



Cité Napoléon, 58 rue de Rochechouart, Paris (IX), 1849-1853, view of the top-lit galleries. © Photograph by G. Teyssot.

# The *Ur*-Forms of Modernism. On 19<sup>th</sup> Century Hospitalized and Hygienic Dimensions of Architecture<sup>1</sup>

BY GEORGES TEYSSOT

During the 19<sup>th</sup> century, a shift in the meaning of the notion of type took place, accompanied by the idea of an explicit inscription of habits and needs in space. A new correlation between the architectural type and the habitual was established. If only tentatively, esthetics and planning could now be harmoniously reunited through the introduction of new habits in order to generate a collective way of living. As a result, the object of architecture became to moralize and to reform. The “dream” of this period was that of a purely technological solution for civil building and housing. It would further expand into the vision of the exact partitioning of living space, and of the invention of perfect machines for healing, controlling, and living. In fact, two genealogies began to merge: total sanitarianism, which led to the exact quantification of fluids piped into buildings; and total technology, which aimed, through the use of new materials, at the precise programming and optimization of space. Underlying the thousands of proposals in the 19<sup>th</sup> century, the idea of the circulation of goods and people was crucial, and dependent on the imperatives of mobility and decentralization. Traces of such “dream architecture” remained in the form of the features that would become an intrinsic part of 20<sup>th</sup> century, modern architecture.

In an article entitled “On Monumental Domestic Architecture” published in his journal the *Revue générale de l'architecture et des travaux publics*, architect and journalist César Daly (1811-1893) positioned himself as a social observer who wanted to increase society's general welfare.<sup>2</sup> This was not surprising since the founder of the *Revue générale* was a close friend of the philosopher and economist Victor Considérant (1808-1893), and both were enthusiastic followers of Charles Fourier (1772-1837), the inventor of the “phalanstery.” Made up of a small group of workers associated with a kind of co-operative, the aim of Fourier's phalanstery was to ensure universal harmony in his utopian society. Many of Daly's articles were republished in *La Phalange*, which was directed by Considérant, who published his own *Principles of Socialism* in 1847.<sup>3</sup>

## Domestic Monuments

Having observed in the aforementioned article that “older housing no longer responds to our needs,” Daly divided the problem into two distinct issues: plan and esthetics.<sup>4</sup> New housing plans should conform to minimum requirements in terms of the number and function of the rooms:

*We have today many people of small means ... who require appropriate apartments, and each apartment must necessarily be made up of a minimum number of rooms of a determined nature, since this inevitably results from internal domestic needs, needs that are always the same and that vary only in their order of magnitude.*

Daly thus recognized “how much distribution and the thousands of small, essential pieces of equipment (are necessary) in today's *intérieurs* [interiors].” While, according to Daly, the architect of the 19<sup>th</sup> century had surpassed his predecessors, through a focus on planning (“those of small means, above all, who are among the most difficult to house comfortably, have never been better off than now,”<sup>5</sup> he wrote), the esthetic solution to the problem of distribution was disastrous.

Glancing down the street one could see only the basic French *maisons à loyer* [rental houses] which made no concessions to esthetics, causing Daly to declare that

*the facades of our modern houses rise from each side of the street, with two vertical and parallel surfaces, offering neither projections nor recessions, no shadowed or light surfaces, no play of line of any sort.*

These rental houses were, Daly wrote, “destined to satisfy a group of needs common to all families,” and as a result, “[t]hese houses are so many tracings of a common type.”<sup>6</sup> For Daly, if the public had not thus far protested against their monotony, it was merely because they were “nearly insensible to the ugly or the beautiful in architecture.” In Daly's writing, there was a shift in meaning: he associated the etymological origin of “type” (in Greek, *typos*), in the sense of the stamping of typographical characters, with the idea of an explicit inscription of habits and needs on space,



establishing a new correlation between the architectural type and the habitual.

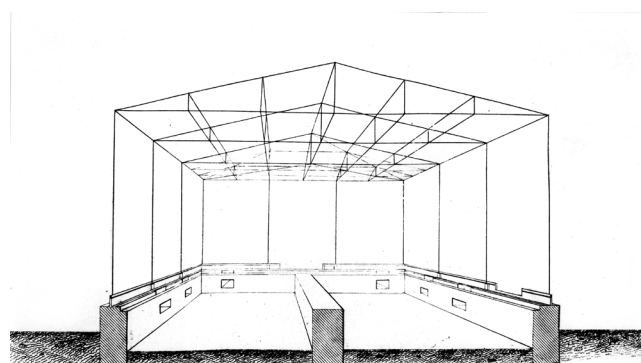
Not surprisingly, Daly criticized the repetitive and automatic drawing up of an architectural plan that consisted of “the enumeration of various needs which constitute a program.” Worse still, he felt, there must be something in the very nature of certain programs that “kills” every attempt made by the artist to give “a beautiful general character” to the building. But since the form of the house resulted from the combination of “habits” and “needs,” causes which were outside the architect’s sphere of influence, it must be the case that “our domestic architecture results from our manner of living.” Therefore, “to alter the effect, we must begin by altering the cause,” but not merely by some abstract esthetic embellishment applied to the *façade*.<sup>7</sup> For Daly, only the transformation of the “program” could lead to the solution of this formal, or esthetic problem. To such an issue, as a response, Daly provided a theoretical definition for the conditions required to develop a “monumental domestic architecture”:

*every time a program contains an exposition of varied and complex needs which must result from the bringing together of a large number of persons, the architectural resolution of such a problem must always lead to a beautiful character for the ensemble combined with great variety in the forms; moreover, though contained within certain limits, the variety, harmony and beauty of a building of this sort will increase geometrically with the number of individuals who must inhabit it, and with the complexity, number, and variety of their needs.*<sup>8</sup>

