaptive reuse proposal for the historic *Rundbogenstil* style Bellevue Brewing Company building, as a means to help socioeconomically regenerate and connect OTR and the West End neighborhoods.

CIRRICULUM VITE

NAME OF AUTHOR: Deqah A. Hussein

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene, OR
University of Cincinnati, Cincinnati, OH

DEGREES AWARDED:

Master of Science, Historic Preservation, 2016,
University of Oregon
Certificate, Nonprofit Management, Planning, Public Policy, and Management, 2016,
University of Oregon
Bachelor of Science, Urban Planning, 2012,
University of Cincinnati

AREAS OF SPECIAL INTEREST:

Historic Preservation
Architectural History
Community and Regional Planning
Nonprofit Management

PROFESSIONAL EXPERIENCE:

Cincinnati Preservation Association Intern,
Cincinnati, Ohio, June – September 2015
OSU Extension Housing Corps Americorps Volunteer,
Cincinnati, Ohio, August 2012 – June 2013
United Nations' Habitat Participatory Slum Upgrading Programme Intern,
Nairobi, Kenya, June 2011 – September 2011
Ellis Island & Statue of Liberty National Monument, US National Park Service Intern,
June 2010 –September 2010

GRANTS, AWARDS, AND HONORS:

Heritage Research Fund Scholarship, Historic Preservation Department, University of Oregon, Historic Preservation Program, 2015

PUBLICATIONS:

"The Inception of the Housing Authority of Portland." Journal of the Associated Students for Historic Preservation (ASHP). Spring 2016. 9 – 16

"Youth Section." Plan Cincinnati. City of Cincinnati Comprehensive Plan. 2012

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CHAPTER I

INTRODUCTION

This thesis is methodically structured, where *Chapters II, III,* and *IV* are designed to provide the reader with background information pertinent to the last two chapters, *Chapters V* and *VI*. More specifically, *Chapter II* narrates the historical context of OTR and the West End by recounting the social and physical changes of the neighborhoods during the nineteenth and twentieth centuries, and further describes how the *Rundbogenstil*[1] style evolved in Germany and in the United States. *Chapter III,* titled *Sense of Place,* expounds on historic preservation laws and urban planning theories by defining key terms and summarizing two case studies. *Chapter IV* offers a detailed analysis of the brewery building and site. *Chapter V* provides a framework that identifies character-defining features of the former brewery, which is used to perform a condition assessment, an evaluation of historical significance and integrity, and present an adaptive reuse plan for the *Rundbogenstil* style Bellevue Brewing Company building. The final chapter, titled *Revitalization,* serves as the conclusion for the thesis, which merges both planning and preservation practices to describe how the adaptive reuse of the historic property can begin to stimulate socioeconomic revitalization in the OTR and West End neighborhoods.

[1] The *Rundbogenstil* has come to denote "any round-arched building with Romanesque or Italianate features designed by certain early to mid-nineteenth century German architects." The Bellevue Brewing Company building, the property being studied, was constructed in this style.

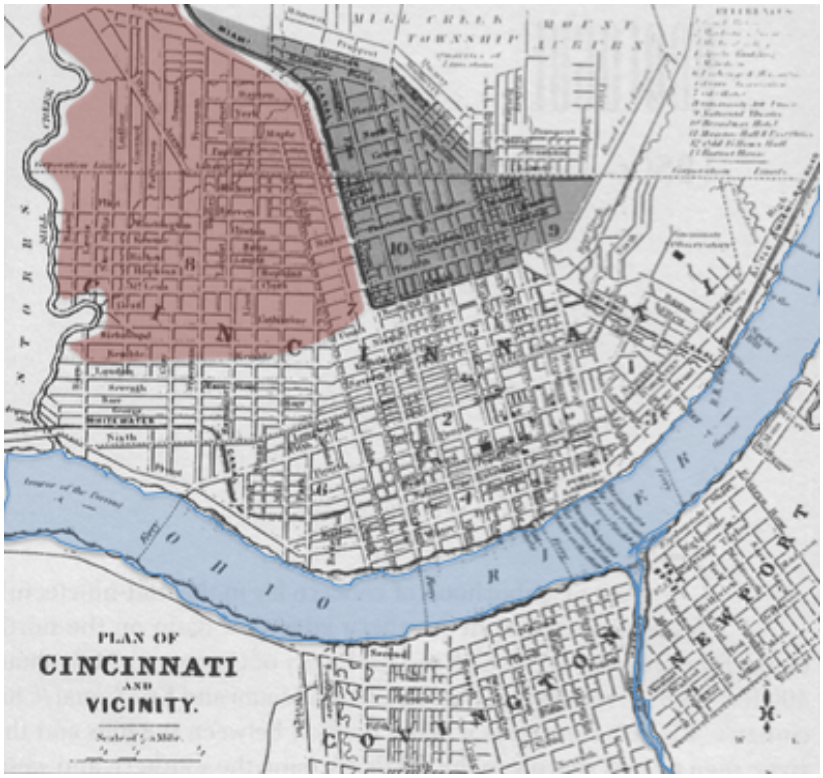
CHAPTER II

HISTORICAL CONTEXT STATEMENT

INTRODUCTION

Cincinnati was established in 1788, in a "flat basin of about seven square miles, defined by the Ohio River to the south, the Mill Creek to the west, and Step Hills to the north and east."[2] In the northernmost city on the Ohio River, Cincinnati attracted early European settlers, largely of Swiss, English, and French heritage. They were able to quickly utilize the nearby waterways for economic purposes. By establishing businesses and residences by the riverbanks, these pioneers were able to transform Cincinnati as a trade and distribution center between the East Coast and expanding Western territories.[3] The city's distribution network was an integral part of the regional transportation of goods. Cincinnati's shipping industry grew into a nationally recognized market. The impact the Ohio River had on Cincinnati's trade industry led to the city being heralded as the "Queen City of the West". In Map 1, the gray overlay represents Over-the-Rhine (OTR), the neighborhood of study. The West End neighborhood is illustrated in red.

[2] Peter Toraason. "Creating the Image of Community: Urban Redevelopment and Public Housing in Cincinnati's West End. (master's thesis. University of Cincinnati, 2008), 31.
[3] Kevin Grace and Tom White, *Cincinnati's Over-the-Rhine* (Charleston, SC: Arcadia Publishing, 2003), 4.



Map 1: Map of Cincinnati c. 1850. Source: Cincinnati and the Railroad, John Clubbe.

CHANGING NEIGHBORHOODS

In the early nineteenth century, immigration diffusion patterns led many Germans towards the Midwest. German immigrants arrived in Cincinnati, quickly transforming farmlands into lively neighborhoods. By the 1830s, a quarter of the city resided in OTR and sixty percent of the population was of German descent.[4] By 1850, the City of Cincinnati consisted of 115,435 German residents and by the turn of the century, the Germanic population in the city was the third largest in the country.[5]

Germans immigrated to the United States since before it gained independence. The descriptive narrative told by Blanche Linden in *Germany and the Americas*: *Culture, Politics, and*

[4] Blanche M. Linden. "Cincinnati." Germany and the Americas: Culture, Politics, and History." Santa Barbara (2005): 1.
[5] Ibid.

History (2005) provides a unique framework for identifying why and how Germans migrated towards Cincinnati. At first, German immigration patterns led them to areas of the rural Columbia River valley in Pennsylvania. But, when Cincinnati was officially established in the late eighteenth century, many Germans headed towards the Midwest, closer to family members and friends who could help them get settled, thus Cincinnati's then flourishing manufacturing economy correlates with German immigration patterns in the mid to late 1800s.[6]

Cincinnati's commercial and manufacturing business largely consisted of breweries and swine slaughterhouses, making Cincinnati the second largest manufacturing city in the United States during the mid-to-late 1800s.[7] The smell of hops and swine often filled the streets. The sheer magnitude of the city's pork industry led to another little-known Cincinnati nickname: "Porkopolis."



Figure 1: Life in Cincinnati circa 1880. *Source: www.thestylesample.com.*

[6] Ibid.
[7] Ibid.

Establishing A German Identity

First known as the 'German District,' the term 'Over-the-Rhine' derived from the fact that once Cincinnatian's crossed the Miami and Erie Canal from Downtown or the West End, they would be going over the Rhine. The canal was called the Rhine, named after the European river that formed the Swiss-Austrian, Swiss-German, and the Franco-German borders. Characterizing Cincinnati's landscapes tied Germans to the neighborhood, allowing them to form their own ethic identity.

German immigrants preserved their heritage in America by upholding cultural traditions. In Cincinnati, culture was maintained through the establishment of German churches, newspapers, and schools. It was, however, German beer-drinking customs in OTR that facilitated economic stability in the neighborhood. German social clubs began to form in 1819 as a way to celebrate heritage amongst friends in the OTR community.[8] Gathering spaces for social events began to take the form of beer gardens and saloons, traditions brought from the homeland. (Figure 2)

Prior to World War I and prohibition, Cincinnati was a well-functioning industrial city with a bustling economic system. OTR was the neighborhood for commercial brewing, an industry dominated by immigrants from Bavaria, a now disbanded country in present day Germany. The physical character of the OTR neighborhood was dense, yet diverse in land use. During the first half of the nineteenth century, a larger manufacturing and commercial district existed in the midst of a smaller residential community. Once German breweries commercialized, post-1850, brewers hired many new employees.

[8] Ibid.

The need for brewery worker housing in OTR prompted the construction of numerous two-story detached row houses along East and West McMicken Avenue, specifically for brewery workers. Clusters of wood-frame residential properties were clad in brick or wood shingle. Dwellings were often constructed in a vernacular Italianate, Renaissance Revival, and Greek Revival architectural styles, while commercial breweries were frequently designed in the *Rundbogenstil* style. These architectural styles represent tangible linkages to European heritage. The *Rundbogenstil* style, in particular, serves as a unique example of German architecture prevalent in OTR. These cultural resources, whether commercial, residential, or industrial worked in unison to provide localized stability for both social activity and economic development in nineteenth century OTR.

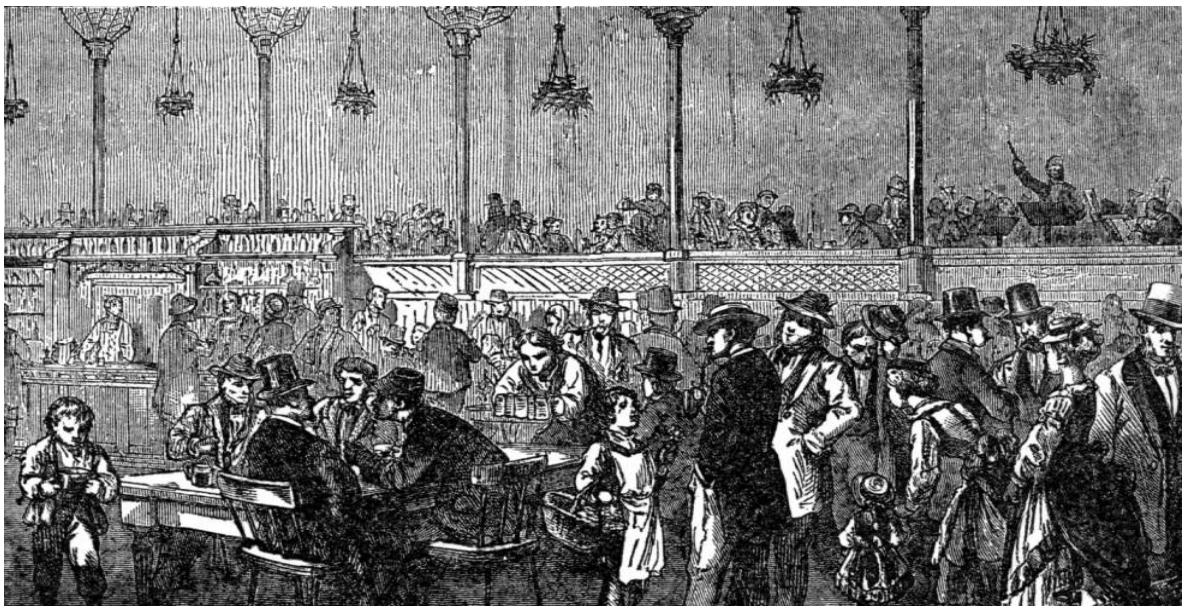


Figure 2: German-Americans congregating in an 1850's Saloon in Over-the-Rhine.
Source: *The Ohio History Connection.*

In the early 1800s, the growth of the Brighton community, located in Cincinnati's West End, helped transform OTR into a bustling neighborhood.[9] Bordering OTR to the west, the Brighton community was an amalgamation of manufacturing, commercial, and residential infrastructure tied within a bustling economy (Figure 3). Flour mills, swine plants, soap factories, whisky distilleries, and lager breweries were among the multitude of industries in the area.[10] Mixed-use properties, such as the building on the far right in Figure 3, accommodated both businesses and residential units. With decorative storefronts and an inviting overall character, the Brighton community had its own civic identity, distinct from that of OTR and other areas in the West End.



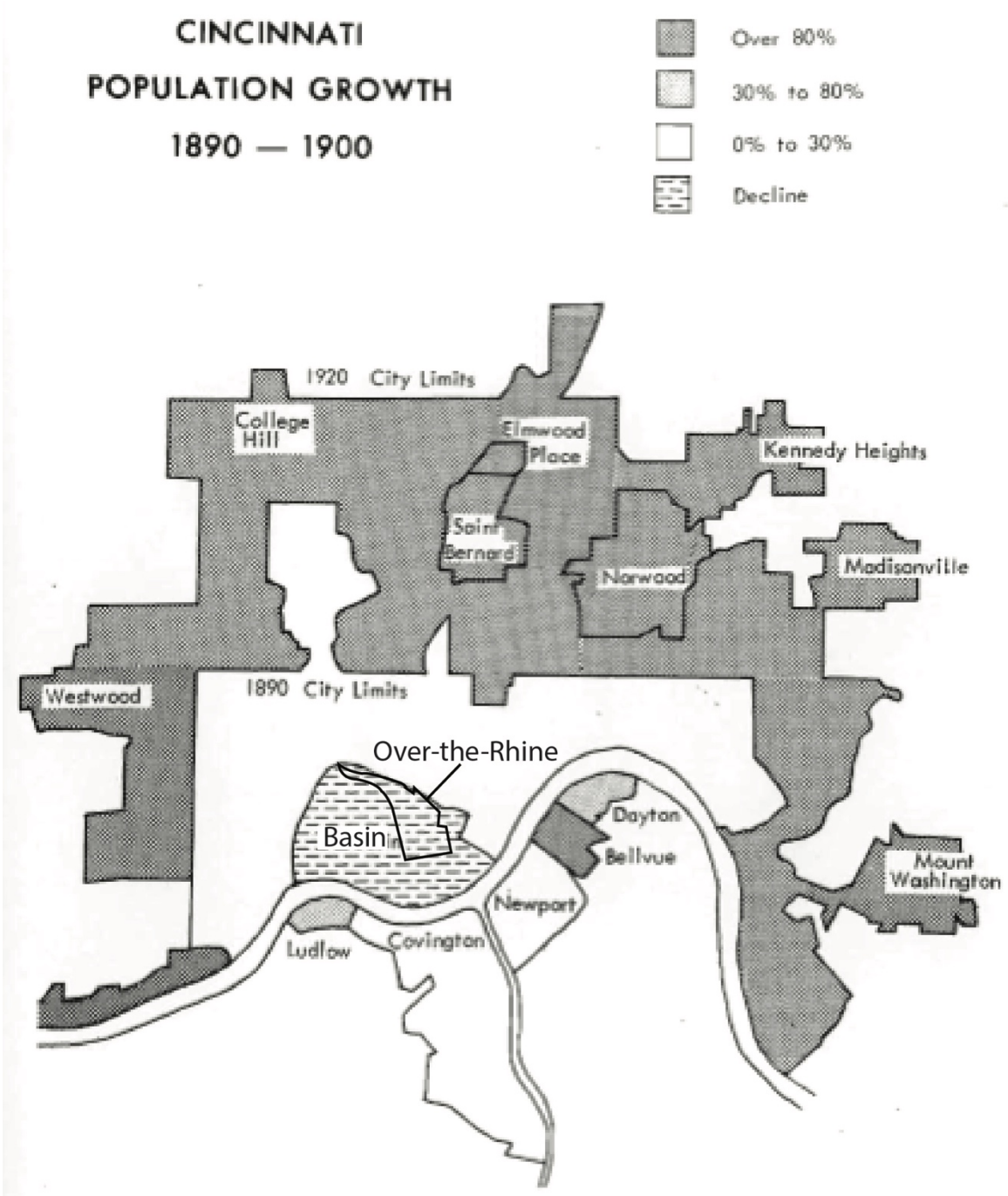
Figure 3: Brighton Community in the West End. *Source: http://www.cincinnatimemory.org.*

[9] Max Mosler. *Historic Brighton Its Origin, Growth, and Development.* (1902): 11.
[10] Ibid, 18-22.

German Exodus

The German community was strong in OTR until households and businesses were pushed out during the World War I due to anti-German sentiment. This prompted a first wave of German population moving out of OTR. The ratification of the Eighteenth Amendment of the United States Constitution in 1919, the so-called "prohibition", created the second wave of German diffusion out of OTR. The sale of alcohol was now banned in the U.S., creating a domino effect of brewery closures throughout the country. OTR, a neighborhood whose economy relied solely on the manufacturing of beer, fell into a state of commercial degradation.

The abrupt exodus of German Americans led to OTR's physical and social decline in the twentieth century. Moreover, the Great Depression (1929-1939) contributed to the degeneration of the neighborhood. Anti-German sentiment brought on by World War I, prohibition laws, and the Great Depression worked in tandem to destroy the German community in OTR. Germans who left OTR flocked to the suburbs, migrating away from Cincinnati's city center, also known as "the Basin." Map 2 illustrates the decline of Cincinnati's Basin and growth of first-tier suburbs, the areas just outside the city limits, from 1890 to 1900.



Map 2: Cincinnati's Population Growth (and Decline) from 1890 to 1900.
Source: Rhoda, Richard. "Urban Transport and the Expansion of Cincinnati 1858 to 1920." *Cincinnati Historical Society Bulletin* 35, no. 2 (1977): 138.

Appalachian Migration

In late nineteenth and early twentieth centuries, suburban life became more desirable for Americans who could afford to live in the outskirts of the city. Consequently, those who could afford to leave OTR, German or not, did. Both the physical and societal void was filled by Appalachians in the 1930s. When disadvantaged Appalachian migrants from rural Kentucky and Tennessee began to arrive in Cincinnati seeking job opportunities, they settled in OTR because of cheap rent and the convenient distance to the downtown commercial district. Due to the strong anti-German sentiment, post-World War I, and the resulting crumbling of the German community and demographic shift in the neighborhood, many properties stood vacant, awaiting the arrival of the Appalachians.

However, with the forced exodus of Germans from the neighborhood occurring more than a decade earlier, many dwellings in OTR fell into a state of disrepair, resulting in unsafe and unsanitary living conditions. Owners and landlords of these decrepit and unhygienic buildings would take advantage of their lower-income, uneducated Appalachian tenants. Rent would unexplainably rise and buildings would endure prolonged neglect. Appalachians were unable to find housing elsewhere, forcing them to stay in OTR tenement shelters.

African Americans in the West End

Similar to OTR, the West End neighborhood began to decline towards the end of the nineteenth century. In the nineteenth century, upper areas of the West End were occupied by wealthy businessmen. But as the neighborhood deteriorated, these higher-income residents began to move out into the suburbs, paralleling the German's dispersion from OTR. Irish immigrants moved into the 'upper' West End neighborhood, while African

American migrants from southern states began to settle in the 'lower' West End. Confined by racial differences, African Americans assembled enclaves in the neighborhood. In *An Asset-Based Approach to Policymaking*, Mahyar Arefi stated that, "by 1890, 85% of Cincinnati's black population was concentrated in the West End."[11]

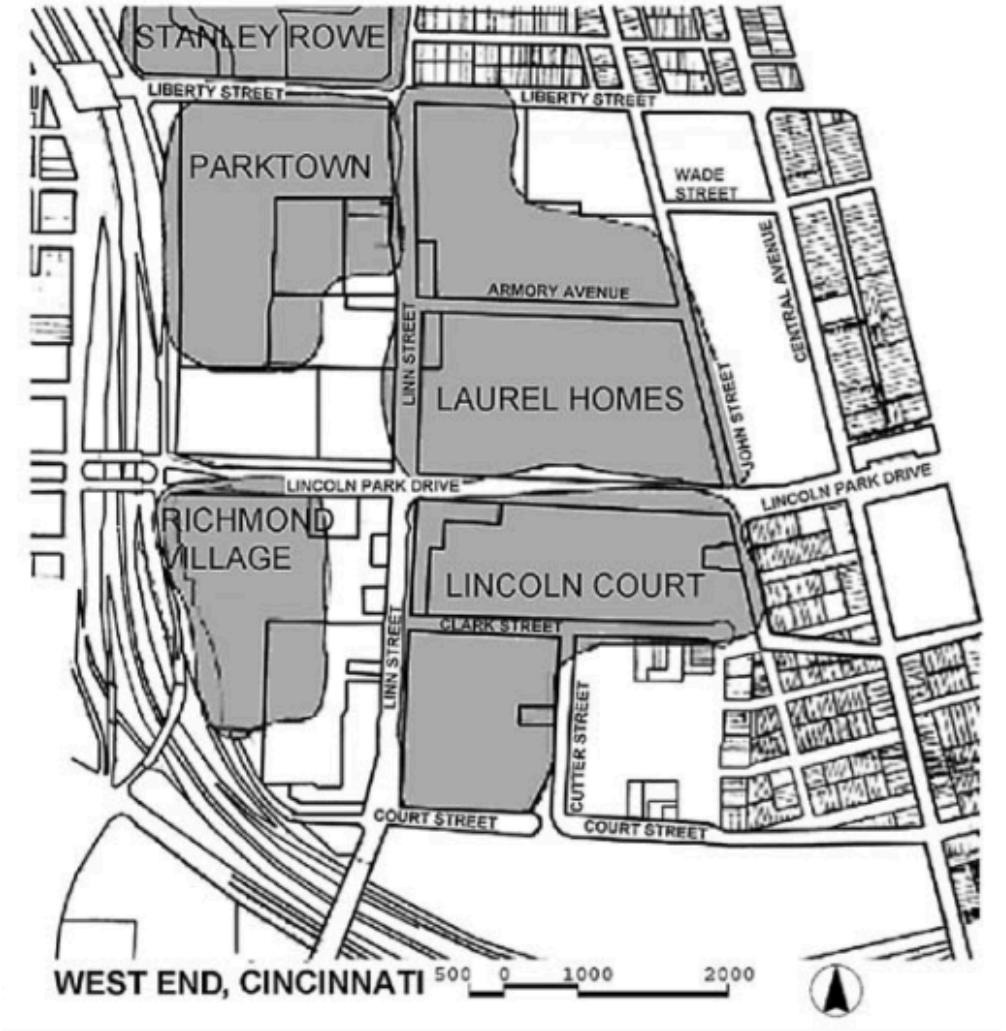
During this pre-Civil Rights time in history, Cincinnati was overtly racially divided. Most landlords in OTR refused to rent to blacks, thus limiting rental options for the African American community. African Americans often were confined to living in slums, or informal urban housing clusters often characterized by decay, in the West End. Similar to Appalachians living in OTR, African Americans in West End slums were subject to harrowing living conditions. By 1930, African American and Appalachian migration to Cincinnati reached a peak.[12]

Cincinnati's first city-wide plan was the 1925's *Official Plan of the City*.[13] The plan was a "sincere attempt to plan for the orderly development of the city during the fifty years to come."[14] The Cincinnati Metropolitan Housing Authority (CMHA) was formed in 1933, and began to implement their slum clearance plan, by way of FDR's New Deal policies. In Cincinnati, CMHA focused its efforts on exclusively revitalizing the West End.[15] Laurel Homes was Cincinnati's first low-income housing project, renting exclusively to caucasians. Lincoln Court, on the other hand, was the Cincinnati low-income development that housed

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[11] Arefi, Mahyar. "An Asset-based Approach to Policymaking: Revisiting the History of Urban Planning and Neighborhood Change in Cincinnati's West End." *Cities* 21, no. 6 (2004): 494.
[12] Peter Toraason. "Creating the Image of Community: Urban Redevelopment and Public Housing in Cincinnati's West End. (master's thesis. University of Cincinnati, 2008), 31.
[13] Zane L. Miller and Bruce Tucker, *Changing Plans for American's Inner Cities* (Columbus: Ohio State University Press, 1998), 23.
[14] 1925 Official Plan of the City of Cincinnati
[15] Zane L. Miller and Bruce Tucker, *Changing Plans for American's Inner Cities* (Columbus: Ohio State University Press, 1998), 23.

African Americans (Map 3). Although housing policies were advancing, they still weren't encouraging inclusivity. These segregated black communities have since been struggling to maintain their rightful place in the West End.



Map 3: Housing Projects in the West End c. 1967. *Source:* Arefi, Mahyar. "An Asset-based Approach to Policymaking: Revisiting the History of Urban Planning and Neighborhood Change in Cincinnati's West End." Cities 21, no. 6 (2004): 497.

By 1950, new changes to the West End's urban form was implemented though national urban renewal policies adopted by individual state and local governments, primarily for the expansion of large-scale transportation networks. The 1948 Cincinnati Metropolitan Master Plan triggered much of the urban redevelopment in Cincinnati. Much of the plan

sought to level the western edge of the West End neighborhood, to put in Interstate-75. Figure 4 presents an aerial view of the West End prior to the construction of the highway. The city of Cincinnati's Queensgate I and II urban renewal plans idealized an industrial haven in the lower parts of the West End. Creating 'superblocks' for a commercial/industrial park, urban renewal during the 1950s and 1960s "accelerated the decline of the neighborhood and led to the relocation of its low-income African-American residents to other neighborhoods."[16] Many black families left the West End to reestablish themselves in other Cincinnati neighborhoods, such as Walnut Hills, Avondale, and Mt. Auburn in the 1960s, and Over-the-Rhine in the 1970s to 1980s.

[16] Arefi, Mahyar. "An Asset-based Approach to Policymaking: Revisiting the History of Urban Planning and Neighborhood Change in Cincinnati's West End." *Cities* 21, no. 6 (2004): 494.



Figure 4: Aerial Photograph of the West End Prior to Urban Renewal c. 1940.
Source: http://www.uc.edu/cdc/urban_database/historical/west_end_before_renewal.jpg.

African Americans' Movement into Over-the-Rhine

Once a thriving neighborhood, OTR had lost much of its building stock to deterioration through neglect and abandonment. This lowered land values and rents, which made the neighborhood desirable to impoverished Appalachians and African Americans. The federal Model Cities Act of 1966 provided "funds for cities interested in devising innovative ways to eradicate urban poverty."[17] During the 1970s, the Model Cities program

[17] Zane L. Miller and Bruce Tucker, *Changing Plans for American's Inner Cities* (Columbus: Ohio State University Press, 1998), 74.

systematically developed low-income housing units and social programs improving livability in OTR for Appalachians and African Americans. OTR's economic decline proved to be beneficial for the low-income African Americans who were displaced by Cincinnati's urban renewal practices. In *Changing Plans for America's Inner Cities,* Zane Miller and Bruce Tucker describe the descent of the Appalachian community in OTR as inevitable, due to the increase in the number of African Americans and the decrease in the number of Appalachian in the neighborhood.[18] This civic reconstruction resulted in racial tensions that would persist in OTR for decades to come.

Authorized by the National Historic Preservation Act of 1966, the National Register of Historic Places' gained public support and commenced preservation practices in cities throughout the country as a way to identify, evaluate, and protect historic resources. In the 1980s, apprehensions arose over the proposed Over-the-Rhine National Register Historic District's inability to guarantee low-income housing, thus rallying local human-rights activists. When the district was listed in the National Register in 1982, advocates for affordable housing fought to get assurances from the federal government that their request for low-income housing options would be carried out.[19] These actions protected OTR's African American community from being, yet again, displaced by governmental actions.

The social tensions between blacks and whites that persisted throughout the 1980s, 1990s, and early 2000s are still evident today. In the 2000's, privatized attempts towards the preservation of historic buildings, and the construction of the new street car line in OTR, has gentrified much of the neighborhood. Consequently, the struggle to preserve African American identity in OTR has proven to be challenging. More recently, a large concentration

[18] Ibid, 81.
[19] Ibid, 126.

of black residents in OTR have been subtly forced out of their affordable housing units, and pushed back into the West End neighborhood.

CINCINNATI'S TRANSPORTAION INFRASTRUCTURE (1831 – 1932)

Miami & Erie Canal

When the Miami & Erie Canal was completed in 1831, it expanded the city's commerce by linking the Ohio River to the Great Lakes, making the river a gateway to western trade.[20] Known as the "central trading hub west of the Appalachian Mountains", the city was able to expand its markets as the commercial capital of Ohio. Construction for the canal began in 1825 in Middletown, OH, thirty-three miles north of Cincinnati's downtown. The entirety of the canal was completed 1840, spanning 244 miles from Cincinnati to Toledo (Figure 5).[21]

The impact the Ohio River had on manufacturing in the nineteenth century is what made the waterway a 'working river'. Bustling with large shipping boats, heavy-industrial and manufacturing buildings needed the river close by, while commercial breweries benefitted from the canal because it served as a watercourse for distribution (Figure 6).

[20] "Early History," The Over-the-Rhine Foundation, accessed January 05, 2016, http://www.otrfoundation.org/OTR_History.htm.
[21] Ibid.



Figure 5: View of Miami & Erie Canal between Over-the-Rhine and the West End c. 1875.
Source: Cincinnati Public Library.

