Building a new society through architecture? The utopian projects of Claude Nicolas Ledoux and Charles Fourier.

The relationship between architecture and utopia is not a straightforward one, even if the expression 'architectural utopia' is sufficiently widespread that its existence seems indisputable. However, it is the product of a fundamental ambiguity that leads to a number of misunderstandings. It is fairly common to qualify an architect's work itself as utopian, whilst in fact the term applies first and foremost to the *practise* of the project, whether realisable or not. It is therefore neccessary to define what we mean by 'utopia' and by 'architecture'. Several authors have tried to categorise utopia, but it can be defined generally as a hybrid or mixed-genre text, which is specifically born of literary fiction and the political treaty. Until the end of the nineteenth century, illustrations from these books were so rare that it seemed as though authors were deliberately leaving room for the readers' imagination, facilitiating their appropriation of the described universe by allowing the formation of a mental image. Most often they dealt with the notion of an ideal world, and it was not until the early years of the twentieth century that the first dystopias[1] appeared - at precisely the time when certain utopias were brought into being, and tended to show their limits and gaps. One of the characteristics common to all utopias was to situate the described and dreamed society within a spatial framework[2] ; this justifies, to a certain extent, that they may be linked to the history of architecture. It is necessary, however, to clarify that utopias are more frequently concerned with the town in general than architecture in the strict sense of the term. This is obviously one of the prophetic aspects of utopia, as the architects of the modern avant-garde often maintained the interdependance of the town and architecture.

In principle**,** the practices of the architect and the utopian are different. A written utopia often implies a critical dimension. The description of an ideal world highlights the imperfections of the world in which we live. This aspect is less present in the project drawn up by the architect, which presents an environment whose value is inherent and worthy in itself, rather than being determined by comparison. When the work of an architect draws upon a utopian text, it is often conceived of as a first step towards the achievement of a project, as Tony Garnier's *Cité Industrielle,* inspired by Emile Zola's novel *Travail,* demonstrates. However, utopias have not always been written with the aim of being realised, as their fundamentally ambiguous character testifies: in his *Utopia* (1516), Thomas More chose toponyms that clearly indicated that the described places did not exist: the river 'Anhydra' (without water) irrigates the isle of 'Utopia' (no place)'. An 'architectural utopia' is therefore, to a certain extent, a form of utopia perverted by architects[3] : It consists in designing an architectural and urban space conceived of as a realisation of utopia. By doing this, it puts forward the principle that architecture can transform society and that the architect has the power to change people's lives - whilst the utopian entrusts this role to a book and to ideas.

This idea was disseminated with the modern avant-gardes and extended to art in its entirety. It was less explicitly proclaimed by architects in the nineteenth century and we will see that they indeed play only a minor role in the history of the relationship between utopia and architecture. However, ever since the architect was reinvented at the time of the Renaissance, he has attributed to himself a great power. Certain architectural treatises can thus be linked to the utopian tradition[4]. Written in the 1460s, the treatises of Il Filarete present characteristics that we find in Thomas More's *Utopia,* the book that founded the modern utopian tradition. Indeed, they shared Plato's *Republic* and the story of Atlantis in his *Timaeus* as sources. From an architectural point of view, these texts have the common characteristic of describing the spatial frameworks within which the perfect society is incarnated, but that of Il Filarate is imagined as the story of their realisation, whilst Thomas More's writing does not address this aspect and even seems, at times, to defy it[5]. It is undeniably the case that a number of utopians thought they might change the world with their books, but, voluntarily or otherwise, they also gave their reader the disquieting feeling that is provoked by the description of a world created by one man alone and exposed to a perfect rationality.

However, between the end of the Enlightenment and the beginning of the twentieth century, the links between architecture and utopia multiplied. Architectural and utopian thought were subject to various forms of expression, thus allowing for multiple overlaps and contaminations. The architectural treatise was subject to rapid evolution, favoured by a democratisation that brought the art of building to the forefront, from the high spheres of oligarchic societies to the level of the bourgeoisie. Architecture was transformed by the appearance of new programmes resulting from a more global conception that extended from the most modest domestic construction to the development of entire towns. Utopia, in taking on a social inflection, adopted more concrete heuristic aims. These technical aspects, already omnipresent in Francis Bacon's *Nova Atlantis* (1560-1626), became amplified, meeting architects' and engineers' preoccupations concerning the use of the materials of the industrial revolution. Parallel to this, the myth of progress and the teleological conception of history made believe that new times could arise through science, technique and industry. Never before had utopia been so prophetic, never before had its descriptions seemed so achieveable as progress allowed for the hope of eternally promising futures.

