

Introduction:

Vinegar Hill is a small neighborhood that appears to be tucked away from the rest of Brooklyn. This enclave is adjacent to the East River Waterfront flanked by the Brooklyn Navy Yard and modern day DUMBO on either side. Characteristically Vinegar Hill today seems to be a sleepy neighborhood that appears to remain attached to a past era. The time in history that it holds onto is the mid to late 19th century. A period in which Vinegar Hill was steadily making its way to a peak in vitality. The Brooklyn Bridge was the catalyst that aided significantly in increasing the popularity and desirability of Brooklyn, which ultimately led to a population boom.

Prior to the existence of the Brooklyn Bridge, the City of Brooklyn and the City of New York were two independently functioning urban centers separated by the East River. There was no consistent means of connection between the two cities. There were ferry landings situated along the waterfronts. However, these ferries proved to be inconsistent forms of transportation that were often out of service due to the precarious temperament of the weather. Due to this disconnect, the City of Brooklyn was forced to establish a self sustaining industrial and commercial center. From careful, close observation of maps, records, and secondary sources, it appears that Vinegar Hill was that site.

Vinegar Hill Prior to the Brooklyn Bridge:

Vinegar Hill, before the construction of the Brooklyn Bridge, had a steady influx of immigrants moving into the neighborhood. During the early and mid 19th century the residential population was primarily of Irish descent. The large number of Irish inhabitants dubbed the neighborhood with the nickname "Irishtown." The Irish population was not limited just to Vinegar Hill. There was a sizable Irish population that extended into DUMBO and Fulton Ferry Landing.¹ Vinegar Hill gained the reputation of being welcoming to immigrants of all backgrounds, predominantly European, which aided in the growth of population.

Looking at plate 3 of William Perris' 1855 map of Vinegar Hill, one can draw a conclusion on the the vitality of the neighborhood at the time by looking at the each individual lot's purpose. The map is used for the purpose of fire insurance.² Due to the function of the map, it provides a legend explaining the use of each lot and the materials used for each building. The lots are color-coded and filled in with "x's" and circles to illustrate what type of structure occupied the lot in 1855. The method of classification demonstrated by Perris allows me to make an informed assumption on the population of Vinegar Hill in the mid-19th century. The red and yellow colored lots were used for either solely residential purposes or for a combination of residential and commercial use. By counting the red and yellow lots, I am able to obtain a rough estimate of the neighborhood's population.

In order for a neighborhood to sustain an exponential increase in residents, there needs to be residential buildings numerous and large enough to house families. In places where large

¹ Reiss, Marcia. *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide*. Brooklyn, NY: Brooklyn Historical Society, 2001. 30. Print.

² "Plate 3: Map bounded by East River, Brooklyn Navy Yard, York Street, Bridge Street" *The New York Public Library Digital Collections*. 1855. <http://digitalcollections.nypl.org/items/510d47e0-c000-a3d9-e040-e00a18064a99>

lots once stood empty and unused, row houses ranging from three to four stories were built. Few of these row houses from the mid-19th century still stand today. On Gold Street there is a row of five houses that are almost certainly the same structures as the ones depicted on Perris' 1855 map. The lots containing the row houses are long and narrow. This is a common trend among many of the residential lots on the 1855 map. The larger lots were divided into narrow lots in order to fit as many buildings as possible. To make up for their narrow width, the buildings were built up to be multiple stories tall. Each building would contain multiple apartment units, making the buildings feel like a tenement.

As mentioned previously, many of the inhabitants of Brooklyn both lived and worked in the same city. Vinegar Hill being located adjacent to the East River, contained much of the industrial and commercial activity found in 1855 Brooklyn. The East River Waterfront was an optimum location for industrial work. It allowed for piers and docks to be built further into the water. The currents of the river could be used for energy purposes. If the machinery were steam powered, it would have been crucial for the factories and warehouses to be as close to the East River as possible. The East River Waterfront remains prime real estate for industrial buildings in Vinegar Hill. While the storage yards, factories, and warehouses of the 19th century are no longer in business, the Con Edison plant has taken their place on the waterfront.