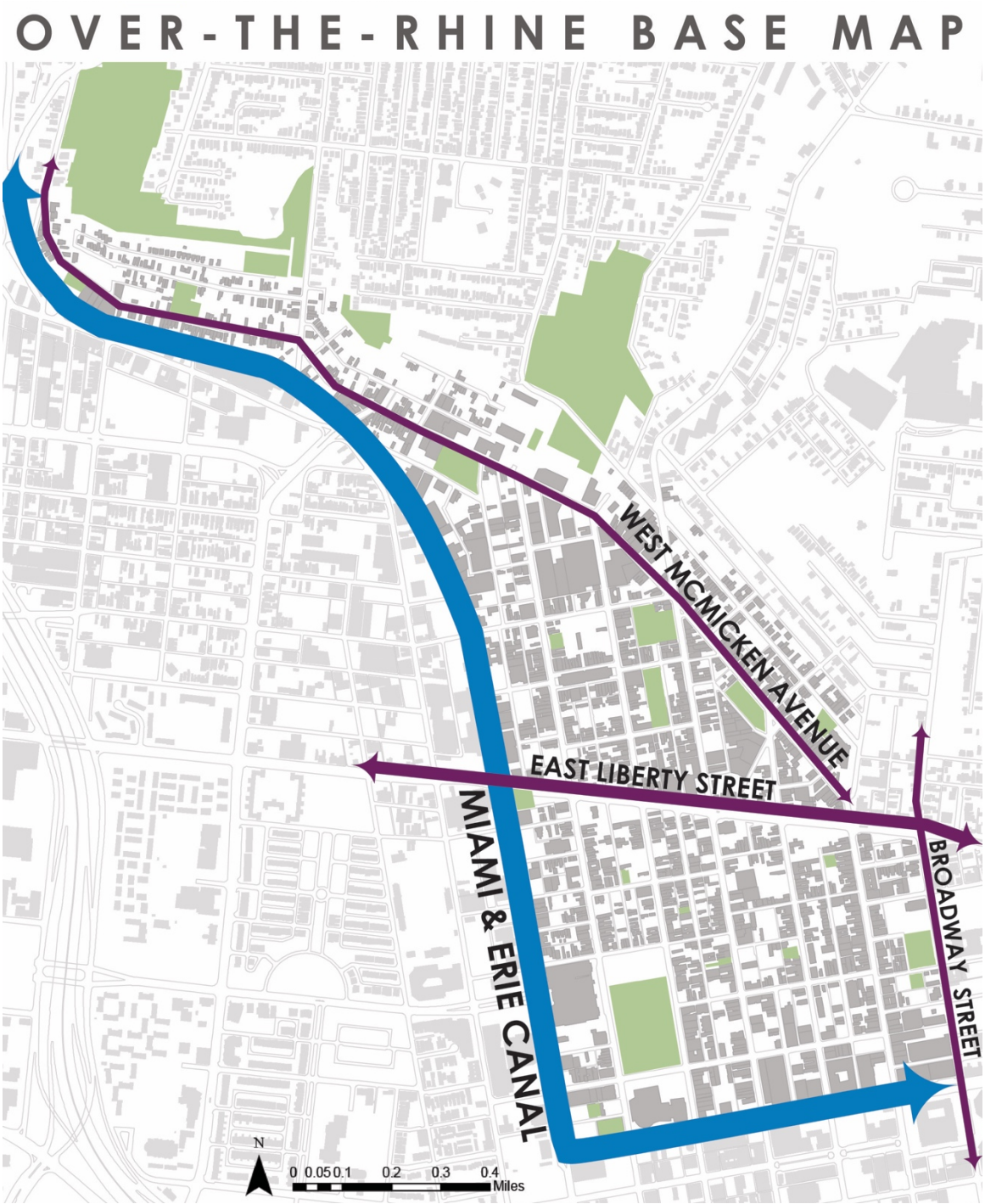


Figure 6: View of Miami & Erie Canal in Over-the-Rhine c. 1860.
Source: Cincinnati Public Library.

The canal was not only used as a waterway for transporting goods, but also as a natural neighborhood boundary (Figure 5). The Miami Erie & Canal served as a western and southern boarder between OTR and the West End neighborhoods. Broadway Street and Reading Road bound the eastern edge of OTR while McMicken and West Clifton Avenues acted as northern boundaries of the neighborhood (Map 4). Even though Canal bisected OTR and the West End communities, however this did not create barriers for social activity. In the nineteenth century, most Cincinnati neighborhoods encouraged walkability, because motor vehicles were not yet affordable. The canal was able to promote neighborhood connectivity by integrating a system of pedestrian bridges that spanned across the canal (Figure 7).



Figure 7: View of Pedestrian Bridges Spanning the Miami & Erie Canal between Over-the-Rhine and the Downtown Cincinnati c. 1875. *Source: https://heartland renewal.wordpress.com/*.



Map 4: Location of the Former Miami & Erie Canal and OTR Street Boundaries (GIS). Created by: Deqah Hussein.

The Miami and Erie Canal was a popular transportation route until the 1850's, when railroads began replacing waterways as the preferred way to travel (Figure 8). By 1877, the

canal became an abandoned passageway, never again to be used for commerce. In 1915, plans were underway to deal with the unsanitary condition of the remaining water in the nearly dried-up canal.[22] By the end of the 1920's, a rapid transportation system began to be built to replace the canal. This new transit system was expected to get people to-and-from downtown Cincinnati from their suburban homes quickly, in hopes to regenerate commercial activity in the economically declining city center.

The plan for the transit system was used to create a subway system below a proposed vehicular roadway. This roadway became what is now known as Central Parkway, which can still be seen today (Figure 9). Underneath the Central Parkway, there exists an unused railway structure. The underground railway project, although never completed due to high construction costs, required the canal to be drained, then deepened and widened, to make space for a subway system.[23] Figures 10 and 11 are detailed images taken during the subway's period of construction before the project was terminated. Failure to complete the city's underground, transit-oriented, infrastructure was due to poor financial planning. Today, the incomplete subway system serves as a constant reminder to just how fragile Cincinnati's post-World War and prohibition economy actually was.

[22] Kevin Grace and Tom White, *Cincinnati's Over-the-Rhine* (Charleston, SC: Arcadia Publishing, 2003), 4.
[23] Ibid.



Figure 8: View of Miami & Erie Canal c. 1907. *Source:* Fairbanks, Robert B., *Making Better Citizens: Housing Reform and the Community Development Strategy in Cincinnati*, 1890-1960. Urbana: University of Illinois Press, 1988, 5.



Figure 9: Central Parkway Replacing the Miami Canal. *Source:* Fairbanks, Robert B. *Making Better Citizens: Housing Reform and the Community Development Strategy in Cincinnati,* 1890-1960. Urbana: University of Illinois Press, 1988, 5.



Figure 10: Rapid Transit Photographs: Digging up the Miami & Erie Canal in Over-the-Rhine c. 1920. *Source: University of Cincinnati Digital Resource Commons.*



Figure 11: Rapid Transit Photographs: Subway Construction in Over-the-Rhine, c. 1920. *Source: University of Cincinnati Digital Resource Commons.*

Incline, Horsecars, and Streetcars

The first horsecar lines were constructed of iron rails in 1859. Since the original horsecar lines did not stretch very far, many Cincinnatians had to continue using the horse-and-buggy system.[24] There were a total of fourteen horsecar lines by 1870. The Cincinnati Street Railway Company formed in 1880, creating an organized street and rail transportation system.[25] Alternatively, steam-powered streetcars were briefly used in Cincinnati towards the end of the nineteenth century. Cable cars became popular in Cincinnati in the mid-1880s, modeling the cable car system of San Francisco's, since both cities were lined with steep hills. These cable cars were redesigned to pull earlier horsecars, serving as a relief for horses and mules.[26]

In addition to "Queen City" and "Porkopolis," Cincinnati has yet another nickname: the "City of Seven Hills." The epithet continues to be used today as a term that describes the city's overly hilly landscape, as the city was built on seven hills. Historically, the steepness of Cincinnati's hilly landscape created transportation challenges that were solved by the incorporation of the Inclined Plane Company.[27] Incline planes, also called funiculars, are cable cars that ascend and descend as a horizontal plane along a gradient, often a mountain or hillside.

There were a total of five inclines that served Cincinnati residents from the late eighteenth century to the first half of the nineteenth century. Each incline had a different lifespan, each lasting at least twenty years. These five inclines were the Bellevue Incline (1876

[24] Cincinnati on the Go, History of Mass Transit, 41.
[25] Ibid.
[26] Ibid, 42.
[27] Ibid, 43.

- 1926), the Fairview Heights Incline (1892 – 1923), Price Hill Incline (1875 – 1943), Mount Auburn (1971 – 1898), and the Mount Adams Incline (1876 – 1948).[28] For the purposes of this study, the next few sections only detail the Bellevue and Fairview Inclines. Both, in fact, were operated through private businesses with shareholders acquiring profits on the funiculars.

Bellevue Incline

The Bellevue Incline, also known as the Elm Street Incline, ran from McMicken at Elm Street up into the Clifton neighborhood, with the University of Cincinnati's McMicken Medical School and Bellevue Park Hill as popular destinations. In Figure 12, the McMicken Medical School can be seen behind the Bellevue Incline Depot, positioned in the foreground. Its central location to nearby industries at the base made the funicular very useful for transporting goods. When the two-way incline was altered in 1890 to carry horsecars and streetcars, switches for streetcars were installed at both the bottom and top of the hill.[29] These new systems increased travel between OTR and the Clifton neighborhood, creating a sense of community. Almost every incline had a commercial building at the top of the incline, serving as a destination for nearby residents. The Bellevue Incline had the Bellevue House, which served as a place for people, particularly Germans, in the community to socialize and bond over their love of beer. (Figure 13)

[28] Melissa Kramer. *Inclines of Cincinnati.* (Charleston, SC: Arcadia Publishing, 2009).
[29] Ibid.

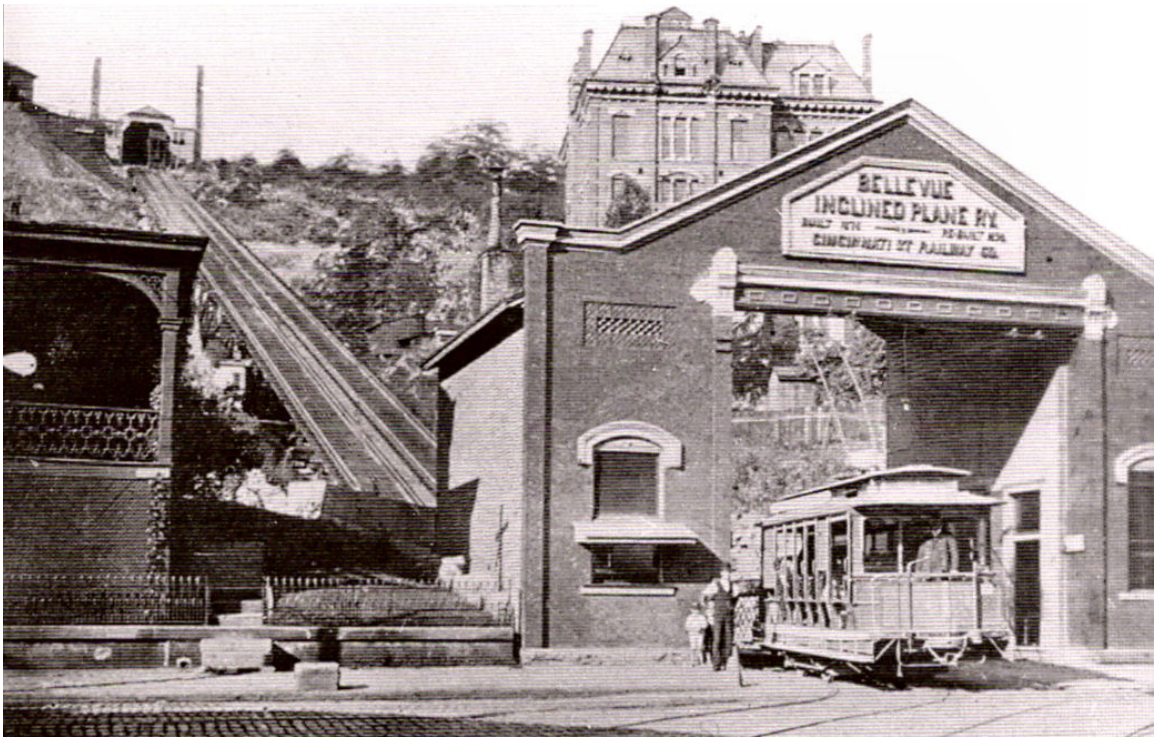


Figure 12: Bellevue Incline, c. 1905. *Source: www.cincinnativiews.net.*

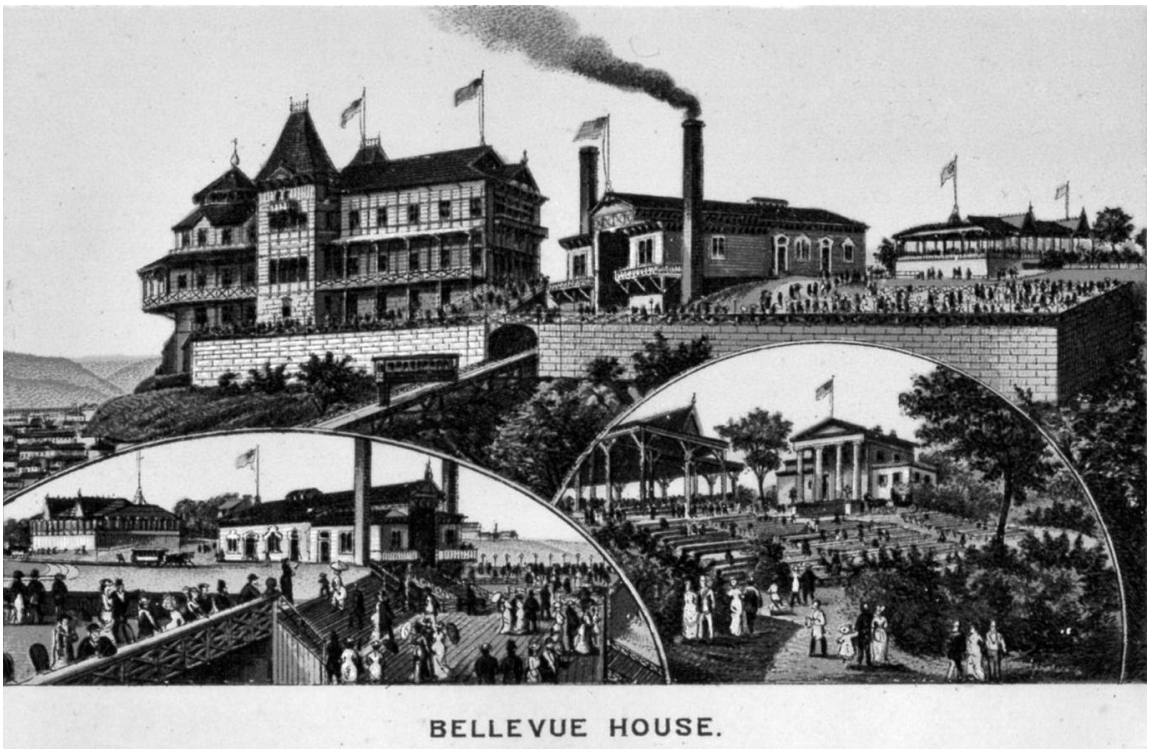
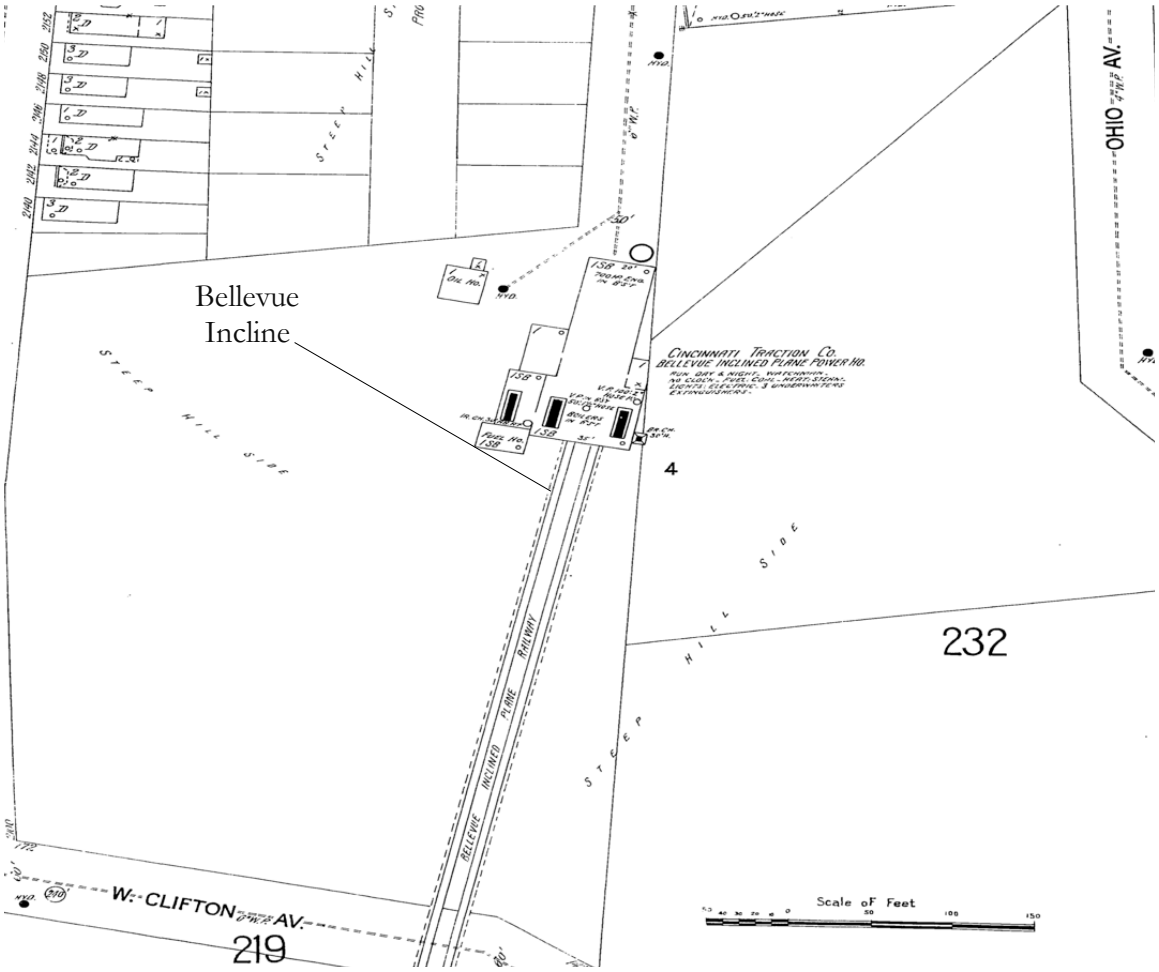


Figure 13: Bellevue House, c. 1900. *Source: www.cincinnativiews.net.*

Between 980 to 1020 feet in length, the incline climbed up a 31.8 to 42 percent grade.[30] It was 395 feet in height, taller than the other Cincinnati inclines. The wooden rail system guided the funicular in either direction. The trolley system was powered with coal, as shown in the 1904 Sanborn Map (Map 5). Trollies were supported by the tension in the vertical poles and cantilevered so that they traveled on a flat plane. The Bellevue Station at the top of the incline was constructed of brick and had prominent smokestacks (Figure 14). The station located at the base of the funicular was constructed of brick, with a vertically projecting parapet wall.



Map 5: Bellevue Incline, 1904. *Source: Sanborn Insurance Maps.*

[30] Ibid.

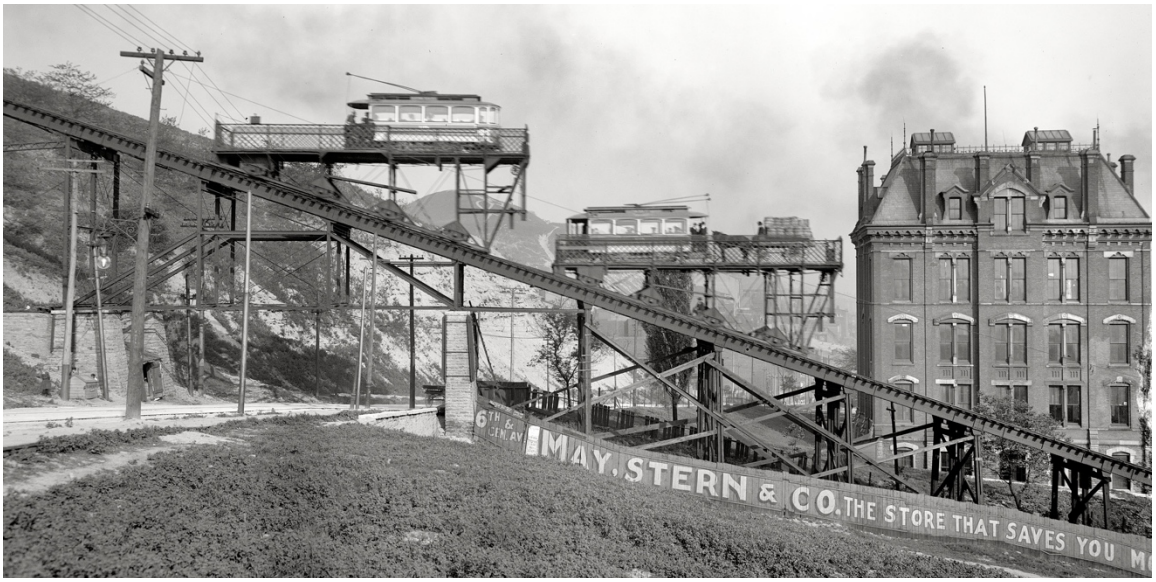


Figure 14: Bellevue Incline, c. 1900. *Source: www.cincinnativiews.net.*

Fairview Incline

The Fairview Incline, otherwise known as the Crosstown Incline, spanned from Over-the-Rhine to the Fairview Heights neighborhood (Figure 15).[31] The funicular began at McMicken Avenue climbing towards the Fairview Heights Hill. Between 632 and 700 feet in length, the incline traveled up a slope of 35 degrees.[32] Not only was this funicular the shortest in length, it also had the latest construction date. Additionally, the incline did not have a physical structure serving as a destination point at its summit, like the Bellevue Incline did.

The Fairview Incline was constructed using salvaged materials from the Bellevue Incline's 1890 remodel. The structure was built with its supports on solid rock and was said to have begun its life carrying streetcars and ended it by transporting fixed cabs up and down

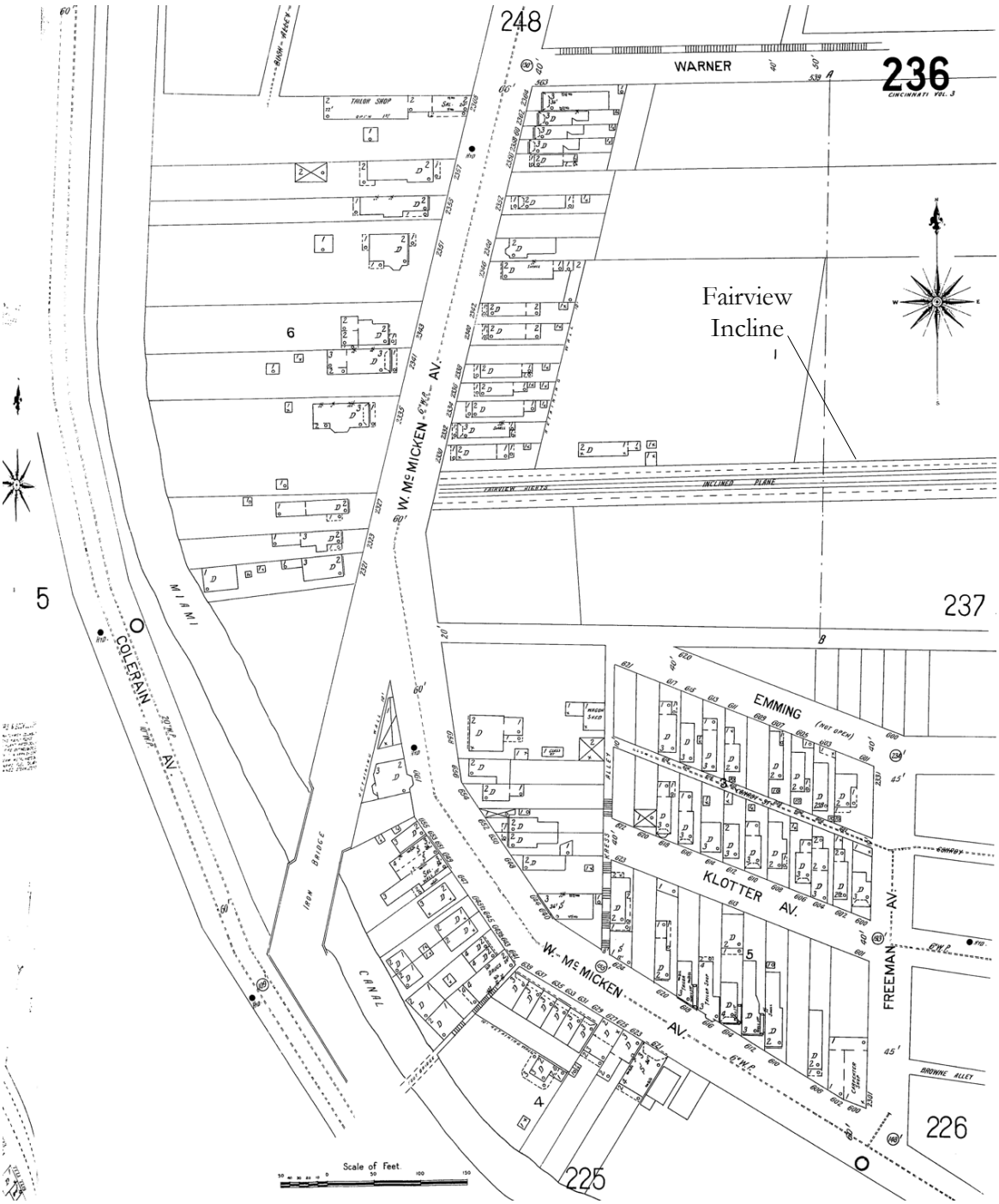
[31] Ibid.
[32] Ibid.

the hill.[33] The 1904 Sanborn Map shows a detail of the top of the incline station (Map 6). The map illustrates the structure was clad in iron and topped with a chimney. Because the incline was constructed of wood, it began to deteriorate in the 1920s. An inspection in 1921 showed a weakened structural system, leading to a temporary ban on streetcars using the funicular. In *Inclines of Cincinnati*, the author (Melissa Kramer) explained that the city chose not to spend money to repair the incline for streetcar use, but instead kept it in use for two more years as a passenger-only funicular. In order to maintain connectivity between neighborhoods, the discontinuation of the Fairview Incline led to the extension of McMillan Avenue and the construction of the auto-oriented Western hills Viaduct (1932)[34]. The viaduct connected the city's surrounding downtown neighborhoods with the West Side of the city and now spans over Interstate-75 (Figure 16).

[33] Melissa Kramer. *Inclines of Cincinnati.* (Charleston, SC: Arcadia Publishing, 2009).
[34] Ibid.



Figure 15: Fairview Incline, c. 1904. *Source: http://www.diggingcincinnati.com/2014/08/fairview-park-and-home-of-isaac-j-miller.html*



Map 6: Fairview Incline, 1904. *Source: Sanborn Insurance Maps.*



Figure 16: Western Hills Viaduct, 1932. *Source: http://www.cincinnati-transit.net/xwesternhills.jpg.*

THE RUNDBOGENSTIL STYLE

Most German breweries in the Midwest were constructed in the *Rundbogenstil* style of architecture. Clad in masonry, the substantial massing of these structures was designed for functionality. The most prominent characteristic features of these breweries are the round-headed arches. This "rounded-arch" or *Rundbogenstil* style came about in Germany as an attempt to create a national style of architecture. Establishing the *Rundbogenstil* architectural style in the Rhineland necessitated indirect adaptations as attempts to find the best representation of German building construction methods. In Germany, it took a while for the style to gain recognition. The style was first used in the United States when designing churches and public buildings. German-Americans appreciated both the functionality and aesthetics of the *Rundbogenstil* style and adopted the style for the construction of their breweries.

In Germany

In Kathleen Curran's article, *The German Rundbogenstil and Reflection on the Round-Arch Style,* she identifies that the *Rundbogenstil* style emerged in Germany between 1827-1828.[35] The first written work on the style was Heinrich Hubsch's essay, called *In Which Style Should We Build?* Curran goes on to explain the origins of the style. She begins by emphasizing the two preliminary styles that often get confused with the true *Rundbodgenstil* style, which she labels as tendencies.[36] In her book, *The Romanesque Revival,* Curran introduces the *Rundbogenstil* style as one that transpired through the construction of modern Munich, the former Bavarian capital. She goes on to say that the style came about through the determination of the Bavarian King, Ludwig I (1786-1868); as a way to "raise the artistic and geopolitical status of the recently minted Bavarian capital."[37]

The first tendency, as Curran described, was the *Neuromanik* style, meaning neo-Romanesque. It emerged in Germany circa 1815 as a response to the international Romanesque Revival architectural style.[38] *Neuromanik* architecture in Germany was always tied to culture and tradition, often used in churches. The derivations of the *Neuromanik* style served as a substitute to the gothic revival style, as shown in Leo von Klenze's (1784-1864) All Saints Royal Chapel (Figure 17).

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[35] Kathleen Curran. "The German Rundbogenstil and Reflections on the American Rounded-Arched Style." *Journal of the Society of Architectural Historians* 47 (1988): 351.
[36] Ibid.
[37] Kathleen Curran. *The Romanesque Revival.* (University Park: The Pennsylvania State University Press, 2003): 38.
[38] Kathleen Curran. "The German Rundbogenstil and Reflections on the American Rounded-Arched Style." *Journal of the Society of Architectural Historians* 47 (1988): 352.



Figure 17: Leo von Klenze, Allerheiligenhofkirche, Munich, Germany, 1826-1837. *Source:* https://de.wikipedia.org/wiki/Allerheiligen-Hofkirche.

Once the style crossed the English Channel, this style of architecture became known as the Lombard or Norman revival styles in the United Kingdom. As the style progressed in England, architects exchanged ornamentation for utility.[39] The *Neuromanik* style in Germany and Lombard revival style in Great Britain drew from neoclassical architectural characteristics. Dentils and modillions lay underneath the cornices forming moderately decorative corbels serving as a culturally influenced architectural feature. The corbelled arch shapes, often in the form of an entryway, in structures like these were strategically placed as a structural element. This method uses the offsetting of brick or stone to create additional support to a building. Corbelled arches are also known 'false arches' because the archway

[39] Ibid.

was often unable to withstand tensile stresses caused by the layers of masonry used in the construction of the building.