Our contribution to the study of the relationship between architecture and utopia is founded on two examples chosen from the first half of the nineteenth century. The city of Chaux described by Claude Nicolas Ledoux will provide a transition between the conceptions of the Enlightenment figures and their revision at the dawn of the nineteenth century. Its adherence to the utopian genre is debatable, but this text presents the great interest of being the contribution of an architect, which is rarely the case. The second great utopia is that which is evoked in the work of Charles Fourier. This will be studied in more depth, first of all for its own sake, then by examining its reformulations and the most significant achievements for which it provided a model. Other currents of utopian thought will occasionally be brought in for comparison. The question underlying this presentation is at the heart of the issue of the relationships between utopia and architecture: what role can the architect play in the transformation of men and societies?

Claude Nicolas Ledoux: The power of the architect.

Although the word 'utopia' never appears in Ledoux's *L'Architecture considérée sous le rapport de l'Art, des mœurs et de la législation*, this text is probably the only work for which the expression 'architectural utopia' can be used without risk of error. The same cannot be said for the other 'revolutionary' or 'visionary' architects, Etienne-Louis Boullée and Jean-Jacques Lequeu, who, even if they wrote and designed, did not produce a text that can be likened to the utopian genre. Ledoux's *L'Architecture* appeared in 1804 in the form of an initial volume to be followed by three others. By clearly distinguishing itself from the form of the vitruvian treatise, the book adopts a novel-like and fairly off-putting poetic tone - which limited its readership somewhat. Indeed, the numerous and noticeable plates captivate those who contemplate them, to the point where they discourage the reader from seeking to understand the often complex and diverted relationships they maintain with the text, which nonetheless places them in direct juxtaposition. The text relates to the notion of utopia such as it was redefined and diversified in the eighteenth century. It takes after the 'voyage imaginaire', the waking dream and the epic poem, even if the complexity of the narrative framework prevents the reader from following the story of the 'voyager's' adventures - who is apparantly not always the narrator[6]- with any precision. These waverings are without doubt deliberate and the infinite regress of continually interlocking accounts are traditional narrative processes of the utopian genre, initially used by Thomas More.

Ledoux thus walks his reader between the real and the imagined, between actual constructions and theoretical projects. La Saline de Chaux (the Royal Saltworks), which he constructed during the 1770s along a semi-circular plan, is presented here, but here it is backed with another semi-circle that forms the heart of the City of Chaux, the ideal city that the reader is invited to explore. The Saltworks

is a factory, a famous prototype of industrial architecture, to be is found at the heart of a town that is nonetheless presented as a 'forest-city'. The other buildings and numerous lodgings are indeed disseminated across the woods and fields. This duality corresponds with the uncertainties of the narration. These are voluntary and should not lead us to think that Ledoux accorded little importance to the spatial device. His regularity is in fact one of the characteristics of utopian literature that the double-natured saltworks represent perfectly. However Ledoux was probably also inspired by the idea of the nature-city, a widespread idea during the Enlightenment. This duality doubtless relates to the heritage of a tradition of regular urbanism and a more picturesque conception of space. The latter is also linked to the question of its visual harnessing. In Ledoux's city of Chaux, the regularity of the architectural space is less important than the visibility it can give. Therefore, in certain public buildings such as the Maison d'Education, the use of space is dictated by long corridors and large peristyles which facilitate the control of the young users' minds and organisms, stirred by juvenile fervour.

Finally, Ledoux was perhaps inspired by Jeremy Bentham's *Panopticon,* not in the idea for the plan of the Saltworks, which is much earlier as it dates from the 1770s, but in its intensification in *L'Architecture.* The author formulates the idea of a controlling gaze from the viewpoint of the director's house: '... at the centre of the rays, nothing escapes surveillance, she has a hundred open eyes whilst a hundred others sleep, and her ardent pupils relentlessy light the troubled night'[7]. As with Bentham, individuals are improved by the fact that they are aware of being watched, and through the objects given to their eyes. This reflexivity of the gaze leads Ledoux to bestow upon his buildings a great expressive power. He borrows from the physionomical tradition in order to give a specific 'character' to each building programme. In this sense Ledoux's architecture 'speaks'. Thus a prison must frighten and intimidate the criminal and dissuade him from committing his deed, through the character of its elevation alone.