In addition, the industrial businesses benefitted from the transportation the East River afforded them. Being on the edge of the river made it possible for the the industries to receive supplies and ship out goods. However, transportation extended further than being used solely for industrial purposes. Ferry routes from Downtown Brooklyn to Lower Manhattan could be found along the waterline. These ferries were the connection the people of Brooklyn had to Manhattan.

The Ferry Industry:

When looking at the Perris 1855 map, there is a ferry landing on Bridge Street for the Bridge Street Ferry. The ferry was "quietly abolished" by the Union Ferry Company in 1959.³ The Union Ferry Company was a volunteer organization formed by the consolidation of multiple independently run ferry companies.⁴ The reason why the running of the Bridge Street Ferry was discontinued was due to the claims that Bridge Street was not a busy enough street.⁵ The Perris Map concurs with the assertion that Bridge Street was a quiet and lightly used street. The map shows that the lots on Bridge Street did not contain as many buildings when compared to the surrounding blocks. There still remained a significantly higher amount of empty lots on Bridge Street than on other streets in the immediate area.

Despite the Bridge Street Ferry's closing, which was twenty-four years preceding the opening of the Brooklyn Bridge, there were still successfully running ferries along the East River Waterfront. The Fulton Ferry Landing was probably the most used ferry in Downtown Brooklyn.

³ "Ferry Proceedings." *The Brooklyn Daily Eagle* 8 Aug. 1859: 2. *Brooklyn Newspapers*. Web. 5 May 2016. <<http://bklyn.newspapers.com/image/50400463/>>.

⁴ Pierrepont, Henry Evelyn. *Historical Sketch of the Fulton Ferry: And Its Associated Ferries*. Brooklyn: Eagle Job and Book Printing Dept., 1879. 122. Print.

⁵ "The Bridge Street Ferry." *The Brooklyn Daily Eagle* 28 Jan. 1881: 4. *Brooklyn Newspapers*. Web. 5 May 2016. <<http://bklyn.newspapers.com/image/50400880/>>.

Throughout my research, I noticed that numerous names were used interchangeably for the Fulton Ferry Landing. The ferry was commonly referred to as the Old Ferry. As the name suggests, the Fulton Ferry Landing was located on Fulton Street, which is situated in modern day Brooklyn Heights.

It is important to point out that neighborhood boundaries have shifted and divided since the 19th century. The construction of the Brooklyn Bridge as well as the Manhattan Bridge played a role in dividing neighborhoods. For the purpose of examining Vinegar Hill in the 19th century, one must take into consideration that the neighborhood might have extended much further than it does today. My research indicates that many of the secondary sources such as the *Vinegar Hill Historic District Designation Report* writes extensively on the area now considered Brooklyn Heights. This indicates, to me, that Vinegar Hill was once much larger than it is today. Regardless of whether the Fulton Street Ferry was part of Vinegar Hill, it was greatly important to the neighborhood's inhabitants.

In contrast to where the Bridge Street Ferry was located, Fulton Street was a highly used street in Downtown Brooklyn. In the year of 1835, it has been reported that approximately fifty million commuters used Fulton Street.⁶ This is a very large number of people for the 19th century. As the population in Brooklyn steadily grew throughout the 1850s until well into the 1880s, the number of commuters traveling on Fulton Street would continue to increase. With so many people walking on Fulton Street daily, Fulton Street was most likely a commercial hub with storefronts along the streets. With few other connections to Manhattan, people would come to Fulton Street in order to use the ferry to cross over into Manhattan.

Despite the dependency the people of Brooklyn had on the Fulton Ferry Landing, that does not mean that they did not get dissatisfied with its operations. The Fulton Ferry Landing is dependant on the East River. The East River, which is not actually a river, is known to have strong, swift currents that have proved to be dangerous.⁷ At times when the currents were too difficult to navigate, the ferries would not be able to navigate, thus preventing people from being able to cross the East River. Weather had a large deterring effect on the use of ferries. The strong rains and winds would roughen the currents. In the winter when parts of the river would freeze, the ferries would become stuck in the ice. The risk that the ferries would not be able to work had a negative effect on how the people of Brooklyn viewed using the ferries as the primary means of crossing into Manhattan. This dissatisfaction would lead to the immense amount of support the announcement of the Brooklyn Bridge's construction would receive.

