The twenty-first century can be characterized by a growing awareness of the problems that both plague humanity and are created as a result of our very existence. In particular, interdisciplinary research into chronic illnesses, age-related diseases, and cancer has attributed the root causes—inflammation and oxidative stress—to the symbiotic relationship between public health and the environment. In an effort to both encourage healthy lifestyles and combat climate change, city-planning has come upon a recent trend to revisit and reimagine the Garden City.

In 1898, Ebenezer Howard published *To-morrow: A Peaceful Path to Real Reform*, in which he described the Garden City as the “town-country,” incorporating the best features of urbanism and ruralism in such a way that the people would choose it over the traditional “town” or “country” (Figure 1). The Garden City plan consists of a constellation of radial, interconnected, self-sustaining communities surrounded by greenbelts and containing designated areas for housing, industry, recreation, and agriculture. Designed as an antithesis to urban sprawl and overcrowding in cities, Howard created a method to suggest the transformational impact of art and nature on human well-being, placing emphasis on socialist and anarchist ideas about the fair distribution of land and practical solutions to transportation and sanitation needs [1] (Figure 2).

In 1902, Howard’s book was reissued as *Garden Cities of Tomorrow*, foreshadowing the renowned influence that both Howard and his Garden City would have on twentieth century urban planning, especially in justifying housing developments that are at best loosely built on the core ideals and properties outlined in the original theory. For instance, Römerstadt—the primary
The social context of the Garden City movement

In order to best understand the core values of the Garden City, it is necessary to first explore the social atmosphere that prompted its inception. The history of utopian tradition dates back to the sixteenth century when Thomas More wrote Utopia, detailing how communities would eventually develop into egalitarian societies that opposed the British ruling class. This triggered a movement to create spaces that promoted land reform, social equality, and democracy [4]. In the eighteenth century, industrialization and the enclosure of commons by private landlords characterized cities as places of universal poverty inhabited by the working class [5]. As a counter to the overcrowded, unsanitary conditions of urban life, the Arts and Crafts movement arose in the nineteenth century out of the belief that well-designed developments complemented nature as opposed to destroying it [6]. Howard appears to have been heavily influenced by these ideas because he writes in Tomorrow that the Garden City is “designed for humanity at large” and that its primary objective is to facilitate improvements to the lifestyles of the working class [7]. In developing his plan, Howard considered energy, local food, access to green spaces, and healthcare; he also proposed that part of the substantial increase in values that arise from the development of land should always be reinvested into the community for the benefit of all [8]. Furthermore, Howard emphasizes the “absence of plan” to illustrate the autonomy that the residents of the Garden City should have in determining how their community should evolve over time [9]. From these ideas, we can extrapolate four key principles of building new communities: (1) take a long-term, holistic approach, (2) spatial patterns of growth matter—towns must have a “stop”, (3) ensure that the profits from development benefit everyone, and (4) nurture social sustainability through meaningful public participation and long-term stewardship [10].

The first practical application of these principles can be found at Letchworth, located thirty-eight miles north of London. A true Garden City, two-thirds of Letchworth’s acreage is dedicated to an agricultural belt for the production of local food and only one tree from the original landscape was removed to build the residential areas which currently house approximately 33,000 inhabitants—meeting Howard’s goal of a highly-populated yet accommodating development [11]. The settlement was planned by architects Raymond Unwin and Barry Parker, who successfully adapted the Garden City ideals to the unique topography of Letchworth. Like Howard, Unwin and Parker believed that the city grows out of community and that creativity is derived from an imaginative understanding of the past [12]. Unwin, who was a labor organizer and member of the Fabian society, prioritized in his architecture many of the utopian values upon which the Garden City was conceptualized. In his writings, he criticized the haphazard growth of British industrial cities. Unwin pushed for the consideration of people in urban planning as opposed to profit and above all else hoped to create more open spaces that increased the circulation of light and air. In doing so, he hoped to bring artistry (and therefore beauty) back to city building, which at the time had run achievement of the post-World War I “Das Neue Frankfurt” urban expansion and housing program—is often referred to as the modern Garden City (Figure 3). Though the initiative re-housed over ten percent of Frankfurt’s population and was instrumental in addressing the housing shortage and overall lack of attention to city planning in Frankfurt between 1913 and 1924, these new settlements do no meet Howard’s criteria for a Garden City [2].