But this architectural discourse is often implicit. It uses impressions to govern the inhabitants of Chaux. Some buildings carefully hide their function, such as the Oïkèma, a sort of pleasure house, a house of sexual education, with great blind walls and rooms with zenithal lighting, of which the infamous phallic plan would not have had the slightest chance of being perceived by candid passersby. The architecture speaks with covert words to better transmit ideas and provoke sensations. It does not call upon its users' faculty of reason and prefers to stimulate or control them through the emotions aroused by architectural devices. Finally it must be said that Ledoux does not formulate these ideas in the text of *L'Architecture.* Its hyperbolic and poetic character makes us rather think that through the text he is attempting to make his reader feel the same emotions as those felt by the inhabitants of Chaux before the edifices[8]. It is also in this sense that we can consider that Ledoux has perfectly mastered the union of architecture and utopia by finding the means to have the image participate in the text, by reconciling architectural project with utopian project. What is the political orientation of this utopia? Ledoux strives to design buildings for all aspects of life, and for every social category. He proposes a number of clerks' and employees' houses, shelters for lumberjacks, farms, hospices or retirement homes. Rich merchants or aristocrats enjoy beautiful country homes and rich town mansions, the very same ones that Ledoux had designed and contructed prior to 1789. His utopia is rather conservative, which is fairly logical if we consider that the French Revolution brutally interrupted his career, engendered the destruction of a number of his constructions and even almost deprived him of his head. Ledoux, who dedicated his treatise to the Tsar Alexander, was a reformer but certainly not a Revolutionary. The architecture of the City of Chaux was a means to slowing down the course of history and pacifying a society profoundly overturned by the period closed by the Empire in 1804. It is therefore really a utopia through architecture because, according to the conceptions of Ledoux, architecture possesses the ability to govern men without their knowing, via the sensations and sensory pleasures[9], depriving them of their critical spirit. Is this not one of the constants of utopian literature, wanting to make men happy against their will and without them knowing it?

Fourier's Phalanstère (Phalanstery)

On this point, Charles Fourier seems to propose a very different system, even though it also relies on a theory of passions. It is more explicit, precise and operational than Ledoux's. It lays down as a principle the law of 'impassioned attraction' - very freely inspired by Newton - according to which individuals, by satisfying their tastes and instincts, come together to form a phalanx. Using an abounding taxonomy, Fourier lists all the passions and classifies them into series in a way that makes them complementary to each other. This sensualism, revised by the emerging positivism of the era, allowed for the conciliation of individual liberty and social harmony; pleasure and work. The imagined society was egalitarian and collectivist, founded on the education of 'members' who lived together in communities. For all these reasons, Fourier was recognised by Karl Marx and Friedrich Engels as one of the first socialists and one of the founders of communism. His thought is nonetheless considered more as 'utopian socialism', as opposed to 'scientific socialism', of which Karl Marx defined the principles.

As for Fourier, he considered himself as a fully-fledged philosopher, even if he claimed quite an original position that he acquired through what he called 'absolute deviation' (l'écart absolu). This demand for originality doubtless explains why his books were somewhat distanced from the utopian genre: no island or long-distance voyage, no narrator or dialogues, no description of utopian men and women, yet immense and extraordinarily detailed treatises, heightened by numerous notes, digressions and cross-references, 'extroductions' and 'postambules'. However, the project was planned, and the means for its achievement were defined with a kind of economic realism. Phases of transition were described (Garantism) in order to arrive at the perfect state of society (Harmony). Some zany prophecies have popularised the image of the delirious utopian (the 'archi-arm' or the 'anti-lion' or the transformation of water into oceans of lemonade), but a number of these technical inventions were made credible by an analogical conception of science, which was breathing its last breath with the Quarrel of 1830. For Fourier, as with many other romantics, the whole universe resounded with analogies of which the discovery would only be made possible by breaking with the epistemology of the division of specialised knowledge, which was imposed with positivism.

There is no doubt that Fourier's thought borrowed much from the utopian tradition, starting with the conception of a global system from the tiniest plant, the smallest stone, as far as the furthest star in the universe. This 'unitary' conception can be found in Fourier's ideas on constructed space. The buildings, housing and the city are all inextricably associated. Whilst deploring the disparate character of towns he knew, he gave precise figures for what these houses were to be: their degree of isolation, their height, their gardens[10]. He founded the principle of well-differentiated zones on an entirely new conception: the town, the suburbs, the 'rural annexes' and the 'avenues and relays'. In one of his manuscripts, published by *La Phalange*[11], Fourier stigmatised the 'anarchic licentiousness of civilised constructions'[12], which was partly due to the contrast between the luxury of individual homes and the ugliness of 'collective housing called cities'. Like Ledoux, Fourier can be linked to a strain of critical thought on the city that had a strong influence on the utopian tradition[13] and continued into the twentieth century[14]. The absence of historicism is one of the most disconcerting aspects of his conceptions. For Fourier, architecture had nothing to do with tradition and styles, something which did not stop him appreciating the Palais-Royal, which he qualified as 'a fairy palace' when he discovered it in 1790[15]. The art of building was first and foremost a question of fonctionality and economy, and he looked down upon the 'art of architects', which, 'in 3000 years of studying architecture we have yet to learn to house ourselves healthily and conveniently'. (TADA 36). Whilst quoting the plan of Versailles for the sketch of the outward appearance of the phalanstère, and whilst praising the Galerie des Glaces (S Debout 204), he mocked the royal family who, in the Tuileries, did not have a porch to avoid 'getting wet, just like little townspeople who have hansom carriages come right up to their shop.'