Curran's second tendency revolves around traditional classical methods of craftsmanship and honesty in the design, leading to "absolute perfection and tectonic truth of Greek architecture," with a hint of Roman and Italian Renaissance architecture.[40] This representation of German Romanesque-Revival architecture drew from the romantic period of architecture. The combinations of the two tendencies are what helped define *Rundbogenstil* as its own separate architectural movement. Well-known neoclassical architects in Germany, such as Karl Friedrich Schinkel (1781-1841) and Leo von Klenze (1784-1864), were highly influential in the establishment of the Rundbogenstil style.[41] Schinkel designed the Schauspielhaus Theater in 1821 to create a performing arts space that bestows Classical form within an urban architectural setting (Figure 18). These interpretations of Neoclassical and Renaissance architecture became widely used with the construction of commercial and educational structures in Europe, and stretched into the United States.

[40] Ibid, 353.
[41] Amanda R. Clark and Leland M. Roth. *Understanding Architecture It's Elements, History, and Meaning.* (Boulder: Westview Press, 2014): 507.



Figure 18: Karl Friedrich Schinkel, Schauspielhaus Theater, Berlin, Germany, 1821. *Source:* http://www.greatbuildings.com/cgi-bin/gbi.cgi/Schauspielhaus.html/cid_1124 2348 01_00346v.html.

The true *Rundbogenstil* style was influenced by aforementioned tendencies, depicting Greek architecture rooted in Neoclassicism, as well as Italian Renaissance styles of architecture. Many of these structures had windows with rounded-arch hoods, geometric massing, and heavy use of brick. Soon the "rounded-arch" style was seen as a uniquely German method of building construction. It wasn't long until Friedrich von Gartner and Leo von Klenze designed buildings in the true *Rundbogenstil* architectural style, reflected in Figure 19 and Figure 20.



Figure 19: Leo Von Klenze, Ministry of War, Munich, Germany, 1824. *Source:* https://upload.wikimedia.org/wikipedia/commons/4/46/Staatsarchiv_München_Ludwigstraße_a.jpg.



Figure 20: Friedrich von Gaertner, Staatsbibliothek, Munich, Germany, 1832-1843. *Source: http://www.goethe.de/ins/ci/de/abi/kul/bib/bip/6421580.html.*

Both Leo von Klenze's Ministry of War and Friedrich von Gaertner's Staatsbibliothek, now known as the Bavarian State Library, line the 1,280 meter-long Ludwigstraße royal avenue in Munich.[42] Along the avenue are a myriad of *Rundbogenstil* style public institutions and ecclesiastical buildings. After it was built, the Ministry of War had dark, dreary, and depressed connotations, which led to transformation of the Ludwigstraße. Klenze was fired by Ludwig I and replaced by Gaertner who designed the Staatsbibliothek with separate functions, where reading and storage could be loosely divided.[43] Striving to develop a prevailing style, the Staatsbibliothek was the first German building designed in the true *Rundbogenstil* architectural style, as envisioned by Ludwig I.

In America

In the United States, it was the Ludwig Mission Society that initiated construction in the *Rundbogenstil* style as a means to address the concerns of modern industrial society.[44] The society was established when Reverend Friedrich Rese of Cincinnati was commissioned by Ludwig I to sponsor Catholic missions in America.[45] The movement helped build numerous German churches, schools, and hospitals in the 'rounded-arched' style, particularly in the Midwest.

The American-influenced *Rundbogenstil* architecture also came to be seen in residential and ecclesiastical buildings. The style was first seen domestic construction as a derivation of the Romanesque by Richard Upjohn. In the article *Richard Upjohn and the*

[42] Kathleen Curran. *The Romanesque Revival.* (University Park: The Pennsylvania State University Press, 2003): 40.
[43] Ibid, 47-48.
[44] Ibid, 85.
[45] Ibid.

American Rundbogenstil, William H. Pierson Jr. reports Richard Upjohn's travels to Europe in 1850 as an eye-opener into the German "rounded-arched" style.[46] Pierson continues to deduce, through the accounts of Upjohn's brief visits to London and France, that the architect stayed longer in Germany and northern Italy because he wanted to better understand newly emerging national styles, such as the *Rundbogenstil*. Furthermore, Pierson suggests that, post-1850, Upjohn was incorporating this new style of architecture into every non-ecclesiastical building he designed.[47]

Upjohn's intrigue of the *Rundbogenstil* style derived from its drastic difference from Gothic architecture, which Upjohn mastered. For years, Upjohn was commissioned to create grandiose Gothic churches, such as the Trinity Church in New York City. Being a style based on form and functionality, rather than using aesthetically pleasing historical ornamentation, Upjohn valued the practicality of designing in the *Rundbogenstil* style. Proportionality in the style's heavy masonry, minimalistic decorative elements, incorporation of rounded-arches, and the combined use of brick and stone made the style unique enough for Upjohn to integrate these features into his own architectural designs.

Upjohn was not only known for his ecclesiastical Gothic Revival architecture, but also for the design of many homes, specifically American villas. Drawing from the "rounded-arched" style, Upjohn's (post-1850) villas began to exhibit features of the *Rundbogenstil* style, such as symmetrical parings of rounded-arched windows with rounded-arched hoods, recessed bays, and heavy-set brick as the primary material used.[48] The rationality of design in Upjohn's American villas were recognized by other renowned 1800s American architects,

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[46] William H. Pierson Jr. "Richard Upjohn and the American Rundbogenstil." *Winter Portfolio* 21 (1986): 231.
[47] Ibid.
[48] Ibid.

such as A.J. Davis, a master of architectural illustration. Both Upjohn and Davis drafted designs for the E. B. Litchfield house (Figures 21 and 22). It is clear that Upjohn's design is more simplistic in geometric form and restricts embellishment to rounded-arched windows hoods and cornice dentils, lending itself to the *Rundbogenstil* style.[49] Upjohn and Davis used a myriad of architectural styles in designing buildings throughout their career. It is important to note that their efforts had transformed American architecture from highly ornamental and romantic towards a more vernacular, less decorative, style, as they began to let go of the European influenced Gothic and Neoclassical forms of architecture.

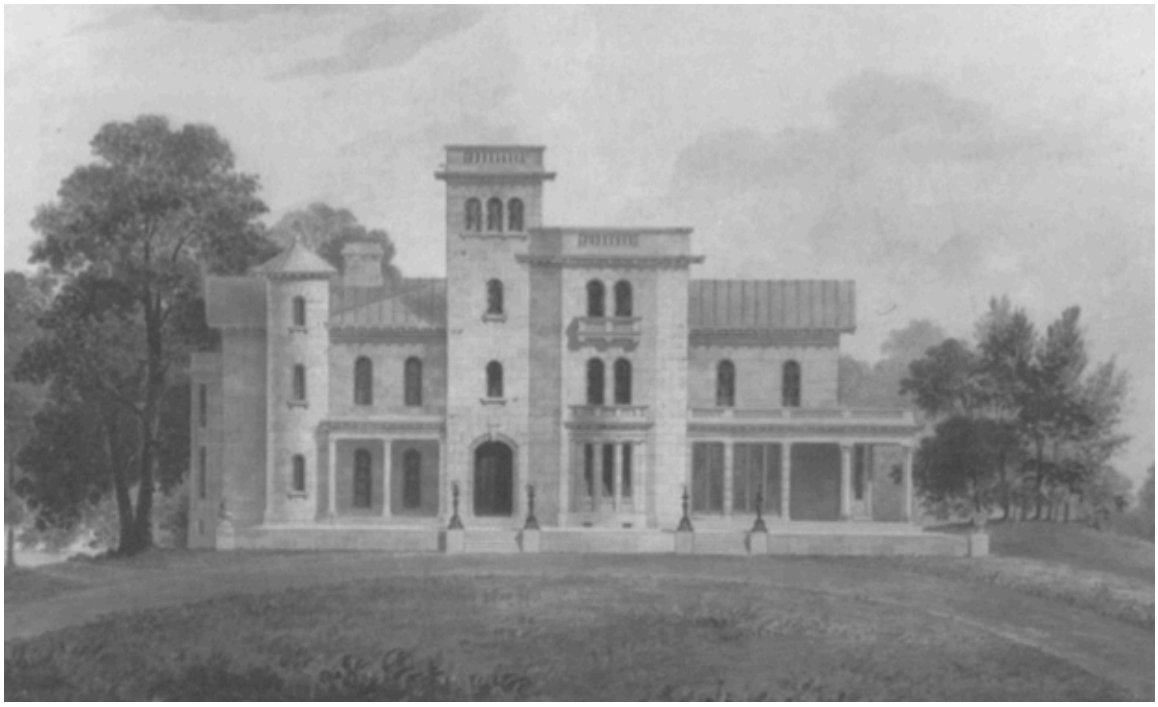


Figure 21: A.J Davis, E. C. Litchfield House, Grace Hill, Brooklyn, NY., 1854-57. *Source: William H. Pierson, "Richard Upjohn and the American Rundbogenstil."*

[49] Ibid, 232-33.

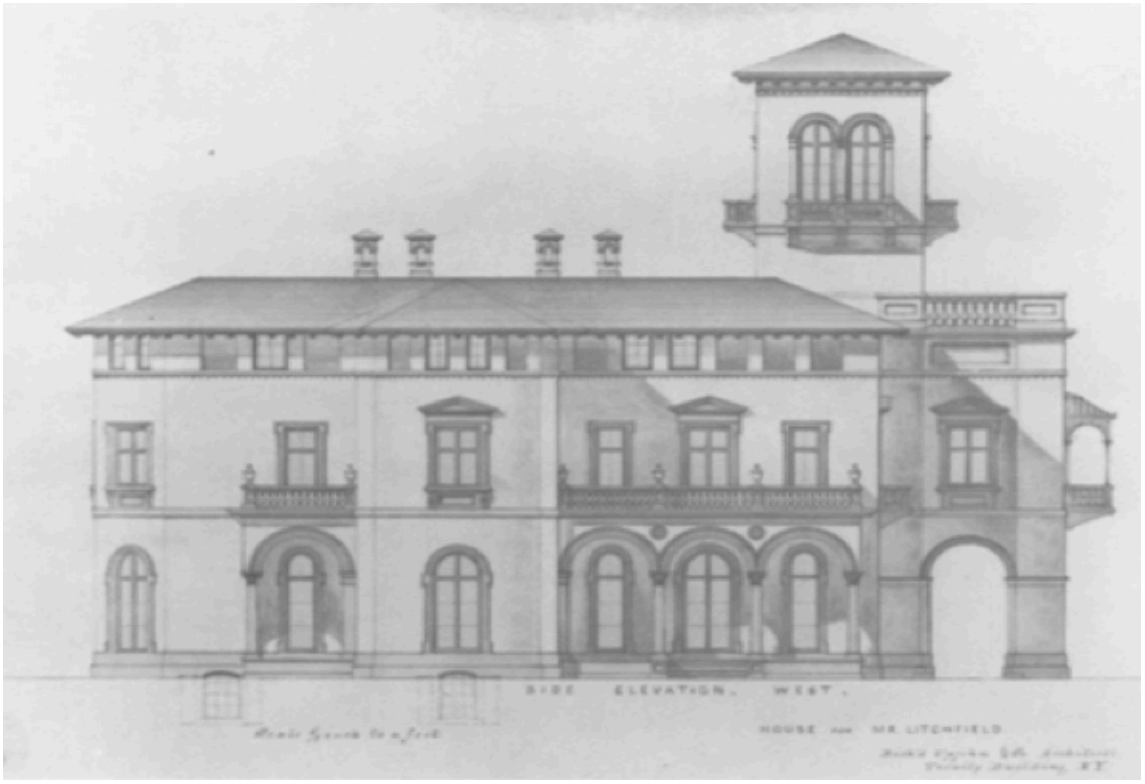


Figure 22: Richard Upjohn, E. C. Litchfield House, Grace Hill, Brooklyn, NY., 1854-57. *Source:* Avery Architectural Library, Columbia University by way of William H. Pierson, "Richard Upjohn and the American Rundbogenstil."

Large single-family suburban homes, tucked away in picturesque landscapes became an appropriate setting for the *Rundbogenstil* style in America, however it can be argued that the style was better suited for a more industrial use. Designing in the *Rundbogenstil* style was a compromise for less decorative, yet highly functional structure that was popular with the Gothic Revival architectural style. It combined heavy massing with rounded-arches, emphasizing horizontal form for practical and aesthetic purposes. Rationality in architecture has always been important with *Rundbogenstil* architecture. Commercial breweries exhibit many of the same characteristics as the suburban pattern-book residences of the same architectural style, however, with some distinct differences.

By the 1860s, German breweries were commonly being built in the *Rundbogenstil* style, utilizing the practicality of the style. With large massing and heavy-set brick

characteristics, German-American breweries became well known for their vernacular, yet functional, use of masonry and rounded-arches as prominent architectural features in the *Rundbogenstil* style. Unlike the residential interpretations of the *Rundbogenstil*, commercial breweries were more vernacular, with minimal adornment. Sheathed in brick, rather than stone, and with stacked stone foundations, the ornamentation on commercial breweries was often restricted to corbel tables, parapets, recessed arches, and rounded arched entryways and windows. Modest in form, these rectangular buildings were designed to be no more than three stories tall, with low-sloped roofs made of corrugated metal. The simplicity of the style in America helped commercial breweries blend-in into urban areas similar to *Rundbogenstil* style civic buildings in Munich. American architects adopted the style as it represented a change towards a more vernacular design, modestly ornate. It could be argued that both Upjohn's influence on American Architecture and German-American's desire to build in the national style of their homeland contributed to the popularization of the style in U.S. commercial breweries, particularly in the Midwest, where Ludwig I's Ludwig Mission Society was founded.

Art & Science of Brewing in the Eighteenth and Nineteenth Centuries

Brewing beer, especially lager, came to be known as an artistic yet scientific process defined by the "uniformity in the quality and character of beer"[50] As mentioned in "One Hundred Years of Brewing," beer was historically used a blanket term for all consumable liquids (alcoholic or not) that were made from fruit, herbs, or seeds through a fermentation

[50] *One Hundred Years of Brewing: A Complete History of the progress made in the Art, Science and Industry of Brewing in the world, particularly during the last Century.* (Chicago: H.S. Rich & Co., 1901): 29.

process. Germany, England, and America had (and continue to have) strong ties to beer although they are crafted differently in each nation. American weiss and lager beers used rice, corn, hops, and malt while German Bavarian style lager beers used hops, malt, and other cereals.[51] English ales, on the other side, used sugar, rice, corn, malt, and hops. Each one of these styles of beer represented unique tastes, creating national styles for beer in each country.

"One Hundred Years of Brewing" defines alcoholic fermentation as the "transformation of saccharine matter in alcohol and carbonic acid by the action and development of a certain fungus or ferment called yeast."[52] The source also states that George Ernest Stahl, an author in the 1600s, wrote the first publication to explain the scientific processes of fermentation as a friction-inducing, spinning motion of compounds that break down further to create particles with stronger bonds, causing awakened parts to form an alcoholic compound. The combination of these eighteenth century fermentation processes have formed what we now know as brewing beer. Scientists, post-Stahl, introduced other ideas behind fermentation such as Lavoisier's (1743-1794) theory that sugars from yeast separated into carbonic acid and alcohol. Scientist Joseph Black (1729-1799) supported Lavoisier's theory, suggesting carbonic acid was an integral part of the brewing process. When two scientists, Priestly (1703-1804) and Scheele (1742-1786), discovered the periodic elements of nitrogen and oxygen, fermentation became known as a chemical process where molecules are broken down anaerobically to form alcohol.[53]

As scientific methodologies used in brewing developed over time, inventions that improved beer making did as well. The thermometer and saccharometer began being used in

[51] Ibid.
[52] Ibid, 33.
[53] Ibid, 34.

the eighteenth century, and were extremely useful in helping regulating temperature (the thermometer) and specific gravity (the saccrharometer), directly impacting consistency in a beer's alcohol content. An eighteenth century English brewer, named Michael Combrune, was the first to use thermometers in brewing. In his 1762 book, titled "Theory and Practice of Brewing," he explained how other brewers at the time were hesitant to adhere to new practices, using 'feel' or by mixing cold water with a set amount of boiling water to measure temperature. A specific type of saccrharometer, called a hydrometer, measured density as well as gravitational force. The hydrometer was first used in brewing by James Baverstock who became intrigued by brewery innovations from reading Combrune's book.[54] It can be concluded that both the thermometer and saccrharometer initiated scientific advancements that allowed for more accurate measurements in the brewing of beer. These modern tools were only the beginning for commercial brewing pioneers.

Brewing equipment was not the only aspect of brewing beer that changed during the eighteenth and nineteenth centuries. When brewing became commercialized, each step of the brewing process necessitated larger equipment and bigger storage facilities. As processes changed, engineering new ways to cool and store beer became important. This was especially true for German lager beer, because it needed to be fermented and stored at cooler temperatures than other, more alcoholic, beers.[55] These strict cooling procedures were in place because the quality of beer would deteriorate, becoming cloudy or acidic, making it undrinkable.[56] Nineteenth century commercial breweries, having to rely on artificial refrigeration, used underground cellars for fermentation and storage. Requiring low-

[54] Ibid.
[55] Susan K. Appel. "Artificial Refrigeration and the Architecture of nineteenth -century American Breweries." *Journal for the Society of Industrial Archaeology* 16 (1990): 22.
[56] Ibid.

temperatures for much of the brewing process, cellars had to be deep underground. Either man-made arched vaults dug out of rock or natural caves, these cellars kept cold air stored within a confined space. Often divided into sections, cellars would also prevent warm air entering specific areas of the brewery.[57] If this balance was not sustained, lager beer would be susceptible to spoilage.

Susan Appel, in "Artificial Refrigeration in Nineteenth Century American Breweries," notes that Cincinnati's hilly landscape provided brewers in the Mohawk-Bellevue District with the opportunity to create large underground tunnels.[58] In the 1850's, Cincinnati brewers began to dig arched masonry cellars 200 feet long and 35 feet wide, with walls up to three feet thick.[59] The need for cooler temperatures influenced many brewery buildings to be constructed at least partially underground. The Bellevue Brewing Company building, located on West McMicken Avenue in Cincinnati, is a good example of a partially underground commercial brewery. Uniquely positioned on a hill in the Over-the-Rhine neighborhood, the front (east) entrance faces West McMicken Avenue at the first floor, while the rear (west) entryway leads visitors into the sub-basement from Central Parkway (Figure 23).

[57] Ibid, 23.
[58] Ibid, 24
[59] Ibid.



Figure 23: Bellevue Brewery Company Building During the Construction of the Cincinnati Subway, January 24, 1922. *Source:* http://digital.libraries.uc.edu/subway.

Unfortunately, cellars were not able to keep beer cool during the warmer summer months. Commercial brewers in the 1860s and 1870s century begun to incorporate icehouses in their breweries as a way to maintain the temperatures required for German beer fermentation and lagering. Brewers attempted to use ice in a number of ways. At first, many brewers would store ice in the underground cellars, in order to improve cooling within these vaults. This led to the "introduction of ice rooms and, later, to aboveground ice houses."[60] Scientific experimentation with ice and salt determined that when combined, they could

[60] Ibid.

maintain lower temperatures than ice by itself.

The combination of sodium and chlorine in salt helped reduce the amount of ice needed to cool, thus decreasing the quantity of pathogens in ice harmful to beer, resulting in better tasting lager beer.[61] Although ice for artificial refrigeration had become popularized through its multitude of benefits, such as cooling lager beer and preserving beer while in storage, architects began to look for alternatives to using ice rooms because melting ice would drip through ceilings and floors. Since the melting ice created mold and decayed the wood framework, alternatives to ice-induced artificial refrigeration began to be explored.

The engineering behind mechanical refrigeration was not perfected until the 1880s. Once it was found to be effective, brewers began to purchase ice machines, and investing in other type of cooling apparatus. Another type of mechanical cooling equipment, the ammonia compression refrigeration machine, could cool a 40,000 cubic-foot cellar down to forty degrees Fahrenheit.[62] Additionally, stock houses were created as a replacement for icehouses, marking an advancement in large-scale mechanical refrigeration. However, they were not as universally used on brewery sites as ice rooms, ice machines, and ammonia compression because they had to be individually constructed.

OVER-THE-RHINE BREWING HISTORY

The first documented evidence of a commercial brewery in Cincinnati is credited to Englishman Davis Embree in 1811. The beginning of the German-American brewery heritage began with the (Andrew) Jackson Brewery in 1829 to 1873. German lager beer was introduced in Bavaria during the 1830s, popularizing the brewery industry. There were ten

[61] Ibid, 25.
[62] Ibid, 27-28.

commercial breweries in Cincinnati in 1836, and by 1870, the number increased to thirty-six.[63]

In Cincinnati, the 1850s was the decade for brewery innovations. Industrialization processes allowed for faster beer production than previously imagined. The largest brewery in Cincinnati's history was the Christian Moerlein Brewing Company, founded 1853 by a Christian Moerlein, a Bavarian native who immigrated to Cincinnati in the 1840s.[64] Architecturally, the *Rundbogenstil* style warehouse contained many decorative elements such as structural bays framed by recessed rounded arches, bull's eye windows, indicative of the style (Figure 24).[65]



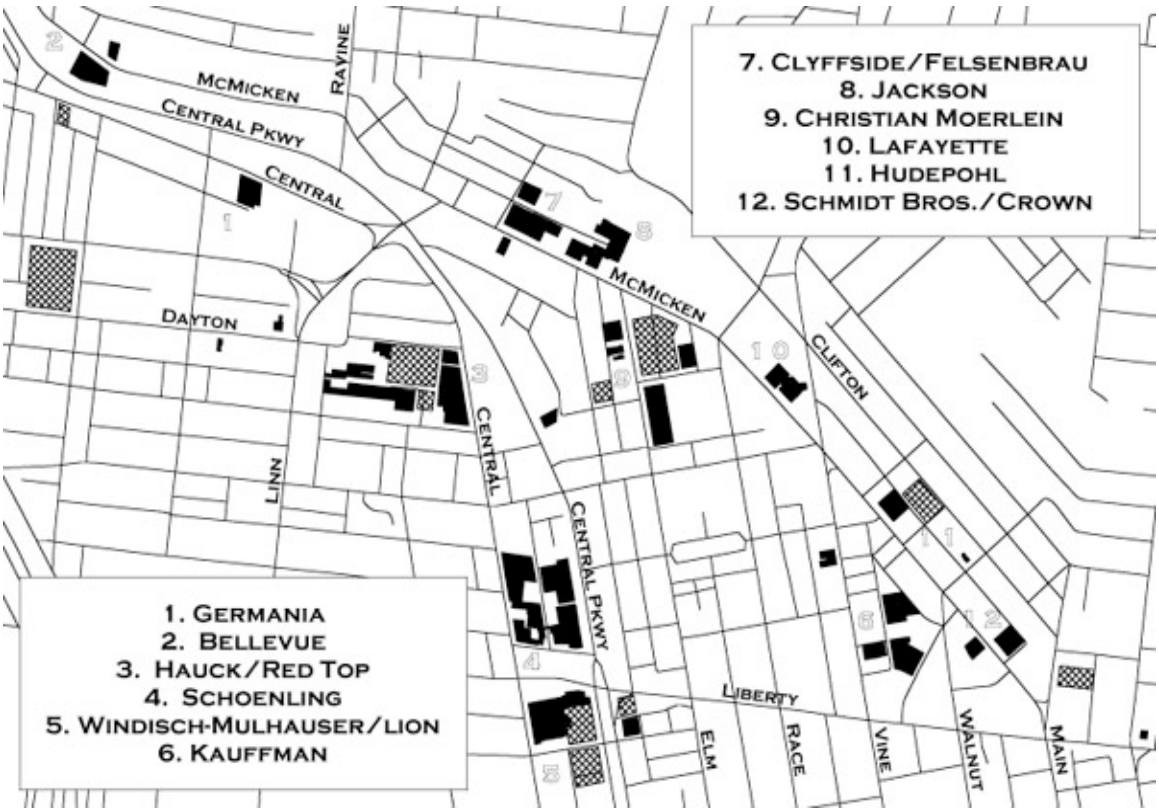
Figure 24: Christian Moerlein Brewing Company complex in Over-the-Rhine. *Source: Susan K. Appel, "Buildings and Beer: Brewery Architecture of Over-the-Rhine."*

[63] Jordan Lewis. "Architecture and Urban Redevelopment in Over-the-Rhine: Celebrating the Brewery District's Heritage through Respectful Contrast." (Electronic Thesis. University of Cincinnati, 2012), 9.
[64] Dan Heinnrich Tolzmann, *German Cincinnati Revisited.* (Mount Pleasant: Arcadia Publishing, 2013), 11.
[65] Appel, Susan K. "Buildings and Beer: Brewery Architecture of Over-the-Rhine." *Queen City Heritage* (1986): 3

In 1863 John Hauck and John Ulrich Windisch opened the Hauck and Windisch Brewery, later renamed the John Hauck Brewing Company, in the heart of the West End neighborhood, bordering the Over-the-Rhine community due east. Both Moerlein and Hauck breweries were forced to close their doors due to the ratification of the Fifteenth Amendment of the United States Constitution, which prohibited the manufacturing or sale of alcohol (prohibition). Although it was repealed in 1933, with the adoption of the Twenty-first Amendment, the Great Depression had already collapsed Cincinnati's economy, making it difficult to resurrect the brewery industry because these historic breweries were unmaintained during the fourteen-year brewing hiatus. While Christian Moerlein was able to revive its industry in 1881, no other commercial brewing company operating pre-prohibition was able to reopen. The Hauck Brewing Company building, subject to neglect, was demolished in 1957.[66]

Although the above-mentioned breweries were significant with respect to Cincinnati's German brewery heritage, they are not the focus of this study. They have been included in this historical context to provide a background for the establishment of the OTR's brewing industry, and their unfortunate rate of survival (Map 7). Table 1 was compiled to provide readers with a historical timeline of the German breweries constructed in OTR and the West End during the 19th century. Due to years of neglect, some of the breweries mentioned in Table 1 had fallen into such disrepair that they had to be demolished. For the most part, however, many of these breweries still stand and are part of the OTR Brewery District, which will be explained further in *Chapter III*.

[66] Ibid, 19.



Map 7: Remaining Brewery Buildings in OTR and the West end (Shaded in Black) and Lost Brewery Buildings (Checkered Pattern). *Source:* http://www.otrbrewerydistrict.org/history_map.php

Table 1: Timeline of Nineteenth Century Breweries in Over-the-Rhine and the West End.[67]

1811 – – David Embree opens the Embree Brewery at 75 Water Street.

1829 – – Schmeltzer establishes the Andrew Jackson Brewery.

1832 – – The Andrew Jackson Brewery is sold to Fridolin and Meinrad Kleiner

1836 – – Agneil and Kark Ludwig Fleishman open the Bavarian Brewery, on Abigail and Main. Streets. Abigail Street is now known as 12th Street.

1846 – – George Klotter and John G. Sohn open the Hamilton Brewery on Hamilton Road and Hamburg Street. Theses streets are now called Stonewall Street and West McMicken Avenue.

1855 – – The Kleiner brothers change the name of the Andrew Jackson Brewery to the Jackson Brewery.

1863 – – John Hauck partners with John Ulrich Windisch to open the Hauck and Windisch Brewery (aka: The Dayton Street Brewery).

1864 – – The Brighton Brewery is bought by Joseph Renner and John Hochenleitner.

1866 – – The Hamilton Brewery closes and George Klotter opens his own brewery; the George Klotter Brewery. This was located on Browne Street, now East McMicken Avenue.

– Additionally, the Brighton Brewery changes its name to Joseph Renner & Co. in the same year.

– The George Klotter Brewery was renamed The George Klotter and Son's Brewery, when Klotter's sons, George and Louis, join the brewery.

- – Conrad Windisch partners with Heinrich and Gottlieb Muhlhauser built the Windisch-Muhlhauser Brewing Co. (aka: The Lion Brewery).

1869 – – George Klotter & Son's Brewery was renamed the Bellevue Brewery.

1873 – – George Weber gained control of the Jackson Brewery.

1881 – – John Hauck becomes sole owner of the Hauck and Windisch Brewery, changing the name to the John Hauck Brewing Company.

1883 – – John Kauffman buys the Koehler & Co. Brewery, changing the name to the John Kauffman.

1884 – – George Weber changed the name of the Jackson Brewery to the George Weber Brewing Co.

1887 – – The George Weber Brewing Co. shut down, purchased by Brigel, Kittredge, and Lawrence, and reincorporated the Jackson Brewery.

1888 – – Luis Hudepohl Jr. changes the name of the John Kauffman Brewing Co. to the Hudepohl Brewing Co.

– The Bellevue Brewing Co. is established at the site of the former Klotter & Son's Brewery.

[67] "Cincinnati Brewing History." Accessed November 10. 2015, http://www.queencitychapter.com/brewinghistory/titlepage.htm

The Bellevue Brewing Company

George Klotter and John G. Sohn opened the Hamilton Brewery in 1846. However, in 1866 John G. Sohn sold his shares in the brewery leading George Klotter to establish the George Klotter Brewing Company in the same year, when he built the brewery on Browne Street (now West McMicken Avenue).[68] George Klotter's sons George and Lewis joined their father in 1867, compelling him to incorporate the George Klotter and Son's Brewing Company (Figure 24).



Figure 25: Bellevue Brewery During the Construction of Cincinnati's Subway, January 4, 1922. *Source: https://drc.libraries.uc.edu/handle/2374.UC/702759.*

[68] *One Hundred Years of Brewing: A Complete History of the progress made in the Art, Science and Industry of Brewing in the world, particularly during the last Century.* (Chicago: H.S. Rich & Co., 1901): 209.

The Klotter family changed the name of the George Klotter and Son's Brewing Company, establishing the Bellevue Brewing Company in 1888. It was a fast growing commercial brewery and produced over 5,000 barrels of lager beer during their first year.[69] The Bellevue Brewing Company's beer garden was brilliantly located at the top of the highly traveled Bellevue Incline (Figure 26). The brewery continued to operate until it was forced to close its doors in 1919, also due to prohibition.

