2019 DESCRIPTIVE CASE STUDY

Rheingold Brewery Redevelopment in Bushwick, Brooklyn, New York

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LINCOLN INSTITUTE OF LAND POLICY

TOPIC

Brownfields, Urban Redevelopment, Urban Design, Non-profit Development Organizations

TIMEFRAME

2000–2019

LEARNING GOALS

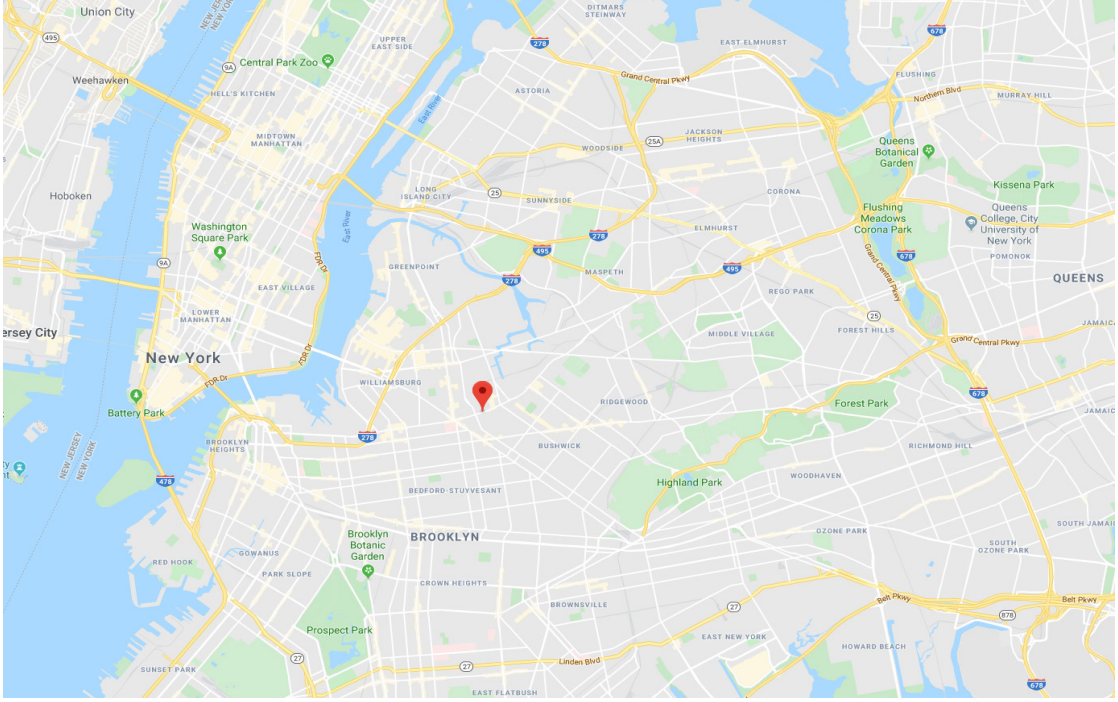
- Understand how a complex, multi-phase urban redevelopment happens over a long period of time—including dealing with contamination, multiple community needs and competing interests, as well as the use and risks of political leadership
- Understand the relationship between redevelopment and gentrification
- Evaluate strategies for promoting equitable and sustainable development in a low-income community

PREREQUISITE KNOWLEDGE

None.

SUMMARY

This case study describes the key elements of Rheingold Brewery redevelopment in Bushwick, Brooklyn, New York. The timeline, funding, zoning, market, and community impact were all discussed. The former brewery was in Bushwick, a low-income, substantially Hispanic, and industrial neighborhood with good access to public transit, while the brewery site itself had been contaminated and long abandoned. Led by a community organization, a local politician, an experienced builder, and city government, the project was initiated by creatively using U.S. EPA technical support. The project required significant remediation and use of a whole range of public and private funding sources for affordable housing and community facilities. Each phase involved different funding, various public-private partnerships, and developers, including planning, community facilities, and a mix of market-rate and affordable housing. Some have labeled the changes in the community gentrification, with the residents of the new buildings somewhat younger and more affluent, yet in other ways similar to, and often from, the existing community. This was a project whose challenges and opportunities changed over time. From overcoming decades of neglect to managing redevelopment and change, this series of Rheingold Brewery site redevelopment projects could teach many lessons.