The transition towards Harmony would take place within the phalanxes, little units of 1600 persons. The phalanstère was its home; an edifice that had to be perfectly adapted to needs, whatever they might be. Fourier therefore considered that no existing palace could be suitable, even if he used the model of Versailles for the conception of his plan, which should preferably be regular. Fourier indicated that it was not a question of using costly materials, as the evolution of the phalanx by the development of passions would rapidly make his architecture obselete. He in fact planned several types of building from 1803-1805[16] onwards. The Tourbillon was a vast building, the construction of which was to take two years. Its form was doubtless imagined along similar lines to that of the cosmological grids that Fourier designed right at the beginning of the century. These schemas were perhaps linked to his quest for proportions that were to favour associations and attractions: people said that Fourier walked with a graduated cane, allowing him to measure proportions that seemed fortunate. One of his own drawings bears witness to this[17]. Fourier also planned for a Tribustère, or housing for tribes, a part of the Phalanx[18] that could be built within Civilisation, block after block, thus accomplishing a first phalanstère born of the city's reform[19].

Fourier insisted upon the ease of circulating inside the building, and on the existence of numerous courtyards with gardens. Carriages had to be able to cross the different wings with ease, facilitated by passageways forming shortcuts through the ground and lower floors in order to allow for more height. The phalanstère was to be composed of individual and familial appartments, though Fourier did not specify anything about them, preferring the description of community devices. The ‘séristères’ were to be the meeting points of ‘séries passionnées’. Each of them was to be composed of at least three rooms communicating with a number of cabinets of varying sizes, used for meetings. The commons and service quarters were to be placed opposite the phalanstère, and the space separating them was to serve as a courtyard or space for manoeuvre. The 'internal galleries' or 'gallery-streets' allowed pedestrians to circulate between their lodgings, the public rooms and the workshops. They were to be heated in winter and ventilated in summer. Directly attached to the main body of building, on the court side, they were to be situated on the first floor and occupy all levels of the elevation so as to allow light across them into the rooms. Inside the gallery-street, staircases facilitated access to lodgings on the upper floors. As Walter Benjamin suggested[20], Fourier was without doubt inspired by covered arcades, notably those being developed in Paris, first at the Palais-Royal, then at the heart of building blocks situated to the north of this ensemble of commerce and housing. However, he compared the gallery-street to the grand gallery of the Louvre[21] and stipulated that large openings would be neccessary in order to avoid the superposition of three levels of crossings, not to mention zenithal glazing.

The phalanstère was not really designed by Fourier, who only did some schematic plans and a few sketches[22]. Whilst he deplored the fact that he could not publish illustrations accompanying his descriptions, he never finalised a project for this vast edifice. One of his most accomplished drawings shows a plan borrowed from the château of Versailles and courtyards similar to those of the Palais-Royal. It was too general to visualise the details of the project, and was taken up by Victor Considérant who had it engraved several times[23], whilst controling its diffusion[24]. Each print is nonetheless fairly faithful to Fourier's text and sketches, with the Chappe telegraph on the main tower, which served as a 'passions exchange'. Other elements are more surprising, such as the roofing with raised angles that evoke, inexplicably, China.

Generally, it is necessary to carefully distinguish Fourier's writings from those of his emulators. The idea of the phalanstère appealed to a number of people eager to underpin society with a more democratic and egalitarian organisation. Brought together in the the **'Member(s)/Society/Community** School', Fourier's followers did much for the public diffusion of his ideas, but toned them down, or even censored their strangest aspects - particularly those concerning sexual union. It is neccessary here to highlight the eminently literary character of Fourier's thought; he created a terminology that was as specific as it was dramatic. Furthermore, these thousands of pages revealed as much his eagerness to perfect his system as his refusal to materialise it. During the first

attempt to construct a trial phalanx in Condé-sur-Vesgre, he spent most of his time writing and participated little in the practical aspects. He accused the architect of not taking cupboard doors into consideration[25] and accorded little credit to the initiators[26]. The architectural form of the phalanstère and the choice of materials remained unclear; Fourier contented himself with indicating the proportions.