Planning and Construction of the Brooklyn Bridge:

As mentioned earlier, towards the mid-19th century the ferries were not a sufficient means of crossing the East River. What the City of Brooklyn and the City of New York needed was a structure that would provide a continual connection of the two cities. That structure would be

⁶ Mauro, Richard Anthony. *Old Fulton Street & Fulton Ferry, including DUMBO & Vinegar Hill Historic Districts*. N.p.: n.p., n.d. 22. Print.

⁷ "EAST RIVER: A TIDAL STRAIT IN NEW YORK CITY." *GC27ENH* (Earthcache) in New York, United States Created by Oiseau_ca. N.p., 25 Apr. 2010. Web. 12 May 2016.
<https://www.geocaching.com/geocache/GC27ENH_east-river-a-tidal-strait-in-new-york-city?guid=6bc2f1d8-a2af-4c30-be7b-68a088650992>.

known as the Brooklyn Bridge. The construction of the Brooklyn Bridge not only required large amounts of money and manual labor but also architectural and engineering ingenuity.

Following the enactment of the legislation for the construction of the Brooklyn Bridge in 1866, the New York Bridge Company was incorporated.⁸ The New York Bridge Company was founded by Henry Murphy, a former politician and owner of the *Brooklyn Daily Eagle*.⁹ What strikes me as unusual is that building the Brooklyn Bridge, which would be considered a public work, was supervised and controlled by a private organization. Typically, the planning, funding, and construction of a bridge would be undertaken by a city or state government. At this time the line between private businesses and corporations and politics was blurred to such a degree that corporations could undertake projects that would normally fall under the responsibility of the government.

The legislature of New York provided the New York Bridge Company with five million dollars worth of stocks to Brooklyn and the City of New York that was to be supervised by their Common Councils.¹⁰ The stocks were divided in the following amounts: the City of Brooklyn subscribed to three million dollars worth of stocks; the City of New York subscribed to one and a half million dollars worth of stocks, and individual investors subscribe to the remaining five hundred thousand dollars worth of stocks.¹¹ The amount of stocks that Brooklyn received is a reflection of their involved stake. Brooklyn had more to gain from the construction of the Brooklyn Bridge than any of the other investors. Brooklyn would benefit the most from being linked to the City of New York. This connection would make the city's current inhabitants happy and it had the potential to influence more people to move to Brooklyn, so that they could easily access the City of New York to work.

Once the New York Bridge Company received a sufficient amount of funding to begin the Brooklyn Bridge project, Murphy, the elected president of the New York Bridge, created the following three committees: the Committee on Bylaws; a Finance Committee, which was temporary; and the Committee on Plans and Surveys.¹² The Committee on Plans and Surveys elected John Roebling as the Chief Engineer. John Roebling was chosen to be Chief Engineer based on the amount of experience he had and the difficulty of the bridge's construction. The plans were to make the Brooklyn Bridge a suspension bridge, a type of bridge John Roebling had constructed twice before with the Niagara Suspension Bridge and the Ohio River Suspension Bridge at Cincinnati.¹³

Unfortunately, despite John Roebling's vast experience building bridges, he died from an accident sustained while on the bridge site. His son Washington Roebling was appointed to Chief Engineer subsequent to his father's death. With the help of his wife Emily Roebling, the Brooklyn

⁸ Burns, Ken. "Brooklyn Bridge Timeline." *PBS*. PBS, n.d. Web. 21 May 2016. <<http://www.pbs.org/kenburns/brooklynbridge/timeline/>>.

⁹ "Corporate Deals." *American Icon: Incorporating Tension in the Brooklyn Bridge*. N.p., n.d. Web. 12 May 2016. <<http://xroads.virginia.edu/~ma03/pricola/bridge/corporate.html>>.

¹⁰ McCullough, David. *The Great Bridge: The Epic Story of the Building of the Brooklyn Bridge*. New York: Simon and Schuster, 1972. Page 119.

¹¹ Neufeld, Ernest. "The Remarkable Roeblings." *Modernized Brooklyn Bridge; Souvenir Presentation of Modernized Bridge*. Official Opening May 3, 1954 (1654): n. pag. *Brooklyn Historical Society*. Print. 20 Apr. 2016.

