## From Finance to Physical Plan Construction of Garbatella from Garden City Principles

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The Roman suburb of Garbatella was conceived of as a conscious effort to employ the strategies for improving social health and welfare that Ebenezer Howard laid out in Garden Cities of To-Morrow (1902). When initially designed, Garbatella was a rare example of a working class suburb. Although built of inexpensive materials, designed to support high-density living, and located in the outskirts of Rome, it was also a livable, walkable neighborhood, connected by rail to the city center and complete with communal gardens, public courtyards, shops, and schools.

Garbatella both adheres to and concretizes Howard's vision for future cities. Howard proposed an escape from the horrors of the contemporary city, and justified the proposal with detailed financial calculations. Garbatella housed a working class population displaced from the city center by the government, and applied Howard's principles to justify and mitigate the displacement. While Garbatella and the Garden City respond to different social, political, and economic factors, through careful physical planning Garbatella achieves Howard's ultimate objective; that of a healthy, economically viable, livable urban environment.

The planning commission of Garbatella interpreted Howard's main premise to be the encouragement of a healthier alternative to urban living. Howard introduced his text citing the filth and congestion of the contemporary city, and offers his Garden City proposal as a solution to the urban problem. Describing his objectives in planning the Garden City, he focuses on its economic goals: "Some of the chief objectives are these: To find for our industrial population work at wages of higher purchasing power, and to secure healthier surroundings and more regular employment" (Howard 1945, c1902, 51). While the desired end result is healthy surroundings, Howard's understanding of urban health is predicated on the financial considerations that would make the physical realization of the city possible.

Howard's Garden City was to be built with private funds for the public good, while Garbatella was constructed with public funds, purportedly for the public good, but essentially for political gain. Howard envisioned his Garden City to be a philanthropic effort, funded by four wealthy gentlemen interested in making low yield investments in the common good. These gentlemen would purchase the land and fund the enterprise until the rising land value and rent, reinvested in town infrastructure and development, took over as the primary source of city funding (Howard 1945, c1902, 59). The construction of Garbatella was entirely funded by the government of Rome, acting through the Istituto per le Case Popolari (ICP). Whereas rising rent in the Garden City model would eventually account for all further investment in municipal infrastructure and communal good, Garbatella remained rent-controlled to accommodate mixed-income working classes and had no growing fund for reinvestment within the community.

The ICP began planning the satellite neighborhood of Garbatella in 1919, at the end of the First World War. The suburb was designed as part of a city master plan commissioned by the ruling monarchy (Figure 1-2). This plan specified an urban industrial complex south of the city center with direct rail connection to the maritime industry and port city of Ostia, and designated the area that would become Garbatella to house the industrial workers (De Michelis 2009, 510). The location outside the



Figure 1: Aerial View of Rome, Garbatella marked. Source: www.bing.com



Figure 2: Aerial of Garbatella. Source: www.bing.com

city limits made land less expensive for development while offering investment potential from its access to railways linking it to the capital and the sea (De Michelis 2009, 511). As Rome expanded around the new neighborhood the value of its location increased, especially after 1935, when Mussolini proposed a new governmental center to be built south of Garbatella for the Rome Universal Exposition (EUR). While the Exposition itself never took place, the built EUR campus became for some time the government headquarters for Rome.

While the ICP established a number of lowincome housing construction projects in Rome in the first half of the twentieth century, the organization used the opportunity to construct Garbatella and another satellite town, Aniene, to experiment with applying Ebenezer Howard's Garden City principles to Roman urban planning. The government planning commission for Garbatella argued that merits of the nation's war heroes and industrial workers should be rewarded with "the creation of a 'vast, populous, beautiful garden city of workers' housing' within a 'spacious and salubrious rural setting'" (Etlin 1991, 143-5). The commission felt a "moral and social responsibility" (Howard 1945, c1902, 145) to create housing that lived up to the standards set down by Ebenezer Howard in Garden Cities of Tomorrow in 1902 (Howard 1945, c1902, 145).

The finances of both Garbatella and the Garden City depended on connectivity and interregional trade between the cities and their neighbors. Garbatella's planners shared Howard's understanding of the importance of transportation to and from any planned development. As the Garden City model is propagated in offshoot cities, Howard called for development of public transportation infrastructure to connect the garden cities, arguing: "the inhabitants of the one could reach the other in a very few minutes; for rapid transit would be specially provided for, and thus the people of the two towns would in reality represent one community" (Howard 1945, c1902, 142). In Diagram Five (Figure 3) of Garden Cities of To-morrow Howard spells out the importance of transportation, captioning the diagram as "Illustrating correct principles of a city's growth – open country ever near at hand, and rapid communication between offshoots" (Howard 1945, c1902, 143). This rapid communication is depicted in the form of railways and access roads in the diagram, railways and roads that both circumnavigate each development and also connect one garden city to another.

