

# Utopian Aspects of Tony Garnier's Cité Industrielle\*

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THE Cité Industrielle was first conceived as a project for an industrial city by Tony Garnier (1867-1948) in 1899 when he was a student at the École des Beaux-Arts in Paris.<sup>1</sup> When Garnier arrived at the French Academy at the Villa Medici in Rome as a Prix de Rome winner in 1899 he began developing his original concept into a city plan of very wide scope, incorporating the most advanced social and technical ideas of his time. Although the first stage of the project was exhibited in 1901, and the second stage in 1904, Garnier probably continued work on the Cité until the year of its publication in 1917.<sup>2</sup>

Although Garnier's city is not real in the sense that it was not designed for a specific site and was not actually

built, it was designed with a specific locale in mind. Garnier, in his preface to the Cité Industrielle,<sup>3</sup> places it in the southeast of France, and relates it in type to some of the real towns of the area. Also, Garnier was appointed as *Architecte-en-chef de la ville de Lyon* by the mayor of Lyon, Edouard Herriot, partly because Herriot wished to transform Lyon into an actual version of Garnier's projected city.<sup>4</sup> Finally, the Cité seems real because of the great detail with which it was thought out. A glance at the site plan (fig. 1) shows the scope of this project.

The Cité Industrielle is composed of the main city and appendages, and is situated on a plateau with high land and a lake to the north, a valley and a river to the south. The main area of the city includes the residences and the public buildings. The public buildings are grouped into three sections; the administrative services and assembly rooms, the collections, and the sports and spectacles. The residential area is composed of rectangular blocks, running east-west, which give the city its characteristic linear form. A main artery connects the station quarter to the city. On the northeast side of this quarter is the old town. South of this quarter is the large metallurgic factory area. Mines related to the factory are on the east side of the river. A silk manufacturing factory is to the north of the old city. Above this area is the source of the city's power—the hydroelectric station and the dam. To the southwest of the dam, and sheltered by the mountains behind it, is the hospital plant. All these major areas are separated from each other by green belts. Small areas are developed for other uses along the river bank and in the plateau territory. Sections of the surrounding region are rendered

form to the 1901 site plan (plate 1) but do conform to buildings later designed by Garnier and constructed in Lyon. However, whatever the date of the drawings may be, their remarkable consistency indicates that any additions after 1904 grew out of the original conception, and did not in any way reflect a change in the philosophy of the work.

3. Garnier, *Cité*, preface.

4. Veronese, *Garnier*, pp. 15, 39.

\* A more extended form of this paper was accepted as an M.A. dissertation by New York University in June 1958. Dr. Richard Krautheimer was my advisor during the preparation of the dissertation. The following illustrations were used with copyright permission: figs. 1, 5, 6, 8, 11, 13, 14, 16, 17, from Tony Garnier, *Une Cité Industrielle*, permission M. Louis Weckerlin; figs. 7, 10, permission *La construction moderne*; fig. 9 from Latham, *The Gardens of Italy*, permission Country Life, Ltd.; fig. 12 from Whittick, *European Architecture in the Twentieth Century*, permission Crosby, Lockwood and Son, Ltd.; fig. 15 from *Monuments antiques relevés et restaurés*, permission Éditions Charles Massin et Cie.; and fig. 18 from Wagner, *Die Grossstadt*, permission Anton Schroll und Komp.

1. Louis Piessat, *Tony Garnier; 1869-1948* (Lyon, 1954); and Giulia Veronese, *Tony Garnier; 1869-1948* (Milan, 1948), p. 12.

2. Tony Garnier, *Une Cité Industrielle; étude pour la construction des villes* (Paris, 1917). As the drawings, with a few exceptions, remain undated, it is impossible either to know exactly the manner in which Garnier developed his ideas or to limit his sources either geographically or chronologically. Arnold Whittick, *European Architecture of the Twentieth Century*, 2 vols. (London, 1950), 1, 87-88, briefly discusses this problem. The known later additions to the publication are the photographs of Garnier's own house which was built in 1911 (plates 121-122), and the colored perspective sketches of pools which are dated from 1912 to 1917 (plates 81-84). The original perspective drawings of five views of the Cité (Musée des Beaux-Arts, Lyon) are dated 1917, but no dates appear on the publication plates (plates 3-6, and 164). Other possible later additions are the slaughterhouses (plate 156), the surgical building (plates 50-51), and the residential plans (plates 65-132). These do not con-

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Fig. 1. First study, Cité Industrielle, by Garnier (from Garnier, *Cité*).



Fig. 2. Plan of the Salines, Chaux, by Ledoux (from Ledoux, *L'architecture*).

as regularly planted fields, indicating agricultural development. As we can see, Garnier has considered all the aspects of a real city, including governmental, cultural, residential, manufacturing, and agricultural facilities.