Fourierist contructions/projects

A number of books aimed to stimulate the foundation of phalanstères and the actual attemps and trials were fairly numerous, in Europe as well as in North America[27]. The **Member(s)/Society/Community** School was occasionally restive about supporting the promotors of those who seemed too unconform to Fourier's theory. A few attempts re-used existing buildings, which was the case for the colony of Cîteaux established in a disaffected abbey[28]. In France, the agricultural colony of Condé-sur-Vesgre is the best known[29]. Between 1832 and 1847 a number of attempts at creation took place, all of which ended in failure in the short or long term. The operations envisaged were nonetheless modest and financial contributors were fairly numerous. César Daly, the director of the *Revue Générale de l'Architecture et des Travaux Publics* participated in the elaboration of the plans and contributed to public awareness of the experiment, which was above all designed to educate children according the principles of the **Member(s)/Society/Community** School. In 1844 Flora Tristan called for the the construction of a 'Palace of the workers' Union', using the model of the children's phalanstère designed by César Daly for Condé-sur-Vesgre. Attemps at construction were often aimed at very precise populations and widely adapted to the specific constraints of time and place. 'Children's phalanstères', 'colonies' - 'interiors', 'forced' or 'free' - 'asylum rooms', were as much social programmes as architectural ones. The Fourierists sometimes approved attempts that were not necessarily their own idea, making clearly visible the function of social perfecting that they attributed to communitarian architecture. Thus, François Cantagrel, architect and member of the **Member(s)/Society/Community** School, did not miss the opportunity to **praise** the penitentiary colony at Mettray, whose prison-like and coercive character is very clearly revealed[30].

Architects close to socialist circles involved themselves in construction attempts. The participation of Henri Labrouste in the second phase of building on the agricultural colony of Mesnil-Saint-Firmin was modest but significant of his willingness to participate in social programmes more or less linked to Fourierism[31]. Along the same line of thought, in his review César Daly took care of the advertising for a project presented at the 1849 Salon for an 'industrial-penitentiary-agricultural colony' in Africa. Later on in the century, scholastic programmes would remain the prerogative of politically progressivist architects. But architects are relatively absent in the story of Fourierism. There was, in fact, a wide range of personalities who played a primordial role in the definition of the actual spaces of Fourierist experiments. They were particularly interested in educational architectural programmes; Jules Delbruck became involved in the conception of nurseries, inventing adapted furniture and all sorts of specific devices besides. His infants' care home allowed for the feeding of children whilst inciting them to work a chiming clock using coloured ropes. It came down to favouring associations born from a range of tasting, aural and visual stimuli. Despite the very open catholicism of this author, the attention he gave to education and senstivity was entirely faithful to Fourier's thought process. It led him to prescribe precise colours for the pediatric nurses' dresses and to think about images to be provided for new-borns to gaze at and contemplate. It was, furthermore, most often a question of visual impressions, however, certain engravings show walls lined with images. Delbruck was without doubt inspired by Robert Owen's Institution for the Formation of Character in New Lanark in Scotland. The high walls of this building were covered with representations that made available to children geographical maps, buildings, animals or far away landscapes. It was likewise characterised by spatial conceptions that could ensure comfort and hygiene, particularly with the use of hollow cast-

iron columns which led and diffused heat whilst supporting the structure of the building.

Such technical devices were also in favour with the Fourierists. Charles Harel (*-*), who presented himself as a laundry-worker, described a new 'member household' in one of his numerous publications. It was apparently a first step towards the realisation of a phalanstère, but worked through reforming, lttle by little, the city-dwellers' way of life. It seems that he invented and sold 30 000 (thirty thousand) copies of a new type of stove that allowed for steam-cooking ('la coquille'), he made varnished pottery for the kitchen, thought about food hygiene and a way in which coffee could be made with cold water, and he came up with a variety of inventions that allowed him to improve ways of living, without the need for domestic help. He may have constructed a planted roof-terrace, designed to improve the conditions of urban housing, he quantified the minimum volume of air required for the good health of the bedroom occupants, and he claimed to have invented double-glazing. It is true that many other contemporary inventors exhibited comparable ideas without having the least link to Fourierism. But the interest he showed for techniques and devices affecting daily lifestyle is nonetheless very characteristic of the partisans of the **Member(s)/Society/Community School**. Imitators of Claude-Henri de Saint-Simon likewise pinned hope for a better world on technical progress and science. The engineers from the Polytechnic School, in particular - the real backbone of Saint-Simonism - did much to accomplish this goal by constructing railways or digging canals. But they were less interested in these little mecanisms, which, according to Fourierists, were supposed to allow for the solid and immediate improvement of the quality of life of individuals and, progressively, of the whole of society. Whilst the Saint-Simonians saw in gigantic networks[32] extended to the far reaches of the planet favourable conditions for the happiness of humanity, the Fourierists claimed to attain this through the small gestures of daily life.