The initial impetus for Garbatella was as much a public works project as a social housing issue, and aligns with a number of Howard's connectivity principles. It is no accident that the neighborhood was slated to be built at the terminus of the planned railway line connecting Rome to the seaport at Ostia Nuova, and was thus easily accessible to the city center and ultimately easily accessible by subway to the EUR. The initial plan included a canal linking Ostia and Garbatella, connecting ship as well as rail traffic from the city to the coast. At the same time, a ring road was also under construction that would circumnavigate the city, connecting Garbatella to points north, east, and west (De Michelis 2009, 510-511). Transportation for goods and materials was as important as transportation for people in the Garbatella development. Although the primary inspiration taken from the Garden City was the creation of a 'spacious and salubrious rural setting"' (Etlin 1991, 143-5), not efficient transportation, the development thoroughly realizes Howard's mandate for access and connection to good railway lines as well as secondary modes of transport.

Connectivity served a similar purpose in both the Garden City and Garbatella; that of driving the development of the region's economy. The transportation network Howard called for established proximity between agricultural production and the locations where produce could be sold, between demand for labor and workers seeking jobs, and between professional capacity and



Figure 3: Diagram Five. Source: Howard, Garden Cities of To-Morrow, 143.



Figure 4: Map of Constructed Garbatella, 1921. Source: Monica Sinatra, La Garbatella a Roma, (Milan, FrancoAngeli, 2006), 147

## professional demand:

To enterprising manufacturers, co-operative societies, architects, engineers, builders, and mechanicians of all kinds, as well as to many engaged in various professions, it is intended to offer a means of securing new and better employment for their capital and talents, while to the agriculturists at present on the estate as well as to those who may migrate thither, it is designed to open a new market for their produce close to their doors (Howard 1945, c1902, 51).

While he claims that these proximities can be addressed by a compact mixed-use city planned along his principles, he also recognizes that no city can or should be fully selfsustaining. He maintains that people living within the Garden City are not required to only buy produce from within their own city:

While the town proper [...] offers the most natural market to the people engaged on the agricultural estate [...] yet the farmers and others are not by any means limited to the town as their only market, but have the fullest right to dispose of their produce to whomsoever they please. Here [...] it is not the area of rights which is contracted, but the area of choice which is enlarged (Howard 1945, c1902, 56).

He argues for a free and open market, and claims that the competition from surrounding municipalities would ensure high quality products from all areas, while simultaneously allowing gaps in the production of one city to be filled by another. The efficacy of this free market model requires good transportation, both to deliver goods within the city and also to deliver goods to and from surrounding cities. The emphasis on transport, while asserted for community connectivity, is equally for the benefit of industrial development and subsequent economic growth.

Unlike Howard's model, Garbatella was not designed to produce most of its own food, but its focus on transportation and industrial production was similarly



Figure 5: Map of Constructed Garbatella, 1934. Source: Monica Sinatra, La Garbatella a Roma, (Milan, FrancoAngeli, 2006), 150

intended to create avenues for economic growth. In the early twentieth century Rome was looking to expand its economic power and reach and increases in industrial production and access to the Mediterranean were critical. At Garbatella's official opening in 1920, overseen by Italy's King Vittorio Emmanuele III, the neighborhood was deemed to signify Rome's much awaited "economic renaissance" (De Michelis 2009, 511). While Howard promoted a free market model from which individual actors might prosper, in the development of Garbatella Rome was looking to increase its economic prosperity and dominance over surrounding areas.

When Mussolini came to power in 1922, he scrapped the Rome master plan and with it ambitions for the industrial complex south of the city center (Etlin 1991, 145). Construction of Garbatella, well underway at this point, did not cease with the loss of its anticipated industrial worker population. Instead the ICP continued to develop Garbatella primarily as a housing district to serve a different working class population: those displaced by large scale urban renovations carried out in Rome's dense urban core (Kostof 1973, 19). Mussolini not only razed central neighborhoods to uncover Roman ruins and



Figure 6: Aerial View of Garbatella's Central Plaza. Source: www.bing.com

construct larger avenues; his government also untethered center city rent controls, causing frequent evictions of tenants no longer able to afford their rent. As the middle and lower classes left the center of Rome for the outskirts, Garbatella's population went from 3,454 in 1922 up to 23,178 in 1926 (De Michelis 2009, 514-5). While Howard offered his Garden City as a chosen escape from urban life, Garbatella's first inhabitants were leaving the urban center out of necessity, not choice.