Location of Rheingold in Bushwick, Brooklyn, New York. Source: Google Maps

DEFINITION OF THE PROBLEM

In 2000, the 6.7-acre former Rheingold Brewery site in Bushwick, Brooklyn, New York, was as desolate as only a once great place could be. For the past 22 years, this property and several adjoining parcels had been vacant, contaminated, strewn with bricks and rubbish, and enclosed by chain-link fence. It was a blight on the struggling Bushwick neighborhood, one of the poorest neighborhoods in New York City, with a growing immigrant population from Puerto Rico and the Dominican Republic.[1] The initial challenge was how the city and community groups in the neighborhood might initiate redevelopment, with limited city and community resources.

In 2010, after the completion of the first development phase in which 500 affordable housing units and community facilities were built, the problems confronting the ongoing development of the Bushwick neighborhood changed significantly. The real estate market was stronger. The second-phase questions related to how the community would manage strong developer interest while providing affordable housing and capturing some of the increase in value for the community. There were additional choices to make about urban design and the most beneficial mix of housing types, services, and community facilities.

Location and History of the Site before 1980

Bushwick had long been a working-class neighborhood in the northern part of the New York City borough of Brooklyn. It was an independent town founded by the Dutch, with largely German immigrants in the seventeenth century; it merged into Brooklyn in 1854 and became part of the New York City–five borough consolidation in 1898.[2] It was bounded by the neighborhoods of Ridgewood, Queens, to the northeast; Williamsburg to the northwest; East New York and the cemeteries of Highland Park to the southeast, Brownsville to the south, and Bedford-Stuyvesant to the southwest.

[1] Bushwick Neighborhood Profile, New York University, Furman Center for Housing and Real Estate, 2017

[2] City of New York, Department of City Planning, Community Board 4 http://www.nyc.gov/html/bkncb4/html/about/history.shtml

Well served by highways and railroads, Bushwick was the home of many industries such as breweries. The site was close to the Flushing and Myrtle avenue subway stations on the M, J, and G lines, the Montrose station on the L line, as well as the Brooklyn Queens expressway. In 1853, the Liebman family started and expanded what became the Rheingold Brewery at Monteith and Stanwix Streets from 1854 to 1933. After Prohibition, there was expansion with an influx of German Jewish brewers in the 1930s, and the brewery adopted the name "Rheingold." With an extensive marketing effort, including the famous Miss Rheingold contest, Rheingold sold 30 percent of all the beer in New York City at its peak in the early 1950s.[3] By the 1960s, the national brands became stronger, Rheingold's popularity faded, and it ceased production in 1978. New York City took the property and demolished the buildings in 1981.

History of the Site, 1981–2002

The 6.7-acre Rheingold Brewery property was vacant, contaminated, and abandoned, which negatively impacted one of poorest sections of New York City. In 1997, largely through the efforts of Brooklyn Borough president Howard Golden, a small triangular outlying parcel to the east, adjoining PS 145, was converted to Green Central Knoll Playground, with ball fields, a recreated rocky stream bed, as well as playground facilities. Otherwise, the site was vacant.

POSSIBLE STRATEGIES AND SOLUTIONS

After 22 years of lying idle, the planning and assessment work and the political support to redevelop the Rheingold Brewery property came together. The City of New York under Mayor Michael Bloomberg led the effort to revitalize the wide swath of struggling communities in central Brooklyn. In 2002, the city and a nonprofit community group, the Ridgewood-Bushwick Senior Citizens Council (RBSCC), led by Vito J. Lopez, a political figure who had become a powerful member and chair of the housing committee of the New York State Assembly, invited the U.S.-German Bilateral Working Group (a U.S. Environment Protection Agency–supported team of experts funded in part by the German Marshall Fund) to conduct a planning study of the 10-block former Rheingold Brewery property and draft a conceptual plan. The city then issued a call for proposals to further develop the conceptual plan, which was won by a joint venture of RBSCC and the Bluestone Organization, a local construction firm experienced in the development of affordable housing. Many challenges remained, including getting approvals from city and state agencies and funding from lenders, and resolving brownfield issues delineated by the U.S. EPA brownfields assessment.