¹² *Ibid.*

¹³ *Ibid.*

Bridge was completed and opened to the public in 1883. However, the bridge was not finished without controversy. The progress of the bridge's construction seemed to be "unnecessarily slow" to the public who were anxiously awaiting the completion of the bridge.¹⁴ With the delays, came forth rumors and discussions about the alleged corruption of the New York Bridge Company. The organization was heavily involved with William M. "Boss" Tweed who was infamous for his role as a corrupt politician.¹⁵ Because of his position as a major stockholder for the Brooklyn Bridge, the public assumed that there were unduly political influences that were adversely affecting the progress of the bridge. As mentioned earlier, the bridge was being undertaken by a private corporation. There was talk amongst the public for the project to be converted into a public project and overseen by Brooklyn and the City of New York.¹⁶

The anger the public demonstrated over the slow progress of the bridge was the only documented source of dissatisfaction I could find over the bridge. The frustration stems from the facts that the people living in Brooklyn still had to depend on the unreliable ferries while the construction was taking place. This really shows the extent of how important the bridge was to the public in order to make commuting easier. The slow but steady decrease of working ferry landings after the completion of the bridge also demonstrates the dissatisfaction many commuters felt over their service.

The final point of this subheading will address the careful and strategic decision making in regards to the location of the Brooklyn Bridge's entrance on the Brooklyn side. As previously mentioned, Fulton Street was one of the major streets in 19th century Brooklyn. Looking at plans of the Brooklyn Bridge Approach, the intended position of the bridge's entrance was meant to be as close to Fulton Street as possible.¹⁷ Because so many commuters used Fulton Street on a daily basis, it is reasonable to believe that by positioning the entrance as close to Fulton Street as possible, this would result in the highest amount of pedestrians using the bridge.

However, the above was not the only proposed plan. The map showing a proposed extension of Flatbush Avenue to Brooklyn Bridge from an undetermined date, discusses a plan that does not believe Fulton Street is the best place to put the entrance. According to the text underneath the map, with the steady increase of population in the Downtown Brooklyn area, Fulton Street would not be able to accommodate all those people.¹⁸ The disregard for Fulton Street indicates the creator of this plan believed that the street would become obsolete. Instead of using Fulton Street, the desire was to connect the entrance of the Brooklyn Bridge to the not yet built Flatbush Avenue Extension. This plan was not chosen to be used for the Brooklyn Bridge entrance. The Flatbush Avenue Extension was constructed in DUMBO and attaches to the entrance of the Manhattan Bridge.

¹⁴ *Ibid.*

¹⁵ Greenspan, Jesse. "10 Things You May Not Know About the Brooklyn Bridge." *History.com*. A&E Television Networks, 23 May 2013. Web. 21 May 2016.
<<http://www.history.com/news/10-things-you-may-not-know-about-the-brooklyn-bridge>>.

¹⁶ Neufeld, Ernest. "The Remarkable Roeblings." *Modernized Brooklyn Bridge; Souvenir Presentation of Modernized Bridge*. Official Opening May 3, 1954 (1654): n. pag. *Brooklyn Historical Society*. Print. 20 Apr. 2016.

¹⁷ Downtown Brooklyn Development: Box 1 , "Brooklyn Bridge Plaza Plans and Photographs", *The Brooklyn Historical Society*, 1935.

¹⁸ "Map showing proposed extension of Flatbush Avenue to Brooklyn Bridge." The New York Public Library Digital Collections. 19--?. <http://digitalcollections.nypl.org/items/340c4540-d350-012f-2c90-58d385a7b928>

Transportation and the Brooklyn Bridge:

During the 19th century transportation was making great strides. While there continued to be horse-drawn vehicles, there were also elevated train lines, trolleys, and cable cars. Towards the end of the 20th century automobiles began to gain popularity. With the continual advances in technology, the Brooklyn Bridge had to be constructed to accommodate multiple means of transportation. This section intends to show how the bridge was setup for each method of travel and how the bridge continued to adapt in its early years.