But the realism of the Cité Industrielle is an ideal realism, falling within the pattern of Utopian schemes previously existing in France. An early example of such a scheme was Ledoux' Salines at Chaux of 1773-1779 (fig. 2). By the turn of the century the scope of Utopian projects was broadened from Ledoux' ideal environment for factory workers to such schemes as Fourier's Phalanstère (fig. 3), which included all types of people in all types of occupations. In the middle of the nineteenth century there was an emphasis on the practical achievement of these ideals, resulting in such projects as Godin's Familistère (fig. 4), based on Fourier's earlier scheme, and in the founding of new cities in remote corners of the world. All these projects were based on a socialist type of government.

Garnier's Cité can be placed within the framework of these Utopian schemes. In fact, it is closely related to the early nineteenth-century Utopias. The literary counterpart of the Cité Industrielle, Emile Zola's *Travail*,<sup>5</sup> written contemporaneously with the planning of the Cité, is almost solely based on the early socialist Utopian doctrines of Fourier. Garnier, like Fourier, believed in the basic goodness of man, and when asked why his city contained no law court, police force, jail, or church, replied

5. Garnier had already sent his first study of the Cité Industrielle to Paris when Zola's *Travail* was published (Paris, 1901), but he recognized the affinity of his work to Zola's, according to Pierre Bourdeix, 'La Cité Industrielle de Tony Garnier', *La construction moderne* (10 January 1926), 171, and Gabriel Henriot, 'Tony Garnier', *Jardins et cottages* (October 1926), 14. Also, Garnier included in his publication a drawing (plate 15) of the assembly building inscribed with the words 'TRAVAIL / E. ZOLA' (fig. 11, text).



Fig. 3. Project for a phalanstère, by Fourier (from Briancourt, *Visite au Phalanstère*).



Fig. 4. Project for a familistère, by Godin (from Godin, *Social Solutions*).

that the new society, governed by socialist law, would have no need of churches, and that, as capitalism would be suppressed, there would be no swindlers, robbers, or murderers.<sup>6</sup> Garnier went beyond the elimination of contemporary social restraints and introduced building types based on socialist tenets in his Cité. Thus employment services and free hostels, as well as the many meeting rooms, were created for the syndicates that such a form of government presupposed. Public facilities were emphasized. Equality of the sexes in education was established. Courts for arbitration were included, substituting for the usual law courts. Public services, such as the slaughterhouses, the flour mills, the bakery, the dairy, and the pharmaceutical products, were placed under the jurisdiction of the administration, and liable to its special dispositions. The administration was also concerned with the regulation of the dam, and thus with electrical output, including heat and light for the city, as well as the more usual functions of street cleaning, etc.<sup>7</sup>

In other aspects Garnier's Cité also compares with Utopian thought. In nineteenth-century Utopias nature, and all types of life related to nature, were considered good. The ideal qualities of fraternity, goodness, and work were assumed to be a fundamental part of man's behavior. Even religion was discarded, and the worship of nature was substituted in its place. Garnier omits churches from his Cité, and, one assumes, substitutes a more 'natural' form of worship, such as that existing in Zola's *Travail*. In a characteristic nineteenth-century parallel of architectural expression with symbolic content, Garnier bases his architectural style on the long horizontals and verticals of the buildings, which, in their simplicity, were to harmonize with natural forms.<sup>8</sup> The consciousness of exercise, health, and physical well-being were corollary to the wakening interest in rudimentary life. Such an expression of Utopian doctrines as Ledoux' Salines stresses the health of the body as well as that of the soul.<sup>9</sup> Garnier's emphasis on sports, seen in the large public area that he devotes to sports and spectacles, has its foundation in this philosophy, which looks backward to a more 'natural' pagan antiquity and its love of games.<sup>10</sup> The greater use of natural

6. Bernard Champigneulle, 'Tony Garnier, le premier architecte qui ait conçu la Cité Industrielle', *Le figaro littéraire* (28 February 1948), 5.

7. Garnier, *Cité*, preface.

8. Garnier, *Cité*, preface.

9. Ledoux included a building for physical exercise in his city of Chaux, as well as several temples and a church. Claude-Nicholas Ledoux, *L'architecture considérée sous le rapport de l'art, des moeurs et de la législation* (Paris, 1804), plates 43, 72, 83, and 87.

10. Although Sigfried Giedion, *Space, Time and Architecture*, 5th ed. (Cambridge, 1944), p. 513, note 11, feels that Garnier's emphasis on sports is 'progressive' for its period, at the same time that Garnier's Cité was conceived Patrick Geddes, 'The Closing Exhibition—Paris 1900', *Contemporary Review* (1900), 665, spoke of the 'revival' of the Olympian games in Athens and Paris.