[3] Spellen, Suzanne. "'My Beer Is Rheingold, the Dry Beer' - the Beer, the Brewery and the Bruhaha," May 2, 2016. https://www.brownstoner.com/history/rheingold-beer-brewery-brooklyn-bushwick-history/.

Vacant Rheingold Brewery Site, 2002
Source: Lee Ilan

SOLUTION AND IMPLEMENTATION

The first phase of the project was a coordinated effort by the city government; the community organization, RBSCC; and its partner, the Bluestone Organization. Utilizing multiple financing sources, primarily affordable housing and other incentives from state and federal agencies, this opportunity was attractive to all partners. This team pursued a strategy that encouraged community engagement and urban design; it built upon the conceptual plan drafted by the U.S.-German Bilateral Working Group.

After multiple revisions, the final plan included over 2,000 units of mixed-income housing and used a variety of federal, state, and city housing programs including mortgage subsidies, tax credits, and other incentives from a number of agencies, specifically the New York State Division of Housing and Community Renewal, the New York City's Department of Housing Preservation and Development, and the NYC Housing Development Corporation. The redevelopment of the abandoned, 10-block former Rheingold Brewery site, begun with the conceptual plan by the visiting Bilateral Brownfields international working group experts, has gone through multiple phases to result in over 2,000 units of mixed-income housing and become an important component of Bushwick's revitalization.

In 2003, Assemblyman Lopez said, "When you take empty lots and you put in housing and a community center, it shows hope. This is one of my highest priorities. It is so important to the vitality and the revitalization of this community."[4]

[4] lLopez, Vito, "Transforming Landscapes", Ridgewood Bushwick Senior Citizens Council (now Riseboro) brochure, 2003.

German-American Bilateral Group visit in 2002 with Assemblyman Lopez, the tall gentleman in the center.
Source: Lee Ilan

Zoning

Most of the former Rheingold Brewery site had been zoned R7A for decades, before recent development activity. This zoning generally allowed the residential development as proposed, and BRSSC gathered Community Board approval and city agencies' support for affordable housing projects. The contextual Quality Housing regulations, first adopted in 1987 and modified in 2016, were mandatory in R7A districts and typically produced high lot coverage, seven- to nine-story apartment buildings that blended with existing buildings in many established neighborhoods. The floor area ratio (FAR) in R7A districts was 4.0. Above a base height of 40 to 65 feet, or 75 feet if providing a qualifying ground floor, the building had to be set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 80 feet, or 85 feet if providing a qualifying ground floor. In order to preserve the traditional streetscape, the street wall of a new building could be no closer to the street line than any adjacent street wall but need not be farther than 10 feet. Buildings had to have interior amenities for the residents pursuant to the Quality Housing Program. Off-street parking was not allowed in front of a building.

Off-street parking was generally required for 50 percent of a building's dwelling units, but requirements were lower for income-restricted housing units (IRHU) and were further modified in certain areas, such as the Transit Zone and Manhattan Core. Much of the Rheingold site also had a C2-4 overlay, which allowed commercial use on the street level, aimed at encouraging a lively street. Redevelopment projects were regularly reviewed by New York City Planning staff and the Brooklyn Community Board 4, even though zone changes and the city's full Uniform Land Use Review Procedure were not required.

