

## 20TH CENTURY NEW TOWNS

### From Archetypes to Uncertainties

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#### Abstract

*Since the early twentieth century, the history of the city and modern urbanism was particularly marked by ideas and projects for new cities with a strong utopian and paradigmatic character:*

- *prototypes, unsuccessful or partially implemented, which unquestionably influenced the culture and practices of urban planning and architecture, achieving still to sensitize the collective imagination over the image of the cities of the future;*
- *primordial archetypes, acting as true testimonies of concepts, intentions or ways to devise new dimensions and features of the urban environment and alternative and revolutionary ways to understand how would be the city of the future generations.*

*The evolutionary path of these ideas or projects culminates, and in certain sense ends, with the new vanguards of the 50's and 60's, where the preconized concepts of town (unlimited) point to the dissolution of the architectural object and of the architecture itself. Becoming the latter and associated city models as the ultimate uncertainties, almost consecrating the other uncertainties that come together in an attempt to understand the phenomena and new trends of the real city. After these expressions, the visionary interest in the new cities of the future starts to fade, due most probably to a growing concern to understand the issues and the effects of the great dynamism of urbanization and the process of metropolis creation.*

*Eventually, the analysis of this path will provide an opportunity to reinforce the importance and the contribute of ideas and major projects, that even today are considered as the most paradigmatic of the twentieth century, particularly those planned in the 20's and 30's. The value of these contributions as a methodological reference and a research base becomes even more evident under the latest developments, testing new urban models and planning new cities in emerging countries, which seem to point a return to the search of new visions and solutions for the city of the future.*

**Keywords:** New Towns, Urban Utopias in the Twentieth Century, City Design.

Since the beginning of the twentieth century, the history of the city and of the urbanism was particularly marked by ideas and plans of new cities heavily charged with utopic and paradigmatic visions: prototypes unrealized or partially built that unquestionably influenced the urban and architectural cultures and

practices, marking the collective memory about the image of the future cities; primordial archetypes, acting as repositories of concepts, intentions or ways of predicting new forms and dimensions of the urban space, alternative and revolutionary perceptions of understanding how it should be the city of the forthcoming generations. In truth, this stage of emerging radical ideas and new towns projects developed since the 19<sup>th</sup> century, in special during the period 'from the utopia to the garden city' (Spagnoli, 2012, p. 117-138).

Although characterized by solutions not entirely revolutionary, this century ends and turns into a period of experimentation, searching for answers to the problems caused by the fast population growth and by the socio-economic changes occurring in the cities directly involved in the industrialization process, preparing thus the foundations for more ambitious solutions which anticipate a future never imagined before.

It is, however, the first decade of the 20<sup>th</sup> century that stands out as the turning point. Along with the reformist proposals of Howard, Henard or Wagner, others more mature start emerging, prefiguring new cities based on more consistent and functionally complete projects, such as the industrial city of Tony Garnier, published two years before the end of the decade.

This last proposal was intended to be an alternative expressing the new industrial society, turning into the reference model for the creation of the new industrial cities in the Soviet Union during the 30's. This model is still not as visionary and paradigm as those that will arise in the next two decades, but it paves the way for a more careful and thorough experimentation on the fundamentals of the new urban project and on the application of innovative construction technologies.

Various opinions from the historiography and critics recognize, however, that the Garnier's project was much more than a demonstrative representation (Spagnoli, 2012; Secchi, 2005; Calabi, 2004; Frampton, 2002). The articulated and hierarchical design of urban spaces, the location of the different functions depending on the infrastructural system and its adaptation to the topography, along with the application of advanced urban planning techniques, have made