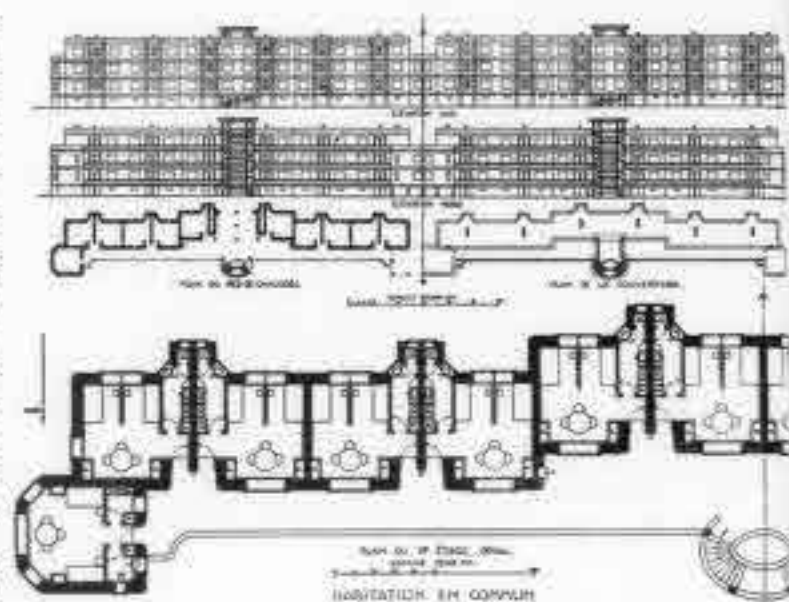


Fig. 5. Project for an apartment house, by Garnier (from Garnier, *Cité*).

settings within planning is another direction that this emphasis on nature took; its ultimate nineteenth-century solutions were in the garden city and Garnier's park-like Cité Industrielle.<sup>11</sup>

However, the individual was not always equated solely with his most primitive state. Early nineteenth-century Utopias, such as Fourier's Phalanstère, were based on the assumption that the highest forms of civilization were as desirable as the most primitive. The Phalanstère, or palace for living, was designed to approximate the living conditions of royalty in accommodations. Fourier deliberately followed the plan of the Louvre so that the inhabitants of his Phalanstère could live like kings.<sup>12</sup> Indeed the inhabitants were better situated than royalty, according to Fourier, because they were more closely related to nature. Later Utopias discarded aristocratic implications in favor of the principle of the basic individualism of each member of society. Garnier expresses this quality in his individual house designs for the Cité. However, the resemblance that has been noted by Pevsner of the open stairwell of Garnier's typical apartment house (fig. 5) to that of Francis I's at Blois may spring from the revival of the earlier Utopian theories.<sup>13</sup> In Utopias nature was to be improved upon, so that only her better qualities remained. Fourier boasted

11. However, by the end of the nineteenth century the concept of the city as a park was not a new idea. Trees had been incorporated into city planning since the end of the eighteenth century. Early tree-lined streets, such as the Champs Elysées and the Unter-den-Linden were created in the seventeenth century, and were, as Patrick Abercrombie observes, 'Berlin, Its Growth and Present State', *Town Planning Review* (1913), 222-223, private park features of royalty.

12. Charles Fourier, *Traité de l'association domestique agricole*, 2 vols. (Paris, 1822), II, 38.

13. Nikolaus Pevsner, *Pioneers of Modern Design* (New York, 1949), p. 113.

that even the king had no shelter from the rain when he entered his carriage, while open corridors provided shelter throughout the Phalanstère.<sup>14</sup> Godin, by enclosing the courts of his Familistère with glass, provided sunlit recreation areas in winter months.<sup>15</sup> Les Halles of Second Empire Paris were conceived as an umbrella, protecting against rain and dirt, while allowing sunlight, ventilation, and pedestrian circulation.<sup>16</sup> Following this tradition, Garnier's assembly building has an enormous portico where people could promenade in periods of inclement weather.

But Utopian thinking is composed of two major factors. One factor is the desire for an ideal condition which ignores many of the problems of an existing society; the other is the pervasion of Utopian projects with a realism approaching a presumed condition of actuality, and thought out in great detail. Garnier's Cité Industrielle demonstrates the real as well as the ideal side of Utopian thought. For instance, the necessity for a realistic basis for Utopian thinking caused Garnier's Cité to be related to the politically active French regionalist movement in its general concept rather than to earlier and more abstract Utopian schemes. French regionalism formulated its methodology during the 80s and 90s of the nineteenth century,<sup>17</sup> and at the time of the creation of the Cité Industrielle stood for a preservation of provincial characteristics in France, governmental decentralization, regional universities and museums, local historical monuments and sites, and the encouragement of native arts and crafts, as well as of local industries. Garnier specifically included all of these elements in the Cité Industrielle.<sup>18</sup> The Cité represents one of a federation of cities, with communication and interchange of goods emphasized, and the Cité is a regional city, for local conditions are exploited.<sup>19</sup> Also, local historical and botanical museums, an exhibition building for local expositions, and local schools of arts and industries are included in this project. Local crafts are taught, and two local industries exploit the wealth of natural resources in the area. The deliberate relation of the old town to the station, as if to make a visit for sightseers easier, can also be understood as an interpretation of the regionalist philosophy of the preservation and fostering of interest in local monuments.