Brownfield Remediation

The environmental assessment of the initial parcels was facilitated by a 1998 U.S. EPA $200,000 Brownfield Assessment grant to New York City, and the property was designated a brownfield. The New York City Office of Environmental Remediation applied for this funding to start a cleanup, without a specific site plan, but with the residential zoning in place. The property was contaminated because of the former brewery and also adjacent former auto repair and other industrial facilities. Contaminants in the historic fill included PAHs (Polycyclic Aromatic Hydrocarbons from coal tar) and metals (lead). The New York State Department of Environmental Conservation Approved Remediation Plan required removal of most contaminated soils (hot spots) and encapsulation with paving, two feet of soils, and durable woven fiber covering to prevent volatilization. The U.S. EPA grant was a critical early step, allowing assessment of the site and the Bluestone Organization to work with its consultants as well as city and state agencies to design and implement this cleanup effort before other brownfield programs. According to Eric Bluestone, partner at the Bluestone Organization, "The Rheingold project is a testimony to the power of community and local government to work with private developers to transform a neighborhood through big thinking, bold ideas, and dedication. The remediation provided an impervious cap that needed to be both cost-effective and guarantee the safety of residents."[5] Bluestone fully understood there would be no project without a certified cleanup.

The later phases of redevelopment were parking lots and ancillary facilities for the brewery and generally involved land that was somewhat less contaminated than the core property. These sites went through New York City's Office of Environmental Remediation innovative Voluntary Brownfield Remediation Program, authorized by and maintaining the same cleanup standards as the New York State program. While not providing the lucrative tax credit advantages of the New York State Brownfield Cleanup program, the New York City program offered a faster process for these lightly contaminated properties. The development team chose to handle and pay for remediation of these lightly contaminated sites as part of the development, obtaining a certificate of completion as expeditiously as possible, often being able to synchronize remediation and construction.

Design and Development

The first phase of Rheingold Gardens consisted of 57 two-family townhouses, 4 three-family units, and 30 condominiums providing affordable housing for 153 families. The design by Magnusson Architects fit comfortably into the Bushwick residential context. The joint venture of RBSCC and the Bluestone Organization cobbled together the $22 million in financing from government agencies, including the New York City Housing and Preservation Department the Housing Trust Fund, and the New York State Division of Housing and Community Renewal. Putting together the phase-one complex multisource funding was a challenge for the project team; Bluestone's experience and the political clout of Assemblyman Lopez were helpful.

[5] Bluestone, Eric, Partner, Bluestone Organization, private developer/construction company of Rheingold Gardens, Phases one and two of Rheingold redevelopment, Interview, May, 2019 and website .http://www.bluestoneorg.com/rheingold-gardens-2/

Rheingold Gardens Phase One townhouses. Source: Bluestone Organization

Coordination, especially the timing of commitments and actual funding so construction could proceed expeditiously, was crucial. The Bushwick community was largely supportive, if skeptical, and was kept involved by the RBSSC.

The adjoining phase two, 93 affordable apartments in two six-story towers, quickly followed. A green roof (vegetation over multiple layers that conserved energy and stormwater) was supported by funding from Viridian and Earth Pledge.

The project, said Ana Gonzalez, chairperson of Community Board 4, "'means an eyesore full of debris will be turned into beautiful homes that the community will come back to where people won't be afraid of walking the streets."' She continued, "You already see people taking pride... If you go down Bushwick Avenue, you see that some storefronts have already been renovated. Opposite the site, there is some tree planting." In the end, "this was the dream of many people,"[6] she said.

RESULTS

Phase One, 2000–2010

The initial Rheingold Gardens project was awarded a 2005 prestigious US EPA Phoenix Award for outstanding brownfield redevelopment. Other awards included the Building Brooklyn Award, 2006; the NYC Brownfield Award from the Partnership of Brownfield Practitioners, 2009; and the National Home Builders Association for Innovation in Workforce Housing Award, 2004. Renamed Riseboro, the nonprofit organization went on to complete seven more projects in and around Rheingold: 533–555 Bushwick Avenue, Rheingold Partnership

[6] Gonzalez, Anna; as quoted by Dennis Hevesi in "Something Brewing in Bushwick, New York Times, June 29, 2003.