Fundamental to an esthetic for the housing of large numbers was the concept of the “warehousing” of people and things, an effect gained by the repetition of simple elements, and a variety obtained by “regular combinations.” It was not the luxuriousness of detail that counted, but the “beautiful character” of the ensemble, which was to be the product of simple procedures, procedures that were “naïve” or ingenuous, to borrow Daly’s own term. Revealing his Fourierist background, he claimed that the formal “lies” disguising the fragmentation of private architecture were only acceptable until society reached the moment when “previous habits of life” were transformed. “Esthetics” and “plan” would be reunited in harmony with each other, once new “habits of life” were initiated, creating a collective way of living. In this way, Daly proposed an architectural collectivism. With Augustus Welby Northmore Pugin’s (1812-1852) Catholic medievalism in England and Victor Considérant’s and César Daly’s socialist Fourierism in France, architectural theory took a step towards new moralizing objectives. Instead of a servile response to existing needs, inscribed in ordered space, the intention of the architect became the transformation of the “habits” of future users themselves. In the 18<sup>th</sup> century, architecture was to “speak” and act on perception through its *form*, while in the 19<sup>th</sup> century architecture was instead to “moralize” and to *reform*.

## Transparent and mobile

In the long history of literature on how to build houses, Daly’s texts remain innovative because they went beyond the strictly sanitary or hygienic considerations, such as the architect Charles Rohault de Fleury’s (1801-1875) report read before the Central Health Commission of the Department of the Seine in 1832,<sup>9</sup> or Léon Vaudoier’s (1803-1872) 1844 text on the effects of humidity in housing.<sup>10</sup> “Hospitalized” and hygienic dimensions of the problem were not neglected in Daly’s *Revue générale*, but it was thought that hygienic-medical disciplines should be utilized to provide quantitative and empirical data for an entirely “modern” project of transforming the built environment. For example, in 1844, the magazine published René Duvoir’s system for heating and ventilating hospital rooms.<sup>11</sup> This system reduced the problem to one of measurable functional criteria, supplying data for the calculation of the minimum quantity of pure air required per person, which was found to be 20 cubic meters per bed per hour. A second example is the article concerning a “hospital in iron, built in Camp Jacob, Island of Guadeloupe” by the engineer and architect A. Romand.<sup>12</sup> He was charged with rebuilding the military hospital after an earthquake in 1843. Each separate hospital pavilion was transported to the island by boat and erected in two months, allowing it to be dedicated on May 1, 1846. The framework was made of wrought iron structural members anchored in a concrete base, and the exterior was clad in plates of cast iron bolted to the structure, while a covering plate masked the assemblage. The frames of doors and windows were of cast iron and the interior was covered with a layer of wood that allowed air to circulate in the space between the inner and outer surfaces of the walls. It was not the first time that a prefabricated building had been devised. As early as 1840, Daly had published in the first issue of the *Revue générale* a prefabricated building invented in 1820 by Colonel Fredrik Blom (1781-1853), a Swedish architect, for the purpose of acting as lodgings on industrial sites or cabins in tourist resorts.<sup>13</sup>



01 A. Romand, Iron built Military Hospital at Camp Jacob on the island Guadeloupe, 1846, framework. © *Revue Générale de l'Architecture*, Vol. VII, 1847, Pl. 4.

Nor was it the first time that a purely technological solution had been proposed for a civil building. Jeremy Bentham (1748-1832) had intended the use of iron and glass for his notorious Panopticon of 1791. With its central-plan device facilitating surveillance in hospitals, schools, prisons, factories, and so on, the panopticon would have allowed him to realize his dream of a transparent, disciplining, and imprisoning architecture.<sup>14</sup> Another celebrated example is the colossal, prefabricated hospital complex, shipped from England and erected at Renkioi in Turkey, during the Crimean War, in 1855-1856, designed by Isambard Kingdom Brunel (1806-1859).<sup>15</sup> These examples reveal a striking affiliation between the panopticon and all the social projects of the 19<sup>th</sup> century, such as “phalansteries,” “familisteries,” “aerodomes,” and so on; all were seemingly “utopian,” and all were precisely organized toward what was understood as a comfort, not so much of the individual, but of the “dividual,” to use Gilles Deleuze’s (1925-1995) and Félix Guattari’s (1930-1992) concept. It was a collective notion of habitation, organized around a centralized management and the regulation of fluxes. It also evoked the dream of the exact partitioning of living space, and of the invention of perfect machines for healing, controlling, and living. In fact, it seems clear that two genealogies were becoming intertwined around 1840: total sanitariness, which led to the exact quantification of fluids piped into buildings; and total technology, which pointed, through its use of new materials, to the precise programming and optimization of space.

Two paradigmatic cases can be used to illustrate the destiny of these two genealogies, which were to coexist in France in the second half of the 19<sup>th</sup> century. The first is the description of a project for the *Purification of Large Cities* by Country Air published in Lyon in 1884.<sup>16</sup> The anonymous author proposed the erection of an apparatus to pipe air “into churches, offices [and] dormitories of boarding houses, schools and colleges.” According to the inventor, “the mechanical installation must include: an air intake device in the open countryside, numerous pipes to carry the air to the gates of the city, where a steam engine with powerful ventilators would have to be installed.” It is worth citing his description of the installation of the air intake device, because of its surrealistic overtones: “The field will be surrounded by walls. Around every opening firs and other balsamic essences will rise up, planted to filter the air and eliminate dust; flowers and odoriferous plants will also be cultivated. A gardener will act as custodian of the entries and will see to the orderly maintenance of the plantings.”<sup>17</sup> In this proposal, “distribution pipes” were to be laid out, snaking along the sides of drains and connecting to smaller iron or tin pipes which would run along the cornices of the rooms of the building to be ventilated, emitting “atmospheric gas” from numerous holes. Moreover, special apparatuses would allow the air to be chilled during the summer and heated during the winter.