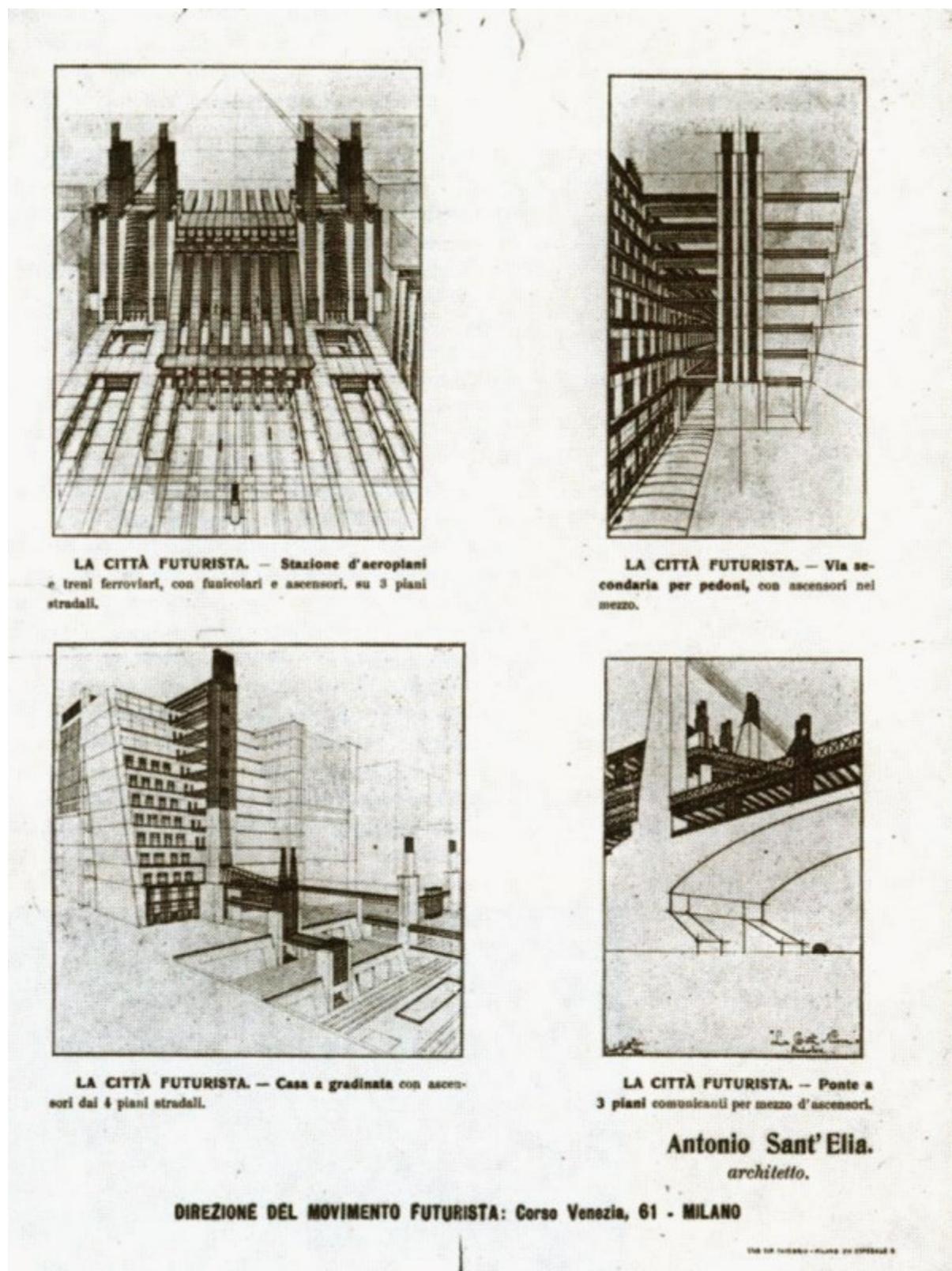
this project an example of the application of the occupation principles of the city of the future.



**Figure 1.** Tony Garnier Industrial City in <http://cidadeindustrialcidadejardim.blogspot.pt/>

The drawings of *Città Nuova* conducted by Antonio Sant'Elia, first presented to the public in an exhibition in Milan in 1914, were more focused on the anticipation of the environments and shapes of the future metropolis. The buildings' height, the overlapping layers of the various modes of transport infrastructures, as well as the absence of any type of preexisting element or reference that could establish a continuity with the past or with the rural and natural environment, restore the image of a radical and totally new urban dimension, mainly concerned with the assignment of a face to the most expressive materiality and functionality of an imminent time, harbinger of major urban, social and technological changes.