Homes, Rheingold Gardens at 533–555 Bushwick Avenue, Renaissance Estates at 9 Noll Street, Bushwick Gardens at 68 Garden Street, Rheingold Heights One at 87 Melrose Street, and Rheingold Heights Two at 61 Melrose Street. In total, Riseboro provided over 500 units of affordable housing in this location and was the first brownfield site in New York State to be redeveloped with 100 percent affordable housing. In addition, there were now over 20,000 square feet of community facility space, over 20,000 square feet of retail space, as well as a public park, largely paid for as part of the development projects, with limited direct government funding for public amenities.

Phase Two, 2010–2019

During to the recession of 2008–2010, there was little development on or near the site, but several local developers, given the booming residential real estate market in New York City and especially in nearby Williamsburg, acquired land parcels nearby, most formerly used as parking by or near the Rheingold Brewery. The financial and regulatory realities of building new market-rate housing in Brooklyn and making use of available city tax abatement programs (called 421a) resulted in modern and creative designs to attract younger tenants and were required to have 20 percent to 30 percent affordable housing. While the basic R7A zoning was in place, there were numerous negotiations between developers and the local Community Board and city agencies regarding community facilities and the number and type of affordable units for each project. New York City had a complex set of reviews and guidelines, carefully implemented by the city Planning (including the local Community Board) and Housing, Preservation, and Development agencies that required that housing units be of various affordability levels (from very low income to moderate income to market rate) and required community facilities. There were also detailed reviews of community facilities, some required under city regulations.

The political context had changed, with the adjoining Williamsburg neighborhood becoming an example of gentrification, raising local concerns. Assemblyman Lopez, who, after accusations of personal inappropriate behavior had been censured, resigned in 2013 and passed away in 2015. The RBSSC nonprofit had been closely identified with Lopez, its founder, but was not directly involved in the accusations and continued to provide community services. As Riseboro, and under new leadership, the current organization revitalized its senior center and social services as well as affordable housing functions.

By 2010, developers were ready to undertake larger projects, which included market-rate units and a proportion of affordable units. One developer (Read Management) acquired the Monteith Street parcel, secured land-use approvals, and then sold the property to the Rabsky Group, a low-key but financially capable firm in the nearby Williamsburg orthodox Jewish community. The Rabsky Group selected the architectural firm ODA, led by Eram Chen, to design what was

dubbed "The Rheingold," at 10 Montieth Street. The iconoclastic architects created one of the most distinct facades in the city, with a sloping rooftop, cascading terraces, and window frames in a pattern of yellow, orange, and red. The seven-story building contained 500 units of studio, one-bedroom, or two-bedroom residences and 20 percent of the units were affordable. There were other sustainability features reflecting a new level of design creativity, especially the distinctive roof with gardens and an amenity-filled inner courtyard.

Eran Chen AIA, the lead principal of ODA, is an Israeli-born designer with an international team that completed striking projects worldwide. He said of his two Bushwick projects, The Rheingold and Denizen: "It's a bit like overlapping the NYC grid with an old European city—instead of organizing some buildings on an empty lot, we carve public and communal spaces out of a solid mass, creating a network of pedestrian streets and courtyards framed by commercial and amenity spaces. The result is a true departure from the systematic, dead-end live-work boxes into a three-dimensional living experience. This project takes our notion of 'unboxing buildings' and applies it on a city scale. Denizen was an innovative offering that created a strong sense of community while providing the kind of housing forms we and lifestyle we all dream of."[7]

Stephanie Cancel, an organizer with Churches United for Fair Housing, disagreed with Chen: "To say that you are going to put a European Village in the middle of an impoverished community that's mostly Black and Latino, we know exactly what's happening: It's gentrification."[8]

Denizen, another large development at a former Rheingold Brewery site, consisted of two towers at 54 Noll Street, totaling 900 rental units. The developer, All Year Management, another substantial but low-key firm based in nearby Williamsburg, had extensive discussions with the Community Board. About 20 percent of the units were affordable. The first tower, a highly modern design, of 444 units was completed in 2018, including community facilities, while the second tower was still under construction. Several other development projects extending out from Rheingold were also proposed.