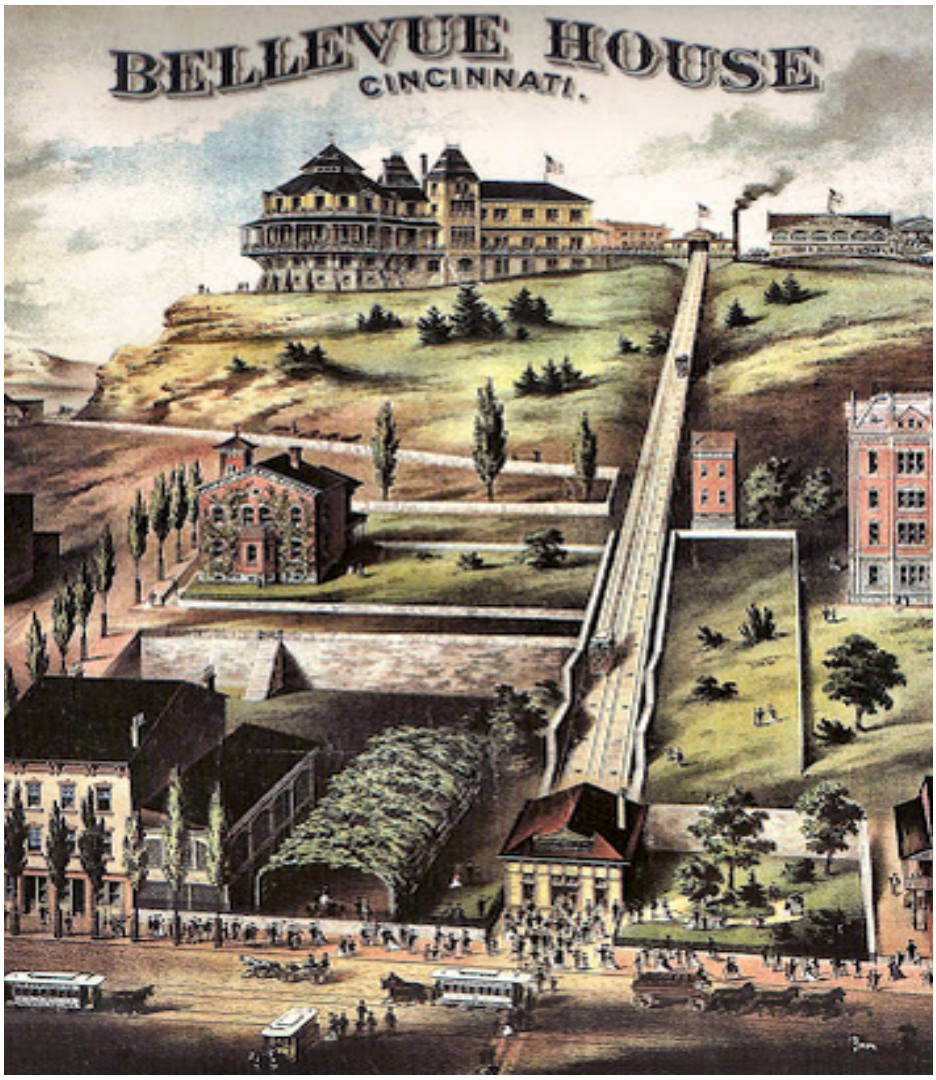


Figure 26: The Bellevue Brewery House. *Source: www.cincinnativiews.net.*

[69] Appel, Susan K. "Buildings and Beer: Brewery Architecture of Over-the-Rhine." *Queen City Heritage* (1986): 5.

CHAPTER III

SENSE OF PLACE

INTRODUCTION

This chapter will define adaptive reuse by detailing how it relates to both historic preservation and urban planning. To properly discuss the potential adaptive reuse has for improving a historic property, this chapter first defines adaptive reuse by outlining the Secretary of Interior's Standards and the National Historic Preservation Act of 1966. Second, this chapter elaborates on the benefits of adaptive reuse, with respect to smart growth and placemaking, which is later reflected upon in the *Revitalization* chapter of this thesis. Finally, this chapter presents two case studies. These two case studies serve as a precedent for this thesis, with respect to brewery building reuse and the economic feasibility of adaptive reuse as a method for creating a sense of place in historic neighborhoods. These case studies will be also reflected upon in the *Revitalization* chapter.

DEFINING ADAPTIVE REUSE

Adaptive reuse is a revitalization tool that combines the principles of historic preservation and urban planning to transform dilapidated buildings into economically sustainable spaces. Depending on a city's zoning code, these buildings can vary in use, design, and intensity. The most common land-uses of adaptively reused buildings are commercial, residential, office or mixed use.

The Secretary of Interior's Standards

The phrase 'adaptive reuse' is used often in the historic preservation world. Simply put, 'adaptive reuse' refers to the process in which old sites or buildings are reused, or

rehabilitated, into something other than the subject's original use. The National Park Service (NPS) outlines, within the *Secretary of Interior's Standards*, four methods to the treatment of historic properties. These are preservation, rehabilitation, restoration, and reconstruction.[70] Moreover, these properties should reflect their period(s) of significance, meaning one or more of the aforementioned treatments should be done to reveal the historical character of a building during the time period, in history, the property was important.

Preservation occurs when certain areas of a historic property are returned to their historical appearance during its period of significance. This is done purposefully, as the property should be a physical documentation of architectural integrity and historical significance in respect to time, place, and use. Here, spaces of a building should not be heavily altered and should be addressed only to maintain and repair historic materials and character. The Tenement Museum in New York City's Lower East Village is a good example of 'preservation' because the historic fabric was conserved in both the interior and exterior of the building from its period of significance.

'Rehabilitation' denotes changes to a historic property that satisfy immediate occupancy needs and anticipate future changes while working within the parameters and constraints of existing systems. Often times, repairs, alterations, and additions are done when rehabilitating a property, however, certain portions or features should be preserved, particularly if they convey historical, architectural, and/or cultural values.[71] This treatment insinuates a change to a historic property that supports contemporary use without damaging historic materials or features important to the historical character.

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[70] U.S. Department of the Interior, National Park Service. "The Secretary of Interior's Standards." Assessed, January 12, 2016. http://www.nps.gov/tps/standards.htm
[71] Ibid.

'Restoration' identifies work done to a historic property that retains the form and character defining features of a space that depicts a property at a particular period of significance.[72] This treatment requires the removal of all architectural features that do not reflect the specific property's period of significance. More specifically, all materials and features pertaining to the period of significance must be retained, but any alterations that do not reflect the particular time period should be removed. Deteriorating or missing features should be replaced in-kind, or as it was during its period of significance. These replaced features should reflect the craftsmanship and match in design, color, and texture.[73]

'Reconstruction,' recreates missing or "vanishing" portions of a historic property to represent how the property looked during its period of historical significance.[74] More often than not, the reconstruction process requires a substantial amount of new construction to replicate a historic property to how it looked during its specific time in history. Historical documentation should be studied in order to reconstruct missing features or spaces properly. Furthermore, designs that were never historically implemented should not be constructed.

Incorrectly using the Secretary of Interior's Standards terminologies can be detrimental to a preservation project. Many people purchase a historic property without even knowing that their building is listed in the National Register of Historic Places. More often than not, these individuals are not aware of preservation terminology or what they mean, which is understandable due to the lack of preservation advocacy and education in the Untied States. Fortunately, State Historic Preservation Offices (SHPO), city preservation

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[72] Ibid.
[73] U.S. Department of the Interior, National Park Service. "Standards for Restoration." Assessed, January 12, 2016. https://www.nps.gov/tps/standards/four-treatments/treatment-restoration.htm
[74] U.S. Department of the Interior, National Park Service. "The Secretary of Interior's Standards." Assessed, January 12, 2016. http://www.nps.gov/tps/standards.htm

departments, and local preservation nonprofits are generally willing to go over the aforementioned preservation principles with community members. They may even take it a step further to explain the criteria for which a property is listed in the National Register of Historic Places, or is designated a Local or National Historic Landmark. It is important for owners of historic properties to understand why they may have to go through design reviews or certificates of appropriateness before doing alterations. These specific national preservation laws and guidelines pertaining to historic properties is explained further in the following section.

The National Historic Preservation Act and the National Register

As defined by NPS, "The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources."[75] The National Register Criteria for Evaluation states that a property may be eligible for listing in the National Register of Historic Places if it is least fifty years of age or older, retains historical significance and possesses historical integrity.

National Historic Landmarks (NHLs) refer to cultural resources that possess exceptional value or quality in illustrating the heritage of the United States of America through historical significance and integrity. NHLs are defined through same categories of criteria as the National Register of Historic Places. The main difference between the

[75] Ibid.

National Register and NHLs is that NHLs are designated through the Secretary of the Interior's standards, not the National Historic Preservation Act of 1966.

Significance

"The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association."[76]

– *National Register Criteria for Evaluation (NPS)*

According to the National Park Service, a property is said to be historically significant if it meets one or more of the following criteria: (A) "that are associated with events that have made a significant contribution to the broad patterns of our history," (B) "that are associated with the lives of significant persons in our past," (C) "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction," and (D) that have yielded or may be likely to yield, information important in history or prehistory."[77]

Integrity

"Integrity—the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period."[78]

– *Secretary of the Interior's Standards and Guidelines (NPS)*

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[76] U.S. Department of the Interior, National Park Service. "National Register Bulletin: How to Apply the National Register Criteria for Evaluation." Assessed, January 2, 2016. http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm
[77] Ibid.
[78]U.S. Department of the Interior, National Park Service. "National Register Bulletin: How to Apply the National Register Criteria for Evaluation." Assessed, February 12, 2016. http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_8.htm#assessing integrity

A property's historical integrity is measured by seven aspects of integrity defined by the National Park Service branch of the U.S. Department of the Interior. Each aspect of integrity is evaluated through an examination of the changes to a property. These aspects of historical integrity are location, feeling, setting, association, workmanship, materials, and design. If a property is deemed historic in the National Register, it is expected to possess sufficient integrity to convey, or represent, historical values for which the property is considered significant. Each aspect of integrity is assessed individually. The process of evaluating these seven aspects are described below.

1. Integrity of location refers to whether the property has been moved or relocated since constructed."[79] However, if a property has been moved or relocated during or prior to its period of significance, the property is considered to retain its integrity through location.
2. Integrity of feeling ignites a sensory appreciation of history, and places of the past through aesthetics. Feeling is the most elusive aspect of integrity because it is intangible and cannot be measured. Often times feeling enhances the integrity of historic properties because of a sound or smell that has become associated with it.
3. Integrity of setting is an illustrative category of integrity because it suggests the physical character of a place. Setting is usually associated with areas that surround a historic property. So, if a historic property's surroundings have been overwhelmingly transformed, the integrity, with respect to its setting, would be lost.

[79] U.S. Department of the Interior, National Park Service. "Integrity." Assessed, May 31, 2016. https://www.nps.gov/nr/publications/bulletins/nrb34/nrb34_8.htm

4. Integrity of design recognizes the character and composition of a historic property through its structure, form, plan, space, and style. The integrity of design of a property is lost when it is altered beyond recognition and if the design elements that made the property significant are missing.
5. Integrity of workmanship is used as a method to preserve the physical craft, or artistry, on a property from any given period in history. Workmanship can be reflective of a culture's architectural heritage, however, it can also be used to better understand the aesthetic principles of craftsmanship from a technological standpoint.
6. Integrity of materials refers to the combined physical components of a property that, in a particular pattern or form, reflect back to its period of significance. This means that removing the material, or altering the color, texture, or shape of a material, would reduce the integrity of the material and the property's overall integrity.
7. Integrity of association is understood as the connection between a property and the event or person that categorizes the property as significant. "Association requires the presence of physical features that convey a property's historic character."[80] Reflecting back upon the other six other aspects of integrity can help evaluate of association, with respect to integrity. That said, if the integrity of location, feeling, setting, design, workmanship, and materials are intact, then the integrity of association likely exists.

WHY ADAPTIVELY REUSE HISTORIC BREWERIES?

Adaptive reuse does not just save historic properties, but it can often help stimulate economic revitalization in communities. Nineteenth century commercial brewery buildings, especially in the Midwest, are often associated with industry, rather than commercial activity.

[80] Ibid.

Evidence of this is can be seen among industrial fabrication companies. Manufacturing companies purchase or rent these commercial brewery buildings because they are affordable. Alternatively, they are cheap buildings to buy or rent for a very specific use, manufacturing. Industrial and light-manufacturing building-uses are often hard on buildings, physically, which is why many commercial brewery buildings are in fair-to-poor condition prior to being preserved. Adaptive reuse, in practice, stresses the importance of understanding how certain spaces should be utilized, with respect to preserving historical integrity. After years of neglect, many commercial breweries are being adaptively reused for the purposes of encouraging economic revitalization.

Adaptively reusing a property is a multi-disciplinary approach. It combines architecture, historic preservation, and urban planning principles to improve the physical attributes of a historic property as well as the building's surrounding urban landscape. Today, preservation involves more than saving tangible community assets.

Most historic properties, especially commercial breweries, were once tied to a strong sense of community. During its time, the German brewing industry created a beer drinking culture. Adaptive reuse can, if done properly, bring back the feelings associated with the community, reviving the historic essence of both the building and neighborhood.

Large-scale commercial breweries, in particular, have the potential to be reused as mixed-use buildings. A mixed-use local economy is an invaluable systematic approach towards community and regional planning. Merging the ideas of 'Smart Growth' and 'Placemaking' with building rehabilitation, is what makes adaptive reuse so powerful.

Smart Growth

At its core, Smart Growth is an economic development tool that, when implemented, can transform socioeconomically deprived neighborhoods into lively communities. Predominately seen in an urban context, Smart Growth strives to create a 'sense of place' within communities through livability. Livability is defined as the sum of factors that add up to a community's quality of life, aiming to balance the socioeconomic stability of the built and natural environments within a community-setting.[81]

Smart Growth works to alleviate the many social problems that declining neighborhoods face, such as concerns of safety, as well as affordable housing, access to public transportation, and job creation. Solutions to these issues often result in urban design plans that institute a regional planning framework consisting of transit-oriented development and the revival of a commercial corridor. Furthermore, urban neighborhoods that use Smart Growth principles to improve their tax base are able to entice developers to adaptively reuse historic properties as mixed-use spaces. It is the combination of social and economic benefits that make Smart Growth so practical.

Smart Growth often works in conjunction with Placemaking. In short, Placemaking facilitates social interaction and invites residents and visitors to gain a connection to the character of a place. Similar to Smart Growth, Placemaking improves a community's quality of life. Placemaking couples well with Smart Growth because it concentrates on improving public spaces and works to give people a tangible connection between a property and its setting. In this study, Placemaking will be addressed only in theory. Even though this thesis does not focus on revitalizing public spaces, the concepts behind Placemaking are relevant

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[81] International Economic Development Council, *Economic Development and Smart Growth, (*August 2006), http://www.iedconline.org/clientuploads/Downloads/edrp/IEDC_Smart_Growth.pdf.

to this study because it encourages sociocultural interaction and helps instill a sense of place within communities.

PRECEDENTS FOR BREWERY REUSE

This section summarizes two rehabilitation case studies that have implemented adaptive reuse practices to revive two brewery buildings into a modern brew-houses. The first case study is the Brewery Blocks project in Portland, Oregon. The second case study is of the Rhinegeist Brewery, a building on the site of the former Christian Moerlein Brewing Company complex. Both the Brewery Blocks and Rhinegeist commemorate the American brewing tradition by reusing vacant brewery buildings as economic generators. Further, these case studies will be reflected upon in the final chapter of this thesis, titled *Revitalization.*

Brewery Blocks

Located in downtown Portland's Pearl District, the Brewery Blocks are a diverse commercial district with everything from retail shops and restaurants to visual entertainment spaces like the Art Institute of Portland and the Gerding Theater. The Brewery Blocks spans five city blocks and is bordered by NW 10th Avenue to the east, NW Davis Street to the north, NW 13th Avenue to the west, and NW Burnside Street to the south. This case study utilizes adaptive reuse and sustainable principles to encourage Smart Growth and support transit-oriented development

The Brewery Blocks two-acre site repurposes a collection of buildings that, together, made up the Blitz-Weinhard Brewery Complex. Said to be the longest operating brewery in the West, it ran from 1864 to 1999 and produced an average of 100,000 barrels of beer

annually.[82] The Blitz-Weinhard Brewery was established by Henry Weinhard, a brewer who immigrated to America from Germany in 1851.[83] After some time on the East Coast, he moved to Cincinnati, Ohio to find work in a brewery, where he resided for two years before moving to St. Louis, Missouri. Finally settling in the greater Portland area, Weinhard built his brewery empire in Oregon in 1859.[84] Originally called the City Brewery, the name was changed to the Henry Weinhard Brewery in 1910. The Blitz-Weinhard Brewery name came about when the Weinhard Brewery merged with the Arnold Blitz Brewery in 1928.[85] The previously titled City Brewery Complex, seen in Figure 27, comprised of five different buildings; the four-story condenser building (1906), six-story brew house (1907), single-story ice and power plant (1906) four-story hop and malt building (1907) and three-story cellar storage building (1928).[86]

[82] Envision Realty Advisors-West. "Brewery Blocks Brochure." Assessed January 24th, 2016. http://www.envisionrealtyadvisors.com/property-listings/brewery/Brewery_Blocks_Brochure.pdf
[83] John M. Tess. "Weinhard Brewery Complex." National Register of Historic Places Inventory/Nomination Form. Heritage Consulting Group, Portland, December 01, 1999, 8.
[84] Ibid.
[85] Ibid, 8-9.
[86] Ibid, 3.

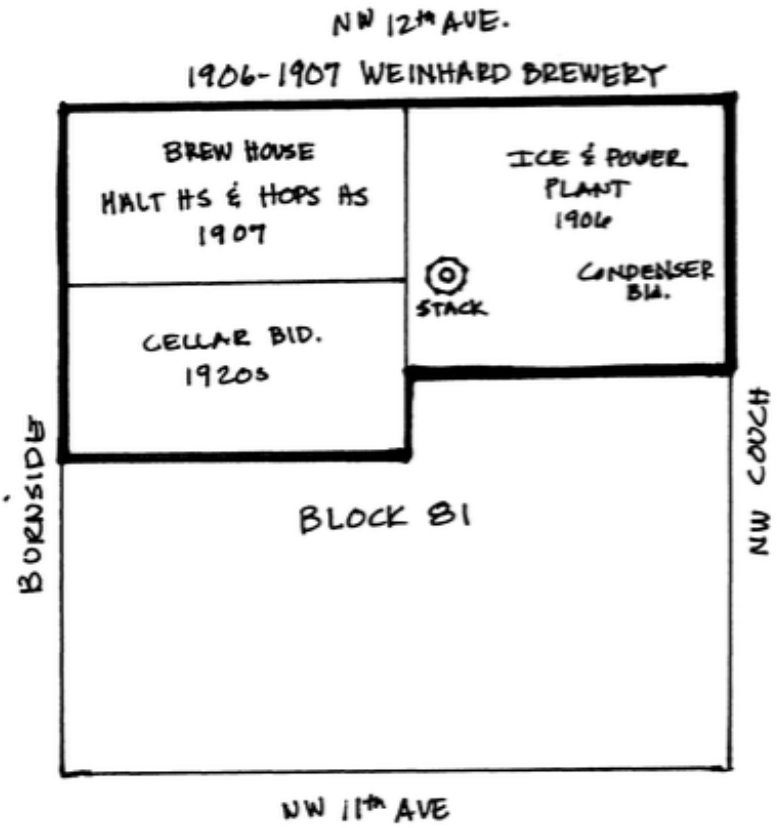


Figure 27: Weinhard Brewery Site. *Source: Weinhard Brewery Complex National Register Nomination.*

After Weinhard's death in 1904, his son-in-law, Paul Wessinger, took over the company and commissioned architects William Whidden and Ion Lewis to design the 1906-1907 brewery buildings in the *Rundbogenstil* style (Figure 28).[87] Although some of the original buildings have been demolished, the remaining brewery buildings convey the architectural and cultural history associated with Portland's German brewing industry. Still standing, the two red-brick buildings on NW 12th Avenue between West Burnside and NW Couch were used as a brew-house and malt and hop storage areas, eventually adaptively reused during the redevelopment of Portland's Brewery Blocks in the early 2000's.

[87] Ibid, 4.



Figure 28: Existing Weinhard Brewery Buildings. *Source: http://www.bizjournals.com/portland/blog/2015/01/gerding-edlen-seeks-350.html.*

Redevelopment of the Brewery Blocks was completed by GBD Architects Inc. in 2006. By partnering with the Portland development firm, Gerding Edlen, the company that bought the site after the Blitz-Weinhard brewery closed in 1999, was able to use adaptive reuse tools such as preservation, Placemaking, Smart-Growth, and Complete Street practices to regenerate socioeconomic activity in a once declining warehouse district in downtown Portland.[88] Their dedication to creating 'green' infrastructure was accomplished by reducing the embodied energy and global warming potential of their project.

Three hundred million dollars went into developing the 1.5 million square foot redevelopment, integrating restoration and new construction to create a vibrant mixed-use district. GBD Architects Inc. took a sensible, yet modern approach towards creating a sense of place in the Pearl District.[89] Each one of the five blocks that make up Portland's Brewery

[88] Ibid.
[89] Ibid.

Blocks approached adaptive reuse and green engineering differently. They are summarized as follows:[90]

- Block 1: Whole Foods Building — LEED Silver
    - Located at NW 12th Avenue and Burnside Street, the block is the former home the Pearl District's Chevrolet dealership, a historic art deco building constructed in 1929. Renovation in conjunction with new construction was used to revitalize the 34,485 square foot building into a much-needed grocery store (Figure 29). At the ground level is a Whole Foods Market, which serves as both a restaurant and a supermarket. Office spaces occupy the upper-levels of the building.



Figure 29: Brewery Block 1. *Source: http://www.envisionrealtyadvisors.com/property-listings/brewery/Brewery_Blocks_Brochure.pdf.*

[90] Ibid.

- Block 2: Brewhouse and Cellar Building — LEED Gold
    - This block features the 248,000 square foot Blitz-Weinhard Brewery smokestack and cellar building have been adaptively reused by the Gerding Edlen Corporation. Now a mixed use site, the project coupled preservation with smart growth and placemaking to restore the neighborhood's sense of place. The adaptive reuse plan entailed a seismic upgrade of the smokestacks, the use of historical significance salvaged materials, and the construction of three underground parking levels (Figure 30).



Figure 30: Brewery Block 2. *Source: http://www.architectureweek.com/cgi-bin/awimage?dir=2005/0511&article=environment_1-2.html&image=12692_image_5.jpg.*

- Block 3: The Henry Building & Gerding Theater — LEED Gold
    - A combination of new construction (the Henry Building) and renovations to the National Guard Armory (Gerding Theater) were used to create this 13,000 square foot mixed-use Brewery Block at the corner of NW 11th Avenue and Couch Street (Figure 31). Rising eleven stories, the Henry is large luxury condominium tower. The condos have helped the block become a thriving mixed-use district that promotes entertainment, residential, and commercial activity.



Figure 31: Brewery Block 3. *Source: http://www.envisionrealtyadvisors.com/property-listings/brewery/Brewery_ Blocks_Brochure.pdf.*

- Block 4: M Financial Plaza — LEED Gold
    - Located at NW 11th Avenue and Couch Street, this 270,000 square foot mixed-use site is the former site of the Blitz-Weinhard fermentation and packaging plant home (Figure 32). Now home to the Art Institute of Portland, in addition to the multitude of retail shops, the site embodies the architectural heritage of the former commercial brewery. A three-story underground parking lot lies below the museum and retail businesses.



Figure 32: Brewery Block 4. *Source: http://www.envisionrealtyadvisors.com/property-listings/brewery/Brewery_Blocks_Broc hure.pdf.*

- Block 5: The Louisa Building — LEED Gold
    - This block, located at NW 12th Avenue and Couch Street is comprised of a multitude of retail shops, with the largest being West Elm, a subsidiary of the Williams-Sonoma Corporation. New construction was used in developing this block (Figure 33).



Figure 33: Brewery Block 5. *Source: http://www.envisionrealtyadvisors.com/property-listings/brewery/Brewery_Blocks_Brochure.pdf.*

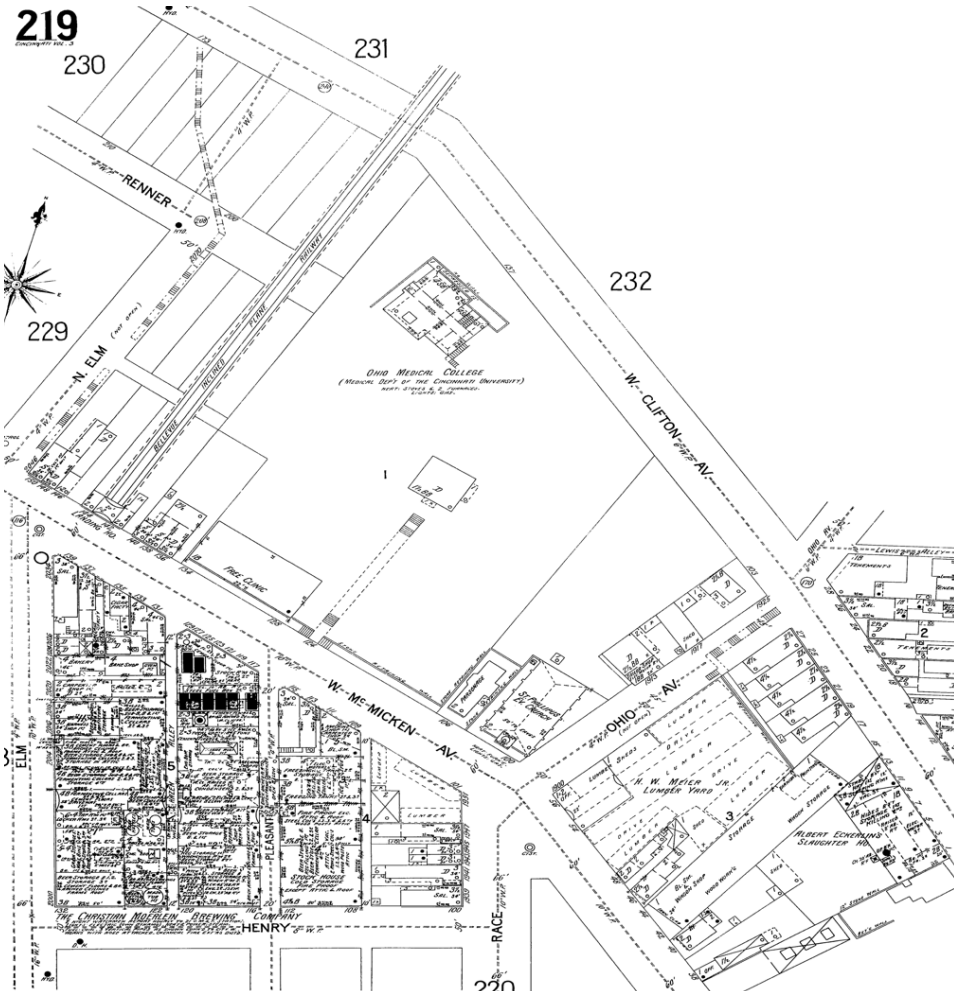
This project used a variety of tactics to revitalize the Brewery Blocks into a transit-oriented site. Portland's streetcar system just started running when the Brewery Blocks were under construction. Being that the streetcar cuts through the Brewery Blocks at 10th and 11th Avenues, weekday ridership rose from 4,982 in 2001 to 7,837 in 2005 when the Brewery

Blocks project was completed. Since the five Brewery Blocks have been completed, their property values have almost doubled from $7,114,187 in 1999 to $14,550,180 in 2004.[91]

Rhinegeist Brewery

Translated into the "Ghost of the Rhine," Rhinegeist is a recently incorporated brewery in the Over-the-Rhine neighborhood of Cincinnati, Ohio. Located at 1910 Elm Street, the building used to be a part of the Christian Moerlein Complex. In 2013, the owners of Rhinegeist rehabilitated the old Christian Moerlein bottling building (1885) for their new establishment (Map 8). Rhinegeist manufactures and distributes their beer from their location on Elm Street, selling about 5% in their tap room and delivering beer throughout parts of northern Kentucky and the southern region of Ohio. The project was financed by acquiring equity funds from private investors and loans from banks.

[91] Alex Iams and Pearl Kaplan. "Economic Development and Smart Growth: Eight Case Studies on the Connections Between Smart Growth Development and Jobs, Wealth, and Quality of Life in Communities." International Economic Development Council (2006), 11.



Map 8: Christian Moerlein Brewing Company Complex at Elm Street and West McMicken Avenue in 1904. *Source: Sanborn Insurance Maps.*

The Rhinegeist building's historic character is reminiscent of the *Rundbogenstil* style seen throughout OTR, but exhibits architectural features that more closely reflect Romanesque Revival than the *Rundbogenstil* style (Figure 34). Rectangular in form, the massive structural appearance is enhanced by the use of stone and brick masonry construction. Sheathed clay-fired brick, the wall contrasts the white-washed stone foundation. A stone belt course spans the building horizontally, visually dividing the first and second stories. Below the belt course lies square four-over-four windows flanked by

rectangular two-over-two windows, creating a larger square-like shape. Above the stone belt course are inset squares framing the large arched windows.



Figure 34: Rhinegeist Brewing Company Building on Elm Street, 2016. Photo: Deqah Hussein.

The brewery building is listed in the National Register of Historic Places, which required the owners to present all construction documents to Cincinnati's Historic Conservation Board for design reviews and certificates of appropriateness. All modifications to the building were reviewed by the city, which helped preserve the character of the building while allowing for modern additions to the building to be made. Rhinegeist's biggest construction-related hurdle was the addition of the rooftop deck. Because the building is located in a dense urban center, a rooftop deck was designed for patrons to relax and enjoy their beer outdoors while taking in the skyline views of the Queen City (Figure 35).



Figure 35: Rhinegeist Brewing Company Rooftop Deck. Photo: Deqah Hussein.

Although OTR is historically known for crafting lager beer, Rhinegeist does not continue this tradition. The brewery's beer selection is limited to ales and stouts, however Rhinegeist makes ciders too. In 2015, Rhinegeist's operation grew 200% and is expected to grow 100 - 150% in 2016. Currently, Rhinegeist has the capacity to brew 45,000 bbls (1 bbl equates to 31gallons) of beer per year. The company expects to increase that capacity to just over 75,000 bbls by 2016. And by 2018, Rhinegeist estimates they'll have the ability to brew 140,000 bbls of beer per year. Rhinegeist's brewing tanks are shown in Figure 36.



Figure 36: Brewing Equipment in the Rhinegeist Brewing Company Building. Photo: Deqah Hussein

Rhinegeist embraces the traditional social function of the historic German breweries and social houses of OTR. Patrons may taste a number of Rhinegeist brews while enjoying the company of their peers during a game of corn hole or shuffleboard. Groups are invited to gather at large, banquet-style tables (Figure 37). Customers are encouraged to go the rooftop deck, where they can enjoy their beverage, overlooking a view of OTR's urban landscape. Tying a strong social component into their business model, Rhinegeist has successfully built their brand as a recognizable Cincinnati destination.