It is true that these material devices and operations were wholly part of the utopian tradition, in which housing had always played an important role. They were already to be found with Thomas More when he described the rooms reserved for wetnurses, and in all the technical utopias that based the hope of a better world on scientific progress. In his *Voyage en Icarie*[33] Etienne Cabet dealt with town planning and hygiene networks, but he was more interested in housing and its 'furnishings'. He hailed terraces, airation, lighting, the functionality of the kitchen and the ease of cleaning the housing. Statues were erected of those who found a way to stop chimneys smoking or who eliminated the nauseating odours from the lavatories. However, for Fourierists, these mecanisms that were easy and efficient to put in place were designed to accomplish utopia, and change the daily life of their contemporaries.

The Fourierists did not give up on the achievement of the phalanstère that Fourier had described. It was mainly on the virgin lands of North America that most of the first attempts at construction took place. It seemed easier to become owners of vast expanses of land and to convince men and women to leave to start a new life in the New World. They had been preceeded by Etienne Cabet who, from 1848 onwards, had taken up the leadership of an 'avant-garde' of colonists moving to Texas. Victor Considérant, the head of the **Member(s)/Society/Community** School did the same thing a few years later. He carefully prepared a foray**,** which was to end up in the departure of several hundreds of colonists in January 1855. César Daly went with him, but it was the architect François Cantagrel who took responsability for the choice of lands and the construction of the first buildings, simple log houses, but which were accompanied by a community building designed to house dormitories, kitchens and refectories[34]. Called 'Reunion', this attempt was a failure, and a bitterly-felt one given that large sums of money had been donated by well-wishers.

In an aim to reattempt, Considérant came back to France in 1858 in order to pull together new funds and to acquaint himself with the details of a new industrial process: 'agglomerated concrete'[35]. It seemed possible for this material to be worked by non-qualified workers, without appointing a building company, without even using an architect. Economical and simple, it seemed adapted to Texas. It had been invented and patented by François Coignet junior, an inventor and industrialist who was, at the time, constructing his factory near Paris. As a cousin of Considérant by marriage[36] and a

Fourierist sympathiser, he was one of the main financial supporters of the different experiments. Coignet junior hoped for a 'revolution in the art of construction' through this new process : '... is this not a revolution, the fact that from this stone paste, resulting from a simple mixture of plaster and lime, through a process of moulding, we can obtain all forms demanded by art or circumstances? [37]' Considérant probably hoped to apply this to the Texan Uvalde Canyon project, initiated in 1859, but the rare witness accounts describe fairly traditional houses. This attempt was once again a failure. These disappointments were not the Fourierists' prerogative. Nor were the architectural disillusionments. In New Lanark, Robert Owen had not planned very specific buildings, excepting perhaps the building designed to house the Instituionfor the Formation of Character, which has already been mentioned. [38] In 1825, when he bought the city of Harmony from the Rappists in order to found New Harmony in Indiana, he moved in to an pre-existing house, contenting himself with a few new constructions in wood, which were ordinary in every aspect except that there were no kitchens, as these were common spaces. He had nonetheless planned a magnificent, regular and picturesque edifice, he had described it and entrusted the design to the architect Stedman Whitwell.

The phalanstère has never been achieved as Fourier imagined it. But he indirectly influenced an architect like Hector Horeau and some constructions amongst which feature the shops of Gabriel Davioud from 1864 onwards[s]. We can also speculate that the interior street of the Cité Napoléon imagined by Gabriel Veugny after 1849 might be the descendant of the gallery-street of the phalanstère. However, and above all, he determined the principles of the Familistère de Guise, and in this sense Fourier's phalanstère is the only utopian programme which resulted in a tangible and ambitious accomplishment. The familistère was the object of extensive building works[s]. Its initiator, Jean-Baptiste-André Godin was a long-dating Fourierist. He had participated in the Condé-sur-Vesgre[e] attempts at a phalanstère, and had brought his support to the Texan adventure, the failure of which distanced him from Victor Considérant. Godin was indeed one of the first to proclaim the neccessity to let go of the more extravagant aspects of Fourier's thought and get rid of the 'illusion' that involved the belief that one could 'act efficiently upon the world through writing'. Yet he did not accord much more credit to the power of architecture to transform. During the construction of the phalanstère, the contacts he could have made in the architects Victor Calland and Albert Lenoir ended in failure, despite the proximity of their intellectual sources. Indeed, the idea of a central glazed courtyard in each part of the building was borrowed from Calland - it did not exist in Fourier's work - but the luxury of the refined architecture of his projects frightened the founder.