New York Magazine's architecture critic Justin Davidson praised ODA's ingenuity but also commented that "to the passerby, the Rheingold site looks like an urban rarity, a clean slate, but in fact every long fallow acre in the city is a battleground, especially in a neighborhood where crime, rents, and construction are all disconcertingly high."[9]

Across the street on a former Rheingold parking lot was another Rabsky development, the Stanwix, with 130 units, 41 of the units were affordable, designed by ND Architecture and opened in 2018. These self-described "smart" buildings featured electronic home controls

[7] Chen, Eran July, 2017. https://www.6sqft.com/from-rheingold-brewery-to-the-denizen-inside-bushwicks-most-unique-rental/

[8] Cancel, Stephanie, Churches United for Fair Housing, QNS June 6, 2018. https://qns.com/story/2018/06/06/protesters-rally-front-controversial-housing-development-near-ridgewoodbushwick-border/

[9] Davidson, Justin; Can We Get Development in Bushwick Right? New York Magazine Column, August 8, 2016

ODA "The Rheingold," design and construction as of April 2019. Source: ODA

(Amazon's Alexa), other automation such as a computerized concierge that accepted deliveries, and other amenities clearly aimed at younger tenants.

All of these second-phase developments, 2010 to the current day, were conventionally financed and in the legal form of a limited liability corporation. The developers put in varying levels of equity and often personal guarantees on construction loans. There were generally equity partners as well as lenders, some local, others more aggressive nonbanks such as hedge, equity, and even international funds seeking greater returns. The later projects received environmental approval through the new programs of the New York City Office of Environmental Remediation, rather than the lengthy New York State Brownfield Cleanup despite its lucrative tax credit program. While the remediation standards were the same and the NYC program provided no financial benefits, it was much quicker.

Rabsky and other local developers acquired privately owned sites in or near the former brewery. The existing R7A zoning with Quality Housing requirements actually increased the allowable FAR and also required between 20 percent and 30 percent affordable units and community facilities. Many projects qualified for the citywide 421a real estate tax abatement, without which real estate taxes would take a very high 35 percent or more of an apartment building's operating budget. Of the close to 2,000 units built after 2004, nearly 40 percent were affordable, at least for the 60 percent Area Median Income level, including all of Riseboro's 500 units. The reuse of the total Rheingold Brewery site brought an influx of new restaurants and other businesses. Market rents rose more quickly in Bushwick than the significant increases in the city overall, but so had incomes, and both started at low levels and remain below citywide medians.

ANALYSIS AND EVALUATION

The initial design concept for redevelopment was a catalyst, illustrating the power of a plan. After years of lying idle, the planning, assessment, and political timing came together, and the City of New York issued the request for proposal, won by a joint venture of RBSCC and the Bluestone Organization, which dealt with brownfield issues and, partly due to available funding, started with 57 two-family townhomes that offered affordable homeownership opportunities as a strategy to build a community.

Phase one of the Rheingold Brewery redevelopment deservedly won numerous awards, locally and nationally. The 2003 international planning study done in cooperation with the city and a community organization was a catalyst. From the condition of the site at that first visit to the phase-one construction on the site resulted in a legitimate transformation.

Phase one of Rheingold showed how the redevelopment of a challenging brownfield site in a low-income, minority community was redeveloped with a combination of vision and political clout, and largely public funding for remediation and affordable housing development. The success of the first phase, including affordable housing, full occupancy, and a traditional design reflecting community norms, along with a rising real estate market, attracted more developers. Rheingold was again a brand, now for real estate rather than beer. Ironically, there were a half-dozen local craft breweries within a short distance of the Rheingold site.

Phase two (after 2010) of the Rheingold redevelopment reflected strong market changes in the area and the success of the phase-one redevelopment in establishing a viable residential community. Private real estate developers were willing to invest in new projects, utilizing available tax and zoning incentives that required the provision of 20 percent to 30 percent affordable housing and community facilities. These developers and their architects also utilized sustainable and innovative design as well as amenities aimed at attracting market-rate tenants.