Garnier's Cité Industrielle also includes some of the goals toward which regionalism, through actual municipal reforms, was oriented. By the turn of the century municip-

pal reforms placed great emphasis on practicality of expansion and the zoning of the various functions of the city,<sup>20</sup> as well as stringent building laws relating to interior courts and regulating the maximum amount of site to be used for building.<sup>21</sup> Also, the various functions of the city were placed in relationship to each other, so that factories, shipping yards, and railroad stations were removed from the city center and grouped together,<sup>22</sup> while manufacturing cities began to provide trade schools adapted to their local production.<sup>23</sup> The future growth of the Cité Industrielle is carefully stressed in Garnier's preface, though there is no provision for the expansion of the center of the city or for growth of the traffic system, if expansion did occur. The various functions of the city, such as industry, residences, and public, administrative, and hospital quarters are emphatically separated from each other by green belts for independent expansion. They are also related to each other for functional proximity and for ease of transportation. Garnier excels in the organic interrelationship of the various sections of the city, and it is more this factor than any other which has caused him to be accepted as the first twentieth-century planner.<sup>24</sup>

Southern orientation for all bedrooms is stressed. It is because of this orientation that the linear character of the Cité is established, for the residences are spread out in an east-west direction in order to provide a southern exposure for these rooms. Light wells are banned, and density and building heights are carefully regulated, not in terms of appearance, but in terms of the establishment of ideal conditions of hygiene. All tall buildings are placed within the station quarter to free the rest of the city, and the park-like nature of the city is achieved by carefully zoning the area of the building on its plot and by providing right-of-ways between buildings as well as banning walls, fences, and other enclosures.<sup>25</sup>

Also, the actual building forms in the Cité Industrielle are related to contemporary practice. The elementary school of the Cité (fig. 6) is similar to a contemporary École des Beaux-Arts project for a school (fig. 7). The covered passageways, a roof garden, and a division of the school into two parts for younger and older children are

20. According to Abercrombie, *Town and Country Planning* (London, 1943), p. 95, Germany invented the concept of zoning and even the term itself.

21. Thomas Coglan Horsfall, *The Improvement of the Dwellings and Surroundings of the Peoples; the Example of Germany* (Manchester, 1904), p. 65. Horsfall further says (p. 132) that by 1897 in Frankfurt the uncovered part of a site for multiple dwellings had to be considerably more than half the total area of the lot.

22. Albert Shaw, *Municipal Government in Continental Europe* (New York, 1895), p. 303.

23. Shaw, *Municipal Government*, p. 375.

24. *Architectural Review* (April 1943), 90, xxxix; and Giedion, *Space, Time and Architecture*, pp. 512-513.

25. Garnier, *Cité*, preface.

14. Fourier, *Traité*, II, 40.

15. André Godin, *Social Solutions* (New York, 1887), p. 232.

16. Giedion, *Space, Time and Architecture*, p. 167.

17. Charles Brun, *Le régionalisme* (Paris, 1911), p. 277. The *Fédération régionaliste française* was founded in 1901.

18. Bourdeix, 'La Cité Industrielle de Tony Garnier', p. 171, strongly emphasizes the regional character of the Cité Industrielle.

19. Garnier, *Cité*, preface.

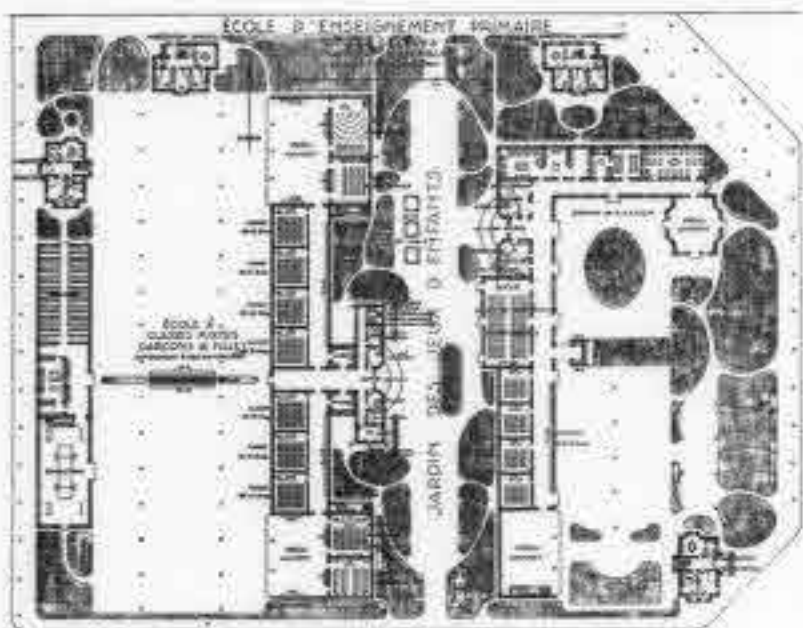


Fig. 6. Project for an elementary school, by Garnier (from Garnier, *Cité*).