Among other reasons, Römerstadt was both conceptualized and realized as a satellite city whose residents are still reliant on the main city for jobs and all but immediate shopping needs and the bare necessities of daily life [3]. That said, there appears to be a correlation worth studying between the development of Frankfurt am Main, which was heavily inspired by the Garden City, and the fact that modern-day Frankfurt is one of the most environmentally-conscious cities in the world, according to the Arcadis Sustainable Cities Index. By comparing the Garden City—both through Howard’s vision for city planning and Letchworth as an example of the first true Garden City—to Römerstadt and other settlements that have been erroneously characterized as garden cities, the aspects of Howard’s plan that best predict success with regard to social reformation can be pinpointed and applied to the development of sustainable cities in the twenty-first century.

Figure 3 Römerstadt was the primary achievement of the “Das Neue Frankfurt” urban expansion and housing program.

Figure 1 Howard described the Garden City as a “Town-Country” which blends the best aspects of both the “Town” and the “Country” such that it will naturally attract the people to it.

[source: Garden Cities of Tomorrow]
rampant with the production of row after row of stock-planned houses. Ultimately, what Unwin instilled in his interpretation of the Garden City was the desire to create a "new local patriotism" among the residents of Letchworth that had previously been perceived to be lost once people moved out of the main city [13].

Römerstadt too, was built as the result of a call for progressive social reforms in post-war Germany. The development of Das Neue Frankfurt correlates to the era of the Weimar Republic in Germany. Despite the fact that this period was plagued with hyperinflation caused by economic recession and political extremism [14], a working class movement was on the rise; in addition to other labor restrictions, the work week was capped at forty-eight hours, health insurance coverage was increased, and the income tax was raised drastically. In particular, there was a push for large-scale social housing developments due to the lack of city-building for a decade after the conclusion of World War I [15]. Reforming mayor Ludwig Landmann hired architect Ernst May in 1926 to build these housing settlements [16]. Like his mentor Unwin, May himself was a socialist. His goal was to create a wohnkultur—a new concept of living [17]. A large part of his plan to do so was the incorporation of kleinagartenkolonien, or small garden colonies, which would allow the urbanite to associate with his natural environment by, for example, growing his own food—an especially useful skill during times of hardship [18] (Figure 4). In effect, Römerstadt attempted to bring men back to the home in order to promote the nuclear family and a feeling of communal ownership of the land in which everybody would become entrepreneurs to support the economy, as Howard had planned [19]. This however did not happen because unlike Unwin, May embodied the German paradox of social development that was rooted in the belief that planning was to reflect the perceived needs of the citizenry rather than considering their specific tastes and desires [20]. As will be mentioned later, this is but only one of the many ways in which the theory upon which Römerstadt was built arguably deviates from the true Garden City model.

**Situation differences between theory and reality**

When comparing the Garden City model to settlements built using Garden City principles, it is important to understand that theory does not always translate in practice. Though many aspects of the Garden City plan provided a blueprint for social reform, others were idealistic and far-fetched by nature and failed to come to fruition at sites like Letchworth, Welwyn, Hampstead, and Römerstadt. Still, some deviations from the Garden City ideals can be attributed to value differences of the architect behind the city. In order to make this distinction, the Garden City plan must first be analyzed in depth.

Howard’s Garden City plan features a garden at the very center, surrounded by public buildings such as a library, hospital, museum, town hall, concert hall, and theatre. The next outermost ring consists of a Central Park, around which the Crystal Palace—essentially a shopping complex—facilitates the sale of manufactured goods. Residential spaces broken up by gardens can be found further out, with factories at the periphery and pastures and farms located at the outskirts (Figure 5). As per this definition, garden suburbs like the settlement orchestrated by Unwin in Hampstead are not examples of Garden Cities because they lack industry, targeting instead middle class commuters to the main city [21].