The difference in financial structure between Garbatella and the Garden City manifests itself in the residential density of the two cities. As a solution to a post-World War I housing crisis, amplified by destruction of center city housing, Garbatella accommodated a much higher density of people than Howard's philanthropic experiment. In Garden Cities, Howard suggested 5,500 housing plots for the city at an average lot size of 20 x 130 feet and roughly 475 square feet of housing for every inhabitant. Howard determined the number of housing lots and subsequent space provided them by calculating backwards from a desired level of revenue generated (Howard 1945, c1902, 54). With the influx of 19,724 new residents in Garbatella between 1922 and 1926, the new government expanded the planned boundaries of the neighborhood, accommodating on average 109 square feet of housing per person (De Michelis 2009, 515). The population increase forced Garbatella's planners to adapt to a much higher density than the original design incorporated. As the neighborhood of Garbatella developed under Fascist rule, higher density apartment blocks were added to the plan, as well as public amenities, such as the church, hostels for temporary housing, public baths and a school (Figures 4-6).

Until 1922, the monarchy was positioning the suburb as a celebration of the value of the working classes and an opportunity to reward these classes with decent housing (Etlin 1991, 145). As Mussolini pursued his agenda to restore the monumentality of Ancient Rome, he continued evicting urban residents. The conscious application of Garden City principles in the continued construction of Garbatella supported a political agenda that displaced thousands of citizens (De Michelis 2009, 515). In his Garden City proposal Howard sought to invoke the goodwill of the private sector in financing new cities for the benefit of all. Garbatella was instead funded publically, first by the Italian monarchy in effort to better serve the country's working class after the first World War, and later by the Fascist state in effort to appease the lower classes being forced out of the city center.

Despite the differences in economic backing and social agenda, Garbatella was successful in many of the ways Howard envisioned for his Garden City. The neighborhood provided clean, affordable living for the working classes of a densely populated and polluted city.



Figure 7: Main Entry Stair up to Central Plaza. Source: www.flickr.com

The residents shared access to communal gardens and green space as well as schools and churches, a concert hall, museum, public baths, theater, and library (De Michelis 2009, 516). They had easy access to the central city as well as to the coast.

The care and consideration with which Garbatella was designed contributes to the physical health of the neighborhood what Howard's financial calculations and reinvested rent increase contribute to his Garden City proposal. While Howard adds the explicit disclaimer that the physical manifestation of his plan is "merely suggestive, and will probably be much departed from" (Howard 1945, c1902, 51), the planning of Garbatella followed proscriptive methodologies dictated by the ICP and the Roman Associazione Artistica that were then interpreted by the architects of the project (Etlin 1991, 145). The concrete decisions required by the actual construction of Garbatella test Howard's hypothetical principals and prove that they can be achieved through means different than Howard's financing scheme.

While Howard merely implies that the layout of his Garden City is malleable to accommodate the topography on which it rests (Howard 1945, c1902, 142), the architects of Garbatella address the topography of its site with explicit architectural and experiential aims in mind. Richard Etlin writes that Garbatella was "designed according to the principles of the reasoned picturesque, contextualism, and vernacular architecture as propounded by the Roman Associazione Artistica" (Etlin 1991, 145). This understanding of the reasoned picturesque to which Garbatella's designers aspired promoted creative use of the

hilly terrain (Figure 7). Etlin cites the ICP's official published goals for Garbatella, stating that the neighborhood should "provide 'a varied and picturesque ensemble from different points of view' that would explicitly avoid the 'monotonous aspect of the unending lines of hundreds of small houses of the same type" (Etlin 1991, 147). To



Figure 8: Garbatella Side Street Source: www.flickr.com

fulfill the ICP's social goal of providing quality housing for Rome's working class, Gustavo Giovannoni and Innocenzo Sabbatini, the principal architects, planned winding streets through the area's hills that would both connect and individuate the blocks and courtyards of the neighborhood. The terraced hills and curving streets created a neighborhood connected to but distinct from the major transportation hubs nearby, and the street plan also created multiple smaller communities within the overall area.

The attempt to elaborate and integrate private and community spaces carried into the design of the housing units in Garbatella as well, while in the Garden City plan Howard gives the physical planning of these spaces little thought. In Garbatella, Sabbatini stacked and arrayed the individual unit types in a variety of ways to create the picturesque views recommended by the Associazione Artistica and account for the terraced terrain (Etlin 1991, 147). The varied overall effect was not only a pleasing visual arrangement to meet the criteria of the Associazione (Figure 8); it also offered housing for a range of lower to middle class budgets to achieve a limited mixture of incomes (Etlin 1991, 145).