However, these drawings cannot clearly translate an organized and comprehensive urban model. They are fragmented and epidermal representations that define a view of the city that does not provide any kind of relationship between the parts, nor the existence of elements defining the buildings interiors (Costa Meyer, 2013, p. 29), omitting therefore, its connection with the external structures.



**Figure 2.** Images from the *L'architettura futurista: Manifesto* in <http://lebbeuswoods.wordpress.com/2009/11/02/santelias-words/>

A bit like the role played by Hughs Ferris, that tried to build a coherent vision of the future Manhattan (Koolhaas, 2006, p.103), drawing only the shape of the buildings based on the *Zoning Law* of 1916, Sant'Elia merely defined the exterior appearance of architecture, drawing impressive envelopes and urban super-structures, resulting from the connection between the buildings volumes and the communications infrastructure diagrams, thus prefiguring the formal and pictorial paradigms of the *Città Macchina* (Los, 1974) that will later develop everywhere.

The city model designed by Bruno Taut, published in Jena (1919) in *Die Stadtkrone* (the Crown of the City), was less focused on the formal and esthetic values, and perhaps too grasped to the meaning of the project. This model, that emerges under strong influence of the expressionist ideals and theoretical principles of the '*Espirito da utopia*' (Bloch, 1980), proposes itself as an anticipation of the future and as a social idea that rejects any form of power. Following this experiment, already in 1920 Taut will develop other versions, published in the *Alpine Architektur (Architecture Alpina)* and in the *Die Auflösung der Städte* (The dissolution of the city).

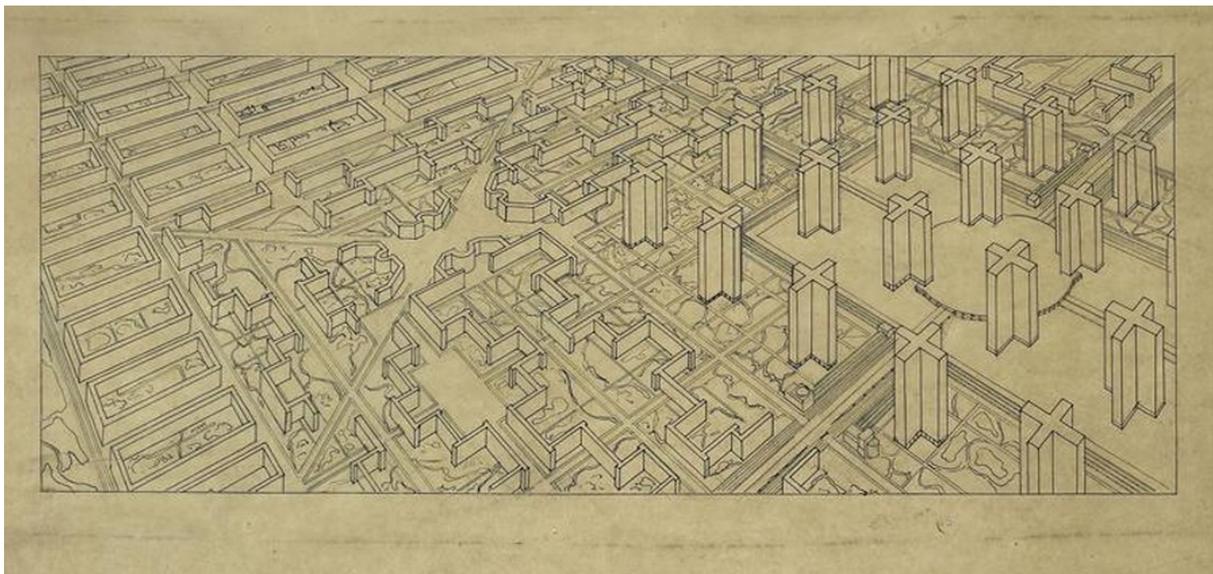
In this last version, the drawings clearly evidence the philosophical and theoretical determination of this architect about the new way of designing and living the city. The social, political, cultural and architectural aspects are thought as components of a temporal and spatial, long-range territorial project, setting an urban solution that aims to be the point of convergence between utopia and reality, which will later serve as reference for the accomplishment of the famous *Siedlungen*, architectural archetypes and unavoidable references in the construction of the modern city.