In order to facilitate community-building among residents, some groups of houses were designed with common gardens and cooperative kitchens. The need for cars is minimized due to both the radial nature of the plan and the fact that no inhabitant of the city is more than 660 yards from the railway, which is used for both passengers and goods [22]. This Inter-Municipal Railway also connects the clusters of Garden Cities [23]. The placement of factories and farms on the outer limits of the city facilitates decreased traffic on roads because goods are directly transported into the city. This also reduces the amount of packaging used to transfer items from the manufacturer to the retailer to the consumer [24].

Though these ideas were revolutionary at the time from a social perspective, it would be remiss to not discuss the fact that Howard also explicitly designated the outskirts—a space shared with sewage farms—as the location for a “farm for
Figure 4 Small garden colonies were an essential part of Romerstadt because they gave urban-dwellers the opportunity to connect with nature by growing their own sustenance. [Source: Journal of Urban History]
epileptics” and “asylums for blind and deaf” individuals (Figure 6). The irony here lies in the fact that the Garden City was envisioned to give agency back to those who had been neglected as a consequence of urbanization, but equality could only be afforded to select groups. Even if this detail is excused as a reflection of the stigma surrounding disability at the time, the Garden City in practice often failed to meet its goal of creating social change. Howard hoped to provide the working class with access to a lifestyle that would benefit their physical and mental health. The green, open spaces and physical boundaries between residential and factory spaces can be contrasted with the abysmal working class housing units in the main city which were located near factories and mirrored their unsanitary, hazardous, and overall depressing conditions in such a way that it was impossible to escape the burdensome perils of capitalism, even at home. Unfortunately, displacement was difficult to avoid even if blue-collar workers were what provided the raison d’être for the Garden City. In Letchworth, for example, even the “affordable” housing was targeted at weekenders and was therefore out of budget for the poor, who had to find housing outside of the city limits [25].

Römerstadt suffered from a similar issue. One of the most poignant aspects of this development is its modernity. Römerstadt was the first completely electrified settlement in Germany, a fact it showcased through the incorporation of the latest technology—such as central heating, cable radio, and laundry and kitchen appliances—within the interiors of houses [26]. These gadgets in particular contributed to the characterization of Römerstadt as strikingly modern and therefore increased both the demand and cost of housing. A house in Römerstadt was thus out of reach for the average worker, and the settlement became inhabited primarily by white-collar professionals. The Frankfurt Housing Authority criticized Römerstadt for being more interested in “impressing professional peers” than providing social housing. As it turned out, the complete reliance on electricity was not only unrealistic for state-funded housing, but was also unaffordable for the middle class inhabitants during the period of economic depression that shortly followed the development of Römerstadt. This was extremely problematic because the residents did not have coal appliances to fall back on, so many of them were forced
to live without heating and other essential amenities [27].

Even today, Römerstadt remains beautifully maintained but highly gentrified [28]. Similarly, Welwyn, the site of the second Garden City, is often described as being more aesthetically pleasing than Letchworth, but this can be explained by the fact that it is highly regulated by the municipality and residents wanting to make any alterations to the exterior of their home or front garden must adhere to a set of strict principles [29]. This behavior retracts from the free and open qualities associated with the Garden City movement and suggests that in practice, form is often prioritized over function.

Along these lines, another aspect of the Garden City that did not entirely come to fruition was Howard’s vision of the people governing themselves [30]. Though his plan required the municipality to operate at the core of community affairs, Howard believed that the residents would take ownership of their city and keep both the municipality and businesses in check, preventing monopolies and seeking ethical and equitable reform wherever possible. Furthermore, he hoped that charitable and philanthropic institutions would be opened by the most outgoing members of the community [31]. In reality, the municipality gave residents some choice in matters but did not attempt to transfer power to the community [32].

Römerstadt: the modern Garden (Satellite) City

Howard intended for the Garden City to expand and grow by replicating itself, as opposed to sprawling in the normal fashion onto surrounding agricultural land. Though the latter did not occur for the most part, neither did the former. Instead, the “agricultural belt” of the Garden City has been interpreted over time as a “more generic buffer of green” that serves as a boundary for development [33]. In fact, many of the Garden City settlements—

Figure 11 Römerstadt featured curvilinear roadways due to the sloping streets caused by the valley. [source: Journal of Urban History]

but particularly Römerstadt—employ the technique of containment in order to give the sites a distinct outline that causes them to stand out [34] (Figure 7).