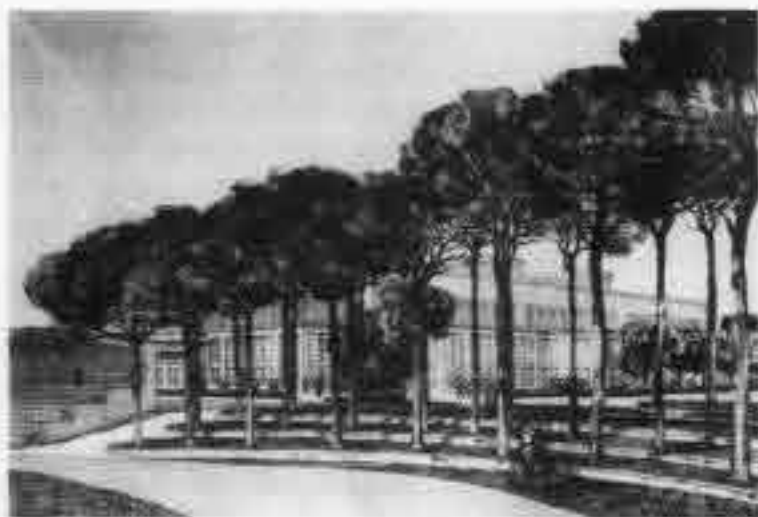


Fig. 8. Project for a stadium, by Garnier (from Garnier, *Cité*).



Fig. 9. Amphitheater, Villa Borghese, Rome (from Latham, *Gardens of Italy*).

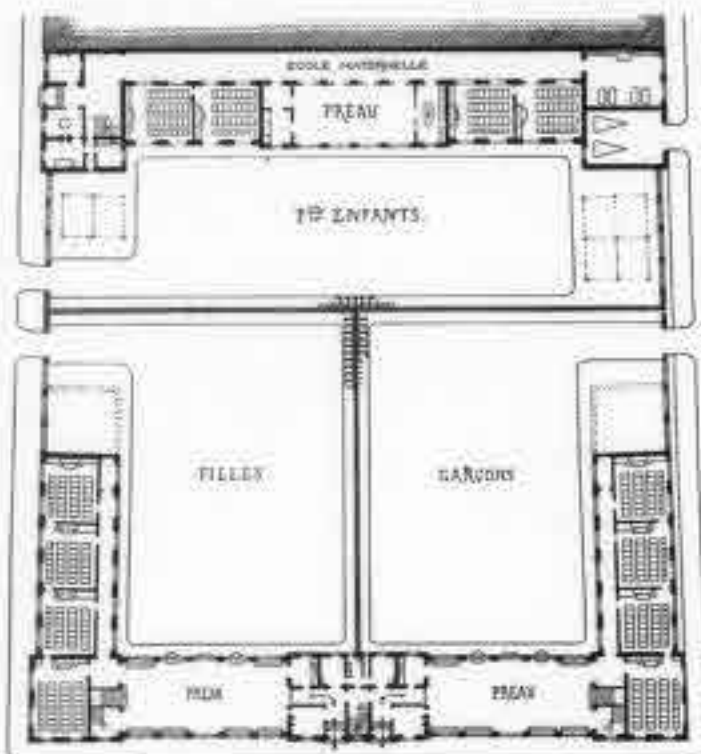


Fig. 7. École des Beaux-Arts competition for a school, by Berger and Maistrasse (from *La construction moderne* 1897).

comparable in both these schemes.<sup>26</sup> The hospital is related to many developed projects containing small, separate buildings connected by tunnels, such as a contemporary project designed at the École by Marcel Prost.<sup>27</sup> Nor was Garnier's reliance on existing building types confined exclusively to French architecture. He adopted elements that he observed while in residence at the Villa Medici. His stadium track (fig. 8) shows a remarkable resemblance to the amphitheater at the Villa Borghese (fig. 9) as well as to a contemporary French hippodrome project (fig. 10). The 'Mediterranean atmosphere' in the Cité Industrielle, of which Giedion speaks,<sup>28</sup> can come only from Garnier's absorption of the Italian manner of life around him while he was at Rome.<sup>29</sup>

Regionalism and civic reforms seem to be solidly attainable ideals. However, in a characteristically Utopian manner, Garnier exaggerates and glorifies realism for its own sake. For instance, he is extremely interested in technical details. Thus all interior walls are specified by him to be smooth with rounded corners, and he emphasizes

26. Other contemporary school projects show a general type similar to that of the Cité Industrielle, though with the classes of boys and girls separated. An example is the Rue Saint Lambert school project, published in *L'architecture* (28 April 1894), i-iv.

27. *La construction moderne* (4 March 1899), 269. Similar hospital projects published in *La construction moderne* were 'Hôpital d'enfants' (19 September 1896), 602-603, and 'Concours de Montpellier asile d'aliénés de l'Hérault' (15 May 1897), 388-390.