Figure 37: Rhinegeist Brewing Company Brew House. Photo: Deqah Hussein.

CHAPTER IV

SITE ANALYSIS

ARCHITECTURAL HISTORY OF THE SITE

The Bellevue Brewery Company building was constructed circa 1869, exhibiting characteristic features of the *Rundbogenstil* style of architecture. The brewery was built adjacent to the old Miami and Erie Canal, now Central Parkway. As mentioned in the *Transportation* section of this thesis, the Miami and Erie Canal was a busy thoroughfare for industrial shipments, particularly useful for breweries and slaughterhouses – just one of the reasons this site was chosen for the Bellevue brewery; the other reason being artificial refrigeration. Since the canal created cooling for refrigeration in the basements, breweries in OTR were aligned along the Miami and Erie Canal. The brewery itself is a three story rectangular building, about 40 by 100 feet, with a stone balustrade framing the steeply pitched roof. There are three bays that contain inset rounded arches constructed of clay-fired brick that sheathe the top three levels. Modillions that line the cornice serve as an ornamental feature that highlight the rounded-arched bays and define the gable roof.

Susan Appel, in *Buildings and Beer,* describes the Bellevue brewery's heavily massed first level as an "arcaded ground-story that forms a visual base for the upper design".[92] The first level is much more modest than the upper two stories. Four, two-paired, arched windows line the second story. The third level exemplifies the character of the *Rundbogenstil* style, with bull's-eye windows just below the peak of the recessed arches in each of the three structural bays (Figure 38). The central arch is larger, with a pair of rounded-arched windows

[92] Susan K. Appel. " Buildings and Beer: Brewery Architecture of Cincinnati" *Queen City Heritage* 47 (1986): 2.

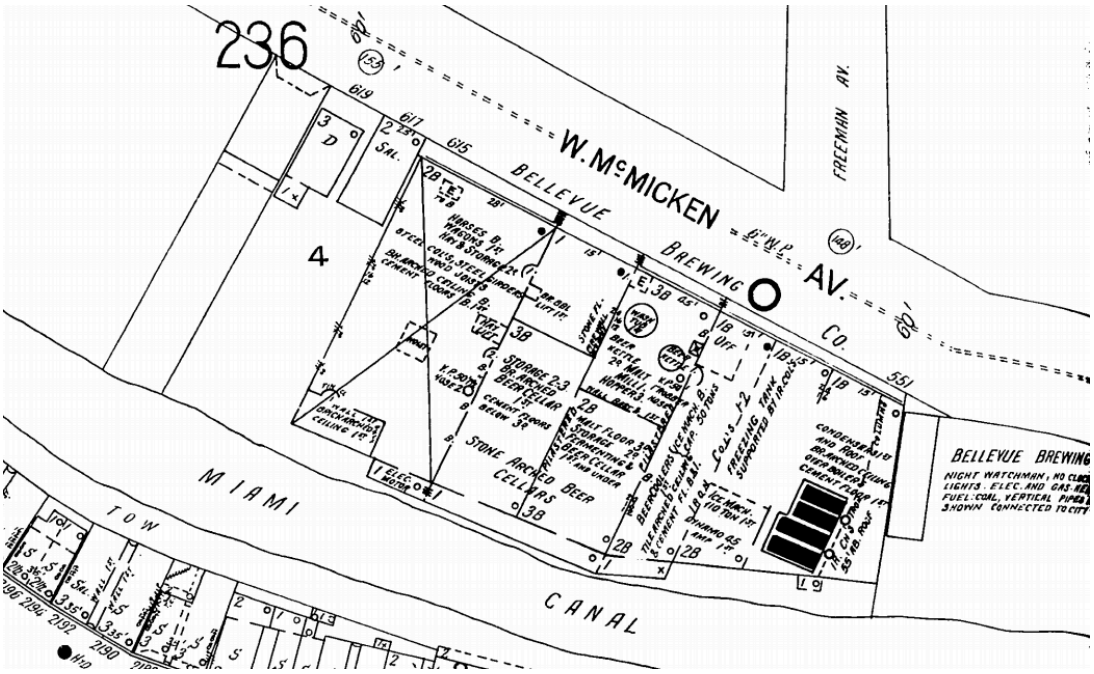
on the third-floor, topped with a bull's-eye above these windows. The two smaller bays on either side of the central bay have a single bull's-eye window; however, there are no round-headed windows on the third level of these two bays.



Figure 38: Bellevue Company Building. Photo: Deqah Hussein.

The rear of the structure shows the depth of the brewery. The structure contains two basements, the main basement and the sub-basement. A 1904 Sanborn Map detail of the Bellevue shows four separate buildings that are connected by arched cellars (Map 9). Each segment of the building has a specific purpose. One of the larger sections, on the north side of the structure, is the two-story stable used to store horses, wagons, and hay. The map shows that this part of the structure has concrete flooring on the first floor and basement.

The map also indicates that structural system consists of steel columns and girders framed by wood joists. The front of the stables had an elevator, while the rear held the electric motor. The Sanborn Map illustrates an open arched ceiling at the back end of the room. While this section of the building holds historical value, this thesis will not be presenting an adaptive reuse plan for the stables, because they are not owned by Jon Stevens, a local Cincinnati resident and the current owner of the Mockbee and Reliance Art Metal Company sections of old Bellevue Brewing Company building. According to building records, these two sections were owned by the Buckeye Foundry Company from 1984 to 2012. Jon Stevens also purchased this section of the old Bellevue Brewing Company building in 2015.



Map 9: Sanborn Map of the Bellevue Brewery in 1904. *Source: Sanborn Fire Insurance Maps.*

Adjacent to the stable, are two smaller sections of the building. There is a single story entryway on the front end of this section that opens up to West McMicken Avenue. Towards the rear is a three-story section with a basement that served as a beer cellar with

concrete floors below the third floor. The stone arched beer cellars connect to the third section of the building, separated from the second section by a plastered wall. Remnants of the old cellar tunnels can be seen in Figure 39. This third section served as a fermentation area on the first floor, with the cellars in the basement below. A brick chimney is shown on the map, as a route for fermentation fumes to escape through. The map shows a divider wall that separated the front and rear of the third section of the building at the first floor and basement (Figure 40). The second and third stories had an open layout, serving as a storage area for malt. In recent years, the arched cellar portions of the building were known as the Mockbee, as it was purchased by the C. M. Mockbee Company in 1995. Even though the building changed owners, the community has, and still knows this space as the Mockbee. Once the C. M. Mockbee Company, an anchor bold and tie rod manufacture, sold the property, the building became an arts and music venue. In 2013, the venue was forced to close because there weren't enough points of egress to match the level of occupancy. Since Jon Stevens, the current owner, purchased the building in 2015, he's worked to reopen the space as an arts and entertainment venue. The adaptive reuse plan in the fifth chapter of this thesis will provide an in-depth look into the current condition and historical integrity of the Mockbee Company building.

The fourth section of the building is the largest, used primarily for ice storage and beer cooling, which is why floor levels vary from one to two stories. This large space remained slightly separated by way of two sizable iron columns. Artificial refrigeration required proper insulation. Here, the cooling space was constructed with a tiled arched ceiling and cement floor. The building's ice machine was also located in this fourth section with a nearby freezing tank supported by iron columns. Interestingly, the Bellevue brewery was constructed with the ice-making mechanism relatively close to the boiler system.

Located at the south end, nearby where McMicken bends, the Sanborn Map identifies that floors are constructed of concrete and the ceiling arches over the broiler (Map 9). Lastly, the fifth section of the building serves as an independent fueling station where electricity and gas were fueled by coal-powered system. Once the Bellevue Brewing Company shut down, this section of the building shifted to a light industrial use.



Figure 39: Brick-filled Arched Tunnel, 2015. Photo: Deqah Hussein.



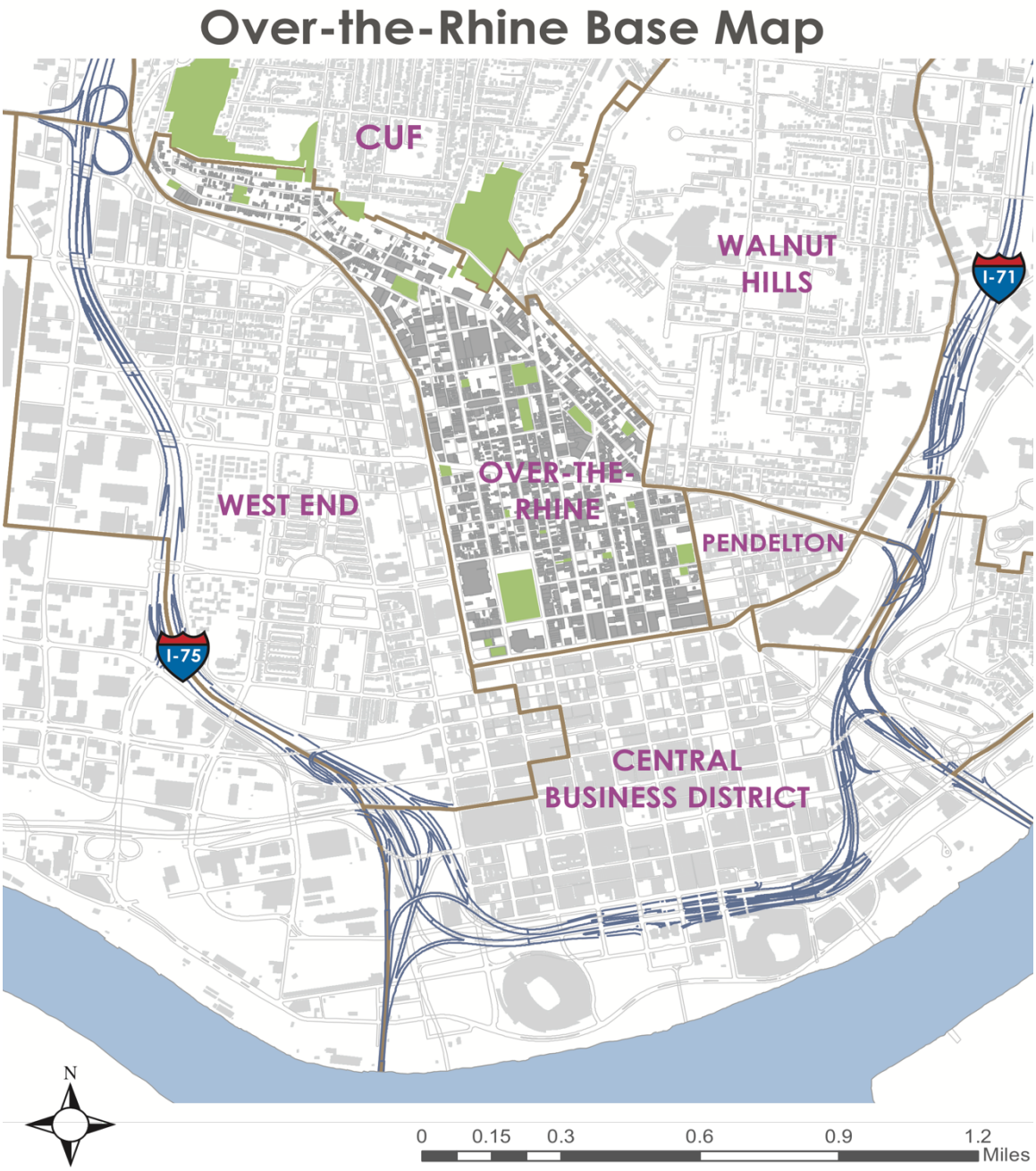
Figure 40: Rapid Transit Photographs: Subway Construction Near the Bellevue Brewing Company Building, January 24, 1922. *Source: University of Cincinnati Digital Resource Commons*

Since the building was left vacant for a number of years after the Bellevue Brewing Company shut down in 1919, the building was rezoned for industrial use. The old brewery building was separated by sections, into three different buildings with three different owners. Most recently, the Mockbee Company, the Reliance Art Metal Company, and a third (unknown) owner occupied the entire historic Bellevue Brewing Company building. This thesis is only concerned with the recent Mockbee Company and Reliance Art Metal Company owned parcels.

DEMOGRAPHIC & SITE ANALYSIS OF OVER-THE-RHINE

The OTR neighborhood has struggled for years to maintain a singular identity. First heavily occupied by Germans, then Appalachians, then African Americans, OTR's character has transformed within the past century, and has continued to vary, both societally and physically. This section will expound on the current potential for socio-economic vitality in OTR by providing demographic and site analyses on the neighborhood, with special attention to the area near the Bellevue Brewing Company site. Furthermore, in this chapter summarizes the ongoing revitalization efforts of OTR by reviewing the methodologies of the redevelopment organizations pursuing economic regeneration.

In Map 10, the transparent building underlay delineates the Over-the-Rhine (OTR) neighborhood from surrounding neighborhoods. At the northern boundary of OTR just north of McMicken Avenue lies the vastly hilly landscape that used to house the Bellevue and Fairview Inclines, which disrupted connectivity between OTR and the neighborhood containing Clifton Heights, University Heights, and Fairview Heights (CUF). Walnut Hills is the neighborhood to the northeast, while Pendleton is the neighborhood just east of OTR. West of OTR lies the West End neighborhood. And, finally, Cincinnati's Central Business District (CBD), or Downtown, borders OTR to the south.



Map 10: Map Showing Over-the-Rhine and Surrounding Neighborhoods (GIS) Created by: Deqah Hussein.

In Map 11, the OTR boundary is defined by the transparent building underlay which shows that the neighborhood's border follows along parts of West McMicken Avenue, Liberty Street, and Central Parkway. The Bellevue Brewing Company building site is

represented by double-circle symbol on the northwest corner of the map in between West McMicken Avenue and Central Parkway, which are labeled accordingly. There are a few major intersections that are in close proximity to the Brewery District. These are labeled on the map as single circles, representing nodes (areas of activity).



Map 11: Map Overlay of OTR Neighborhood (GIS). Created by: Deqah Hussein.

West McMicken Avenue is the northern primary road seen on the map. Central Parkway, a high-traffic boulevard, is labeled as an arterial street on the map. Shown on the map, Central Parkway travels from north to south then takes a drastic bend, where the road runs perpendicular to itself, creating a definitive border between OTR and Downtown's Central Business District (CBD). Overtly wide and consistently congested, the Central Parkway creates a divide between OTR and the West End and OTR and the CBD.

Liberty Street is the primary road that horizontally intersects the OTR neighborhood. Just a quarter mile east of OTR, Liberty Street dead-ends at the on-ramp of Interstate-71, as shown on the map. The map also has Interstate-75 labeled on the west side of the map. As Liberty Street stretches west, it dead-ends right in front of the Cincinnati Post Office's main branch, located in the West End neighborhood (Map 7). Behind the post office lies Interstate-75.

The Cincinnati Streetcar line separated by a series of dashed-lines, serves as a transportation route that, once opened in the Summer of 2016, will have the potential to bring the downtown commercial energy uptown. While the city of Cincinnati has only developed the lines for the first phase of the streetcar, future plans will direct the streetcar lines north-bound, into the Clifton neighborhood, where the University of Cincinnati is located.

Demographics

In 2010, the U.S. Census documented that the OTR neighborhood has a total of 6,064 people with 3,542 males and 2,522 females. According to the *2002 Over-the-Rhine Comprehensive Plan* it was stated that "OTR's population tends to be poorer and younger than

the rest of the city."[93] The 2002 comprehensive plan contributed the high African American population to the displacement the demographic from the West End in the late 1950s and 1960s. This is still true today, however, gentrification in OTR has, yet again, forced African Americans to relocate to the West End.

The 2010 U.S. Census data confirms the aforementioned population trends. It revealed that there are more children under 18 years of age than senior citizens and young adults (19 to 21 years of age). Displayed in Table 2, most residents, however, are between 25 to 55 years of age. Race, on the other hand, is less ambiguous when measuring people of a single race. More blacks or African Americans (4,361) live in OTR than whites (1,518), American Indians/Alaska Natives (17), Hispanic or Latino (84) and Asians (46).[94]

African Americans	Caucasian	American Indian	Hispanic/Latino	Asian
4,361	**1,518**	**17**	**84**	**46**

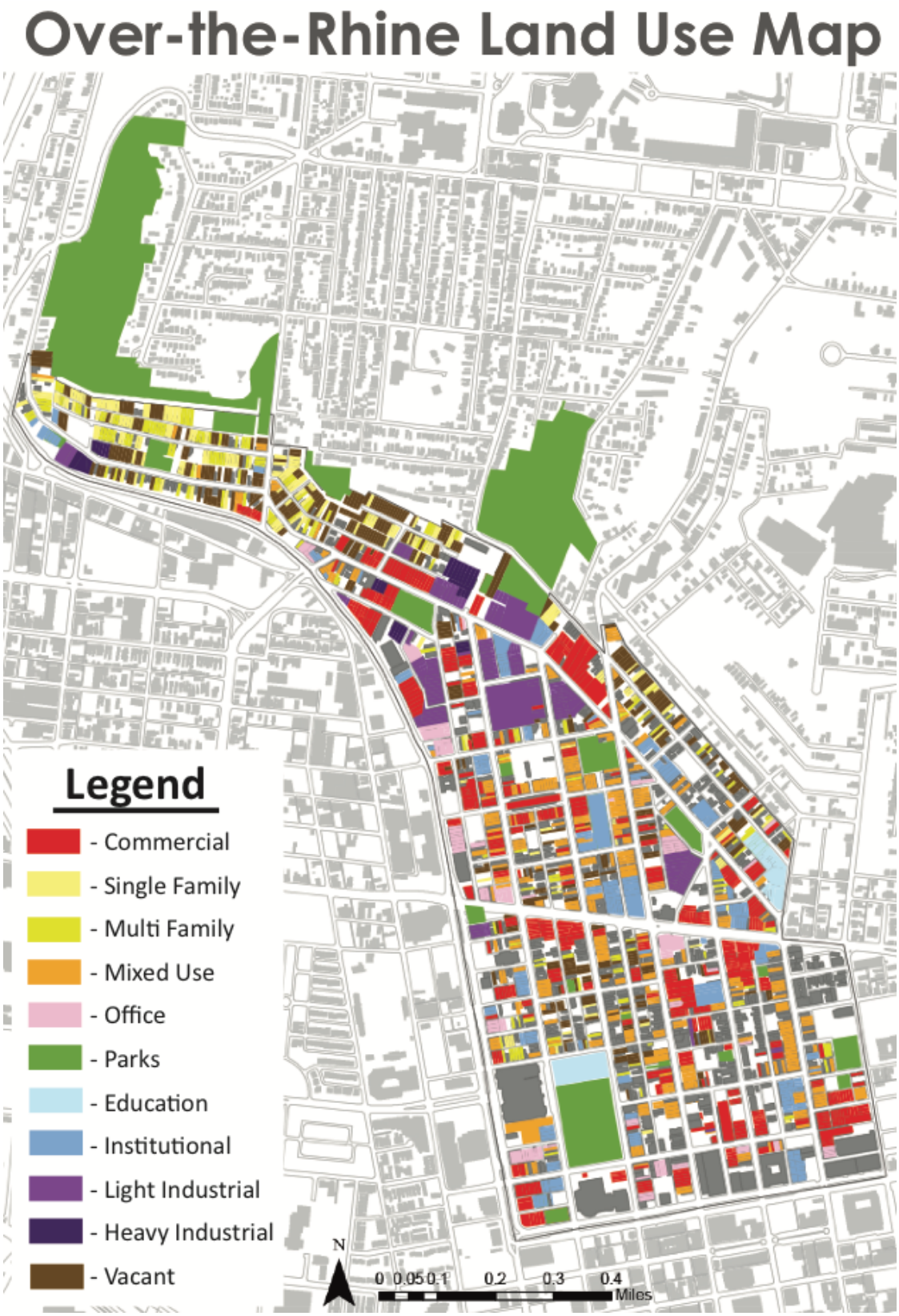
Table 2: Demographics in OTR. Created by: Deqah Hussein.

Land-use

There are several major commercial corridors in OTR that are surrounded by mixed-use and residential zones, as seen in Map 12. The residential community is much heavier in the northeast areas of OTR, while commercial activity, office space and mixed-use buildings are dispersed within the middle of the neighborhood. Most of the industrial buildings are clustered near the northern and eastern boundaries of OTR, and along McMicken Avenue. Vacant buildings are prevalent throughout the neighborhood, however, they are spread out

[93] City of Cincinnati, OTR Compressive Plan (2002).
[94] Department of Planning and Buildings, City of Cincinnati, U.S. Census Report, "Over-the-Rhine Census: 2010."

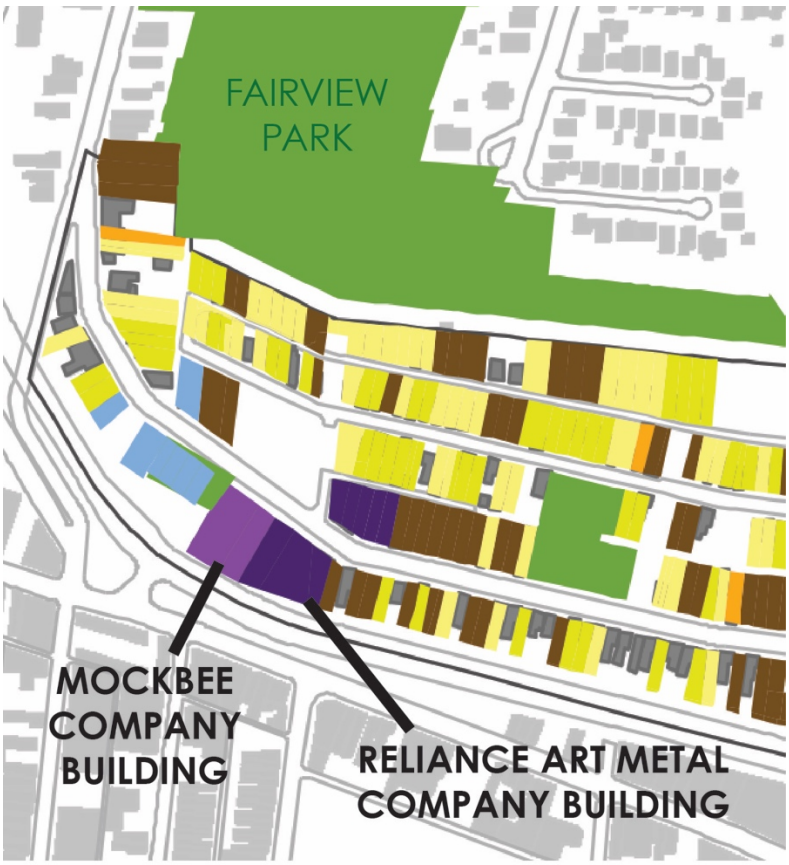
due to developers fixing-up specifically targeted properties. These methods for revitalizing neighborhoods is somewhat skewed from true urban planning practices because it mostly private developers that are buying-up condemned properties to develop higher-income lofts, elite craft-breweries, and specialty gift shops. These approaches to redevelopment in the low-income neighborhood of OTR has increased property values and made access to public services more difficult, consequently gentrifying the area.



Map 12: Land-Use Map (GIS). Created by: Deqah Hussein.

Industrial Use

The Bellevue commercial brewery, or site of study, is circled and labeled on Map 13. Furthermore, the Mockbee and Reliance Art Metal Company sections of the Bellevue Brewing Company building are labeled in Map 13. The sections that comprise the Bellevue Brewing Company are a mix of light and heavy industrial uses. The Mockbee Company section of the old brewery building is zoned as light industrial, while the Reliance Art Metal Company section is zoned as heavy industrial use. The relationship between the sections of the Bellevue Brewing Company building's land uses and the building itself represent a correlation between the historic use, a commercial brewery, and the more recent uses (light and heavy industrial). The large size of the rooms, as well as the masonry and steel used in the construction of the building, suggest that the most reasonable re-uses of the building, post-prohibition, was for industrial uses. In many instances, when the German brewing industry had declined in Cincinnati, industrial companies took advantage of the structural benefits of *Rundbogenstil* style former breweries.



Map 13: Land-Use Map of the Mockbee and Reliance Art Metal Company buildings (GIS). Created by: Deqah Hussein.

Residential Use and Vacancy Rates

As shown in Map 12, OTR's residential community comprises of both multifamily and single family residential units. As the map illustrates, most of these residential units are clustered along the northwest boarder of the neighborhood. Scattered throughout the landscape of residential buildings are pockets of vacant housing units. Map 13 provides a more detailed view of the large concentration of vacant and residential buildings adjacent to the Bellevue Brewing Company site.

Analyzing housing tenure statistics from the U.S. Census provides a clearer picture of the rate of vacancy in OTR. With respect to housing tenure, there are a total of 2,330

occupied housing units in the neighborhood. Of those 2,330 units, 287 are owner occupied. Of these 287 housing units, 239 are owned with a mortgage, or loan, and 48 are owned "free and clear."[95] A substantial number of housing units in the neighborhood (2,043 in total) are renter occupied. According to the data, 815 housing units are family households with 158 units comprising of husband-wife family and 657 homes include other family members. Of these 657 units, 81 have a male as the householder, with no wife present, and 576 have a female householder, with no husband present.[96] Nonfamily household statistics, defined by whether a householder lives alone or not, state that 1,267 nonfamily households indicate that the householder lives alone, while 248 do not live alone.

Housing occupancy data, which statistically expounds on that status of vacant properties, are very important to discuss when analyzing OTR. The neighborhood has a total of 4,298 housing units. Out of these 4,298 units, 2,330 are occupied, while 1,968 are vacant. That said, it is apparent that a sizeable number of buildings in OTR are vacant. The disparity in occupied versus vacant residential buildings reflects back to the larger building vacancy issues in OTR.

Commercial, Office, and Mixed-uses

With no office, commercial, or mixed-use buildings in the areas surrounding the brewery site, community members have to travel at least half a mile before reaching any commercial district. The site is, in fact, the epicenter of the neighborhood that contains the majority of the abovementioned properties (Map 12). In more detail, Map 13 shows both the

[95] Department of Planning and Buildings, City of Cincinnati, U.S. Census Report, "Over-the-Rhine Census: 2010."
[96] Ibid.

Mockbee Company building and Reliance Art Metal Company buildings surrounded by residential, institutional, and vacant buildings. The shortage of commercial buildings in the dense residential district reveals a need for mixed-use, office, and commercial buildings as a generator for economic activity in the area. Both the OTR and West End neighborhood have the potential to transform their industrial building stock into properties that contribute to the economic vitality of the neighborhoods.

Furthermore, encouraging a change in land use has the potential to incite social activity through the reuse of historic buildings in the area. A sense of place may be restored in the neighborhood through the revival of the historically German brewing industry that once inspired community connectivity. The adjacent West End neighborhood, another high-density residential community, would also benefit from a nearby commercial district. Simply put, the residential areas around the Bellevue Brewing Company site leave inhabitants without a place to get groceries, go out to eat, or enjoy entertainment. Making these neighborhoods more economically diverse could, in turn, increase occupancy rates and commence rehabilitation projects on the multitude of vacant properties in the area.

Transportation

The land surrounding the Bellevue brewery consists of a hill sloping downwards from McMicken Avenue. The building's front façade points towards McMicken Avenue, while the rear faces Central Parkway (the old Miami & Erie Canal). When the canal was operational the rear entry of the brewery was used for distribution. Although the canal dried up and was repaved, the location of the brewery is still relevant. The automobile replaced the old horse-and-buggy, funicular, and streetcar system that existed in the 1800's, changing the ways people traveled.

Today, the site's location is situated on the direct path for public transit, in respect to busses, automobiles and the potential streetcar route. Parkways, viaducts, and other arterial streets form a network in the OTR neighborhood, serving as connectors into bordering neighborhoods. McMicken primarily serves as a residential street, with small clusters of industrial buildings throughout. Map 14 indicates the multitude of bus routes and stops that serve the OTR area. The revival of the Cincinnati Streetcar system, expected to open in September of 2016, aims to relieve Cincinnati's Metro Bus system of the high volume of travelers by providing an alternative to riding the traditional public bus. The streetcar route, illustrated in Map 12 offers aesthetic appeal to OTR while restoring historic value to the once popular approach to public transit. This first phase of the Cincinnati Streetcar, limited to a small portion of OTR, is expected to grow. While the next phases of streetcar construction have not been publicized, the streetcar project is supposed to aid in connecting OTR to its surrounding neighborhoods.

Access to public transportation is of high importance to most OTR residents. 2010 U.S. Census data reports that out of the 1,183 people commuting to work, 596 people commute to work using public transit.[97] Map 9 illustrates the various bus routes in OTR, highlighting the bus stops within the neighborhood. Finally, walkability and the neighborhood's close proximity to the city center allows 166 people to walk to work.

[97] Ibid.



Map 14: Map of Bus Routes and Stops in OTR (GIS). Created by: Deqah Hussein.

PRESERVATION IN ACTION

The National Register of Historic Places has helped preserve the historic character in OTR. There are two National Historic Districts in OTR. In fact, many of the brewery buildings that comprise the Brewery District itself are historic, and most are listed as contributing buildings in the Over-the-Rhine or Mohawk-Bellevue National Register Historic Districts. In the nomination, the Over-the-Rhine Historic District's period of significance is said to be from 1840 to 1941 (Map 15).[98]

The National Historic Preservation Act of 1966 states that, buildings within the historic district can't just be demolished or altered without going through the design review process, which encourages building reuse.[99] The deterioration of vacant historic properties has been an area of concern for the city. Many vacant properties within the aforementioned historic districts are not being cared for. Since 2006, dilapidated vacant properties in Cincinnati are listed on the Vacant Building Maintenance List (VBML), for which the owner of these properties are required to get their buildings that pose health and safety concerns up to structural codes. Additionally, the VBML program requires building owners to perform maintenance measures that preserve the integrity of the building.