However unrealistic, this project was proposing the irrigation of the urban complex with “fluids,” thereby reinforcing ventilation as the primary condition for the establishment of domestic comfort. In 1844, Daly, in addition

to presenting his views on the planning of housing, had already signaled the importance of careful management of the flow of air, heat, and light. He thought the architect now needed to satisfy a new requirement, the adjustment of architectural form to the logic of the circulation of such fluids. “The building leaving the architect’s hands,” he warned,

*is most often a being as yet without life; it is a superb cadaver without breathing apparatus; it is deficient in the circulation of pure air necessary to the nourishment of those who live there and in the means of evacuating foul air, which it is important to organize the evacuation of as soon as it is created.*<sup>18</sup>

According to Daly, what was definitively lacking in the “superb cadaver” of neoclassical architecture was life itself, and, accordingly, only a “bio-politics” of architecture would be able to carry the house to the new shores of modernity.

The paradigm of total technology would be demonstrated in the *Revue générale* a few years later: “One could calculate,” wrote the Belgian Jean-Baptiste Marcellin Jobard (1792-1861) (a regular contributor to Daly’s periodical) in an article on “Metallurgic Architecture” in 1849, “that the thickness of the walls of houses in a town occupies an eighth of the habitable surface; houses of iron would occupy only one twentieth and would provide protection against fire, collapse, lightning and earthquakes, all the while costing less to erect.”<sup>19</sup> In his *Building in France, Building in Iron, Building in Ferro-Concrete* (1928),<sup>20</sup> Sigfried Giedion (1888-1968) quoted an article by this same author, “Architecture of the Future” [“Architecture de l’avenir”], also published in 1849:

*Because glass is called upon to play a substantial role in iron and steel architecture in place of those thick walls pierced by large openings which thereby diminish the solidity and the security [of the building], our houses will be dotted with elegant and numerous openings which will make them completely permeated by light. These many-shaped openings, filled with thick glass, single or double, translucent or frosted, clear or colored as desired, will have a magical effect on the interior by day and on the exterior by night by the play of lights.*<sup>21</sup>

Walter Benjamin (1892-1940) noted, in “Paris, Capital of the Nineteenth Century”, that the use of iron and glass was spurned in dwellings. Such materials were mainly used in arcades, covered markets, pavilions for expositions, and train stations – in other words, in “buildings which served transitory purposes.”<sup>22</sup> Two contrasting modes of subjectivity thus began to insinuate themselves into the world of things. On the one hand, was the “transitoriness” that determined one sort of man as mobile and nomadic; on the other hand, was the old individualism of the “inhabitant” who defended his traditional “permanence” or “al-location.” As Charles Baudelaire (1821-1867) observed, “individuality – this little propriety – has eaten up the collective originality...”<sup>23</sup> But the metallic elements brought into the domestic environment remained hidden within the walls.

Even if it were possible to show a widespread use of iron in domestic construction, it was not coupled with glass in the same way. In themselves, iron and glass were not a problem; it was their incapacity to avert the gaze that was a cause for concern. Civilization itself has always tended to check any movement toward complete transparency in domestic spaces. The architect Adolphe Lance (1813-1874), in his 1850 report on the hygienic cleaning of unhealthy dwellings to the Société Centrale des Architectes,<sup>24</sup> underlined this difficulty: “To invade, even with the most excellent intentions, the domicile of a citizen, to insinuate oneself into his private life, to prescribe to him rules of conduct in the sphere of his domestic actions, in a place where he is the one and only absolute judge, all this seems at first glance an effort as vain as it is indiscreet.”<sup>25</sup>

Technology nevertheless imposed its order – an order that could only endorse transparency, even if it was not literally carried out. Instead of being literal, transparency was imposed on relationships between people and things. The house was not reducible to a mono-functional and mono-cultural device.

### House, a machine

Nonetheless, for the entire second half of the 19<sup>th</sup> century, and up to the time of the slogans of the so-called “Modern Movement” in architecture, the tendency remained precisely that of reducing the dwelling to a mere mechanism. It was Adolphe Lance who, in 1853, proposed the idea of a “machine for living” for the first time:

*Would it not be possible to go further and also design our buildings or our houses in their relationship to the man who frequents them or lives in them, not only to determine their general disposition and distribution, but to also discover the thousands of special applications, multiple assistances, and economies of time and energy, which the introduction of the results of the progress of science and of industry into our dwellings could provide for domestic life? A house is an instrument, it is a machine, so to speak, which not only serves as shelter to man, but must, as much as is possible, submit to all his needs according to his actions and multiply the results of his work. Industrial buildings, factories, plants of all sorts are in this respect nearly perfect models and worthy of imitation.*<sup>26</sup>

The resistance of 19<sup>th</sup> century reformers to the practical consequences of transparency (which had become universally dominant in the commerce between things and people in this period), was allied to the bourgeois resistance to technology. Despite the mechanization of services and the new functional allocation of space, “comfort” became the axiom of architectural theory, at least until the dramatic and widely publicized revival of the theme of the “machine for living,” espoused by Le Corbusier (1887-1965) in *L’Esprit nouveau* in 1921 (which, in any case, simply reorganized the same issues surrounding the question of comfort). There was a substantial continuity of objectives in the formation of the disciplinary body of architecture, from the first hygienic and technological discourses of the 1830s to their

recapitulation in prescriptive and totalizing form in the *Congrès International d’Architecture Moderne’s Athens Charter* of 1933. At the center of this continuity in the politics of comfort, however, the problematic question of “style” remained, a question that could not be resolved by a simple dialectics. It was Daly, once again, who, in his book *Private Architecture of the Nineteenth Century under Napoleon III* (*L’architecture privée au XIX<sup>e</sup> siècle sous Napoléon III*, 1864) noted that: “the house demands comfortableness, a quality that is not always reconcilable with that which characterizes a work of style.”<sup>27</sup>