The Rheingold redevelopment began with a community-based organization that also was the nonprofit developer of the first phase. Many of the later phases were done under New York City Zoning "as of right" provisions that provided limited opportunity for an increasingly active local Community Board to voice concerns. Much of the former brewery site was transformed with a series of housing developments with 2,000 units; the first buildings, ultimately 500 units, were developed by a nonprofit and were all affordable. The later buildings featuring striking design, amenities, and sustainability features were generally 70 percent 80 percent market-rate and were home to over 3,000 residents.

Demographics and Gentrification

In recent years, New York City Planning and Community Board 4 continued to review and generally support mixed-use housing and improved community amenities, with a greater concern about potential gentrification and managing proposals from private developers.

While some believed there was already gentrification in Bushwick, many residents welcomed the changes; the neighborhood was safer, cleaner (including in environmental quality), and more attractive, with more amenities. Bushwick was still relatively low income compared to New York City as a whole, and was a community concerned about and open to affordable housing. According to the most recent (2017) figures from the NYU Furman Center 2017 Neighborhood Survey, there were about 140,474 people in Bushwick, 5.6 percent of the population identified as Asian; 17.0 percent as black; 53.9 percent as Hispanic; and 21.5 percent as white. The median household income in 2017 was $51,622, about 17 percent less than the citywide median household income ($62,040). The poverty rate in Bushwick was 27.1 percent in 2017 compared to 17.9 percent citywide. These figures supported the fact that while there was a change in Bushwick, there was still poverty, as noted by community organizations as well in the media, such as by architectural critic Justin Davidson, noted above.

Bushwick had been a predominately Hispanic community for at least 30 years, comprising primarily people from Puerto Rico, the Dominican Republic, and more recently, Central America. Hispanics were reported to be the largest group in the new apartments at the Rheingold Brewery site, but there had been a small decrease in the black population and a small increase in residents who self-identified as white. There was little incentive for 100 percent affordable housing, perhaps related to the several public housing projects nearby that shared well-publicized problems with New York City Housing Authority projects throughout the city.

This was a community striving to improve but concerned about affordability.
The newer private development sites were on largely vacant land, so did not involve any record of direct displacement or indirect displacement due to rising rents. The ethnicity of Bushwick had not changed a great deal. Who the developers chose as architects and the designs created reflected their ambitions and, to some degree, the direction they saw for the community and the market. The innovative design and modern features of the newest projects were clearly aimed at younger, more sophisticated, and affluent tenants, with rents averaging at $2,400 a month for a one-bedroom apartment, less costly than those in Manhattan or Williamsburg.

LESSONS LEARNED

The initial redevelopment of the Rheingold Brewery, a contaminated and abandoned property in a low-income minority community, required a bold, unusual first step. To take advantage of an opportunity to bring a group of international experts required a strategic effort by the municipality, a community nonprofit, and an elected official. That initial improvised sketch plan was a catalyst to start the redevelopment process.

Implementing the first phase benefited from the partnership of the nonprofit with an experienced affordable housing developer and builder and from the political support of elected officials, as almost all the funding was from public and foundation sources. Design played a key role in the history of the Rheingold entire redevelopment. The initial, innovative concept plan by an international team helped initiate the process. The design of the initial phase was modest, comfortable architecture. The later design phases were far more cutting edge, reflected more of the current focus on sustainability, and appealed to a market that wanted amenities such as gyms and gardens.

An ongoing challenge after the initial development was to select and control development to capture value for the community. There was significant community support for a wide range of housing options, ranging from affordable to market-rate housing as well as increased commercial and community amenities. A serious challenge was how to provide affordable housing and generate community among the disparate old and new residents. The New York City Planning and Housing and Preservation departments were (as of spring 2019) in the midst of creating a new neighborhood plan for Bushwick. The proposed plan did not propose rezoning for the Rheingold site, but did recommend mixed-use development, including commercial activity, directly to the south and west. The local Community Board and elected representatives were vocal participants. The Rheingold sites were not within a designated Opportunity Zone, while nearby parts of Bushwick were designated as such, which might shift development to those areas.