Unlike the futurists and rationalists, Taut strives to respect the existing built and natural environments, but refuses the city of the present and adopts a solution that reverses the logic of the traditional occupation. Under these assumptions, he designs a flower-shaped city, integrated in the nature and spreading the center into the territory, in order to define a network of small rural communities, organized around a complex community space, setting up a model that advocates the inevitable dissolution of the traditional 19<sup>th</sup> century city.

However, the most profound and radical change occurs between the 20s and 30s, spreading up until the beginning of the Second World War. During this period, a new concept of urban planning rises based on a new conception of life that aims to meet human needs with more rational urban and architectural solutions.

The proposals developed in this time range, continue to maintain a certain charge of utopia, however, this time it is understood not only as a method to anticipate the future or promote the progress, but also as a tool to confront present and past in a critical perspective (Secchi, 2005, p 65) that acquires a concrete dimension and a tangible practical utility.

The *Ville contemporaine de trois million d'habitant* designed by Le Corbusier in 1922 was one of the first major proposals for the achievement of this utopia. It was an alternative model to the traditional city and, at the same time, a synthesis of the latest urban design and architectural solutions produced at the time or, in other words, a kind of archetype of archetypes.



**Figure 3.** Le Corbusier, *Ville de 3 millions d'habitants* in <http://laboratoireurbanismeinsurrectionnel.blogspot.pt/2012/01/m-tafari-la-crise-de-lutopie-le.html>

It will follow variants of this model, like the *Plan Voisin* in 1925, and the *Ville Radieuse* in 1935, as the most advanced and paradigmatic examples

demonstrating the validity and applicability of the modern urban planning for any context (Le Corbusier, 1935) being this a dogmatic conviction of its author. The importance of these models is mainly due to the fact that they pointed the urban planning foundations that allowed understanding the rationalist city. For example, the geometry as the intrinsic rule and synonymous of rigor in the conception and design of the urban and architectural projects; the orthogonal layout as the basic matrix allowing to structure and use the urban space in an efficient and flexible way; the zoning as a technique to manage more rationally and profitably the soil and the relation or separation of the functions; the hierarchy and articulation of the road networks and transport modalities to ensure the connection between the activities and the fast movements from and to anywhere in the city.

The project of the vertical city Hilberseimer, presented in 1924 and included two years later in the publication *Großstadt Architektur* (Hilberseimer, 1927), was also in line with this rational view of the city was. Certainly influenced by the Le Corbusier, by having seen the draft of the contemporary city still under development (Spagnoli, 2012, p.295), Hilberseimer proposes a daring rational solution, designed for cities of high density and dimension. Thus, exploring one of the principles of vertical architecture, the *stratification*, Hilberseimer imagines the overlapp of the functional levels, placing the production and the motor traffic in the intermediate level, the housing in the upper level, horizontally connected by footpaths, and the railway transportation infrastructure in the underground. Among others, within this rational view may also be included the ideal city *Rush City Reformed* (1928) by the architect Richard Neutra. Behind the austerity of the perspectives that seek to produce the overall image of this new city, which almost emphasize the strong geometric character of the urban structure and the functional centrality of communication infrastructures, there are actually a set of detailed solutions with a great human and rational specificity resulting from a long and hard work.

In fact, as Neutra mentioned in a reflection concerning the rationalization of its first programmatic schemes, the idea of this city '*did not based itself on an abstract or theoretically rigid scheme*', but '*was rather a series of efforts starting*

*a quarter of century ago, to study the urban problem in a scientific manner, expressing a belief in the wholesome flexibility of city planning'* (Neutra; cit. in Hines, 1994, p. 61). These efforts aimed mainly at resolving concrete issues in the scope of architecture and urban design.

Other interesting and representative experiments from the perspective of the originality and formal and conceptual radicalism of this period were the designs of the Soviet socialism new cities. Developed between the 20s and 30s, they were intended not only to give a fast and practical response to the territorial industrialization policy, but also as an expression of the *Engels* socialist society to overcome the inequalities and the '*contradictions between town and country*' (Kopp, 1987 p.189).