### Penal Colony

In 1845-1846, Daly published a range of architectural models for collective housing in his journal. These included the house-dormitory concept by the English architect Sydney Smirke (1797-1877), designed for Sir Edwin Chadwick (1800-1890), an influential member of the British Royal Parliamentary Commission into the Operations of the Poor Laws (1834); plans for workers’ housing taken from the pattern book of the English architect Charles Pierce, who was inspired by the collective houses of Henry Roberts (1803-1876), such as the Men’s Model Lodging House on St. George Street; and projects for neighborhoods and model dwellings for Brussels, conceived by the prison reformer and criminologist Édouard Ducpétiaux (1804-1868), and designed by the architects Jean-Pierre Cluysenaar (1811-1880) and (Jacques Louis) Charles Spaak (1804-1893).<sup>28</sup> Like many of his fellow reformers, Ducpétiaux, a keen opponent of the death penalty, would come to be criticized for the “too restrictive and disciplinary nature” of his proposals.<sup>29</sup> The plates taken from Ducpétiaux’s publication, in particular, reproduced construction and structural details which, figuratively at least, closely resembled those of treatises on model prisons: “window, chimney, ventilation system, latrine, alcove, private drain, primary and secondary drain, models for public urinals, etc.” The danger here was that, instead of new workers’ housing, what would actually be built would be new workhouses, more hotels for indigents, or houses for convicts. The specter of the penal colony hovered over these pages.<sup>30</sup>

The question, then, became one of the choice of model – colony, barracks, or “workers’ club.” Substantial documentation of this debate remains. The “Customs Barracks” [*Caserne des Douanes*] of Le Havre is an often-cited example of the many projects that resulted. Seen as a perfect example of a workers’ *Cité*, and a project of “social” architecture,<sup>31</sup> it was built in 1847 by the municipal architect Louis-Fortuné Brunet-Debaines (1801-1862). Descriptions that survive suggest an immense complex three stories high with five courtyards which, in 1850, housed more than 2,000 inhabitants. Kitchens, dining halls, nurseries, schools, dormitories for the unmarried, private quarters for families, a medical dispensary, gas lighting, and a cleaning service for public spaces were all provided. These expanded services were financed by a deduction of 12 percent from the salaries of employees. “Such an establishment certainly seems most appropriate as the resolution of the problem of workers’



Cités,” asserted a doctor in 1858:

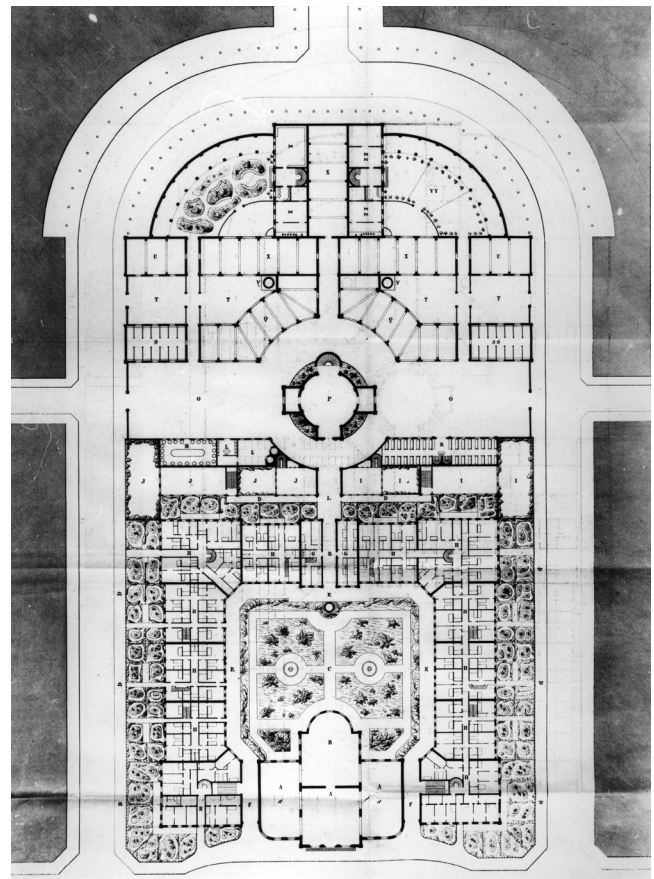
and, further, constitutes a model since it contains in itself all the conditions that we must insist be found there. There, every individual finds security, health, individual freedom, education, economy in domestic life. Most assuredly, one enjoys all the advantages of common life without suffering its inconveniences. The surveillance and discipline exercised are certainly less perceptible than the actions of the police in workers’ lodgings in town... The workers’ Cité is one of the most efficacious means of making the working classes moral.<sup>32</sup>

In this way, the program, construction, and commentary associated with the “Customs Barracks” of Le Havre may be seen as the culmination, and summation, of approximately 150 years of building and urban politics.

While Daly was initially supportive of the scheme, he later voiced criticisms of it in his review of the *Salon de Paris* of 1849, where it was exhibited. Stating that “we have been assured that the success has not been complete,” he took it upon himself to describe in the following pages various projects for colonies as a response. One example was a certain Monsieur Bourla’s *Project for a Civil or Military – Agricultural – Penitentiary – Industrial Colony*. This was a settlement of 1,200 colonists in Algeria. Composed of splendid, though austere barracks with a central corridor arranged around a square courtyard, the project followed the tradition of French military architecture of the 17<sup>th</sup> and 18<sup>th</sup> centuries, such as that of Sébastien Vauban (1633-1707), Bernard Bélidor (1698-1761), and the engineers of the Ponts et Chaussées. Following his discussion, Daly added: “We ourselves have drawn up a project for a series of African colonies during the time of the ministry of Général Bernard in 1835 for the *Society for the Colonization of Africa* which had at that time 50 million in capital.”<sup>33</sup>