The links between the phalanstère and the familistère are clear, but superficial. The courtyard of the phalanstère was to be open-air, whilst the Gallery-Streets, reflecting the parisian covered passageways/arcades, were to be glass-roofed. It was an 'extrovert habitat' where everything was directed towards the development and combination of passions. At the familistère the courtyard was to have a glazed roof, forming an 'introverted space', a moralising tool which aimed to educated parents through children by mutual surveillance. In many ways the familistère was inspired by the medieval monastary, a programme that Albert Lenoir, who Godin consulted, knew well. Godin attached great importance to schools, to the 'pouponnat' (fig. 155 and 156) and to the 'bambinat'. In this sense he was very much his predecessors' heir, he spoke of ‘complete education' and imagined a type of adapted furniture or re-used the furniture invented by Delbruck (fig. 157 and 158). Like with Owen, plates of natural history, botanics and mineralogy lined the walls. Like in New Lanark, the aim of this eduction was entirely turned towards the efficiency of industrial work. A sanctification of the notion of work resulted from this. The aim of Godin's action was to perfect the familisterians by a system which seemed much more coercive than liberating. Fourier's harmony of passions gave way to a strict control of social mores and ways of life.

In weighing up the consequences of the familistère, it is obviously neccessary to distinguish the aims of the means employed to achieve the various goals. We have no doubts regarding Godin's sincerity when he aimed to find other methods of economic and social organisation, when he aimed to provide free medical care, an education to children, found a structure of cooperation and self-

management. But in order to attain his targets, he envisaged the radical transformation of the familisterians' minds and bodies. To their selection and education he applied methods that were as rigorous as those used in Godin's industrial workshops**,** specialised in the casting of iron stove heating. As Zola wrote in his preparatory notes for his novel *Travail,* it is no good to 'cast all lives into the same mould'.

Conclusion

The familistère experiment reveals one of the recurrent aspects of the way in which architecture is meant to participate in utopia. Most often, utopians do not demand that architecture acts through its aesthetic qualities or historical references. It is above all rational and functional, something very clearly expressed by Godin when he wrote that 'the architect. .. must seek the right means to respond to the demands of housing in order to give man the well-being that his nature seeks; it is towards the satisfaction of these demands that an architect must direct his conceptions'.

This aspect links Fourier's thought to the architectural rationalism of his century. The invention and fabrication of a multitude of devices designed to make daily life easier and improve living conditions and hygiene are also a part of this. But this implicit criticism that Godin expresses towards architects indeed indicates that he reserves the right to determine what man's needs are, or what they should be. In a much less explicit way, architecture has the function of transforming man, something clearly demonstrated by his interest in education. Society must be reformed by changing individuals made vicious by centuries of subjugation. Architecture is not only a way of improving living conditions, but of making the inhabitants compatible with the principles of utopia.

Fourier qualified architecture as 'pivotal art', because it allowed for the coordination of the 'series' of passions, of which only the opera was also capable. For him, it was a question of attaining a 'harmonic unity' that reigned over social organisation as with architectural forms. This direct correspondance between architecture and society was established by Considérant from the critical remark on cities: such living conditions could only give birth to deficient individuals and unformed societies. The direct relationship between man and his architectural milieu results from a corporiety and organicity that we often find in the theoretical, as well as the utopian traditions. The idea that a building is a body in its proportions and functions is a topos of architectural thought which goes as far back as Alberti or even Vitruvius. We find this idea at work in utopian thought, especially in Considérant's work when he describes the gallery-street (arcade) which winds 'around the community building…, which links the parts to the whole…. It is the canal via which circulates the life of the great phalansterian body, it is the magistral artery that, from the heart, brings blood to all the veins[s]'. The idea of a living building can likewise be found in the Saint-Simonian Charles Duveyrier's description of Paris[f]. The city is conceived of in the form of a man's body laid out on the floor, of which the limbs form the different quarters. It is their activity that gives life to this colossus. On its chest is a temple, which is a woman. The right arm of the 'city's beloved' is turned towards the cupolas and the industrial domes, his hand rests on a sphere that is a garden, which houses 'the sacred theatre, of which the sets are panoramas'. In 'the left hand of my colossus' wife', an azur and silver sceptre serves as a lighthouse by dominating the candle-shaped spire of the university found under the 'left breast' of the man's chest.

This corporeailty is organic in the sense that, as F.L. Wright wrote to define the term : 'A man or anything concerning him, *from within*. […] Inherent PRINCIPLE […] So *entity as integral* is what is really meant by the word organic. INTRINSIC''. In Fourierist thought, this integrality directly concerns those who use the architecture. The Fourierist critic Désiré Laverdant gave a very suggestive presentation of this by using the explanation of the action of architecture through touch, through 'tact' to use his exacting wording. The architectural environment touches the body as it does the mind and, in an indirect way, captures this interweaving of the social and the individual. Because it is linked to

notions of touch, the social function of architecture is to be all at once the thumbprint of a society and the mould that shapes it. Furthermore, architecture is considered as the art that occupies a 'central and superior rank' as 'the first of all arts' that 'encompasses all the other arts in its arms, brings them into its heart'. It touches men by its very physical nature and by receiving all other art forms, it touches all the senses : 'tact(ility), containing in some sense inside itself all the other senses, creates architectural art[t]. It is in this sense that architecture is 'pivotal'. 'Good gracious! Architecture is everything' cries the character of the architect in François Cantagrel's *Le Fou du Palais Royal*'. This figure, so important, who participated in the Texan attempts, was himself an architect. But, if the theses he defends are those of the Fourierists, the trust he accords architects is far from being shared.