The “Das Neue Frankfurt” Initiative occurred primarily along the Nidda River valley, which was previously an unproductive swamp land located in the northwest corner of Frankfurt. Through careful zoning, May designated the area for agricultural use [35]. A bonus ulterior motive for this decision was to create a green belt to separate the older main city from future expansion (Figure 8). It was necessary to build new developments away from the urban core due to the high density of Frankfurt’s city rings. Thus, four installments were built on the Nidda Valley satellite—the most acclaimed of which being Römerstadt. To separate the Römerstadt siedlung from the valley floor, a fortress-like wall capped with promenades was also resurrected, again with a goal of separation—this time to distinguish the settlement from its regional surroundings. This also protected the lowlands of the development against flooding from the valley [36].

Though Römerstadt was never officially completed—highly extensive community facilities had been planned but never built due to cutbacks—it remains a well equipped settlement [37]. One of the most visible ways in which it differs from the more true-to-form Letchworth site is that the architecture of Römerstadt was uncompromisingly modern (Figure 9). May preferred low-rise three- and four-story prefabricated concrete and brick buildings with long terraces and flat roofs [38]. In fact, this utilization of city rooftops allowed for the addition of extra outdoor floors that were particularly useful for school classrooms [39]. Most building walls were a gleaming white, accompanied by the occasional bright-colored accent, emphasizing the visionary quality of Frankfurt and the “New Life” movement. The Römerstadt School in particular made explicit the reform maxim that life is largely comprised of two sustaining forces—nature and community—because it sits on the border between the greenbelt and the white wall of apartment blocks [40] (Figure 10).

The site plan of Römerstadt also strayed from both the urban block grid that is characteristic of Unwinian city-planning and the circular quadrant prescribed in Howard’s plan [41]. Instead, May used the sloping streets of the valley to his advantage, developing curvilinear roadways that were well-suited to managing traffic flow and provided a natural form and structure to the area while minimizing private spaces [42] (Figure 11). This also created a uniquely zig-zag site layout [43].

Further emphasizing its modernity, advertisements for Römerstadt targeted young couples and in particular, the “New Woman” with “bobbed hair” and who wore “loose clothing and short skirts” [44]. Freedom can therefore be inferred to be a theme that Römerstadt attempted to market, if not embody. This was somewhat ironic though because May wanted housing units to be mass produced, standardized, and multi-functional in an effort to offset the significant costs of the labor-saving appliances he argued were essential to public housing for cultural reasons. In fact, the production of the interiors of Römerstadt houses and even the gardens surrounding residential areas have been likened to the Ford assembly line [43].

The 21st century Garden City

Though the success of self-sustaining, self-governing city hubs seems a bit far-fetched, the emphasis on social change and the respect for nature exhibited in at least the vision, if not the reality, of all settlements inspired by Howard's Garden City have significant potential to improve humanity in the present-day and beyond. After all, the Garden City at its core advocates for community engagement and an increased awareness of our surroundings. When put this simply, it becomes evident that the development of sustainable, egalitarian communities will naturally follow any effort to meet these goals. For instance, the motivation for creating walkable cities is rooted in a desire to better appreciate nature; in turn, a side effect is a reduction in the vehicular carbon emissions that pollute the fresh air we seek.

Moreover, as Frankfurt has demonstrated over the past century, cities built on Garden City principles will continue to adapt over time to meet the evolving needs of both society and the environment.
Endnotes


5. Henderson, K., 10.


13. Unwin, 10.


20. Mullin, 8.


23. Hall, 98.

24. Howard, 15.

25. Hall, 103.


31. Howard, 18.

32. Hall, 103.


35. Mullin, 10.

36. Mullin, 11.

37. Samuels, 96.

38. Hall, 125.


42. Simonds, 42.

43. Mullin, 10.

44. Hall, 127.

45. Mullin, 15.

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