### Communal Palaces

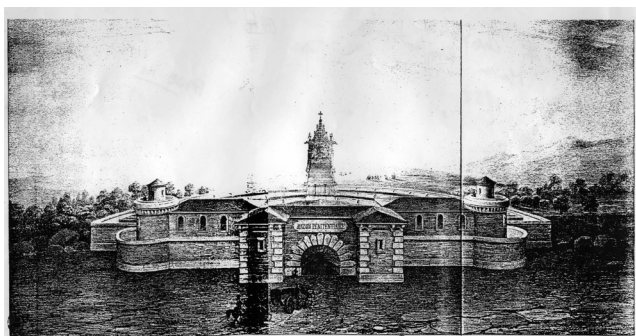
In the collectivist proposal, whether put forward by conservatives or proto-communists, there is always an interesting blend that fuses proposals for a new urbanism, together with design inventions and technological applications. This interesting crossbreeding can be found, for example, in the socialist proposals of Robert Owen (1771-1858), the Scottish social reformer and cotton manufacturer, founder of New Lanark and New Harmony in Indiana in 1824; in Charles Fourier’s theory of the phalanx, as a unit of society based on passion and mutual attraction, inhabiting single buildings called phalansteries; in Théodore Dézamy’s (1808-1850) volume on *The Code of the Community* (*Code de la Communauté*, 1842), which proposed a communal palace of 1,000 inhabitants; in Étienne Cabet’s society of the Icarians, described in his *Voyage en Icarie* (1840-1842); and in Victor Considérant’s application of Fourierism. An engineer from the École Polytechnique, the latter was the author of *Social Destiny* (*Destinée Sociale*, 1834), who had devised a phalanstery fully serviced with central heating and kitchens, and equipped with forced ventilation and plumbing. It was Considérant who wrote the most



02 Théodore Charpentier, Design for a “Cité of the Union,” November 1849, plan. © Claude-Marie (called Henri) Dometh, *Mémoire sur la fondation de cités industrielles, dites cités de l’union* (Paris: Impr. de Schneider, 1849).

interesting book on architecture of this period, *A Description of the Phalanstery* (*Description du phalanstère et considérations sociales sur l’architecture*, Paris, 2<sup>nd</sup> edition 1848). Having first dismissed Victor Hugo’s (1802-1885) prophecy about the death of architecture (“the book would kill the building”), Considérant thought that the abode of humanity should be palatial, the people having a Versailles of their own, but one fully equipped with all the devices modern technology could offer. In this palace, everything is “planned, thought of, organized and combined ... like a sovereign, mankind governs water, air, heat and light.” But for Considérant it was only in North America that Fourier’s grandiose project was destined to be realized.<sup>34</sup> All the proposals summarized above were productive and autonomous installations to be established as new colonies. Most were doomed to failure. Financial problems and mismanagement plagued many of the attempts, such as Cabet’s Icarian settlements in Texas and Illinois. Despite such shortcomings, some of the disciples of utopian prophet Claude-Henri de Saint-Simon (1760-1825) would continue to invoke the benefits of colonization, providing, paradoxically, a theory of colonization derived from socialist writers. Yet the issue of colony was never a simple matter, since throughout the century opinion fluctuated among different political circles and various individuals.<sup>35</sup>

Such forms of settlement provided models for housing reform that could be applied to the poor, but it also

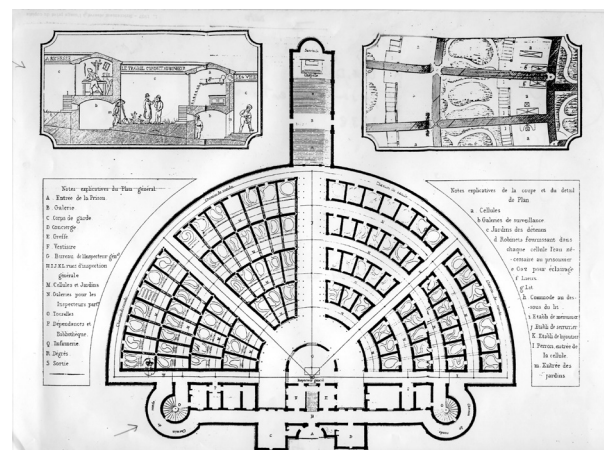


03 Théodore Charpentier, Project for a Panopticon, 1838, perspective view.  
© Théodore Charpentier, *Projet de maison pénitentiaire*  
(Paris: Impr. de Fermin Didot frères, 1838), no paging.

prefigured what the 20<sup>th</sup> century would call “minimal living,” or *Existenz-Minimum*. It also paralleled the foundation of industrial cities, in which a new architectural clothing for the collective house was proposed. One example is the proposal for a “*Cité de l’Union*” by journalist Henri Dameth (1812-1884) published in November 1849. Dameth, a member of the Fourierist *École Sociétaire*, was one of numerous Catholic socialists who practiced “*mutualisme*,” solidarity and societarism.<sup>36</sup> His never-built *Cité*, to have been founded by a society of shareholders, was sited on the outskirts of Paris and promoted as “a microcosm of all human society.”<sup>37</sup> The prospectus announced that it would contain:

*healthy, comfortable, economic accommodations, a certain optional level of association; a center of consumption and production which functions on the principle of the exchange of products, similar to Robert Owen’s system of exchange and barter; a communal bank which extends credit to everyone; a complete “institution” of popular education: nurseries, schools, old age homes, etc.*

By good fortune Dameth encountered a capable architect in the person of Théodore Charpentier (1797-1867). Although little noticed, Charpentier was a prolific professional. For eight years the architect of the city of Odessa on the Black Sea, he was also the builder of several theaters in the French provinces and a successful stage designer in Paris. A “romantic” artist, he designed châteaux in “Medieval” and “Renaissance” styles.<sup>38</sup> In 1832, he was involved in various proposals to remedy the effects of the cholera epidemic that had struck the capital.<sup>39</sup> In 1838, he published a project for a panopticon prison where each prisoner occupied a cell composed of a small room facing a little garden “where he could grow some flowers if he wished.”<sup>40</sup> The shared cells, composed of a small room for a workshop and another living room, were arranged in a large amphitheater under the gaze of the centrally-located guard. Selected for the reconstruction of the theater at Le Havre in 1844, Charpentier collaborated with the municipal architect Louis-Fortuné Brunet-Debaines, the designer of the Customs Barracks which we have already discussed. With