In a general way, at the heart of utopian thought, artistic preoccupations come second to the function of transformation. Ledoux represents an exception because, according to him, the character of architectural forms should make an impression on the user's mind, in the same way that the expression on a face communicates emotions. The architect therefore had to stage society in order to exerce control upon individuals through art, and to favour a form of regulation by the power of sensations, particularly visual. With the Fourierists, the process is more direct and less artistic. Architecture is a 'social mould', according to the Fourierist architect Victor Calland, which impies that it is conform to man's needs, but moreover that it conforms man to this new social organisation, by con*tact*, to use Désiré Laverdant's term. The cohesion of man with his mould was a garantor of his perfect adhesion to the social project. Furthermore, Victor Considérant, with the Coignet concrete, like other utopians, imagined the construction of architecture from malleable materials, as if to make it more compatible with its moulding and 'modelling' function. This ambivalence of architecture in utopian thought is that of utopia itself, which, we should be reminded, can provoke as much hope as concern. And though William Morris had proposed in his *News from Nowhere* a form of shrinking utopia, highly respectful of individuals, this ambivalence can be found again in the modern project that claimed to be able to change lives thanks to the functionalist perfection of architecture.

Baptiste-André Godin, Thèse de Doctorat, Université de Paris VII, 1992, 2 vol ; Lallement, Michel (1962-....)

Titre(s) : Le travail de l'utopie [Texte imprimé] : Godin et le Familistère de Guise / Michel Lallement

Publication : Paris : les Belles lettres, 2009 ; ainsi que Draperi, Jean-François (1954-....)

Titre(s) : Godin, inventeur de l'économie sociale [Texte imprimé] : mutualiser, coopérer, s'associer / Jean-François Draperi

Édition : [2e éd.]

Publication : Valence : Éd. Repas, DL 2010

Mumford Frye Servier choay
Contre-utopie qui s'attache à montrer le caractère négatif et notamment totalitaire de l'utopie.
Choay,
Rouillard Dictionnaire des utopies, article architecture.
Voir sur le praallisme entre les deux genres, choya la réglee le modèle.
F. Choay pour la spatialisation.
baridon
Claude Nicolas Ledoux, *L'Architecture* […], *op. cit*., p. 77.
baridon
Ce n'est pas sans raison que Vidler le rapproche de Sade.
698-9.
et intitulé « Des modifications à introduire dans l'architecture des villes »OC XII, pp. *
XII, 697.
Les « utopias of escape » selon Lewis Mumford et l'on sait que Thoreau a été influencé, ne serait-ce
Voir Cohen sur le mouvement désurbaniste en URSS.
cf Pellarin, 1843 ; p. 175.
(Vidler, fr, p. 310)
Maison rue près des Invalides.
décrit rapidement dans la TQM, lyon 1806, paris 1966, p. 118),
(Vidler fr 311)
(n° 21, décembre 2010) des Cahiers Charles Fourier(n° 21, décembre 2010) des Cahiers Charles
S. Debout 204.
(conservées aux archives nationales AN 10 AS, 23 dossier 18 et reproduites par Vidler, fig.
101 L'Avenir. Perspective d'un phalanstère ou palais sociétaire dédié à l'humanité [d'après le plan de
Ch. *La Phalange*, mars 1838, n° 5, p. 80 et n° 6, pp. 94-96.
Paquot*, et An 10 AS art 19 pièce 268.
RIOT-SARCEY Michèle (1995), "Lettres de Charles Fourier et de Désirée Véret : une correspondance
Desroche
Note Thomas Voet.
Les habitatns du lieu revendiquent encore leur filiation avec Fourier. Cf Desroche société festive, p.
F. Cantagrel, *Mettray et Ostwald. Etude sur ces deux colonies agricoles, dédié à MM. les fondateurs*
Cf. Pierre Saddy, *Henri Labrouste*, catalogue d'exposition, Paris, 1977, p. 61 ; et Bernard Marrey, « Les
Picon
ref
Beecher 445.
Cf. une lettre du 2 novembre 1858, Paris, Archives Nationales 10 AS 28 (9), mentionnée par Beecher,
Clarisse Coignet, la femme de François Coignet, est la fille de l'oncle de Julie Considérant (née
B. Marrey, *Les Grands magasins*, Paris, 1979, pp. 37-39.
Notamment : *Godin et le familistère de Guise à l'épreuve de l'histoire : actes du colloque de Guise du*