Providing affordable housing was central to the Rheingold Brewery brownfield redevelopment project, which resulted in positive change for Bushwick. The redevelopment was not perfect. Perhaps, there could or should have been more affordable housing units. No one would disagree that the environmental remediation of the property was beneficial for the community than if it had remained neglected.

REFERENCES

Albucher, Chelsea, formerly United States Environmental Protection Agency Region 2 and participant in German-American Bilateral Group. Interview with Chelsea Albucher, former US EPA, November, 2018.

Bartech, Charles, and Elizabeth Collaton. 1997. "Brownfields: Cleaning and Reusing Contaminated Properties." Northeast-Midwest Institute (January).

Bluestone, Eric, President of Bluestone Organization, private developer/construction company of Rheingold Gardens, Phases one and two of Rheingold redevelopment, Interview, May 2019. http://www.bluestoneorg.com/rheingold-gardens-2/.

Bockman, Rich.2018. "Foodtown to anchor Rheingold Brewery project. Grocery store to open at the base of 433-unit Denizen rental building." The Real Deal (November 30).

Curbed, NY. A series of articles on the design and marketing of new developments within the former Rheingold Brewery. https://ny.curbed.com/rheingold-brewery, 2018

Daniel Walsh, PhD, former New York State Department of Environmental Conservation and New York City Office of Environmental Remediation, Interview.

Davidson, Justin. Can We Get Development in Bushwick Right? New York Magazine, August 8, 2016.

Geiger, Daniel. "Rheingold Beer site picks up new investor." Village Voice, August 15, 2014.

Hersh, Barry. Urban Redevelopment, A North American Reader. Routledge, September 2017.

Hauschild, Maike, Julich, Wallstrare, Medearis, Dale, Vega, Ann; The U.S.-German Bilateral Working Group: Collaborative Engineering and Scientific Research for a Sustainable Future. Results from Phase 3 (2000-2005) and Beginning Phase 4 (2006- 2010). United States Environmental Protection Agency, Proceedings 2nd International Conference on Managing Urban Land, April, 2010.

Ilan, Lee, Chief Planner New York City Office of Environmental Remediation and member German-American Bilateral Group, Interview, April 2018.

Kurtz, Emily, Vice President for Real Estate, Riseboro, Interview, September 2018.

Klocksin, Scott. "A Look at Bushwick's New Center Of Gravity." Bisnow, July 21, 2016.

Levenston, Michael. "New York: Imagining a Huge Rooftop Farm Atop Bushwick's Rheingold Brewery." City Farmer News; Curbed, February 2016.

ODA Architects, Eran Chen, Principal, architects of two major projects that are part of Rheingold Brewery redevelopment, Interview, July, 2017. https://www.6sqft.com/from-rheingold-brewery-to-the-denizen-inside-bushwicks-most-unique-rental/.

Sethi, Tegver, Senior Project Manager, Affordable Housing, Cypress Hills Development Corporation, Interview, March 2017.

Soler, Stephen, member of the German American Bilateral Group, Regional Approaches to Sustainable Redevelopment Workshop, New York, Interview, May 2008. Other members spoken to: Peter Meyer PhD; David Kooris, formerly Regional Plan Association, now Deputy Commissioner of Economic Development, State of Connecticut; and Eva Handhardt of Pratt Institute.

Spellen, Suzanne. "My Beer Is Rheingold, the Dry Beer—the Beer, the Brewery and the Bruhaha." The Brownstoner, May 2016. A detailed site history from start to redevelopment. https://www.brownstoner.com/history/rheingold-beer-brewery-brooklyn-bushwick-history/.

U.S. EPA German American Bilateral Group 600C03001A. Workshop on Economic Tools for Sustainable Brownfields Redevelopment, 2002.

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