When the bridge first opened, the railway on the bridge consisted of one- or two-car trains and were connected to wire cables, which powered them.¹⁹ These trains only worked on the bridge and the passengers would switch to a steam locomotive at the terminals.²⁰ Within a few years of the bridge being opened to the public, traffic exponentially increased. The small trains the bridge used could not keep up with the amount of commuters who needed to use the trains. In order to improve the way the trains ran on the Brooklyn Bridge, the tracks along the bridge were modified to be equipped with a third rail.²¹ The implementation of the third rail would prove useful in the future when larger trains were able to cross the bridge. In addition to adding an additional rail, the steam engines of the trains were switched with electric motors.²² These modifications were able to improve the efficiency of the small trains. The trains remained small in size and could only fit a limited number of passengers. However, due to the decrease in train difficulties, the trains ran at a faster pace and broke down less frequently.

Following the improvements of the small one- and two-car trains, multiple train companies requested permission to operate their elevated trains on the bridge. Permission was granted by the trustees to the Brooklyn Elevated Railroad Company, Kings County Elevated Railroad Company, and the Brooklyn Heights Railroad Company, in addition to other companies, to operate their trains and trolleys on the Brooklyn Bridge in 1897.²³ To accommodate these additional trains the companies laid down another track on the innerside of each roadway for the trolleys.²⁴ These additions were done more than ten years after the opening of the Brooklyn Bridge. This shows that despite the completion of the actual structure, the bridge was in constant need of modification. This does not yet include the changes made to accommodate vehicles.

By 1903, the Brooklyn Bridge roadways sustained enough structural enhancements and modifications to support the following: carriageways on each side, which held the tracks for the trolley cars; railways next to each roadway; and an elevated promenade in the center for the use of the pedestrians.²⁵ The accommodations for vehicles were added much later. The amount of

¹⁹ Neufeld, Ernest. "The Remarkable Roeblings." *Modernized Brooklyn Bridge; Souvenir Presentation of Modernized Bridge*. Official Opening May 3, 1954 (1654): n. pag. *Brooklyn Historical Society*. Print. 20 Apr. 2016.

²⁰ *Ibid.*

²¹ *Ibid.*

²² *Ibid.*

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ "Brooklyn Bridge Opening: Ceremonies and Statistics of the First Great Structure Across the East River." *The Brooklyn Daily Eagle* 19 Dec. 1903: 33. *Brooklyn Newspapers*. Web. 19 May 2016. <<http://bklyn.newspapers.com/image/53856954/>>.

traffic in the years following the opening of the bridge was about fifteen thousand four hundred passengers, which increased to approximately fifteen hundred thousand passengers in the early 20th century.²⁶ The growth in the amount of people who crossed the bridge just eighteen years after the bridge opened was almost ten times the amount of people in 1883. While a lot of the people who used the bridge were not from Vinegar Hill, there is still an indicator of population growth of Brooklyn and the City of New York as a whole.

When the Brooklyn Bridge first opened, people who wanted to cross the bridge were required to pay a toll depending on their means of transportation. The fees in 1884 were as follows: Foot Passengers: 1 Cent; Railroad fare: 5 Cents; One horse or horse and man: 3 Cents; One horse and vehicle: 5 Cents; Two horses and vehicle: 10 Cents; Additional horses, each: 3 Cents; Neat cattle, each: 2 Cents.²⁷ The toll fees were probably put in place to make up for the additional costs of the bridge. The total cost of the bridge was approximately fifteen and a half million dollars.²⁸ This cost was significantly higher than the original five million in stocks that was provided by the New York legislature. There was no doubt that the Brooklyn Bridge would be prosperous. Since so many people used the Brooklyn Bridge on a daily basis the bridge became an investment that eventually paid for itself.

Vinegar Hill Post Brooklyn Bridge Opening:

Following the completion of the Brooklyn Bridge, there was a significant surge in Downtown Brooklyn's population. Vinegar Hill reached its highest population in its history during the 1880s.²⁹ While Vinegar Hill had been a commercial, industrial, and population hub of Downtown Brooklyn since the mid-19th century, the Brooklyn Bridge helped further its vitality. Brooklyn became a more popular borough due to the connectivity it had with the City of New York. People would move to Brooklyn with the intent to live there, but work across the East River. Downtown Brooklyn became the home of millions of commuters.