28. Giedion, *Space, Time and Architecture*, p. 515.

29. See note 39 for specific Roman influences.

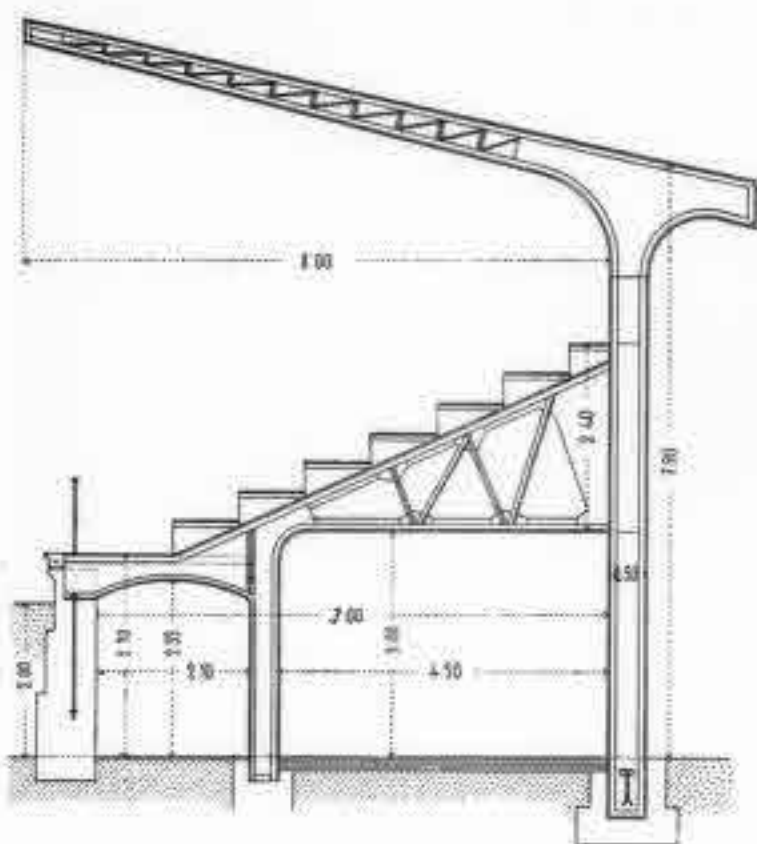


Fig. 10. Project for a hippodrome (from *La construction moderne* 1898).

detailed improvements, such as straight tracks at the station so that the trains can run faster, and a movable stage in the theater so that entr'actes will not be needed.<sup>30</sup>

Indeed, the latest technical developments are basic assumptions in the Cité Industrielle and Garnier relies heavily on them in his design of the city. One important technical achievement of the 1890s was electricity, which occupied a recent and important place in the widening field of architecture and planning, though it was not until the 1900 exhibition that this development assumed a role of primary importance.<sup>31</sup> Electricity was associated with a future mastery of the machine and the emancipation of man from its enslavement; particularly its cleanliness made it attractive to include in cities of the future. The reaction against the dirt and waste of early manufacturing towns placed this advancement high on the list of the nineteenth-century reformer, for whom cleanliness had real meaning. The first installation of a hydroelectric plant at Geneva in 1895 was announced by architectural journals to be the solution to all problems related to electric power; many future installations were predicted.<sup>32</sup> Garnier included a similar hydroelectric plant in the Cité Industrielle.

30. Garnier, *Cité*, preface.

31. Kenneth W. Luckhurst, *The Story of Exhibitions* (London, 1951), p. 145.

32. 'La construction à Genève', *La construction moderne* (26 October 1895), 42.



Fig. 11. Project for an assembly building, by Garnier (from Garnier, *Cité*).

Also, reinforced concrete at this period was of major importance because of its unlimited potentialities. Contemporary publications heralded concrete as the material of the future and idealized its character.<sup>33</sup> As new reinforced concrete systems were advanced, they were caught up and published by the press,<sup>34</sup> which stressed the mysteries of this complex material that would answer all the building problems of the age.<sup>35</sup> Reinforced concrete was easily associated with idealized projects. It was the association of this material with an ideal future state rather than its technical aspect that was uppermost in Garnier's mind when he chose it as the material for his Cité Industrielle. In fact, techniques were so small a problem to him that in his publication of the Cité there are no technical data on concrete, and as representative of the material only several plates of photographs showing concrete buildings under construction, but with no explanatory titles.<sup>36</sup>

Garnier does not follow one system of reinforced concrete for the development of his material, but borrows freely from all systems available to him. The chamfered edges of columns and the post, beam, and joist system of construction used in his assembly building (fig. 11) are important features of the Hennebique system (fig. 12) which must have fascinated Garnier as he watched the erection of Hennebique's buildings for the 1900 Paris exhibition. Baudot's use of simplified concrete tracery in the church of Saint-Jean de Montmartre of 1894 is paralleled in the tracery of Garnier's assembly building, while the

33. A. L. Cordeau, 'Les ciments armés', *Le moniteur des architectes* (April 1899), 25-30.

34. An early series of articles on this subject was written by P. Planat, 'Le théorie des ciments-armés', *La construction moderne* (30 December 1893), 150-153 ff.

35. Anatole de Baudot, *L'architecture; le passé... le présent* (Paris 1916), p. 68, compares the possibilities of concrete to the realization of Utopian dreams.