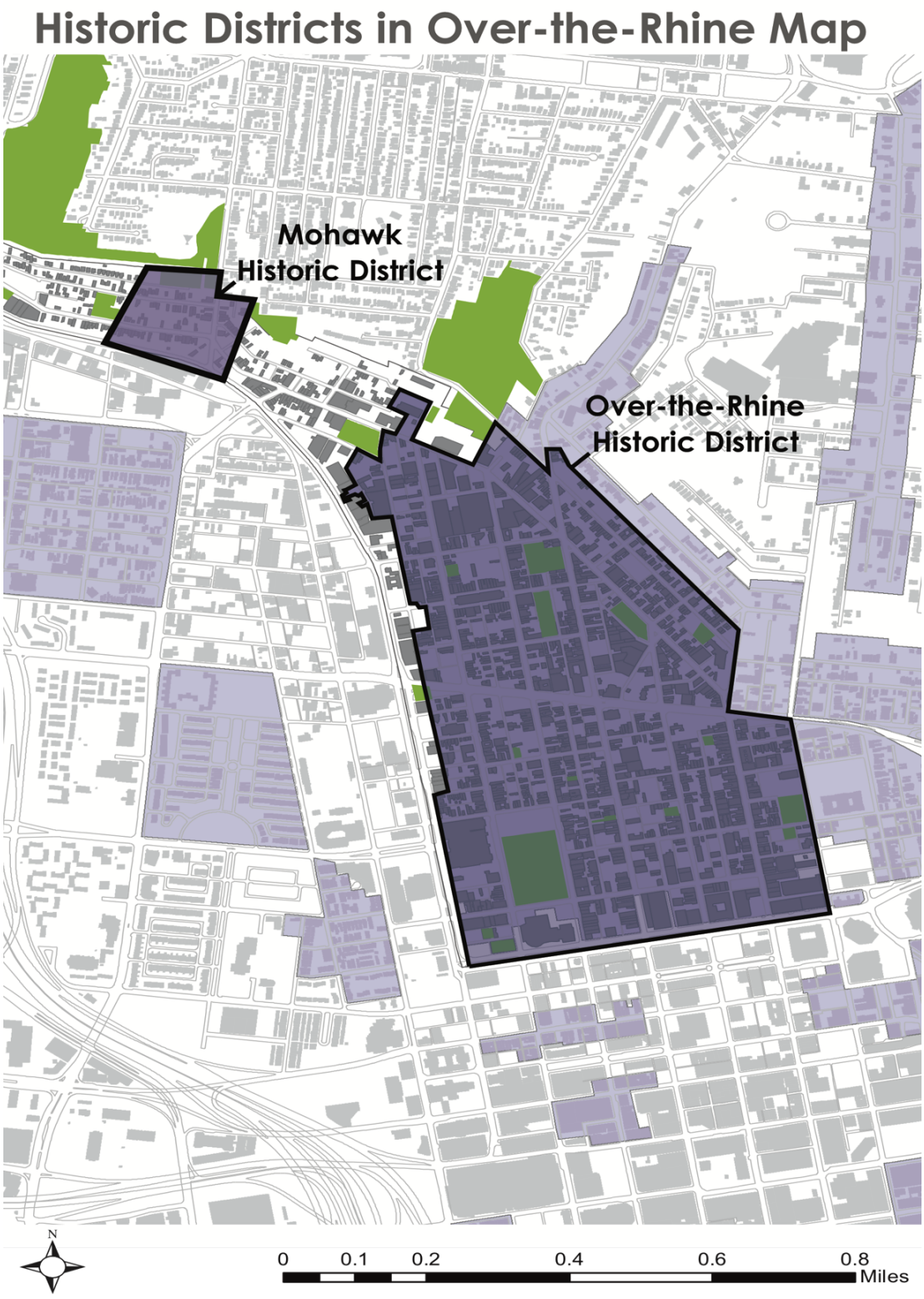
Furthermore, the city of Cincinnati has made it a point to encourage economic growth by allowing for Certificates of Appropriateness to be filed to the city's Historic Conservation Board to demolish the buildings that have deteriorated, leaving the city with fire and safety concerns, which encourages the demolition of buildings with failing structural systems. This trend of demolishing buildings in poor to very poor condition has been plaguing the city for years due to a renewed interest in developing OTR by way of infill.

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[98] Deanna Heil and Ryan O'Malley. Over-the-Rhine Historic District (Boundary Increase) National Register of Historic Places Inventor Nomination Form. 2014.
[99] National Historic Preservation Act of 1966 As Amended through 2006.

Unfortunately, the desire for infill has become more popular than adaptive reuse because so many of buildings in the neighborhood are terribly dilapidated.

Within the past ten years, OTR has seen a tremendous amount of redevelopment in the areas between Liberty Street and Central Parkway. During these years, the methods used to improve the economic vitality of OTR have created gentrified areas within the neighborhood. Both redevelopment and new construction in OTR became tailored towards a higher income bracket, even though the neighborhood's population was of a low-income status. As property values increased, affordable housing became difficult to find.



Map 15: Map Overlay of Historic Districts in OTR (GIS). Created by: Deqah Hussein.

REVITALIZATION EFFORTS IN OVER-THE-RHINE

Over-the-Rhine's historic fabric portrays the neighborhood's German heritage through architecture. Buildings in the neighborhood have a broad range of land-uses and architectural styles. This becomes apparent when comparing large-scale commercial buildings with single and multi-family residential units. Both residential and small-scale mixed-use buildings are generally characteristic of either the Italianate, Second Empire, Queen Anne, Federal, Greek or Renaissance Revival styles. Alternatively, large-scale commercial, industrial, and spiritual buildings maybe indicative of the Romanesque Revival style or another architectural style that uses masonry construction to incorporate heavy massing into the design. Historic commercial breweries, such as the Bellevue Brewing Company, are very large-scale commercial structures. They are in the *Rundbogenstil* style, a vernacular, or more accurately described German national style with characteristics reflective of Romanesque Revival architecture, as discussed in "The *Rundbogenstil* Style" section of *Chapter II*.

There are a few nonprofit organizations that work closely with the city of Cincinnati's Historic Conservation Board and Urban Planning Commission to reduce urban blight, encourage economic development, and promote preservation through adaptive reuse. One organization, Cincinnati Center City Development Corporation (3CDC), strategically uses federal and state preservation tax credits to help fund preservation focused development. Another organization, the Brewery District Community Urban Redevelopment Corporation (BDCURC), has been working to generate economic development in the 'Brewery District' by reviving German heritage by celebrating Cincinnati's brewery culture.

The Brewery District Community Urban Redevelopment Corporation (BDCURC)

In Jordan Lewis's thesis titled "Architecture and Urban Redevelopment in Over-the-Rhine: Celebrating the Brewery District's Heritage through Respectful Contrast," he defines the Brewery District within the boundary of Central Parkway to the west, McMicken Avenue to the north, and Liberty Street to the south, and Sycamore Street to the east (Map 11). Historically, the majority of brewing industry was concentrated along McMicken Avenue (Map 7). Furthermore he described the Brewery District as a sub-district nestled in the northern region of OTR.[100] It is important to understand that the Brewery District Community Urban Redevelopment Corporation's (BDCURC) civic efforts are aimed at improving the Brewery District (sub-district), rather than all of OTR.

According to their website, BDCURC is a "non-profit organization committed to making the Brewery District a healthy, balanced and supportive neighborhood economy by preserving, restoring and redeveloping our unique brewing history and historic urban fabric."[101] Reflecting back, the *OTR Land Use Map* illustrates a dangerously high concentration of vacant properties in OTR. Many historic commercial breweries in OTR were also left vacant for years, which led the BDUCRC to address concerns of vacant commercial brewery building harming the socioeconomic character of OTR by establishing programs, such as the "Prohibition Resistance" brewery tour, to expand public interest on

[100] Jordan Lewis. "Architecture and Urban Redevelopment in Over-the-Rhine: Celebrating the Brewery District's Heritage through Respectful Contrast" (master's thesis, University of Cincinnati, 2012), 40.
[101] Brewery District Community Urban Redevelopment Corporation. "History of the Brewing District." Accessed January 11, 2016. http://www.otrbrewerydistrict.org/history_district.php.

OTR's German brewing heritage. The "Remaining Brewery Buildings in OTR" map, below, shows the locations of twelve commercial brewery buildings in OTR and the West End that still stand (Map 16). Because this thesis focuses on the Bellevue Brewing Company Building, it important to take note that the old Bellevue Brewing Company site is rather isolated, compared to the other remaining brewery buildings in OTR.



Map 16: Remaining Brewery Buildings in OTR. *Source: http://www.otrbrewerydistrict.org/history_map.php.*

In addition to tours, the BDCURC strives to bring back the "feeling" of historic German influenced architecture and its "association" with German brewing culture. Remembering that "feeling" and "association" are two of the seven aspects of integrity according to the Secretary of Interior's Standards, it becomes clear that this part of the BDCURC's preservation efforts are well aligned with the National Historic Preservation Act

of 1979. The historical significance of the Brewery District has been emphasized through the incorporation of historical markers. Combining brewery tours and signage have helped rebrand the northern parts of OTR into what is now known as the Brewery District.

The BDCURC took significance and integrity a step further with their determination to have the Brewery District listed on the National Register of Historic Places. In 2015, their vision became a reality when the Mohawk-Bellevue Historic District was listed on the National Register of Historic Places. This historic district, in combination with the Over-the-Rhine historic district, has helped preserve the German heritage that had long been forgotten.

Prior to the Mohawk-Bellevue Historic District becoming nationally recognized, the BDCURC was intent on providing strategic planning tools to help foster business redevelopment by way of the *2011 Brewery District Master Plan.* The plan utilized Smart Growth and place-making strategies to improve the quality of life of the northern OTR community through neighborhood connectivity. As a catalyst project, the master plan identified the city of Cincinnati's future streetcars system as a major area of opportunity because its transportation route connects the Brewery District to Cincinnati's downtown/Central Business District (CBD).[102] Linking urban redevelopment with the district's historic character opens up the neighborhood's broader sense of historical significance towards Cincinnati's brewing heritage, which, in turn, gives the Brewery District a defined sense of place.

The BDCURC recognized that inspiring redevelopment meant encouraging mixed-use development. To make the area more desirable for businesses, the BDCURC set out to

[102] Jordan Lewis. "Architecture and Urban Redevelopment in Over-the-Rhine: Celebrating the Brewery District's Heritage through Respectful Contrast" (master's thesis, University of Cincinnati, 2012), 40.

rezone the district as an 'Urban Mix District' as part of their initiatives with the Brewery District. Coordinating with Cincinnati's City Department of Community Development and Planning, BDCURC's master plan included alternative strategies towards current zoning practices in Cincinnati neighborhoods with respect to historically industrial building stock. The BDCURC's initiative towards developing the municipal code has been especially influential when implementing infill development and adaptive reuse principles. Adopted into the Cincinnati Municipal Code under Chapter 1410, the 'Urban Mix' district was designed to encourage economic sustainability by re-envisioning how to develop residential, and office spaces within areas of the Brewery District where historical light-manufacturing and commercial industry uses are prevalent.[103]

The general purposes of the 'Urban Mix 'district are to:[104]

(a) Provide a balance of uses and amenities fostering a vital economic, livable and cultural area and enhance its urban, aesthetic qualities.

(b) Protect and enhance historic, cultural, economic and architectural resources.

(c) Preserve, create and enhance pedestrian-oriented streets to encourage retail, entertainment, residential and office vitality and improve the quality of life for district residents, visitors and workers.

(d) Provide quality public spaces, such as urban street corridors, by maintaining the physical continuity of the street edge created by buildings.

(e) Bring most daily activities within walking distance, giving the elderly, young and disabled increased independence of movement.

[103] Ibid.
[104] Ibid, 18.

(f) Reduce the number of automobile trips; minimize congestion, consumption of resources and air and noise pollution.

Cincinnati Center City Development Corporation (3CDC)

Established in 2003, the Cincinnati Center City Development Corporation (3CDC) is a nonprofit organization whose strategic focus aims to revitalize Cincinnati by connecting the Central Business District (CBD) and the OTR neighborhood.[105] The organization's efforts have raised the land-value of parts of OTR and the CBD by utilizing historic preservation tax credits to encourage developers to invest in the community. Additionally, 3CDC supports Smart Growth and Placemaking by resuscitating urban parks, namely Washington Park and Fountain Square.[106] The organization continues to restore a sense of place by rehabilitating dilapidated mixed-use buildings in OTR and the CBD, providing new and inviting spaces for commercial activity and middle to upper class housing.

3CDC has become an inspiration to other development organizations working specifically in OTR, however many citizens have become skeptical of their revitalization practices. Because 3CDC's development actions increase land and property values, the cost of living in OTR has skyrocketed. As mentioned in *Chapter II*, gentrification practices have forced many low-income families to relocate to the West End neighborhood. Local OTR community members have been struggling for years to moderate the improper urban planning practices the organization implements. Fortunately, neighborhood organizations, such as Over-the-Rhine Community Housing, has helped balance the residential market by providing affordable housing options in OTR, however they are limited because they rely on

[105] Ibid, 10.
[106] Ibid, 13.

government grants to complete projects.[107] 3CDC's preservation practices have helped save many historic properties from dilapidation and demolition, through rehabilitation. But the question that preservationist and developers should ask themselves is; at what cost?

[107] "About OTRCH" *Over-the-Rhine Community Housing,* accessed May 29, 2016, http://otrch.org/about-otrch/about-over-the-rhine-community-housing/.

CHAPTER V

IMPLEMENTATION

INTRODUCTION

This chapter illustrates and narrates the best practices of rehabilitating historic commercial breweries using adaptive reuse principles for the former Bellevue Brewing Company building. Based on the historical context from *Chapter II*, the building that is the Bellevue Brewing Company building, formerly known as the George Klotter Brewery and the George Klotter and Son's Brewery, was built in 1866. Although Bellevue Brewing Company itself, was established in 1888 and forced to shut down in 1919, the period of significance of the building is from 1866 to 1919. This reflects the year the building was constructed, and first used as a brewery, and the last time brewing occurred in the building.

The first section of the adaptive reuse plan cultivates a better understanding of the Bellevue Brewing Company building's condition, integrity, and significant character defining features, in respect to the divisions of the spaces that were most recently owned by the Mockbee Company and Reliance Art Metal Company. For the purposes of this chapter, when the Bellevue Brewing Company building or old Bellevue brewery are mentioned, it it refers to the two sections, the Mockbee Company and Reliance Art Metal Company, in amalgamation. If the Mockbee building or Art Metal Reliance buildings are mentioned in singularity, this thesis is referring to the individual sections of the old Bellevue Brewing Company building that had been sold separately after the brewery was forced to shut-down during prohibition, in 1919. Figure 41 shows the Mockbee and Reliance Art Metal sections of the Bellevue Brewing Company building from West McMicken Avenue. Once a baseline for understanding the exterior and interior of the building has been established, with respect to the existing condition, recommendations are then presented for repairing, maintaining,

and preserving the architectural significance of both the Mockbee and Reliance Art Metal Company sections of the old Bellevue brewery building



Figure 41: Exterior of the East Façade of the Reliance Art Metal Company (left) and the Mockbee Company Building (right). Photo by: Deqah Hussein.

The aforementioned recommendations provide the reader with a guide to understanding my approach for adaptive reuse of a historic property that is not yet on the National Register of Historic Places, but has the potential to be listed. Rehabilitating a historic property, like the Bellevue brewery building, should be done with historic preservation in mind, so that it could still be eligible for nomination. The *Adaptive Reuse* subsection of chapter specifically addresses historical significance and the importance of preserving the integrity of the building by using the National Register Criteria for Evaluation to communicate the architectural importance of the *Rundbogenstil* style commercial brewery building, as well as the association of the property with the once bustling German brewing

district in OTR. By adopting the case studies summarized in *Chapter III* as precedent for building reuse, the adaptive reuse plan can serve as a guide to sustainably rehabilitating nineteenth century *Rundbogenstil* style commercial breweries, as a means to stimulate economic regeneration in OTR and the West End.

BELLVUE BREWING COMPANY BUILDING CONDITION ASSESSMENT

This thesis presents a unique framework for assessing the condition of the Bellevue brewery that narrates the condition and character defining features of the building's exterior, illustrated by a series of tables I have made. The condition assessment begins with an evaluation of the building's exterior at both the McMicken and Central Parkway facades by identifying architectural features that define the character of the *Rundbogenstil* style (Table 3). The chapter ends with recommendations for the rehabilitation of the respective architectural feature. This condition assessment focuses on are the former Mockbee Company and Reliance Art Metal Company.

INTEGRITY & CONDITION: EXTERIOR (Central Pkwy)

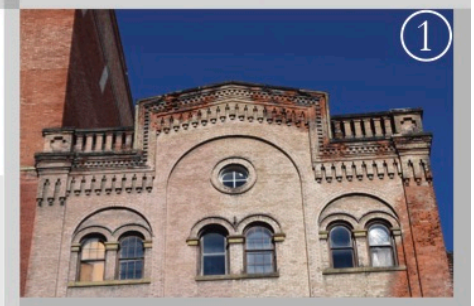
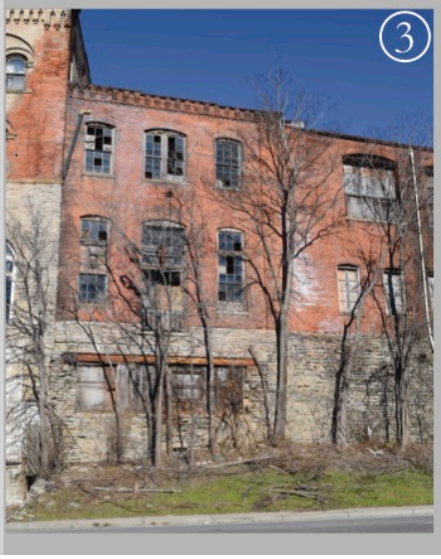
Defining Features	Condition	Photograph
Rounded-Arched Windows	FAIR/POOR	
Bulls-eye Window	GOOD	
Cornice Line	GOOD	
Parapet Roof	GOOD	
Keystones	GOOD	
Recessed arches	EXCELLENT	
Stone Foundation	FAIR	
Brick/Masonry	POOR	

Table 3: Exterior Condition at Central Parkway, or the West Façade. Created by: Deqah Hussein.

The exterior façade of the Bellevue brewery from the Central Parkway (west) side has eight individual character defining features that reflect back to the *Rundbogenstil* style, which are identified in Table 3. These architectural feature are the rounded-arched windows, segmental arched windows, the Bulls-eye window, corbel tables, keystones, recessed arches,

stone foundation, and brick/masonry. To clarify, the segmental arched windows have a more subtly curved arch than rounded-arched windows.

Exterior Condition

West Façade – Central Parkway

In Table 3, the first image showcases most of the characteristic features that define the *Rundbogenstil* style. Additionally, the condition of these character-defining features have been categorized as either excellent, good, fair, poor, or a combination of two of these classifications. This first image is meant to visually express the architectural detail within the ornamentation and fenestration on the third story of the building. This includes the corbel tables seen in the cornice line, parapet roof, keystones, capitals, bulls-eye window, recessed arches, and rounded-arched windows. The second image expands the view to the show the decorative features on the second story, the cornice line, and third story of the property. The collection of images in Figure 42 are used to aesthetically reinforce the assemblage of significant architectural features on the Central Parkway, or west façade, of the building, established through the *Rundbogenstil* style.



Figure 42: Exterior Condition at Central Parkway, or the West Façade. Created by: Deqah Hussein.

Cornice Line

The cornice line of the building is highly ornamental, shown in detail in the first image in Table 3. The dentil band spans the cornice line, running up the parapet roof. On either side of the parapet roof lies two balustrades with Greek crosses set on the outer top edges of the façade. Just below these decorative features lies the corbel table that adheres to the same pattern as the dentil band. Similar to the dentil band, the corbel table stretches the length of the cornice and bypasses the recessed arch. However, the corbel table reappears when the cornice line reaches the parapet roof. On the west façade the cornice line and parapet roof are in good condition. From the road, the cornice looks dark and dreary. Presumably, the dirtiness of the cornice, and correlating decorative features, is a result of the automobile pollution that originates from Central Parkway, a major arterial road that produces high volumes of traffic.

Ornamentation

Keystones and capitals, seen in Table 3, are also prominent architectural features on the old Bellevue Brewing Company building. Both items are difficult to see from afar because they are, like the cornice line, covered in soot from the exhaust of gasoline powered vehicles. Because of this, I have concluded that both decorative features are in good condition. If the capitals and keystones were to be cleaned, per the Secretary of Interior's Standards for preserving decorative brick features, then this these elements would be classified as 'in excellent condition'. It is recommended to clean the keystones and capitals with the same soaking, water washing, and water rinsing methods that were suggested for the cornice line; starting from the bottom and working upwards.

Fenestration

The first image (labeled) on Table 3 demonstrates the fenestration, or window pattern on the third floor. There are three two-paired rounded-arched windows enhanced by the recessed arches in each of the three structural bays. The original windows on the third story are six-over-six and double hung. The largest of the structural bays on the west façade is the central bay. This central bay, and corresponding recessed arch, also contains the bulls-eye window. The other two recessed arches flank either side of the large, centered recessed arch. The two-paired windows within both the left and right recessed arch are hugged by the recessed arches surrounding them. While the recessed arches are in excellent condition, the windows are not. Of the six total windows, three of them are original, while the other three are not. Even so, the condition of these three, two-paired, rounded-arched windows are in fair-to-poor condition because most of the original windows have broken or missing glass panes. Although not 'in-kind', the bulls-eye window on the west façade has been replaced. That said, the exterior condition of the bulls-eye window is determined to be in good condition.

The second image on Table 3 emphasizes the importance of the rounded-arched windows and recessed arches, as they relate to the building as a whole. Not only are they both characteristic features, but the windows and arches work together to create the overarching feeling associated with the *Rundbogenstil* architectural style, pun intended. The stone foundation can be seen in both the second and third image of Table 3. The stone foundation rises two stories, the sub-basement and basement. At ground level, the sub-basement is where the accessible means of egress are located. The stonework appears to be intact and in good condition. On the basement level, the arched windows that exist were not

original, as shown in Figure 43. This historic photograph illustrates the large bricked-in arches in the Mockbee Company section of the building's exterior façade at Central Parkway.



Figure 43: Exterior Façade at Central Parkway, February 2, 1922. *Source: http://digital.libraries.uc.edu/subway/*.

Shown in the third image, the fixed segmented arched windows are damaged and are in poor condition. Almost all of these segmented arched windows in the Reliance Art Metal Company section of the old Bellevue Brewing Company building have missing glass panels, and some are even boarded up. This damage can be seen clearly third photo from Table 3. Boarded up with plywood, many of these large fixed segmented arched windows have lost their form as a result of missing glass panels deteriorating the muntins and interior casing.

East Façade – West McMicken Avenue

On the east side of the old Bellevue brewery, the architectural features on the Mockbee buildings are mirrored. The decorative features of the Art Metal Reliance Company building are not, however. At the east façade, the building is abutted by the less traveled, West McMicken Avenue. At this east façade, many of the character defining features of the *Rundbogenstil* style stand out as prominently. In Table 4, I have compiled a list of each character-defining feature alongside an assessment of each element's current condition for the east facade. The features listed on Table 4 include rounded-arched windows, bulls-eye windows, recessed arches, rounded-arched entryway, capitals, keystones, the cornice line and the parapet wall.

INTEGRITY & CONDITION: EXTERIOR (McMicken)

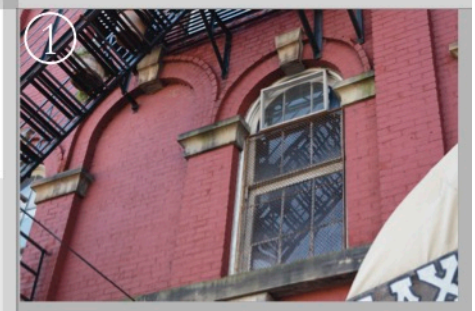
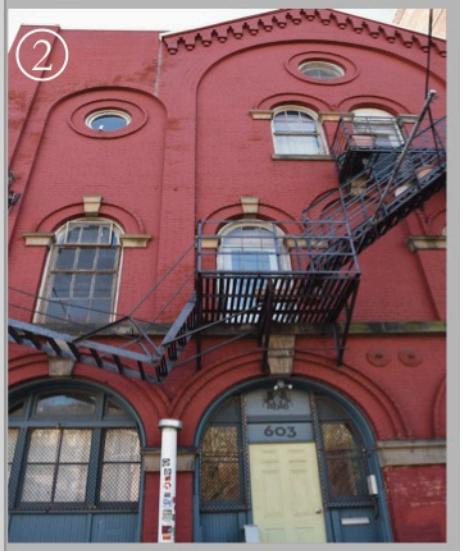
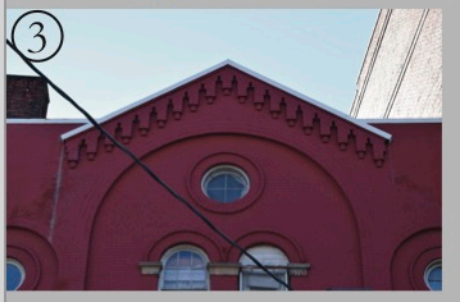
Defining Features	Condition	Photograph
Rounded-Arched Windows	FAIR	
Bulls-eye Window	GOOD	
Recessed arches	EXCELLENT	
Rounded-Arched Entryway	FAIR	
Capitals	FAIR	
Keystones	GOOD	
Cornice Line	EXCELLENT	
Paprapet	EXCELLENT	

Table 4: Exterior Condition at West McMicken Avenue, or the East Façade. Created by: Deqah Hussein.

Cornice line

While the cornice line and parapet wall can be seen in the second image of the table, the third image is a more detailed view. Unfalteringly, the architectural features on the east façade are in an overall better condition than those seen on the west façade (Figure 44). In Figure 44, the architectural detailing of the first level on the east façade is visible. The paint that covers the exterior brick wall on the east facade has helped preserve the masonry-work.

In a way, the east façade's vibrant red overcoat helps visually emphasize the building's ornamentation, characterizing the craft of the *Rundbogenstil* style. The condition of the cornice line on this façade are found to be in excellent condition A few decorative features have been changed and/or added to the Bellevue brewery building, that do not correspond to how the building looked during its period of significance. In the second image on Figure 44, the arched entryways of the Mockbee and Art Metal Reliance buildings appear to have been altered. Moreover, on the Art Metal building, the Art Deco entryway and signage stand out against the painted brick course that so strictly adheres to the *Rundbogenstil* architectural style.



Figure 44: Exterior Condition at West McMicken Avenue, or the East Façade. Created by: Deqah Hussein.

Ornamentation

The first image on Table 4 is meant to put emphasis on the condition of the keystone and capitals' details that enhance the recessed arches and rounded-arched windows on the second story, or what the architectural plans describe as the third floor mezzanine. The second image in the table shows how the interaction of the abovementioned features contribute to the holistic feeling of the *Rundbogenstil* style. The keystones, capitals, and rounded-arched windows are found to be in good condition. Moreover, all three recessed arches on the east façade are in excellent condition. The rounded-arched entryway appears to be in fair condition, in respect to the materials used to fill the arch.

Fenestration

On the third floor mezzanine, one bulls-eye window sits below the corbel tables seen at the cornice line in the second photograph in Table 4. On the third level, two adjoining rounded-arched windows rest upon the central recessed arch. Each of the two outer-most recessed arches contain a bulls-eye window, on the third level, and a double-hung rounded-arched windows. Also, on the second level, two more double-hung rounded-arched windows rest along the left and right boarder of the central recessed arch. The bulls-eye windows are found to be in good condition. The double-hung rounded-arched windows, however, are in fair condition. This was concluded because a number of windows are missing panes of glass and have rusted sashes, rails, and muntins. It important to note that many windows, both rounded-arched and bulls-eye, have been retrofitted with energy-efficient windows. Benefits of these modern window types include its ability to provide external light into rooms and reduce air leakages.

Art Deco was a popular architectural style in America from the 1920s to 1940s. As an eclectic architectural style, Art Deco ornamentation were often designed as thematically geometric and machine-like in craftsmanship. Perhaps, the difference between the *Rundbogenstil* and Art Deco styles is most apparent in the fifth and sixth image in Figure 44. The subtle original 1895 'Bellevue Brewing Company Boiler House' sign starkly contrasts the Art Deco 'Office' badge on the Art Metal Reliance Company building.

Interior Condition

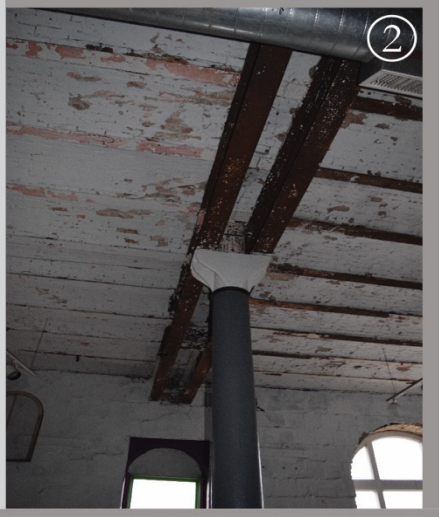
Since this study focuses on two distinct sections of the Bellevue Brewery building, the Mockbee Company building and the Reliance Art Metal Company building I will discuss their interior conditions separately using two tables that graphically convey each section's defining features and condition. Both tables list character defining features and contains corresponding labels as to their assessed condition. In addition, photographs of these features have been integrated into the chart as a visual aid. Tables 5 and 6 focuses on the section of the brewery that used to be the Mockbee Company. Here, the structural integrity of interior architectural features is evaluated. Table 5 relates to the basement and sub-basement levels, while Table 6 communicates the condition of the first floor, third floor mezzanine, and the third floor. In this study, the third floor mezzanine represents the second level of the building. Table 7 follows the same format as Tables 5 and 6, however it conveys the condition of former Reliance Art Metal Company section of the brewery.

Mockbee Company Building

The character defining features of the basement and sub-basement levels are listed in Table 5. The features highlighted in the table are the long, narrow arched cellars, concrete

floors, steel I-beams, steel columns, stacked stone foundation, and brick ceiling. Each defining feature is represented in one or more of the photographs within Table 5. The results of the condition assessment on each feature are also listed within the table. The following sections will narrate the importance of stylistic and structural features during the building's period of significance and present the assessed condition of these character-defining feature for the interior of the Mockbee building.

INTEGRITY & CONDITION: MOCKBEE COMPANY I

Defining Features	Condition	Photograph
Long/Narrow Arched Cellars	GOOD	
Concrete Floors	GOOD	
Steel I-Beams	FAIR	
Steel Columns	EXCELLENT	
Stacked-Stone Foundation	GOOD	
Brick Ceiling	GOOD	

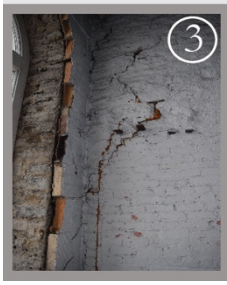




Table 5: Interior Structural Condition in the Mockbee Company Building from the Basement and Sub-basement. Created by: Deqah Hussein.