Three years following the opening of the Brooklyn Bridge, Robinson created a map depicting Vinegar Hill in 1886.³⁰ When comparing this map to Perris' map from 1855, it is evident that the number of lots being used has grown. The amount of white lots, which signified unused property, has diminished. In addition the lots in the 1855 were still relatively large in size. Here in the 1886 map the lots have continued to be divided further into smaller lots. Many of these small, narrow lots are indicated by their color to be for residential purposes. As mentioned earlier, these narrow buildings were tall and contained multiple apartment units in order to accommodate rapid population growth.

In order to sustain Vinegar Hill's rapid population growth in the 1880s, there was also an increase in the surrounding commercial and industrial businesses. By the mid 1880s there were 666 retail stores extending from Vinegar Hill until Fulton Street; 110 liquor establishments; 13

²⁶ *Ibid.*

²⁷ Neufeld, Ernest. "The Remarkable Roeblings." *Modernized Brooklyn Bridge; Souvenir Presentation of Modernized Bridge*. Official Opening May 3, 1954 (1654): n. pag. *Brooklyn Historical Society*. Print. 20 Apr. 2016.

²⁸ *Ibid.*

²⁹ Presa, Donald G. *Vinegar Hill Historic District: Designation Report*. New York, NY: Commission, 1997. 10. Print.

³⁰ "Plate 1: Pier area from the Navy Yard to Clark Street." *The New York Public Library Digital Collections*. 1886. <http://digitalcollections.nypl.org/items/b6d4464a-2b34-a8b4-e040-e00a18062084>

doctors; and 140 factories, warehouses, and supply yards.³¹ Due to the types of employment that was prevalent in the Vinegar Hill area, many of the people were working class. In fact, about 22 percent of men listed their occupation as laborer.³² The women of Vinegar Hill also worked. Most of the employed women were widows who worked as school teachers, in boarding houses, and as grocers.³³ The fact that Vinegar Hill was populated mostly by immigrants who worked in what would be classified as working class jobs indicates that the area was not occupied by wealthy people. Despite the lack of healthy occupants, Vinegar Hill was still a successful and desirable place to live.

However, after the population peak in the 1880s, the population did not remain high. Major events played a role in the now decreasing population of Vinegar Hill. In 1898 Brooklyn and the City of New York consolidated into one unified city. That same year land for the Manhattan Bridge was being taken and cleared, including large parts of Vinegar Hill.³⁴ Blocks containing houses, shops, and businesses were demolished in order to provide space for the Manhattan Bridge. Because of this many people were displaced from their homes and left jobless. In addition, another factor that may have played a role in Vinegar Hill's decreasing population is the use of automobiles. Traveling long distance was made much easier when cars became widely used. This quicker, more efficient type of transportation made it possible for people to live in parts of Brooklyn further away from the bridges and still commute into Manhattan for work. The close proximity to the bridges and the East River that Vinegar Hill provided was no longer a necessity for many people.

Conclusion:

Vinegar Hill has been an important neighborhood during the development of Downtown Brooklyn during the 19th century. There is no doubt that Vinegar Hill has undergone many changes because of the continuous development around it. Vinegar Hill went from being a self sustaining neighborhood in the mid-19th century to a heavily populated area with many job opportunities in the 1880s. The Brooklyn Bridge provided the right amount of connection with the City of New York that made Downtown Brooklyn a desirable place to live. Following the Brooklyn Bridge's opening, Brooklyn became the home of the commuters. Unfortunately, towards the turn of the 20th century with the beginning of the Manhattan Bridge's development, Vinegar Hill's vitality began to shrink. The displacement of so many people and the advancements made in transportation made it difficult for Vinegar Hill to maintain its popularity.

³¹ Presa, Donald G. *Vinegar Hill Historic District: Designation Report*. New York, NY: Commission, 1997. 11. Print.

³² *Ibid.*

³³ *Ibid.*

³⁴ Reiss, Marcia. *Fulton Ferry Landing, DUMBO, Vinegar Hill Neighborhood History Guide*. Brooklyn, NY: Brooklyn Historical Society, 2001. 22. Print.