04 Théodore Charpentier, Project for a Panopticon, 1838, plan and section.  
© Théodore Charpentier, *Projet de maison pénitentiaire*  
(Paris: Impr. de Fermin Didot frères, 1838), no paging.

the *Cité de l’Union* skillfully designed by Charpentier, for the first time in France plans for an architectural proposal for collective housing were drawn up that exceeded a mere list of requirements and social or political claims. In the lower portion of the plan, 13 “dwelling buildings,” each of five floors, were proposed to be grouped around the three sides of a square garden about 55 meters long. On the fourth side abutting the street was the “*Bazaar*” building, with restaurants, cafés, taverns, reading rooms, a library, and community rooms, while circulation was along covered galleries. The housing to the left was divided into apartments of two to four rooms, while the housing on the right was composed of an extremely long central corridor, providing access to a series of apartments with two rooms. The architectural resolution of the problem of the inside corners of the court was particularly noteworthy. The 13<sup>th</sup> house was to function as a furnished hotel, while collective services such as baths, nurseries, kindergartens, a bakery, a laundry, etc. were located at the center of the complex. In the upper portion, the production center included barns, stables, steam engines, and communal offices. The composition was completed by the school building, placed at the top of the plan, on axis.

Between 1849 and 1851, the first large *Cité* financed by the state was built, the *Cité Napoléon*, still extant on the Rue de Rochechouart in Paris, designed by architect Marie-Gabriel Veugny (1785-1856) and sponsored by the Prince-President of the Second Republic, Louis-Napoleon Bonaparte (1808-1873) (soon to become Napoleon III). In the interior of the main building facing the street is a large gallery: a complete system of cavernous passages and vestibules stacked on top of each other, tied together by stairs and top lit with a large glazed lantern. This internal gallery, a kind of multi-floored arcade, filters a light, similar to that of an aquarium or a greenhouse for tropical plants, onto the windows of the apartments lining it. It provides a large communal space for circulation between floors, connecting the private rooms, offering places for encounters, children’s games, and old people’s gossip. Other more traditional “pavilions” were located in the rear of the residential complex, made up of apartments along either side of a narrow, dark corridor.



## The “Orgy” of Socialism

The social largesse of the Prince-President Louis-Napoléon in providing such a place was much discussed. In the press, liberal and conservative views were opposed. The former, such as lawyer Alphonse Grün (1801-1866), editor in chief of *Le moniteur universel*, promoted state intervention;<sup>41</sup> the latter, including Amédée Hennequin (1817-1859) publishing in the religious journal *Le Correspondant*, defended “domestic freedom” and companies of private individuals that opposed the coercive prescriptions of the state.<sup>42</sup> So, for a Fourierist like Victor Meunier (1817-1903), author of scientific articles for Republican (i.e. progressive) newspapers during the 1848 revolution and the Second Empire, the *Cité Napoléon* was to be welcomed as a “heated greenhouse for the flowering of socialist seeds,”<sup>43</sup> while for a conservative like Dr. Louis René Villermé (1782-1863), a famous hygienist, they could not “but excite socialist folly” among young workers, resulting in an “economy ... transformed into an orgy.”<sup>44</sup> For Villermé, the plan of the *Cité* on the Rue de Rochecouart prevented the autonomy of the family: nothing was done to “obstruct communication” or “prohibit conversation.” He added with pessimistic realism: “one knows that such idle chatter distracts the neighbors from the care of the house, creating disorder, argument, hostility and habitual laziness.”<sup>45</sup> Among the other dangers he denounced were promiscuity – single workers could “spy, waiting for the opportunity to weaken the moral principles of young women”<sup>46</sup> – and the threat of political sedition (the slogans of 1848 remained in the minds of all): “Must it not be feared that the *Cités*, which hold between their great walls large numbers of workers, isolate them even more from society in general, and thereby reinforce jealousy against those we call the rich to whom they attribute imaginary wrongs?”<sup>47</sup> The reformer’s objectives seemed to be highly contradictory: on the one hand, the house was opened to the four winds for hygienic reasons, making the dwelling transparent to light and to the gaze; but on the other, communication was intercepted and visibility obstructed in order to counter political and moral contagion.

## Dream architecture

In a passage significantly cited in Benjamin’s *Arcades Project*, Sigfried Giedion (1888-1968) perceptively noted in *Building in France, Building in Iron, Building in Ferro-Concrete*:

*The nineteenth century: singular fusion of individualistic and collectivist tendencies. Unlike virtually every previous age, it labels all actions “individualistic” (ego, nation, art), while subterranely, in despised everyday domain, it necessarily furnishes, as in a delirium, the elements for a collective formation ... with this raw material, we must occupy ourselves: with gray buildings, market halls, department stores, exhibitions.*<sup>48</sup>

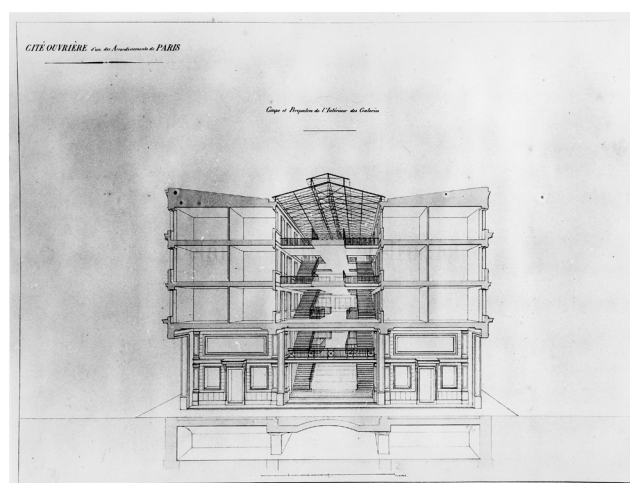
The “delirium” alluded to by Giedion was translated into “dream” by Benjamin: “It is not only that the forms of appearance taken by the collective dream in the 19<sup>th</sup> century cannot be thought away,” he wrote, “and not only that these forms characterize this collective much more