CHARACTER & CONDITION: MOCKBEE COMPANY II

Defining Features	Condition	Photograph
Arched Entryways	GOOD	
Wood Floors	FAIR	
Wood Ceiling	FAIR/GOOD	
Wood Beams	GOOD	
Steel Columns	EXCELLENT	
Steel Beams	GOOD	
Brick Walls	GOOD	

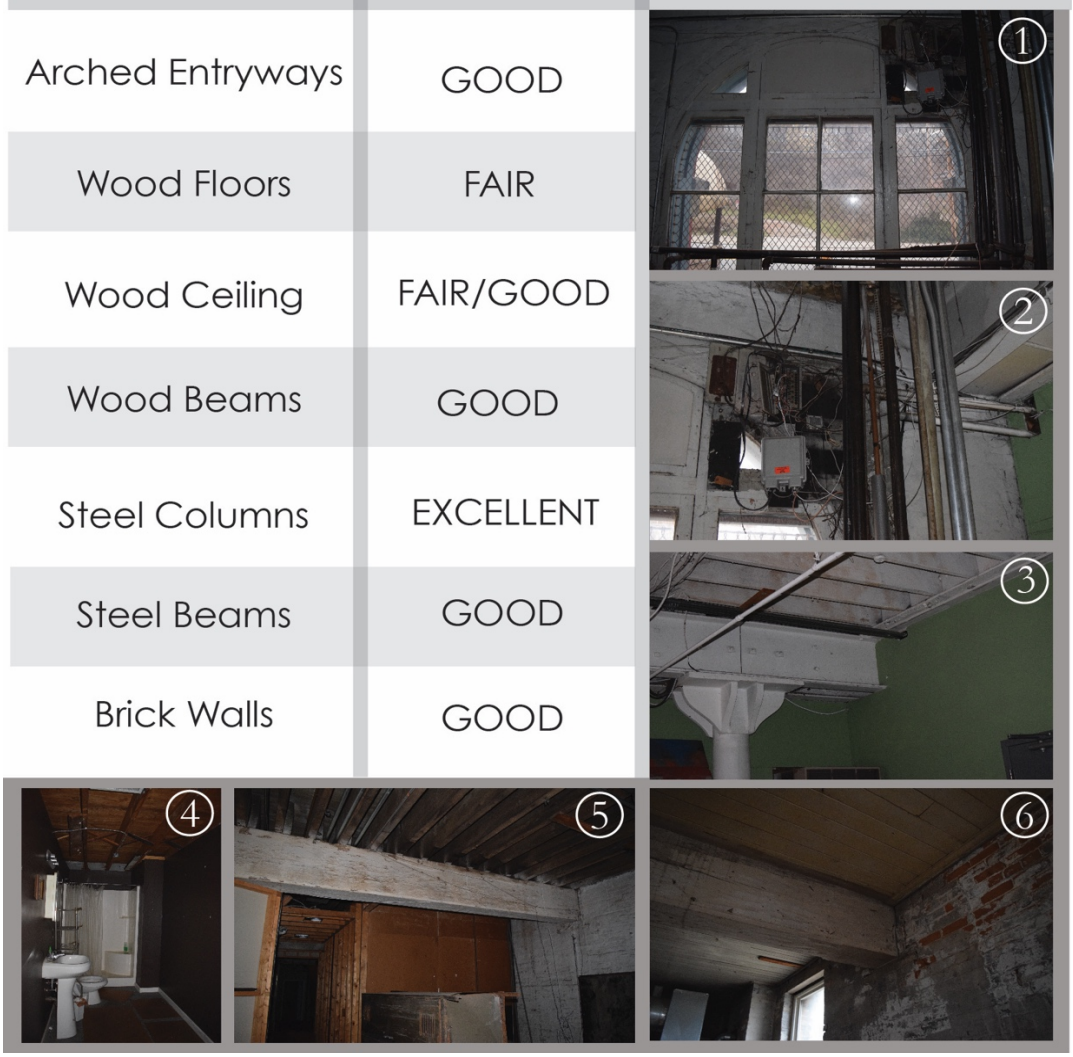


Table 6: Interior Structural Condition in the Mockbee Company Building from the First Floor, Third Floor, and Third Floor Mezzanine. Created by: Deqah Hussein.

INTEGRITY & CONDITION: Reliance Art Metal Co.

Defining Features	Condition	Photograph
Wood Framing	FAIR	
Steel I-Beams	FAIR	
Steel Columns	FAIR	
Ceiling - Cement	GOOD	
Ceiling Tiles	POOR	
Wood Floor	POOR	

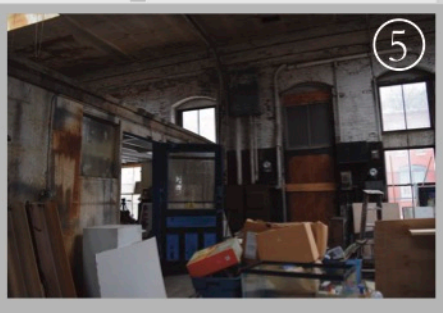




Table 7: Interior Structural Condition in the Reliance Art Metal Company. Created by: Deqah Hussein.

Arched Cellars

The long, narrow arched cellars are of painted brick and stretch the length of the sub-basement and basement levels. There are two of these long, narrow arched cellars, and

both are in good to fair condition due to minor cracks among the brickwork. Furthermore, the narrow arches contain small segmental arched air-passages that rest on the concrete flooring. This can be seen in first photograph on Table 5. These airways are characteristic of arched brewery cellars, serving as the only air ventilation system for the sub-basement. Brick masonry, used to construct the arched cellars, helped keep the sub-basement cool. If the sub-basement was to stay cool, however, there could not be windows in the rooms containing arched cellars.

Framing and Massing

Constructed to hold arched cellars, the Mockbee building is very heavy in massing. Furthermore, brick, concrete and steel were the main structural materials used for the construction of the historic Bellevue Brewing Company building. Seen in the second and fourth image of Table 5, steel beams were strategically placed to hold the load from the masonry ceiling and concrete floors for the level above. In the mid-19th century, German breweries in OTR were growing faster and larger than expected. In the 1960s, when George Klotter commissioned the Bellevue Brewing Company building to be constructed, the space had to accommodate large equipment, artificial refrigeration, and storage for post-production inventory. During this time, the low cost and high tensile strength of structural steel allowed brewers to construct structurally stable, long-lasting buildings. The assessment for the condition of the steel I-beams is determined to be in a fair state because the metal is rusty. In Table 6, the steel columns seen in the second image have been painted to prevent further rusting. These columns are found to be in excellent condition, and have no apparent structural damage.

Walls

The interior wall of the both the basement and sub-basement's arched cellars are clad in brick, have been painted white, and are in good-to-fair condition. All the images associated with Table 5 illustrate the deterioration of the brick cellar walls throughout the Mockbee building. Cracking and water damage are the most apparent of these impairments. While these issues aren't detrimental to the building's structure, they do hinder the overall character of the walls throughout the building, particular in the larger room, facing west. If these damages are left unattended, they could cause structural issues that would likely be arduous and costly to fix.

Flooring

Poured concrete floors are common in historic brewery buildings that strived to maintain particularly cool temperatures in specific areas of the brewery. In the basement and sub-basement's arched cellars, the poured concrete floors in the building are level and intact, with respect to cracks and damages. The concrete floors of the larger room, abutting the west façade, reveal evidence of cracking and patching of these cracks. It was the construction of the Cincinnati Subway System that caused the building to shift, causing misalignment and cracking in areas where the floor meets the wall.[108]

The condition of the poured concrete floors in the building are found to be in good condition. Even though cracks exist, they do not require immediate attention. As a preventive measure, it is suggested that the cracks within the concrete floors be repaired quickly because the cracks will continue to grow longer and larger. If left unmaintained, the

[108] Melissa Kramer, *The Inclines of Cincinnati.* (Ohio: Arcadia Publishing), 2009.

cracks may cause further structural damage to the concrete floors, and the walls surrounding them.

Ceiling

Within the Mockbee building, the ceilings within the sub-basement and basement levels are constructed of brick covered with white paint. In the sub-basement of the Mockbee, the ceiling of the arched cellars is in good condition. The brick ceiling at the basement level is cradled by a series of structural steel framings that help maintain the structural capabilities of holding heavy loads from the floors above. The brick ceiling is in good condition, with only some minor cracking where the steel joints meet the brick.

Fenestration/Windows

From the interior of the Mockbee Company building, the condition of the windows is more obvious. In Figure 45, a variety of window types can be seen within the series of photographs labeled one through six. This section focuses on the interior condition of the windows. The condition of fenestration, or arrangement of windows, was discussed in the Exterior Conditions section of this chapter.



Figure 45: Interior Fenestration. Created by: Deqah Hussein.

Mentioned in the Exterior Conditions section of this chapter, many windows throughout the building have been retrofitted. Most of these windows were barely fit within their rounded arched frames. The first photograph in Figure 45 displays a non-original

window that has been poorly retrofitted, where spray-foam insulation was squeezed between the gap of where the window meets the wall. The second and third photographs show an oversized arched window that was not original. As seen in Figure 46, these arches were originally bricked-in. Today, two out of three of these arches contain a large, fixed windows with a door surrounded by multiple fixed glass panes divided by muntins and mullions.



Figure 46: Exterior Façade at Central Parkway on January 4, 1922. *Source: http://digital.libraries.uc.edu/subway/*.

Seen more clearly in the second photograph in Figure 45, the area around the windows has been subjected to damage. In image three, the cracks are more apparent. Additionally, the bulls-eye window in the fifth image of Figure 45 has developed cracks and chipped paint. The sixth image in Figure 45 demonstrate the disparity in the condition of two paired windows. The window on the right is in fair condition, while the window on the left is in poor condition. Overall, the interior windows in the Mockbee Company building are in fair to poor condition.

Stairs

The wooden staircases within the old Bellevue Brewing Company building were fashioned for functionality rather than aesthetics. Most of the staircases within the building are sturdy and are able to handle sizable loads. The first image in Figure 47 is of a staircase in the Mockbee Company section of the building. Although it has been painted, the structural integrity of the staircase is intact. Although the images in Figure 47 show dirt and grime, the condition of these staircases are good.



Figure 47: Interior Staircases. Created by: Deqah Hussein.

First Floor, Third Floor, and Third Floor Mezzanine

The character-defining features on the first floor, third floor, and third floor mezzanine are listed in Table 6. The photographs in the table illustrate the current condition of each defining architectural feature. These features are the arched entryways, wood flooring, wood ceiling, wood beams, steel beams, and steel columns.

The arched entryways, wood beams, steel beams, and brick walls are all in good condition due to the diminutive wearing of materials. The steel columns have been painted to prevent rusting and are in excellent condition because the steel has no signs of rust or corrosion. The wood ceiling and floors are in good to fair condition, as the forth, fifth, and sixth images in Table 6 show.

In the fifth photo, the wood ceiling shows signs of water damage. It is believed, from conversations with the current building owner, that the roof had leakage issues that were never fully fixed. Now, residual leakage from the poorly patched roof occurs and drips onto the third floor mezzanine, damaging the wood floors, thus the wood ceiling on the third floor.

Reliance Art Company Building

Table 7 illustrates the deterioration of the architectural features in the old Reliance Art Metal Company building. From the wood framing that can be seen in the first image in the table, to the steel beams in the second and third images, character defining features are shown in either poor or fair condition. Here, the wood framing, steel I-beams and the steel columns are in fair condition, while the ceiling and wood floor are in poor condition.

The floorboards throughout the building have been stripped in certain places. In the areas boards do remain, they are warped and have caused the entire floor to slope. The poor condition of the wood floors was likely a result of the heavy industrial use of both the Reliance Art Metal business, and the other manufacturing plants that one held the ownership of the property. The condition of the ceiling is poor, with ceiling tiles peeling apart, exposing the wood framing. The wood frame is in good condition, but does raise some concerns. In images one, two, three, and four in Table 7, it appears that smoke and other pollutants from when the building functioned as a manufacturing plant have damaged the ceiling and wood framing. While the wood framing is still salvageable, the ceiling tiles are not.

The steel columns and I-beams shown in the second image of Table 7 have been identified to be in fair condition because, while they have moderate rust, they have not lost their functional value. As essential parts of the building's structural system, the steel beams and columns are still capable of holding the same weight loads they did in 1919, the last year the building was significant towards the Cincinnati's brewing history. That said, these steel features are capable of being restored to their former beauty.

Recommendations

Many architectural features, described in the previous section were in either poor, fair, good, or fair-to-good condition. This section will reflect on those condition assessments, providing recommendations for the rehabilitation of specific historical architectural features. These characteristic elements are the cornice line, fenestration, ceiling, arched cellars, walls, and flooring. In many cases, recommendations will be comprehensive, meaning that the suggestions for treating, repairing, or replacing these characteristic features can be applied to all windows of a certain type, for example.

Façades: Cornice Line, Recessed Arches, and Ornamentation

It is important to recognize the value of retaining the architectural features of the Bellevue Brewing Company Building's east and west facades. The detailing along the cornice line (corbel tables, parapet roof, and dentils), recessed arches, and ornamentation (keystones and capitals) are decorative features that holistically characterize the *Rundbogenstil* style. These decorative brick features, different in size and form, require individual attention even though some cleaning treatments may overlap. It is recommended that cleaning these masonry features be done with care, and in compliance with the National Parks Service's Preservation Brief no. 1.

Since the primary reasoning for cleaning the architectural elements along the cornice line is to get rid of soot and smoke caused by pollution, it is recommended that only a water cleaning treatment be used, as to not damage the masonry. This process should begin with 'soaking', or misting, the architectural elements with a fine spray, in areas where rain may not reach. The corbel tables and dentils, being under the cornice, are a good examples of an architectural features that collect soot and do not get regularly washed by the rain. Taking the time to spray every section along the cornice line will help remove the dirt and soot that collected over the years. It is recommended to use the 'soaking' or spraying technique for cleaning the capitals and keystones because these ornamental feature are just as fragile as the dentils, parapet, and corbel tables along the cornice line.

The inside of the recessed arches is another *Rundbogenstil* architectural detail that doesn't often get cleaned by rain. The processes for cleaning this feature, however, are different than cleaning the cornice line and ornamentation. The recommendation is to water

wash the areas underneath the recessed arches with pressured water, starting with 100 psi and gradually increasing to 300 psi. When using this method, it may be necessary to scrub the areas where dirt and soot have collected. If it is, then scrubbing needs to be done with either a synthetic natural brush or bristle, as to not abrade masonry façades.

Fenestration

Within the National Park Service's Preservation Briefs for repairing historic windows, these character defining features are said to be 'individually significant,' meaning that they should always be replaced in-kind, retrofitted with care, and treated independently of other windows.[109] As mentioned in the Condition Assessment section of this chapter, many windows in the both the Reliance Art Metal and Mockbee sections of the old Bellevue Brewing Company building were replaced with retrofitted windows. In some cases, like in the basement on the west façade, the windows were not original. Most of these windows, replaced and/or added, were not properly secured into their rounded arched, or bulls-eye frames. Throughout the Bellevue Brewing Company building, there are wood and steel windows. The wooden windows are primarily seen within the Mockbee section of the brewery. Steel windows are common throughout the Reliance Art Metal sections of the building. The retrofitted storm-windows will only be addressed in these recommendations, in reference to the way they fit within their rounded arched frames.

The remaining storm-windows throughout the building only exhibit damage in the form of cracks within their wood frames. To remedy this, and to prevent further damage from cracking, it is recommended to carefully take the storm-windows out of their wood

[109] National Park Service Preservation Brief no. 13 The Repair and Thermal Upgrading of Historic Steel Windows.

frame, and carefully peel or sand off the spray-foam that was inserted between the wood frame and the window. After getting the spray-foam off the frame, the storm-window should be cleaned. Next, the wood frame that hugs the brick arch needs to be evaluated to ensure the storm-window will sit properly when put back. If needed, the wood frame should be repaired or replaced in-kind. When putting the window back in the wood frame, caulking should be done carefully. The goal, here, is to keep the window secure while making the windows look attractive from both the interior and exterior.

The treatments for cleaning and repairing the remaining industrial steel windows should follow the National Park Service's Preservation Brief no. 13, *The Repair and Thermal Upgrading of Historic Steel Windows*. Most of the remaining steel windows are within the Reliance Art Metal Company section of the old Bellevue Brewery. That said, these windows sustained heavy industrial uses that had contributed to the corrosion of the metal frames, muntins, mullions, and rails. It is recommended to try to repair these windows while they are in place, as to not bend any of the metal components. To repair corrosion, it is suggested to sandblast the metal with low pressure, while protecting the window panes and masonry surrounding the window. If there are any parts of the metal that look to be covered in lead paint, it is imperative to take precautionary measures.[110] Sandblasted metals should be quickly repaired and primed. Areas where the metal is exposed to air should be eliminated through patching and sanding. Repairs to misaligned metals should be done carefully, especially if any welding needs to occur. Additionally, any glass panes that need repairs should be done carefully, and those that need replacement should be done in-kind. If any steel windows were removed for repair, it is important to use a durable caulking compound to secure the windows to the masonry, most likely within the segmented arches.

[110] Ibid

Ceiling, Walls, and Floors

It is recommended to repair all holes in the roof that are causing these leakage issues by paying a contractor. Once this is accomplished, further analysis of the wood structure for the third floor and third floor mezzanine of the Mockbee section of the historic brewery needs to be executed to ensure that the wood studs don't contain rot. If wood is rotted, it is recommended to replace the wood, to maintain the character and confirm that these parts of the floor can hold weight. While the type of wood used does not need to be the same as the original wood studs, the size and shape of the wood do need to reflect the historic wood framing. After repairing and/or replacing wood studs, the hardwood and reinforced concrete floors throughout the building need to be addressed.

Any wood flooring that needs to be replaced should be done in-kind. When repairing or replacing wood floors is important to carefully sand and finish the wood, as to not damage the original floor. When replacing wood floors, one should use the same type of wood, in the same size and shape, as the historical elements of the wood floor. Lastly, when finishing the wood floors, any staining compounds used should correspond to the original floor finishes, as to retain the historical character of the wood floor.

Although the cracks in the reinforced concrete floors throughout the building are minimal, the corrosion of steel reinforcements do pose a threat to the structure of the concrete floor system. Fixing these problems first calls for a deep clean, preferably a low pressure (200psi) water treatment to remove dirt and grime from the areas around steel components. Additionally, cleaning concrete will reveal hidden cracks and unleveled surfaces. For repairing the open areas around the structural steel elements, it is recommended to cover the surface with high-performance silicone, which should serve as a

sealant to protect. It is recommended to repair the cracks within the concrete floor by installing a cementations repair mortar that matches the adjacent concrete.[111]

The plaster and drywall on the ceiling in the Reliance Art Metal Company section of the Bellevue brewery require some attention due to its deterioration. In the building, drywall is either missing or falling apart. Although drywall was not a historic material used, the building's architectural character does not rely on the ceiling to be preserved. Instead, a rehabilitation of the building necessitates replacing missing and deteriorating drywall. Here, the recommendation is to use a putty knife to remove dried plaster along the edges of existing drywall and replace each panel of drywall, one at a time. When joining adjacent panels, it is recommended to use plaster as a joining compound. Plaster is susceptible to freezing if used during cold months. That said, the cooler temperatures in masonry building may prove to be problematic, so it is recommended to make sure the temperatures in the spaces where ceiling will be replaced are at a level that will not allow for plaster to freeze. Lastly, is imperative to take measures to protect one's face during the restoration process because plaster dust can be harmful if inhaled. Furthermore, asbestos may be imbedded within the ceiling, which may require the building owner to call in a contractor to do the work.

After assessing the condition of the interior walls of the basement and sub-basement, it has been found that the minimal cracks do not pose a threat to the structural integrity of Bellevue Brewing Company building. Although interior stone arched cellars are not damaged enough to require immediate repair, the recommended treatment for the preservation of the arched stone cellars is cleaning. Using water and a natural sponge, the stone throughout the

[111] The Preservation of Historic Concrete, Paul Gaudette and Deborah Slaton, *National Park Service Preservation Brief no. 15*. 2007.

arched cellars should be gently scrubbed using a plain water washing method, meaning that only water should be used to clean the stone.

HISTORICAL SIGNIFICANCE

The Bellevue Brewing Company building is historically significant towards Criteria "A" and "C" of the National Register of Historic Places. While not currently listed as a historic property in the National Register of Historic Places, the property has the potential to be listed within a historic district, as a building contributing to the broad patterns of history (Criterion "A"). The Bellevue Brewing Company's period of significance is from its inception in 1866 to its demise in 1919. The building contributes to the broad historical patterns of the German-American pre-prohibition brewing industry in Cincinnati's OTR neighborhood. Owned and operated by the German-American Klotter family, as described in *Chapter II* of this thesis, the brewery building is also significant through its association towards enriching the pre-prohibition German culture through social beer consumption.

Furthermore, the building is eligible for listing as an individually significant property under Criterion "C" for the architectural significance of the *Rundbogenstil* style. The building is largely intact and retains many distinct historical features that exemplify the *Rundbogenstil* style. These character-defining features are the corbel tables, dentils, bulls-eye windows rounded and segmental arched windows, recessed arches, underground arched cellars, brick façades, and stone foundations. The historic property holds historical significance through architecture, as it possesses high artistic value and represents distinguishable characteristics towards the *Rundbogenstil* architectural style during the second half of the nineteenth century.

EVALUATING INTEGRITY

Preserving the integrity of a historic property becomes important when creating an adaptive reuse plan for that historic resource. Historical integrity reflects back to historical significance, as it presents the evidence through its seven aspects (location, setting, feeling, design, materials, workmanship and association). Evaluating the integrity of a property reveals whether or not each aspect retains its historical significance. Historic preservation puts value on these seven aspects, which is why integrity needs to be evaluated carefully.

Location

The location of the Bellevue Brewing Company, today, still holds ties to its brewing heritage. During the brewery's period of significance, 1866 to 1919, it was located on Browne Street, which is now West McMicken Avenue. The brewery's location in the OTR is associated with German brewery heritage, because many German-American owned and operated lager breweries throughout the neighborhood. Its specific location near the former Miami and Erie Canal, now Central Parkway, played a major role in the distribution of beer for the brewery. Although the Miami and Erie Canal is now gone, Central Parkway reflects the transportation changes in American history. Although modernization changed the historic landscape around the Bellevue Brewing Company site, it did not completely strip away the historical integrity surrounding the property. The building, never moved, still stands in its historic location on West McMicken Avenue, known during the period of significance as Browne Street; therefore, the site retains excellent historical integrity in respect to its location.

Setting

Constructed on a hill, the Bellevue Brewing Company building's front entrance, along West McMicken Avenue, is a means of egress that leads to the brewery's first floor. The rear entrance is on Central Parkway, which is at the building's sub-basement level. There are steps along the side of the hill to allow for pedestrians to reach West McMicken Avenue from Central Parkway. Purposefully constructed on a hill, the building's means of egress allowed for both distribution and professional undertakings. Intended for distribution, the entrance along Central Parkway, formerly the Miami and Erie Canal, never presented scenic views of the city. From West McMicken Avenue, however, the entryway at the top of the hill presents an impressive view of the Brighton community in the West End.

While in operation, the brewery's popularity necessitated the construction of residential units for brewery workers' housing. Soon the neighborhood became a dense urban setting with row houses surrounding the brewery site. Sadly, a few of these dwellings have degraded to the point of demolition, while many of the surviving row houses have been condemned by the city. Regardless, the character of the brewery building's urban setting remains intact because many of the endangered row houses have not yet been demolished. These blighted residential units exist among vacant properties, marking a socioeconomic decline of the neighborhood. Although these dilapidated properties have hindered the overall aesthetic quality of OTR, the potential for economic regeneration suggests the historical integrity of the site still remains.

Feeling

The distinctive characteristics of the Bellevue Brewing Company building strongly emphasize *Rundbogenstil* style. The building itself evokes a strong feeling of nostalgia, that

brings one back to the time the brewery was open. On Central Parkway, the back entrance of the brewery opens up to the stone arched cellars, emphasizing the magnitude of distribution during the building's period of significance. The panoramic view of the historic building stock around the site prompts visions of the manufacturing plants that used to exist. Even though some sensations are different, the compressive feeling of the Bellevue Brewing Company building site arouses grand perceptions of historic OTR.

Design

The ornamental features of the Bellevue Brewing Company building work together to convey both the functional and visually appealing characteristics of the *Rundbogenstil* style. Rectangular in plan, the brewery building was constructed for utility. Masonry was used to construct the stone foundation and brick façade. These masonry components were used to form the heavy massing of the brewery. The arched cellars were purposefully designed to maintain cool temperatures, as part of the brewing process. These utilitarian features contribute to the integrity of the building's design, which has irrevocably been retained.

On the exterior, the dentils and corbel table along cornice line present textures and decorations that frame the draw the eyes to the highest points of the building. The recessed arches hug the fenestration on the Mockbee Company section of the building, while the fenestration stands on its own on the Reliance Art Metal Company section of the brewery. All of these features contribute to the quality of the building's design. On the west façade, the Reliance Art Metal Company section has some Art Deco elements that do not reflect the period of significance for the brewery building. This does not destroy the historic design, although it does hinder it. Nonetheless, the brewery building has retained its historical integrity, in respect to the design of the character-defining features.

Materials

From the exterior, the stark red brick façade offsets the subtle grayish white stone foundation, as it did historically. The use of masonry speaks to the method of construction used to build the heavily massed building. The use of steel beams and columns in the sub-basement, basement, and first floor can be used to interpret the enormity of those levels. The wood framing on the third floor and third floor mezzanine indicate that those stories did not hold heavy loads like the levels below. The diversity in materials has remained the same throughout time, portraying that the honesty of the materials used during the construction of the brewery building have retained its historical value, thus retaining historical integrity.

Workmanship

The *Rundbogenstil* architectural style is illuminated with the Bellevue Brewing Company building. The fine detailing and ornamentation seen throughout the building's interior and exterior communicates desire to create a brewery that expressed the German heritage of the brewery owners. The brewery building exhibits characteristics that closely resemble buildings of the same style and time period throughout the United States, meaning that the handiwork used to craft the building's decorative features accurately reflect the style. Accordingly, the workmanship of the well-constructed brewery building has retained its integrity over the years.

Association

The direct link that the Bellevue Brewing Company building has to its brewing heritage is represented by the location, setting, feeling design, materials, and workmanship. The brewery building's association to its historical past is defined by all six other aspects of integrity, combined. The integrity of the location and setting are conveyed through intact Italianate residences and industrial historic fabric that surrounds the brewery building. The relationship between the buildings around the site and architectural character of the building itself evokes the feelings reminiscent of the site's historical past. Design and workmanship, reflect the methods used to construct the *Rundbogenstil* style brewery. Material, on the other hand, serve as tangible representations of what was used to construct the brewery. The building's association to its period of significance is expressed through the other six aspects of integrity, providing tangible connections to the property's brewing history. The historical association of the brewery building to its brewing history still remains, indicating that the associative integrity of the property has been retained and accurately conveys their historical significance.

ADAPTIVE REUSE PLAN

In the *Architectural History of the Site* section of this thesis in *Chapter III*, the spatial layout and character defining features of the Bellevue Brewery were described in its historical context circa 1900. This chapter presents architectural plans with overlays that represent either preservation, rehabilitation, and reconstruction. The photographs next to each level's architectural plan calls-out certain character defining features and shows their existing conditions. The architectural floor plans were graciously shared by Jon Stevens, the owner of

the Mockbee Company and Reliance Art Metal Company sections of the Bellevue Brewing Company building. The architectural plans were drawn by Denny Dillinger, a local Cincinnati architect.

The proposed adaptive reuse of the Bellevue Brewing Company building, serves as an example of how a building can be brought back to its original use while, simultaneously, serving as an economic driver. By adopting a business model similar to the Rhinegeist Brewery, reviving the Bellevue Brewery has the potential to bring back the neighborhood's association to the once thriving brewing industry, that once inspired community connectivity between OTR, the West End, and Cincinnati's downtown. It is believed that the adaptive reuse of the Bellevue Brewery building has the potential to turn the site, and adjoining communities, into a place that people from both neighborhoods could walk or bike to, promoting Placemaking.

Sub-Basement Floor

The sub-basement consists of arched stone cellars, in the Mockbee section of the old Bellevue Brewing Company building. There is no sub-basement in the Reliance Art Metal Company section, however (Appendix A). The stone arched cellars are a major character defining feature of the *Rundbogenstil* style building and should be preserved. To adaptively reuse these dynamic space, without harming their integrity, this thesis proposes transforming the left cellar into a small art gallery, where local artists can display their work. It would be best to limit the amount of artists that can display their work, because the idea of this cellar space is to have art catch people's eye after walking through the lobby. The purpose of this is to stimulate conversations and to give people a chance to appreciate the historic arched cellars. Because the left cellar sees heavy traffic, as it is currently the only means of egress,

carefully hanging art along part of the arched cellar wall will help moderate the flow of people coming in and out of the Mockbee Company section of the Bellevue Brewing Company building by making it more than a throughway.

The right arched cellar would best be used for an artist's common space, where people can lounge around, have conversations, or possibly play music together. Since this cellar is not in a high-traffic area, seating should induce relaxation, using sofas, coffee tables, and comfortable chairs. Envisioned as a free-space, instruments that are played in this right arched cellar would generate unique acoustic echoes as sound waves bounce off the heavy stacked-stone cellar walls. Ideally, this common space would encourage people to appreciate the architectural beauty of the arched cellar. The restrooms, located within this arched cellar, should work well with the spatial and social function of the space.

Basement Level

In Appendix B, the architectural plan for the basement consists of both the Mockbee section (left) and Reliance Art Metal Company (right) sections of the Bellevue Brewery. First, the Mockbee section of the building, has three rooms; two arched cellars and another, larger, room. The main room is the large room, which already has a performing arts stage. This thesis suggests improving the stage to make it higher. Improving the room through rehabilitation is encouraged, here. The bar, on the other side of the large room, serves as a place for patrons to get their beverages. The arched cellars should, again, be preserved. Instead of hanging artwork, however, these spaces highlight the stone arched cellars by using different colored lighting to allow for the setting and mood to change at the owner's will. The cellars should serve as a gathering space, where people can comfortably mingle.