The formation of trends and distinct positions about the principles of formalization and use of the '*socialist city*' originated models of various kinds<sup>1</sup>, among which can be highlight the linear for its evident uniqueness.

Examples of this type were the linear development scheme of the "*desurbanists*" and the Leonidov's linear city plan to Magnitogorsk from 1930, being the latter mainly known for being the model that attempted to break the impasse between "*urbanists*" and "*desurbanists*" (Kopp, 1987, p.213).

Applying a solution of continuous parallel tracks, within which were organized the housing settlements and the community facilities using a reticular scheme, Leonidov tries to integrate the city with the surrounding nature, being certain that through this integration the main human activities, including necessarily leisure, could constitute a more connected and organic environment.

However, being somewhat abstract models, they were not built, as happened to the plans of Ernst May groups, who, despite being more practicable, lacked a genuine political consensus. The debate and, above all, were released the basis for equating the issues of urbanism and territorial planning, which until then had never been addressed, at least in scientific terms.

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<sup>1</sup> The basic models of the constructivism urban development were essentially four: i) nuclear according to the principle of satellite town; ii) linear *desurbanism*, based on the location of the isolated dwellings on *pilotis* in correspondence of the roads that led to the agricultural structures (Kolchoz); iii) diffuse or spread *desurbanism*, comprising a set of isolated dwelling units distributed on the territory; iv) linear parallel strips provided with differentiated uses and interposed between nuclei of primary production.

This phase of great creativity and radical ideas about the city, remained somehow interrupted by the Second World War, during which in countries of authoritarian regimes are designed and sometimes executed experiments regarding the '*state urbanism*' (Spagnoli, 2012, p . 333).

After the conflict, the new cycle of radical changes in the way of understanding the city, starts with the avant-garde ideas of the 50s and 60s. Crossing directly or indirectly with the people of '*great generation*' (Godard, 2003; Secchi, 2005)<sup>2</sup>, these vanguards begin to contest the principles of the modern city.

On the other hand and against all expectations of its creators and supporters, these principles will initially have a rather limited application, not only in the case of the *New Towns* in the UK, influenced by the garden city models, but also in the French *Villes Nouvelles*, often considered as resulting from technical attitudes or from the central government impositions.

Only the Nordic countries were able to apply and take advantage of the Modern Movement models, either by adopting mechanisms of great public control, or by achieving to reinterpret and adapt them to the site conditions with great skill and sensitivity.

So, along with the renovation or urban expansion projects, intended to rebuild or build new housing in response to a new phase of population growth, emerge visionary and utopian proposals for new cities positioned in a distinct perspective from the linked with the functionalism.

In the mid-50s was born the idea of the *New Babylon* from Constant, affirming itself not only as a political manifesto for the liberation of the worker and against capitalism and its ethnic and economic boundaries, but also as alternative to the project and city of modernist tradition. Assuming itself clearly '*against an idea of green city that most modern architects have adopted (...)*' (1959, 37), Constant envisioned a new way of using time and space, devising the city as a continuous

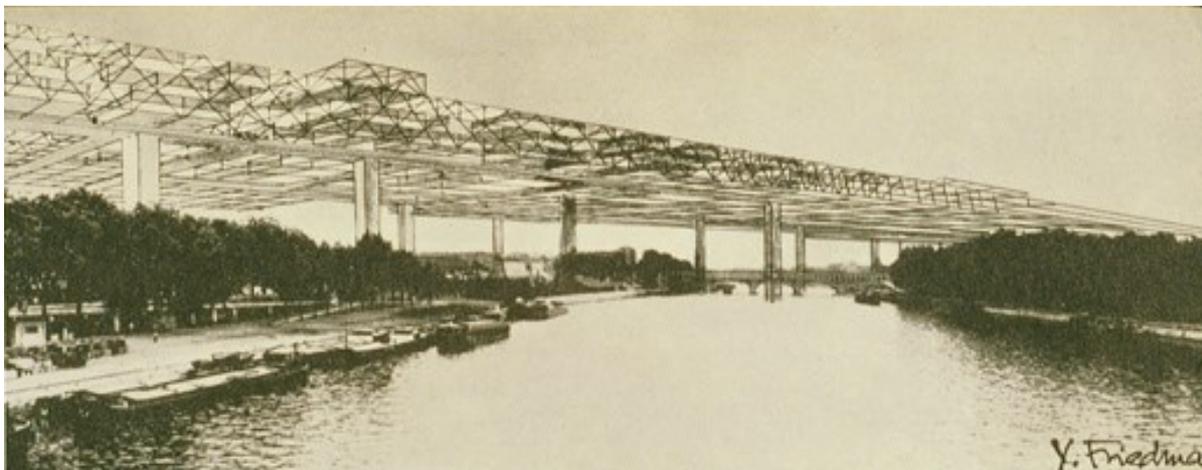
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<sup>2</sup> Godard refers to the generation that witnessed the First World War and that having been deeply marked by this event, developed critical and reflective thoughts on the history and possibilities of conferring it different directions. In the other hand, Secchi adds that in this Great Generation also architects and planners took part trying to materialize utopias, designing foundation cities or making a series of projects aiming to demonstrate that it was necessary and possible to introduce new ways of living, alternatives to the cities of the old regime or to the nineteenth century.