decisively than any other, – they are also, rightly interpreted, of the highest practical import, for they allow us to recognize the sea on which we navigate and the shores from which we push off.”<sup>49</sup> In this sense, it was, characteristic of the new technological organicism typical not only of various “utopias,” both realized and unrealized, but also of glazed buildings such as the “familistery” at Guise (Aisne) built from 1858.<sup>50</sup> This project, which had been designed by Jean-Baptiste Godin (1817-1888), an industrialist inspired by Fourier and by Victor Calland (1806-1865) and Étienne Lenoir (1822-1900), created three sets of buildings around a totally glazed court, with staircases and services in the corners, and passageways distributing the apartments on each floor. Another such example is the less well-known *Cité Napoléon* at Lille, promoted by the lawyer Aimé Houzé de l’Aulnoit (1822-1899), an ensemble of large pavilions with central corridors designed and built by the architect Émile Vandenberghe (1827-1909) in 1860, housing between 900 and 1,000 “poor”. In this design an original planning solution allowed “beneficiaries” to divide with partitions the 4x4 meters space assigned to each family as they wished.<sup>51</sup>

The multiplication of “utopias” for collective residences, whether social or technological, provoked a certain irritation, as the character Sénécal in Gustave Flaubert’s *Sentimental Education* can attest:

*He knew ... the entire cartload of socialist writers – those who demanded a life of barracks-like conformity for all mankind, those who wanted to entertain it in a brothel or chain it to a work-bench – and, from a blend of all these theories, he had evolved his own concept of virtuous democracy, a cross between a small farm and a spinning-mill, a sort of American Sparta, where the individual would exist solely to serve a State more omnipotent, absolute, infallible and divine than a Grand Lama or a Nebuchadnezzar.*<sup>52</sup>

The rejection of the utopian collective building schemes by reformers from diverse political spectrums could be explained by practical arguments and pragmatic reasons. By 1867, the year of the *Universal Exhibition in Paris*, the



05 Cité Napoléon, 58 rue de Rochecouart, Paris (IX), 1849-1853, perspectival section. © Paris, Bibliothèque des Arts Décoratifs.