This level would serve best as a place for brewery distribution, because of it's large and open floor plan. The right half of the Reliance Art Metal Company section, with the room for bottling equipment, would best be used for preparing beer for distribution. The left half of the Reliance Art Metal section would best serve as a storage area for brewed beer. In this section, the industrial elevator, that is already there, should be fixed so people could bring beer down to the bottling or storage facilities. The Reliance Art Metal Company section of the brewery building necessities full rehabilitation, while the structural steel, industrial elevator, and arched windows should be preserved. When implemented, the adaptive reuse of the Reliance Art Metal Company section of the Bellevue Brewing Company building will reflect its German brewing heritage.

In the brewery, all the beer brewed could be done within a single brewing tank system. Illustrated in Appendix C, there should be three 15 barrel (bbl) brewing systems, each capable of producing between 1000 bbls per year which would equate to 31,000 gallons of beer per year. The specific brewing process here are to begin with malted barley, which are stored in silos. Next, mashing should be done in a Mash Tun. This should entail mixing barley with warm water. This promotes enzyme activation within the barley to convert the grain starches into simple sugars. Subsequently, grain and water mash would be transferred to a Lauter Tun, where the sugar water or 'wort' is separated from the grain husks. The 'wort' would then be pumped to the Kettle. When the Kettle is boiling, hops would then be added for flavor and aroma. After boiling, the 'wort' is then transferred to the Whirlpool, where more hops are added and then separated before sending the 'wort' through the heat exchanger to be cooled on its way to the Fermenter. In the Fermenter, yeast is added which consumes the 'wort' to create alcohol and CO2 or 'beer'. This process takes 2-3 weeks. After

that time the beer is clarified with a centrifuge, then carbonated and stored in a Bright Tank. From the Bright Tank it is then packaged in kegs, cans, or bottles; ready for distribution.

First Floor

It is suggested that most of brewery's production should be done on the first level of the Reliance Art Metal Company section of the building so that the openness of the space can host patrons, allowing them to witness the processes that go into making beer (Appendix D). Rehabilitation should be done to retain the open layout of the space to make it more inviting. The brewing process should be on the far right of the building, keeping production a safe distance away from the seating and gaming areas, which should be located in the center of Reliance Art Metal Company section of the brewery. Two bar areas should give the room balance and allow patrons to not have to wait too long for service. Games like Ping-Pong, Billiards, and Corn-hole would work well with the space. The elevator, steel beams and columns, and segmented arched windows should all be preserved because they help define the *Rundbogenstil* Style.

In the Mockbee Company section, the columns should be preserved, however the rest of the section should be rehabilitated for office and studio use. The office spaces would be useful for the brewery staff. The managers' offices could be located here, keeping the administration close to the brewery facilities. Studios could also be integrated into the Mockbee Company section of the building, which could be rented out to artists to help offset rehabilitation costs and help generate additional income. Furthermore, this thesis recommends creating a doorway to allow for staff to move in and out of both sections of the building.

Third Floor and Third Floor Mezzanine

The Bellevue Brewing Company building's third floor and third floor mezzanine only exist within the Mockbee Company section of the building, as the Reliance Art Company section doesn't exceed the first level (Appendix E). The third floor and third floor mezzanine have served as artist apartments for years, but had to be vacated because of the roof's leaking issues. The ceiling at these levels have been subjected to water damage from the leaking roof and are in serious need of rehabilitation. A considerable amount of rehabilitation needs to be done on these levels before they can be habitable. Furthermore, the historically significant rounded arched and bulls-eye windows should be preserved, along with the brick walls, as to create a holistic feeling on these top two levels of the *Rundbogenstil* style building.

Once rehabilitated, the use and function of the third floor and third floor mezzanine should continue to serve as apartments, preferably at or below market rates, as to encourage inclusivity for people at differing income levels. This integrated approach, coupled with the proposed mixed use of the brewery building should help facilitate a mixed community, where socioeconomic differences no longer serve as barriers to successful community interaction.

CHAPTER VI

REVITALIZATION

This final chapter expounds on the theoretical ideologies of community and regional planning by presenting a revitalization strategy that uses Smart Growth principles to help restore the sense of place OTR had in the nineteenth century. In an attempt to combat gentrification, it becomes essential to employ strategies that rehabilitate and adaptively reuse old buildings, while maintaining affordability for current residents. In short, this thesis presents solutions to the socioeconomic issues OTR and neighboring West End community face, by advocating for the preservation of historic properties from an urban planning perspective.

There once was an undeniable 'sense of place' in OTR. In the mid-1800s, the neighborhood was filled with aromas, such as barley and hops, that were affiliated with the brewing industry. Today, many of those associations have been lost, along with the brewing infrastructure that went along with it. The loss of the brewing industry in 1919 sent OTR down a path of economic degeneration that the neighborhood has never fully recovered from. The decrepit state of these historic brewery buildings, as well as the dwindling physical state of OTR's housing stock, had fragmented the community. The neighborhood still experiences a division of races and the societal improvements, initiated by the Civil Rights Movement, has long been forgotten.

With the bulk of commercial and mixed-use spaces concentrated in the center of the neighborhood, the residential areas along OTR's panhandle are offset by light and heavy industrial buildings. Missing a tangible commercial corridor, this panhandle area has not seen in the way of community investments or economic development. Although the Brewery District, which runs along McMicken Avenue, comprises of many historic brewery buildings,

almost all of these buildings are in need of substantial renovations. With collapsing roofs and deteriorating structural systems, these historic commercial brewery buildings require significant monetary investment just to become habitable again. But, because many of these brewery buildings had been bought and used by manufacturing companies (post-prohibition) they were not well maintained the condition of these properties have degraded.

It is believed that the old Bellevue Brewing Company building has the most potential to reconnect and reestablish a civic identity to the aforementioned neighborhoods, more so than any other abandoned commercial brewery building in Cincinnati, because of its proximity to the West End. The physical divide of OTR and the West End by Central Parkway was much greater than it was during the days of the Miami and Erie Canal. When the canal created a separation of these neighborhoods, the series of bridges spanned the waterway in many locations, facilitating a physical and social connection between the two communities. This thesis poses the question; how can two distinct neighborhoods better socially integrate?

> "…the fact is that big cities *are* natural generators of diversity and prolific incubators of enterprises and ideas of all kinds." – Jane Jacobs in *The Death and Life of Great American Cities.*

In her book, Jane Jacobs goes on to suggest four conditions that must be met, to "generate exuberant diversity" in a cities streets and districts.[112] The first prerequisite is that the district or neighborhood must serve multiple purposes; or at least have the potential through land use zoning variances. Second, the area of city blocks must be short. Third, the buildings in the district should vary in age. And lastly, the neighborhood should be densely populated.

[112] Jane Jacobs. *The Death and Life of Great American Cities.* (Random House: Toronto, Canada, 1961): 151-152.

The area surrounding the Bellevue Brewing Company building site meet all of the abovementioned criteria advocated by Jacobs. The historic character of the OTR presents diversity through the age of buildings, with most single family homes built in a vernacular Italianate architectural style between 1870 and 1910.[113] Although the neighborhood, as a whole is diverse in building uses, the immediate areas adjacent to the site host primarily residential buildings. Through the efforts of the Brewery District Corporation, in partnership with the city of Cincinnati, Urban Design Overlay District zoning laws have been established to improve and stimulate economic vitality and the social character of blighted neighborhoods throughout the city. These zoning practices provide OTR with the opportunity to develop mixed-uses in residential communities through the adaptive reuse of the multitude of historic commercial breweries in the neighborhood.

As an already dense neighborhood, most OTR residents commute to work by walking or using public transportation. City blocks throughout the neighborhood are relatively short except along West McMicken Avenue. The Brighton Approach, a vehicular and pedestrian bridge located near the Bellevue Brewing Company building, is the most accessible overpass that takes Cincinnati residents from OTR into the West End's Brighton community without having to cross Central Parkway's four lanes of traffic (Figure 47).

As a dense residential community, citizens of the West End could, like those living in the immediate areas surrounding the Bellevue Brewing Company building, greatly benefit from having a nearby commercial corridor. This thesis suggests that developing the two separate, yet shared, commercial and entertainment districts, in northwest OTR and Brighton, should work together to help physically and socially revitalize both neighborhoods,

[113] City of Cincinnati, "Major Architectural Styles," http://www.cincinnati-oh.gov/buildings/historic-conservation/major-architectural-styles/

while simultaneously connecting the communities. It is practical to create a relationship between two mixed-use districts, because each community has something unique to provide. With this approach, it is more likely that these two neighborhoods will unite, functioning as an integrated mixed-use district. If done right, this methodology might solve Central Parkway's infrastructure barriers, which have isolated these two communities for far too long.



Figure 48: View of the Brighton Approach from the South. Photo by: Deqah Hussein.

Connecting communities that have been historically displaced by transportation infrastructure is an arduous task that might be better remedied by Smart Growth and city beautification projects. Improving the attractiveness of an area increases its desirability because the aesthetic appeal of neighborhoods aids in drawing non-residents in and make communities more livable for current residents. By using Smart Growth principles,

expanding commercial, recreational, and entertainment opportunities in OTR can stimulate economic growth in the West End's Brighton community because of their close proximity.

Recent developments near the heart of the OTR neighborhood initiated the demolition of many historic properties and constructed new buildings using infill policies, which led to the gentrification of the areas between Central Parkway and Liberty Street (Map 17). By implementing Smart Growth concepts, such as improving multi-modal transportation networks and having the community's best interest in mind, it is possible for gentrification to be avoided.

Cincinnati's hilly landscape presents physical barriers for people moving through the city by foot or bike. The multitude of outdoor staircases that are hidden along the northern edge of Cincinnati's Basin are extremely steep and narrow, often unkempt, and without ambient lighting, which is why they rarely used by pedestrians. Referring back to *Chapter II*, the Fairview and Bellevue inclined plane systems served the OTR community at a time when horsecars and streetcars needed assistance to travel beyond the Basin. Because automobiles have taken over as the primary mode of transportation throughout the United States, Federal, State, and Local governments put money into maintaining roadways, rather than investing heavily in rail systems. With the Cincinnati Streetcar reopening in 2016, the city has begun to restore a sense of place by financing historic transit systems. Although it is highly unlikely that the Cincinnati's historic inclined plane system will be revived anytime soon, it is believed that if reopened, funiculars, or inclines, would be a beneficial towards restoring a historic sense of place in OTR. Furthermore, this utilization of Placemaking has the potential to improve Cincinnati's transit and incite connectivity between the communities within Cincinnati's Basin and the neighborhoods at the top of the hills.



Map 17: Gentrified Areas of OTR. *Source: http://otrmatters.com/.*

Placemaking seeks to integrate public spaces into urban landscapes as a means to foster social interaction and can help rebuild communities with failing economies by bringing people together. Creating tangible links that facilitate physical and social interaction, such as the revival of the inclined plane system, cannot be the only method used connect communities. Placemaking, in the truest form, invites culture and diversity into a community and has the capacity to significantly enhance a community's urban landscape.

Another approach of characterizing a neighborhood through Placemaking is to place historic markers and way-finding signage intermittently along neighborhood streets and in front of the historic Bellevue Brewing Company site. Already being introduced into the OTR, the Brewery District Community Urban Redevelopment Corporation (BDCURC) has positioned historic signs along East and West McMicken Avenue. This initiative has have helped bring back a historic feeling that connects people to OTR's German brewing heritage. Instilling this sense of culture helps further define a sense of place for people in OTR.

Another approach to enhancing a community can be accomplished by 'greening' the urban landscape. By commencing city beautification projects, small patches of green space along Central Parkway could begin to aesthetically brighten the streetscape. Through a community effort, shade trees, shrubs, and perennials could be planted to make the areas along Central Parkway more inviting, where people begin to notice the communities they are driving past. Furthermore, the grassy knoll located next to the Bellevue Brewing Company building site, could become a small park, facilitating community engagement through the appreciation of a pictorial landscape.

Transforming the Bellevue Brewing Company property into a mixed-use building where commercial, office, and affordable residential units work together to create a dynamic

space presents new opportunities for these OTR and West End communities. Adaptively reusing the Bellevue Brewing Company building as a mixed-use space will offer more affordable housing and commercial space, thus creating new job opportunities. As an economic generator, the rehabilitation of the commercial brewery has the potential to bring in new businesses to vacant properties in the OTR and the Brighton community in the West End. Located on the eastern edge of the West End, Brighton has building stock tailored for mixed-uses, which, if rehabilitated, could encourage small retail shops and restaurants to occupy ground level storefronts while introducing mixed-income housing throughout the other levels.

It is, perhaps, a grocery store that is needed most in the northwest portion of OTR and the Brighton community, in the West End. In the West End, there is not a single grocery store within the neighborhood. OTR has one Kroger grocery store, which is located just over a mile and half from the Bellevue Brewing Company site. Additionally, Findlay Market, located directly south of the brewery site in OTR, offers the public a place to get fresh produce and meat, but closes at 4pm most days. For working families in the OTR and the West End, grocery shopping at Findlay Market is not an option. By implementing Smart Growth principles, the lack of an easily accessible grocery store in these communities could be rectified by adaptively reusing an old warehouse or factory into a local grocery store in Brighton. Having a local place to shop for food that is not restricted by its hours of operation would increase foot traffic in the West End and, in-turn, OTR.

As key components of Smart Growth, walkability and access to mass transit should be considered when assessing the potential for economic development in low-income residential communities, such as the communities surrounding the Bellevue Brewing Company building site. If these communities are to improve economically, one must

consider the benefits of transforming them into a commercial hub that entices people from all over the city to visit. Even though the adaptive reuse of the Bellevue Brewing Company building into a brewery and music venue has the capability to invite people from all over the city, it will not be able to drastically improve the social and economic status of OTR and the West End on its own. It is likely that, through partnerships with the city and developers, that these neighborhoods can be ameliorated. Because revitalization often comes with the threat of gentrification, it is suggested that community members be asked to engage in urban planning charettes and form focus groups to ensure their community will not be overtaken by corporate entities and blindsided by an increase property taxes.

As this thesis has argued, merging urban planning theories, such as Placemaking and Smart Growth, with historic preservation practices, like adaptive reuse, can improve the socioeconomic quality of both the Brighton community located on the eastern edge of the West End and the northwestern portion of OTR. However, it is not without an economic generator, like the resurgence of the brewing industry and adaptive reuse of the historic Bellevue Brewing Company building, that these goals can be accomplished.

Adaptive Reuse

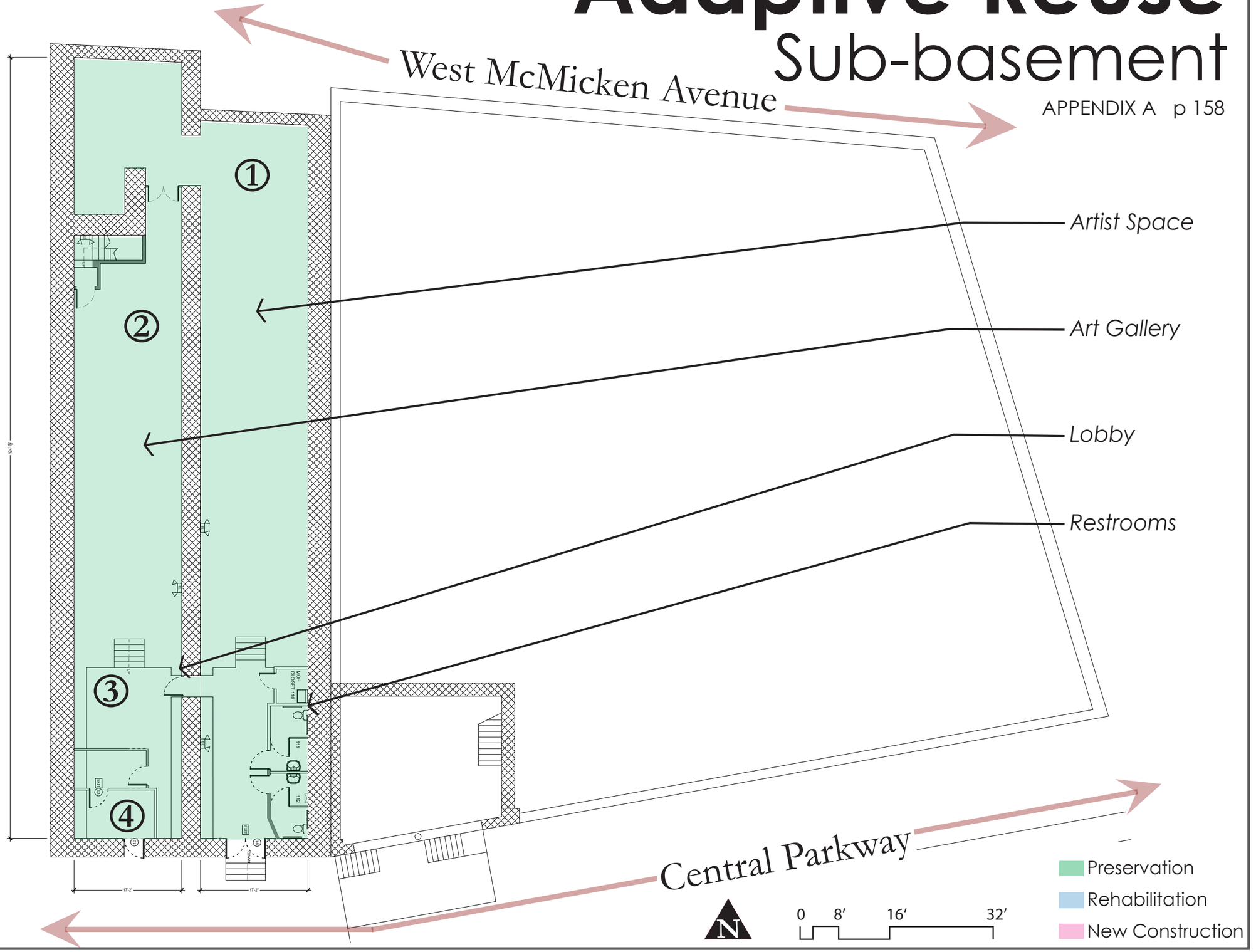
Sub-basement











Adaptive Reuse

Basement













West McMicken Avenue

Restrooms
Seating Area
Elevator
Bottling Equipment
Storage Area
Performance Stage
Doorway
Bar

Central Parkway

Preservation
Rehabilitation
New Construction

N

0 8′ 16′ 32′

Adaptive Reuse

First Floor

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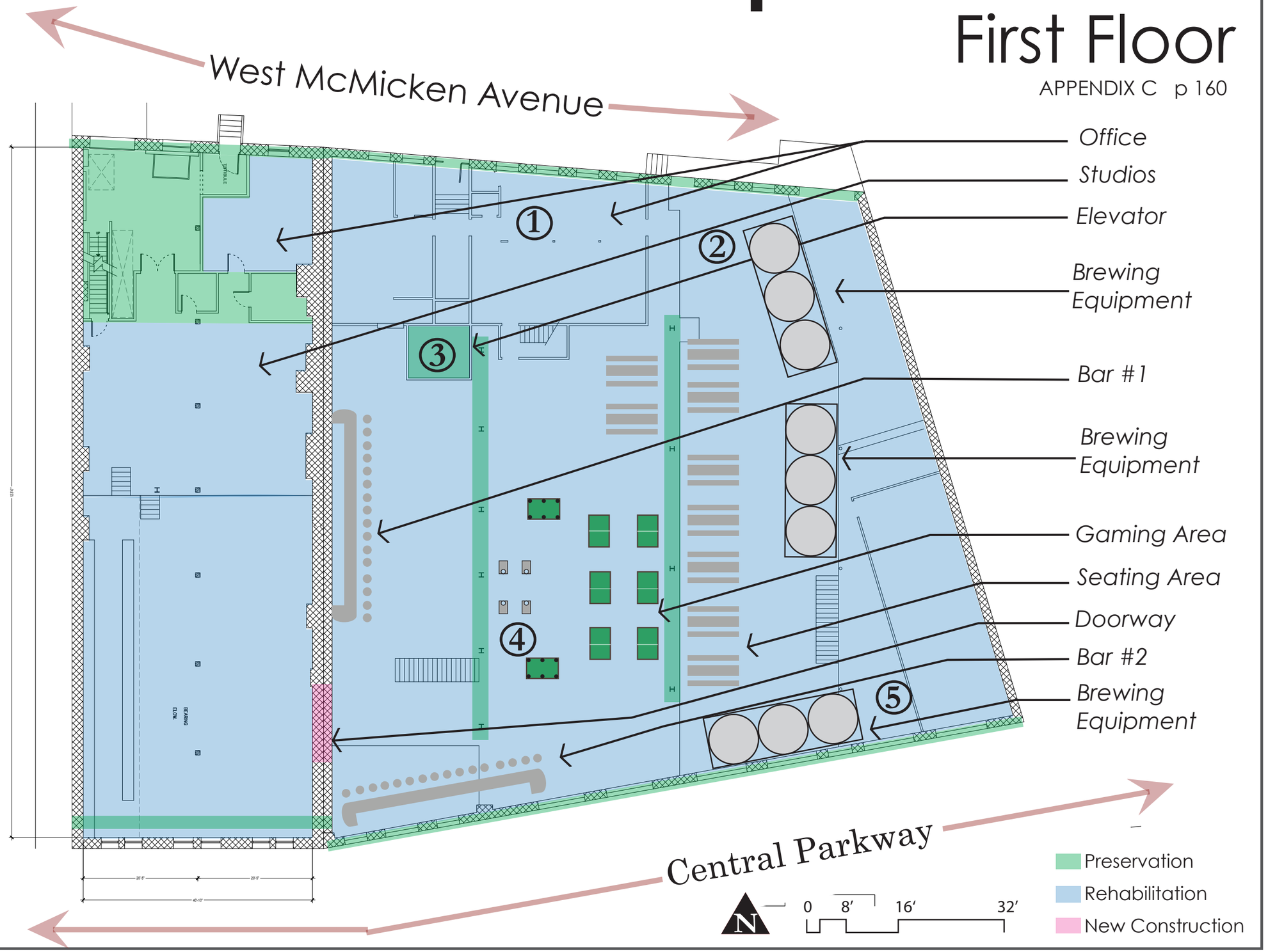






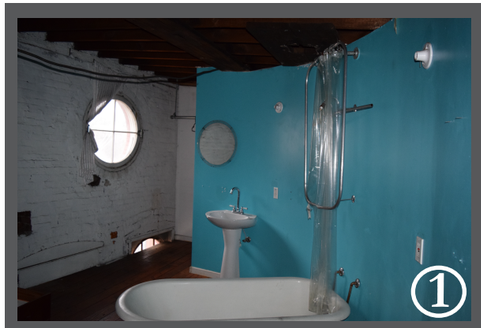






Adaptive Reuse

Third Floor Mezzanine

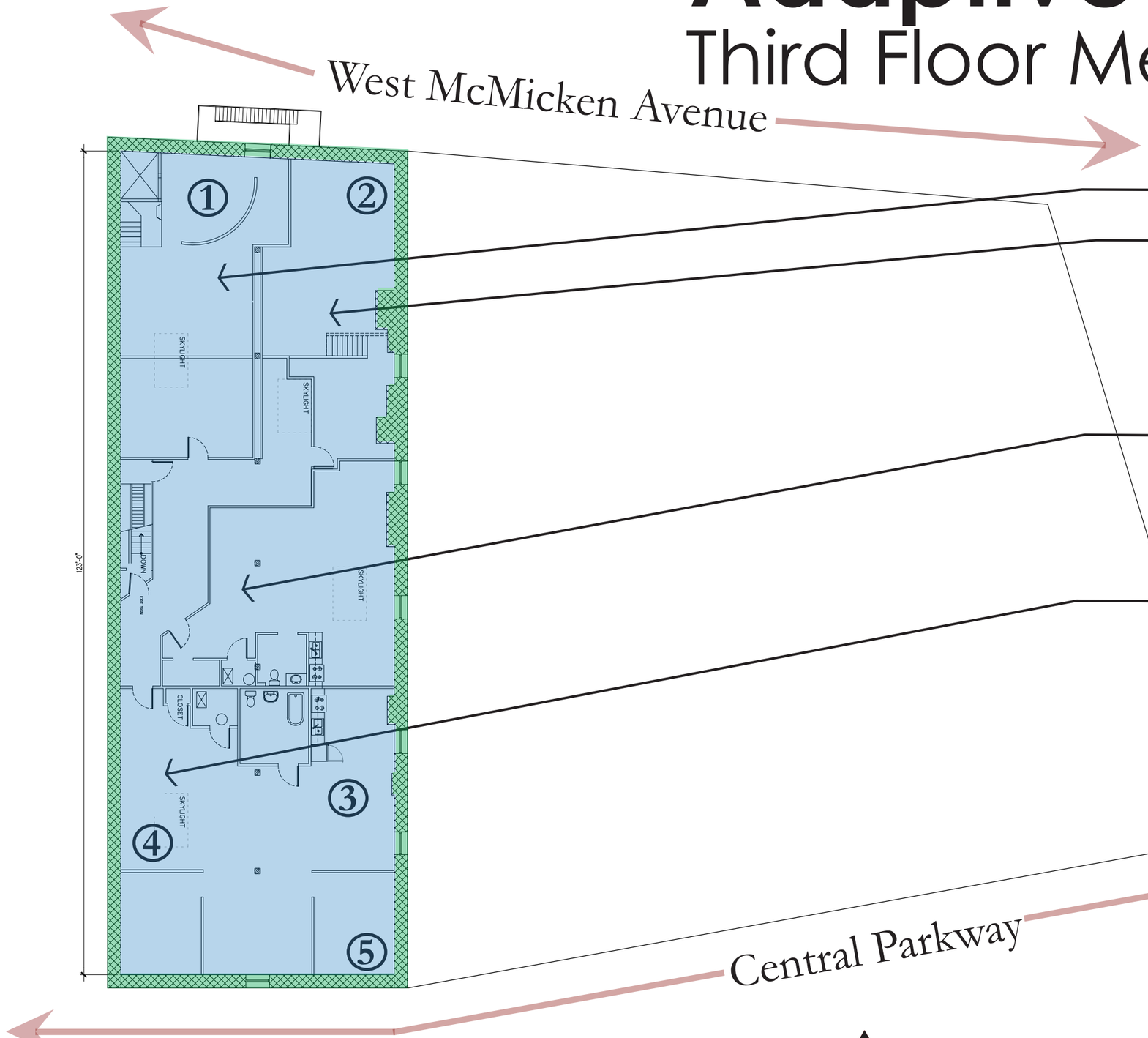












Adaptive Reuse

Third Floor

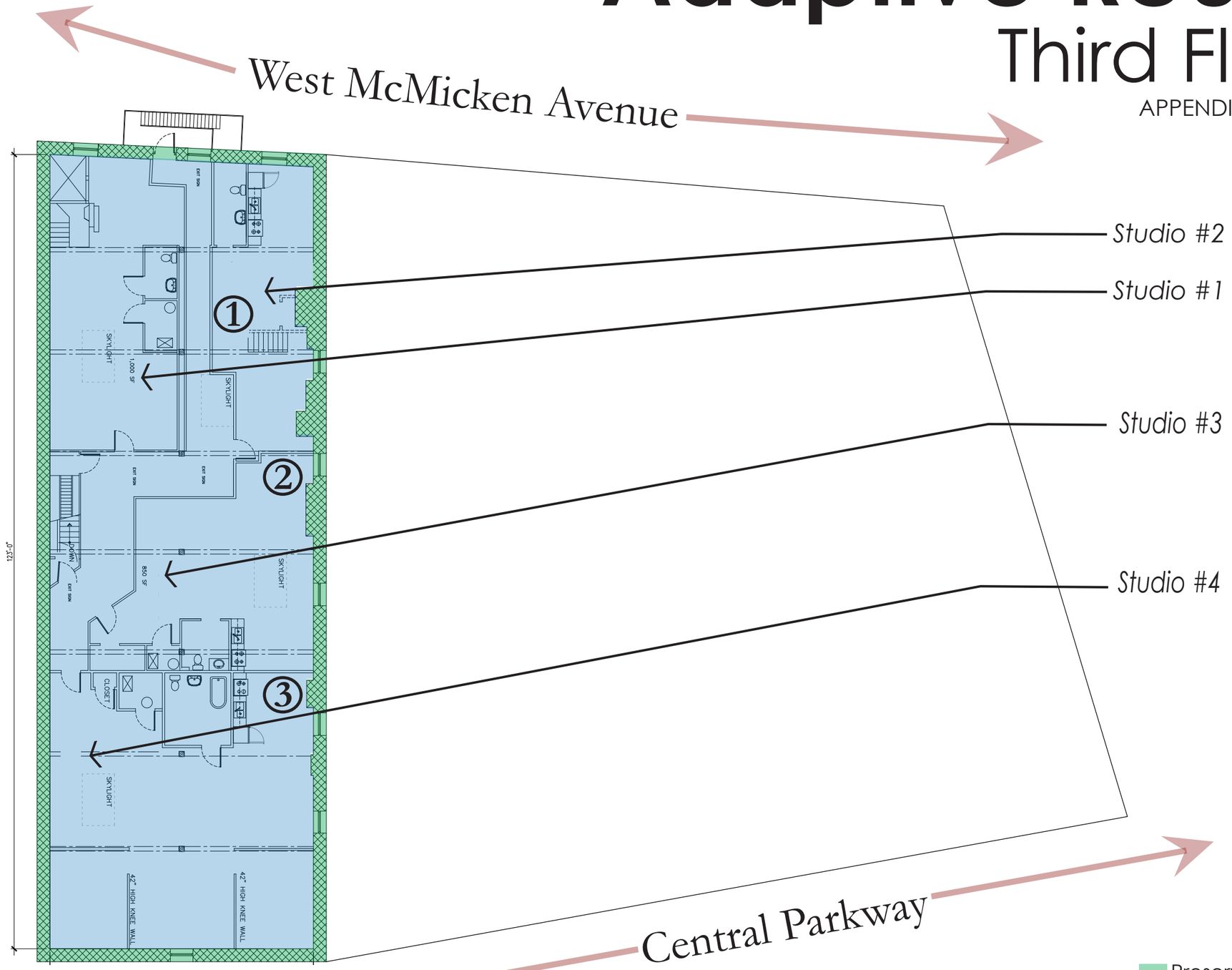
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