construction, organized by an unlimited public space and composed of architectural spaces that continuously change.

From this period were also the proposals of the Friedman's *space cities*, conceived accordingly to the principles of his *Manifesto of mobile architecture*, presented in 1956 at the X International Congress of Modern Architecture (CIAM) in the city of Dubrovnik. Consisting of a large suspended structure superimposed on the existing city, these proposals intended to turn the space more flexible, predicting dwellings that could be created and modified according to the requirements of its inhabitants and residents.

The great interest in this new type of spatial urbanism by Friedman, certainly influenced the utopians and radical vanguards of the 60s, also known as the age of the mega-structure (Banham, 1980), period when it began to appear urban projects of large multifunctional high technology structures.



**Figure 4.** Space city by Yona Friedman (1960) in <http://movingcities.org/movingmemos/yona-friedman-book-review-oct11/>

It is most likely that following Friedman's proposals, and to some extent the ideas launched by Fuller's work, that about a decade later appeared the contributions from the *metabolic* group, whose theoretical principles had already been approached by M. McLuhan, in the mid-50s, with '*The Global Village*' (McLuhan, Powers, 1989), and projects as the *Plug-in City* and the *Walking City*, developed, respectively, by Cook and Herron from the *Archigram* group.

Dated from 1964 and based on very similar assumptions of the culture of *metabolism*, these projects seemed to evoke and promote again the vision of the futuristic city-machine, which half a century later, thanks to the technological advances, could finally become a reality and at the same time, provide a real alternative to the functionalist modernism.

Like the followers of *metabolism*, the *Archigram* believed in the application of mobility to the different scales of architectural elements, as well in the distinction between fixed and mobile components of architectural and urban structures. This enabled them to devise mega-structures to accommodate components of limited duration, easily replaceable, enabling the city to follow the fast growing economic development.

This phase of visionary and deeply radical ideas will conclude at the end of the 60s with projects that somehow transcend the traditional model of the finite city: "negative" utopias that, having as background the social contestation movements and the manifestations of counterculture, seeking a way of showing the formation of the unlimited city, claiming for the need of a new starting point for the construction of architecture and the city. However, this search will result on producing *manifesto* projects, as the *Monumento Continuo* and the *Non-Stop City*, written respectively by *Superstudio* and *Archizoom*. They will be known not as anticipatory visions of the future, but as radical critiques to the built and imaginary architecture of the modern society (Stauffer, 2008, p. 211), especially to the modern Movement that has not able to predict and deliver effective solutions for the future of the city. In an attempt to embody the spirit of the architectural ideology critique (Tafuri, 1969), the project *Non-Stop City*, the city made of continuous and homogeneous space, will seek to turn the urban space fluid and flexible (Scarponi, 2005) reducing the architectural object to a simple modular element.

This attitude of approval, mass standardization and loss of identity, will mark the beginning of a journey of ontological uncertainty that will lead to the dissolution of the contemporary city into a multitude of concepts, expressions and different ways of understanding their present and future dimensions. From onwards, the

concerns with the new complexities of the urban phenomenon relegate to a secondary position the need to create a new and better order, thus making needless any new visionary impulse for the city of the future.