- 4 Daly, "De l'architecture domestique monumentale," 198.
- 5 Ibid., 199.
- 6 Daly, "De l'architecture domestique monumentale," 200. Original italics.
- 7 Ibid., 201. Original italics.
- 8 Ibid., 203. Original italics.
- 9 "Département de la Seine, Commission centrale de salubrité, Rapport sur la salubrité des habitations," signed by Charles Rohault de Fleury, January 1832.
- 10 Léon Vaudoyer, *Instruction sur les moyens de prévenir ou de faire cesser les effets de l'humidité dans les bâtiments*, Paris, Carilian-Gœury and V. Dalmont, 1844.
- 11 René Duvoir, "Du chauffage et de la ventilation," *RGATP* 5, 1844, 208-214, 493-495.
- 12 "Note sur un hôpital en fer, construit au Camp Jacob, île de la Guadeloupe," *RGATP* 7, 1847, 108-123.
- 13 Daly, "De l'architecture domestique monumentale," 279 and 282, and pl. 10; Jacques Guillerme, "Fredrik Blom, colonel et entrepreneur," in idem, *L'art du projet: histoire, technique, architecture*, Wavre, Mardaga, 2008, 177-181.
- 14 See Jeremy Bentham, "Panopticon, or the Inspection House," 1791 in *The Works of Jeremy Bentham*, ed. John Bowring, Edinburgh, Tait, 1843, Vol. 4.
- 15 Harriet Richardson, ed., *English Hospitals 1660-1948. A Survey of Their Architecture and Design*, Swindon, National Monuments Record Centre, 1998, 90-91.
- 16 *Assainissement des grandes villes avec l'air de la campagne. Aperçu du projet*, Lyon, Imprimerie de Bellon, no date, 1884.
- 17 Ibid., 11.
- 18 César Daly, "Du chauffage et de la ventilation," *RGATP* 5, 1844, 118.
- 19 Jean-Baptiste Jobard, "Architecture métallurgique," *RGATP* 8, 1849-1850, 29. The author was the director of the Industrial Museum of Belgium [Musée industriel de Belgique].
- 20 Walter Benjamin, *The Arcades project, Passagen-Werk*. English, Cambridge, Mass. Belknap Press of Harvard University Press, 1999, 564; the author of the *RGATP* article is Jobard, and not Gobard, as in the faulty English translation. Benjamin cites Sigfried Giedion, *Bauen in Frankreich, Eisen, Eisenbeton*, Leipzig, Klinkhardt & Biermann, 1928, 18; idem, *Building in France, Building in Iron, Building in Ferro-Concrete*, trans. J. Duncan Berry, Santa Monica, CA, Getty Center for the History of Art and the Humanities, 1995.
- 21 Jobard, "Architecture métallurgique," 30.
- 22 Walter Benjamin, "Paris, Capital of the Nineteenth Century," in *Reflections*, trans. Quentin Hoare, New York, Pantheon Books, 1985, 159.
- 23 Charles Baudelaire, "Salon de 1846," in *Œuvres complètes*, ed. Claude Pichois, Paris, Gallimard, NRF, 1976, Vol. II, 492.
- 24 Barry Bergdoll, *Léon Vaudoyer. Historicism in the Age of Industry*, Cambridge, MA, MIT Press, 1994, 275.
- 25 *Société Centrale des Architectes, Rapport fait au conseil par M. Adolphe Lance pour étudier les moyens propres à assurer l'assainissement des habitations insalubres*, Paris, Impr. de E. Thunot, 1850, 45.
- 26 "Review by Adolphe Lance, of: M. Léonce Reynaud, *Traité d'Architecture*," in *Encyclopédie d'architecture* VI, 1 April 1853, 47-53, VII, 1 May 1853, 62-69, citation 68.
- 27 César Daly, *L'architecture privée au XIXe siècle sous Napoléon III*, Paris, A. Morel et Cie., 1864, 38; 2<sup>nd</sup> edition, *Architecture privée au XIXe siècle*, Paris, Ducher, 1870.
- 28 César Daly, "Nouvelle architecture à l'usage des prolétaires anglais," *RGATP* 6, 1845-1846, 150-155, Édouard Ducpétiaux, *Projet d'association financière pour l'amélioration des habitations*, Brussels, A. Decq, 1846, which includes his "Projet pour la construction aux environs de Bruxelles, d'un quartier modèle spécialement destiné à des familles d'ouvriers," no place, no date [January 1844]. James Stevens Curl, *The Life and Work of Henry Roberts, 1803-1876 [...]*, Chichester, Phillimore, 1983.
- 29 César Daly, "Nouvelle architecture domestique à l'usage des ouvriers," *RGATP* 6, 1845-1846, 210-222.
- 30 Ibid., see also 410-412, 449-456, 503-509, 540-546.
- 31 See Dr. C.-H. Lallemand (a physician), *La caserne des douanes au Havre et les cités ouvrières*, Le Havre, Impr. de Carpentier, 1858; César Daly, "Comparaison entre les hôtels des invalides civils et les cités ouvrières," *RGATP* 8, 1849-1850, 208-220.
- 32 Lallemand, *La caserne des douanes au Havre*, 210.
- 33 Daly, "Comparaison entre les hôtels des invalides civils et les cités ouvrières," 210, 212, 213. Original italics.
- 34 Victor Considérant, *Description du phalanstère et considérations sociales sur l'architecture*, 2<sup>nd</sup> edition, rev. and corr., Paris, Librairie sociétaire, 1848, 71, 93; Michel Vernus, *Victor Considérant, 1808-1893: Le cœur et la raison*, Dole, Canevas Éditeur, 1993, 153.
- 35 Sébastien Camille Gustave Charléty, *Histoire du Saint-Simonisme, 1825-1864*, Paris, P. Hartmann, 1931, 249; Antoine Picon, *Les saint-simoniens: raison, imaginaire et utopie*, Paris, Belin, 2002.
- 36 Claude-Marie (called Henri) Dameth, *Agitation socialiste*, Paris, Impr. de Mme. de Lacombe, 1848; idem, *Appel aux socialistes*, Paris, Impr. de E. Duverger, 1848; idem, *Solidarité, société populaire pour la science sociale*, Paris, Impr. de Mme. de Lacombe, 1848.
- 37 Claude-Marie (called Henri) Dameth, *Mémoire sur la fondation de cités industrielles, dites cités de l'union*, Paris, Impr. de Schneider, 1849, (no pagination).
- 38 Louis Hauteceur, *Histoire de l'architecture classique en France*, Paris, Picard, 1955, Vol. 6, 115, 307-308, 314, 370-371.
- 39 Théodore Charpentier, *Projet d'assainissement du quartier de la Cité*, Paris, the author, 1832.
- 40 Théodore Charpentier, *Projet de maison pénitentiaire*, Paris, Impr. de Fermin Didot frères, 1838, (no pagination).
- 41 Alphonse Grün, *État de la question des habitations et logements insalubres*, Paris, Guillaumin, 1849.
- 42 Amédée Hennequin, "De l'amélioration des petits logements dans les villes," *Le Correspondant*, July-August 1848.
- 43 Victor Meunier, *Les Cités ouvrières, extrait de La démocratie pacifique*, Toulon, Impr. de Ve Baume, 1849; on Meunier, Theodore Zeldin, *Histoire des passions françaises: 1848-1945*, 5 Vols., Paris, Payot & Rivages, 2002, Vol. 3, 276.
- 44 Louis René Villermé, "Sur les Cités ouvrières," extract from the *Annales d'Hygiène publique et de médecine légale* 42, 1849, 11, Paris, 1850.
- 45 Ibid., 18.
- 46 Ibid., 18.
- 47 Ibid., 10.
- 48 Giedion, *Bauen*, 15; cited in Benjamin, *Arcades Project*, 390.
- 49 Benjamin, *Arcades Project*, 391.
- 50 Stephen Mac Say, *De Fourier à Godin: le Familistère de Guise, Quimperlé, Éd. la Digitale*, 2006; *Habiter l'utopie: le Familistère Godin à Guise*, ed. Marc Bédarida, Paris, Éd. de la Villette, 2004.
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- 53 Marie-Jeanne Dumont, *Le Logement social à Paris, 1850-1930: les habitations à bon marché*, Liege, Mardaga, 1991, 15.
- 54 Alfred de Foville, *Enquête sur les conditions de l'habitation en France: les maisons-type*, Ministère de l'instruction publique et des beaux-arts, Comité des travaux historiques et scientifiques, section des sciences économiques et sociales, 2 Vols., Paris, E. Leroux, 1894-1899, Vol. I, xxxiii-xxxv.
- 55 Benjamin, *Arcades Project*, 389.
- 56 Ibid., 213.

### Georges Teyssot

Georges Teyssot is Professor at Laval University's School of Architecture, Quebec City (QC, CA). He is the author of many books, including *Die Krankheit des Domizils* (1989), *The History of Garden Design* (1991, 2000), *The American Lawn* (1999), and *Da teoria de arquitetura: doze ensaios* (2010). He has written the introduction to the volume of Diller + Scofidio, *Flesh: Architectural Probes* (1995, 2011). He was the curator with Diller + Scofidio of an exhibition on *The American Lawn* at the CCA in 1998. More recently, he has published a volume entitled: *A Topology of Everyday Constellations*, (Cambridge, MA: The MIT Press, 2013), of which he has edited the French version: *Une topologie du quotidien*, (Lausanne, CH: PPUR, Presses polytechniques et universitaires romandes, 2016).