36. Garnier, *Cité*, plates, 151-155.

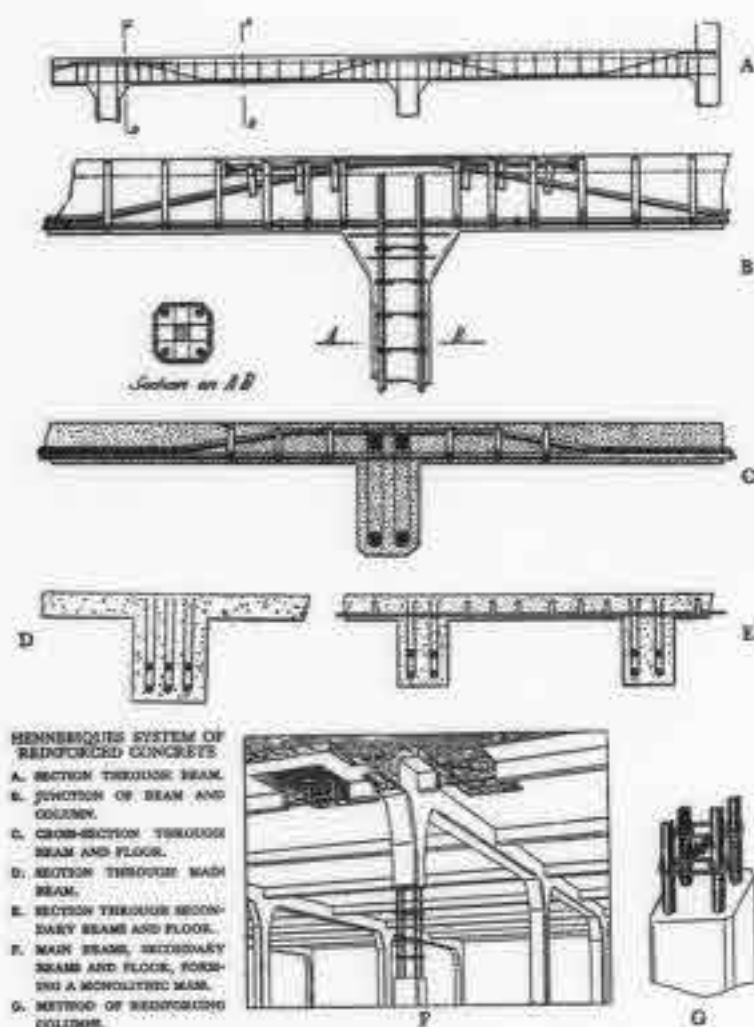


Fig. 12. System of reinforced concrete, by Hennebique (from Whittick, *European Architecture* i).

use of reinforced concrete as a skeletal material containing in its structure its own decoration, an exception to Garnier's philosophy of separate architectural and ornamental forms, and similar to Baudot's use of concrete, is seen in Garnier's station tower (fig. 13). In this tower concrete has a more direct relationship to iron, especially to the expression of this material in the Eiffel Tower.<sup>37</sup> Only in the station and the stadium does Garnier dramatize the lightness and strength of reinforced concrete by using thin members, glass curtain walls, and wide cantilevers.<sup>38</sup> Thus, though Garnier understands the basic cast character of concrete, his emphasis on its technical aspects is superficial, and his exploitation of its possibilities, derivative. In his use of concrete Garnier is sympathetic to all that he observes around him, and eclectic in his borrowings. Especially did Garnier borrow those Roman characteristics of the material that he saw while he was a *pensionnaire* at the Villa Medici. Many of the buildings, such as

37. Veronese, *Garnier*, p. 89, has also noted a resemblance between Garnier's Lyon *abattoirs* and the Galerie des Machines in Paris.

38. It is possible that both Garnier's station and his stadium are to be dated later than the rest of the project (see note 2).



Fig. 13. Project for a station, by Garnier (from Garnier, *Cité*).

the bath building, are handled as if concrete were a massive, monolithic material. Also Garnier's dam is related in its scalloped form and its function of a retaining wall to the type of concrete design found in Roman cisterns and in ruined niched walls that could easily have been seen by Garnier.<sup>39</sup>

Indeed Garnier appears to identify himself closely with antique life, deliberately using past forms to symbolize—or recreate—a spirit similar to that in which the forms had originally existed. Thus the general site of the Cité (fig. 14) is reminiscent of the acropolis of such a Hellenistic city as Pergamon (fig. 15). Both have foundation walls towering above the plain, and the Pergamon amphitheater dominates the site in the same manner as does Garnier's dam. Garnier's highway, spanning the declivities of the plain, is closely related in its arched form to Roman aqueducts. Among the buildings, the most specific reference to antique prototypes, and the only one mentioned by Garnier,<sup>40</sup> is the outdoor theater, which borrows the Greek amphitheater form. But several of the other buildings are related to ancient architecture. For instance, the bath building (fig. 16) resembles the symmetrical plan of the imperial Roman *thermae*<sup>41</sup> with the large caldarium of the main pool placed in the center of the composition. Furthermore, both are divided into three sections, by

39. Mr. Norman Neuerberg has called my attention to the close relationship of Garnier's dam to the cisterns at Villa le Vignacce, Sette Bassi, Hadrian's Villa in Palestrina, and Cecchignola, as well as substructures to such buildings as the Villa le Cappellette, the Temple of Claudius in Rome, and especially the ruins of the villa known as Muro Torto, very near the French Academy at the Villa Medici. In these examples reverse niches were used as a method of reinforcing against water or earth, similar to the function of the scallops in Garnier's dam.