The reconfiguration of cities and societies by the globalization and the media, the crisis of the *welfare state* models, the awareness that the city can hardly be seen as a *finished work* and, above all, the issues related to the process of urbanization, will guide the urban reflection and practice mainly to the problems associated with the reorganization of the territory, the urban sprawl, the metropolis and the formation of the mega-cities.

It will be approximately from the 90s, after confirming the absence of reference urban models and the crisis of architecture (Gregotti, 1999), generated by the systematic construction highly conditioned by the notion of market and consumption, that will become more evident the importance of a critical review and re-contextualization of the production of modernist culture of the 20<sup>th</sup> century, in special the contributions developed between the 20s and 30s, which were already heavily criticized by the more rigid postmodernism movement.

Thus, in contrast to the anti-modernist positions, such the ones of Colin Rowe (1994), which through a critical approach aimed to reveal the contradictions of the Modern Movement principles and of the rationalist architecture, there were others, namely those connected with the Dutch school which, not having been influenced by the postmodernism, had already realized the importance of that movement's tradition as a method, projection to the contemporary age and as research base for the typological innovation<sup>3</sup>.

The synthesizing in *modern* key the more advanced urban and architectural archetypes, thus shaping a new way of life, begins to be recognized as an important theoretical contribution and demonstrative of modernism and its figures of the *great generation*. That recognition may not, however, be

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<sup>3</sup> In the symposium organized in 1990 by the University of Delft, '*How is Modern Dutch Architecture?*' (Bernard, Deen, Grafe, 1990), Koolhaas wanted to impose this title in order to recover the tradition of the Modern Movement, not only to avoid more conservative actions, but also to be understood that this tradition could be used and understood as a methodology for finding a new modernity.

completed without considering limitations or contradictory aspects, like the orthodoxy of its principles or the scarce interest in the social and economic integration issues, which are undoubtedly fundamental to better understand the teleological value of that contribution.

The importance of this contribution as a methodological reference of anticipation and research base becomes even more evident under the scope of more recent developments that suggest the return to the research for new visions and solutions to the city of the future. Similarly to what happened a century ago, when Sant'Elia turn public for the first time his futuristic designs, the beginning of a new cycle prefiguring unprecedented and deeply radical proposals, may be imminent.



**Figure 5.** KPF (2010), Meixi Lake Materplan (Changsha, China) in <http://www.kpf.com/>

The recent experiences of '*urban modeling*' (Spagnoli, 2012, p.600), such as the *ecocities* (who favour the elements like natural free space, the ecological waste treatment systems, the renewable energy sources and the low emission

transport systems) or the *greencities* (experimental laboratories for the applicability of the models for the future) already impose themselves as true prototypes of implementation, both for existing, as for the new foundation cities that are being planned in the emerging Asian countries.

As in the proposals that contributed to shape the modern city of the last century, the latest models are experimenting, combining and integrating new paradigms, principles and last generation archetypes in order to find effective innovative solutions. Perhaps, this will be the confirmation that to build the city of the future it is essential, if not mandatory, to recognize the archetypes that it should reuse and integrate to enter in the '*second modernity*' stage (Spagnoli, 2012, p.600), leaving however place for uncertainties as opportunities for reflecting and to the eventualities reserved by uncertainty.

To conclude, it should be remembered that, despite recognizing the importance of the priority suggested by Barnett (2011), when affirming that '*what is needed now is not a new city concept for all purposes, but new ways of integrating the city design with the process of economic and social change and, at the same time, to create a sustainable relationship with nature*', it should not be underestimated the possibility of having new moments of utopia, being these a kind of endogenous phenomenon that is part of the formation and evolution process of the city, as an innate feeling of dissatisfaction that encourages men to improve his living conditions. To make these moments effective anticipation ideas, methodological background instruments, propaedeutic to the this century city, will be also important to remember the warning of Friedman (2000) about the risk and the impossibility contained in the universal utopias, which leads to deduce that their utility and eventual execution depends primarily on the ability to deprive them from any universality claim.

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