Part of the ICP's ideological mission was to create class parity by building mixed income neighborhoods (De Michelis 2009, 510). Giovannoni, who developed the layout, and Sabbatini, who designed many of the buildings, collaborated to create a variety of different types of housing that would fit into the frame of the neighborhood while providing options for a range of lower socioeconomic brackets. They created forty-four different housing configurations, varying the number of rooms and of common kitchens and laundries, and the ratios between private and shared space (De Michelis 2009, 511; Etlin 1991, 147). These configurations are mixed together in the overall layout, allowing integration of inhabitants of limited economic diversity. While the ICP commissioned the neighborhood to house working class citizens, the planning commission and designers made every effort to attract as broad a range of economic classes to the neighborhood as possible.

Like Garbatella, Howard intended the Garden City to be mixed income and developed the various proximities to different kinds of work and labor as a mechanism for attracting an economically diverse clientele. Although Howard does not claim to establish a definitive plan or layout for the Garden City model, his diagram for the physical plan of the city does encode certain spatial hierarchies (Figure 9). Those houses belonging to the wealthiest of Garden City's inhabitants would lie along the either the Crystal Palace and Central Park, or along the Grand Boulevard, fronting the broad green promenade and from both areas enjoying the quickest and easiest access to schools, shops, offices, and churches. As housing rings spread out from the Boulevard, their square footage diminishes along with the land value (Howard 1945, c1902, 54). Reinforcing class hierarchies through housing location is not at the forefront of Howard's diagram, but



Figure 9: Diagram Three Source: Howard, Garden Cities of To-Morrow, 53.



Figure 10: Diagram 2 Source: Howard, Garden Cities of To-Morrow, 52.

this reinforcement is the diagram's unconscious effect. While Howard uncritically recreates conventional housing hierarchies in his desire to attract the various professions required to make his city function financially, the planners of Garbatella consciously address class hierarchies through their mixed income neighborhood and housing plans.

Although shared facilities and cooperative spaces are an aspect of the Garden City proposal that Howard mentioned only parenthetically in his discussion of the overall housing scheme, most units within Garbatella's housing blocks shared kitchens or laundry spaces or both (Howard 1945, c1902, 54). Whereas in Howard's Garden City shared spaces do not implicate larger social structures but are more of a side note to the financial proposal, in Garbatella the shared spaces are a central tenet of the plan, both as a means to address an otherwise overcrowded area and a way to engender mixed social interactions and facilitate community development (Etlin 1991, 147). What Howard hoped to achieve through open markets, rent, and access to industry and goods, Garbatella's designers achieved through careful arrangements of space.

Howard's desire for economic feasibility structured the need for different landscapes in his plan, whereas in Garbatella the landscape design was driven by a social agenda. Howard's plan distinguishes between productive landscapes and landscapes for leisure. At the city's core was a central garden ringed by municipal buildings, a shopping arcade, and a larger ring dubbed the Central Park. Moving outward from the center are rings of housing, interrupted by the Grand Avenue, which Howard envisioned as additional city landscape populated by schools, offices, and churches (Figure 10). He argued that no citizen should be further than 600 yards from the central arcade and parks, while also claiming the importance of proximity between agricultural areas and the city (Howard 1945, c1902, 54). The largest ring of green space was 5,000 acres of agricultural land buffering the city and supplying its food (Figure 10). The central garden and park were meant to be landscapes for leisure and enjoyment, designed to entice citizens into the commercial hub of the city (Howard 1945, c1902, 54). The Grand Avenue and the Agricultural Estate were both productive landscapes, employing citizens as well as providing them with education, religion, and fresh produce. Proximity to these services, and the subsequent reduction in living costs, was one of Howard's main incentives to attract citizens for his cities.

In Garbatella the landscapes for leisure and production were primarily integrated into the housing instead of separated out into distinct areas. From the outset, Garbatella's housing was designed with a particular kind of access to individual green space that was simultaneously both pleasure garden and productive landscape for smallscale food production and outdoor laundry space (Figure 11-12). The aggregation of varied unit types was arranged to create small shared courtyards and gardens throughout the housing blocks, allowing immediate access from almost every home to semi-private gardens. In his site plan for the neighborhood, Giovannoni created more communal garden spaces in addition to the more private courtyard spaces. He achieved this by setting some of the housing aggregations back from the street while designing others close to the curb. The careful angling of these units, as well as their detailed massing, serves to enhance a multi-tiered hierarchy of garden spaces for both leisure and production for the inhabitants of Garbatella.