40. Garnier, *Cité*, preface.

41. Bourdeix, 'La Cité Industrielle de Tony Garnier', p. 171, has pointed out this relationship.



Fig. 14. View, Cité Industrielle, by Garnier (from Garnier, *Cité*).



Fig. 15. Present state and reconstruction, Pergamon (from *Monuments antiques relevés et restaurés par les architectes pensionnaires de l'Académie de France à Rome*).

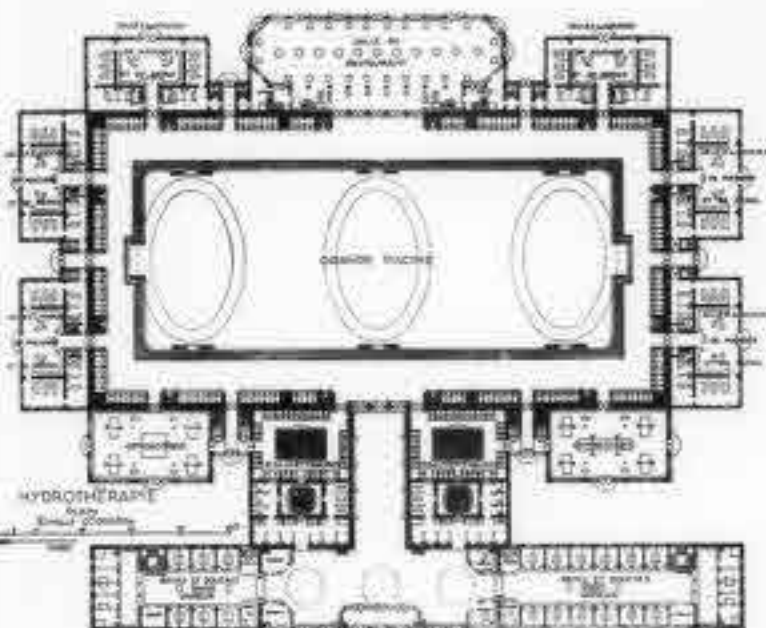


Fig. 16. Project for a bath, by Garnier (from Garnier, *Cité*).



Fig. 17. Project for a residence, by Garnier (from Garnier, *Cité*).

vaulting in the case of the *thermae*, and by skylights in the case of Garnier's baths. The temporary exhibition building of the *Cité* is related to the Altar of Zeus at Pergamon, for both are rectangular structures with four stairways along their sides. One house (fig. 17) has a Roman atrium complete with impluvium that could have been borrowed directly from one of the Roman houses of Pompeii or Herculaneum. The use of small fountains, resembling nymphaea, and of enclosed garden areas, has much of the flavor of antique residential sections.

But the relationship to antiquity goes beyond the actual application of classical forms to that of their association with an ideal state. For what Garnier envisions in his *Cité Industrielle* is a simpler, more Arcadian age. Indeed, the Arcadian concept was expressed in several projects in the 1890s. In Olmsted's landscaping of the Columbian Exposition of 1893 the setting is romanticized, especially in the secluded, natural, and 'sylvan aspect' of the Lagoon, which was an important feature in the conception of the Fair.<sup>42</sup> Wagner's scheme for the remodeling of Vienna (fig. 18), begun in 1898, also has, to a less obvious degree,

42. Charles Moore, *Daniel Burnham; Architect and Planner of Cities*, 2 vols. (New York, 1921), 1, 31.



Fig. 18. Project for the reconstruction of Vienna, by Otto Wagner (from Wagner, *Die Grossstadt*).

similar elements in the central municipal area, where a larger rectangular pool in a park is bordered by poplars and covered walkways. The use of the reflective qualities

of the pool and the shimmering white of the buildings in both of these schemes, as well as the importance of landscape architecture as a setting for the architectural monuments, is descriptive of the style called by Tunnard the 'Arcadian revival'.<sup>43</sup> This term implies a return directly to antique, and thus to pagan, forms. It also implies a growing interest in the spirit of ancient architecture—in its municipal character, its feeling for beauty as a function meaningful in society, and its utilization of art. And within the context of this revival Garnier's *Cité Industrielle* becomes especially meaningful. The *Cité* is an ideal project based on Utopian tenets with Arcadian implications, a monumentally conceived and co-ordinated plan returning in style to antique forms and in philosophy to the antique spirit that are behind the academic tradition.

43. Christopher Tunnard, *The City of Man* (New York, 1953), 308.