Howard offers a suggestion for a similar housing arrangement in his diagram. He writes, "that general observance of street line or harmonious departure from it are the chief points as to house building[...]the fullest measure of individual taste and preference is encouraged" (Howard 1945, c1902, 54). While he sees the potential for varied and layered form to exist in the Garden City layout, it is not the purpose of his proposal to outline how it might be done. The individuality in design must instead stem from the resources of the individual inhabitants. Howard also nods toward the potential of enhancing communal green space through adjustment and arrangement of facades fronting the Grand Avenue. In a rare moment of specifying design intent, he writes

"the houses fronting on Grand Avenue have departed [...] from the general plan of concentric rings, and, in order to ensure a longer line of frontage on Grand Avenue, are arranged in crescents – thus also to the eye yet further enlarging the already splendid width of Grand Avenue" (Howard 1945, c1902, 55).

This arrangement again privileges the wealthy able to live along the main park belt of the city by offering them further recourse to expand their views of the park.



Figure 11: Semi-Private Courtyards in Garbatella Source: www.flickr.com

Howard claims this will also expand the public space of the park, at least to visual perception.

For Howard, the beautiful landscape of the garden and park in the center of the city was separated from the housing, while the working landscape was the front yard of the rich and the productive landscape ringed the city to provide food and a buffer from other urban centers. In Garbatella the beautiful and the productive landscapes were combined, given space in the layout by means of shared service spaces and the extremely dense quarters in which the population of the neighborhood lived.

Whether Garbatella achieved the main objectives laid out by Howard in Garden Cities of To-Morrow depends on the interpretation of the text, and interpretations of Howard's proposal vary depending on the disciplinary bias of the interpreters. From the perspective of urban planning, Kermit Parsons' book From Garden City to Green City addresses how Howard's innovations have led to greenbelt planning, new urbanism, and eco-cities. John O. Simonds, a landscape architect, writes that Howard's "central tenet" is "that of interconnected satellites of various types within an open space frame" (Simonds 2002, 42). Robert Freestone, also an urban planner, argues that Howard's focus is the greenbelt area that buffers one city from the next (Freestone 2002, 71-2). Each extracts concepts from Howard critical to his discipline, over-simplifying the complexity of Howard's proposal as a comprehensive set of principles for city siting, infrastructure, and financial viability.

In his 1945 preface to Garden Cities of Tomorrow, Frederic Osborn writes that Howard's Garden City model is most often appropriated in fragments and not as a whole (Osborn 1945, c1902, 20). A group may promote the presence of parks in cities, without the corresponding emphasis on industry, or promote walkable human scale neighborhoods without addressing the proximity of transportation or employment opportunity. While Howard does address the importance of green space buffering one city from another, the connectivity of his cities through infrastructure, and many of the ideas that would become new urbanist, his vision for the Garden City cannot be simplified to one central tenet.

Howard repeatedly states that a healthy city is his main objective. In the Garden City this health manifests itself in both physical and financial form. Parks and garden space, proximity to work, proximity to food production, and connectivity between cities shape the physical city diagramed in Garden Cities of To-morrow. Howard designed these proximities, landscape uses, and infrastructural mandates to serve the financial health of the city by promoting attractive commercial areas, access to jobs, industrial growth, and robust trade. For Howard this financial health lent pragmatic weight to his proposal; it was through a viable financial model that his city might come to be.

Garbatella's commissioners explicitly claimed Howard's ideas of healthy open space in order to mitigate the political damage done by the renovations of downtown Rome. While following his mandates for industrial and infrastructural site context, the neighborhood's creators followed almost none of Howard's economic mandates. The land was purchased, not by philanthropists, but by the city, and offered at fixed rents. The rent was not funneled back into municipal projects, but rather returned to the city to repay the initial financial outlay for land and development. No nearby agriculture supplied rent from the agricultural estate, and the planned financial engine of industry was forestalled by Mussolini's rise to power. And yet, Garbatella offered Rome's displaced working classes clean streets, increased land value at low cost, gardens both public and semi-private, access to other amenities, and well designed housing. While the physical plan of Howard's city is the least proscriptive part of his text, the realization of his overall objectives through physical design, most notably the multipurpose planning of its landscapes, gives Garbatella the community health Howard sought to achieve for the Garden City. It is this type of physical planning that ultimately might be the most enduring method through which Howard's aims can be achieved.

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Figure 12: Semi-Private Courtyards Source: De Michelis, "The Garden Suburb of the Garbatella, 1920–1929," 517.