Alessandro Porotto Cole Polytechnique Fédérale Utopia and Vision. Learning from Vienna and Frankfurt



By definition, a utopia cannot be realized; at the same time architecture needs a "place". Within this contradiction, modern architectural utopias have conceived of and developed spatial solutions to implement their principles. The spatial analysis of modern utopias allows for the identification of the relationship between architectural features and social organisation. Through this relationship, it is possible to establish when a utopian model becomes an urban and architectural model.

The objective of this article is the comparison of different types of urban and architectural space that modern utopias have produced. Indeed, in the organisational logic of the urban fabric, spaces assume different characters depending on social contexts. In this sense, the social housing experiences in the 1920s are of particular interest not only for their utopian idea of society, but for their ability to realize a model of collective organization at the architectural and urban scale.

Starting from the theoretical notions of "utopia" and "realism", which have already been discussed by historians and critics of architecture, it is possible to identify different spatial features that, through the project, assume specific architectural forms. The comparative approach that animates this article allows the analysis of several exemples through homogeneous tools, but especially through direct observation in order to raise questions still current today. In this sense, the utopian character of the architectural models of the 1920s has a spatial and social "vision" that we can evaluate critically in the current conditions of the contemporary city.

The European social housing experiences

The different spatial forms adopted in several experiences in Europe during the inter war period are based on a politico-economic and institutional system: it was conceived to solve a real problem. On the one hand the housing shortage, on the other the unhealthy conditions of the blocks and buildings of industrial $Gro\beta stadt$: the right to a modern living for all people became a tangibile purpose. New projects for the urban development reflect the ideals of mass society: they are projects pour le plus grand nombre (Secchi, 2013).

"What was clear [for architecture between 1920 and 1930] was its "political" role. [...] From the standardized element, to the cell, the single block, the housing project and finally the city: architecture between the two wars imposed this assembly line with an exceptional clarity and coherence. Each "piece" on the line, being completely resolved in itself, tended to disappear or, better, to formally dissolve in the assemblage» (Tafuri, 1976, p. 100-101).

The city and its architecture take on a new appearance, in which each component of the mechanism, through the rationalization of everyday life and the use of modern technology, is part of a huge social machine (Tafuri, 1976).

Frontispiece (Fig. 8) Vienna, sequence of courtyards in Karl Seitz-Hof.

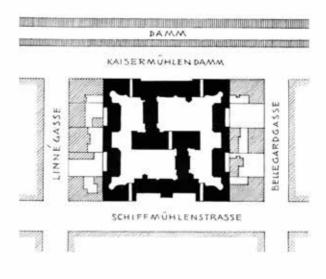
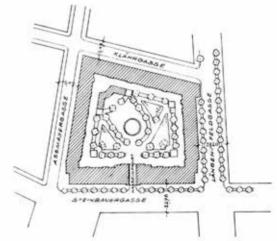
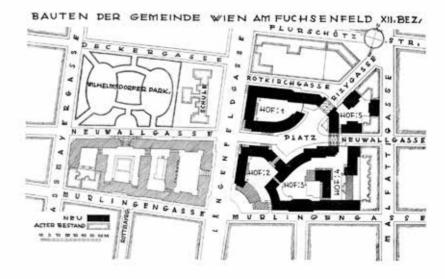
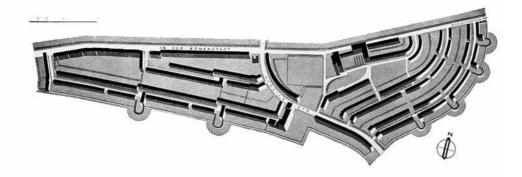


Fig. 1 Vienna, from top to bottom: Schüttau-Hof, Bebel-Hof, Fuchsenfeldhof, and Reismann-Hof.







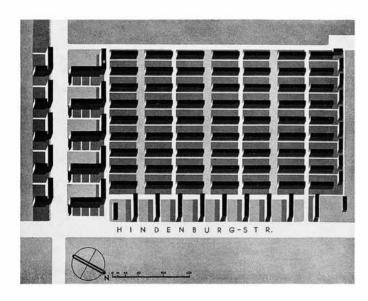
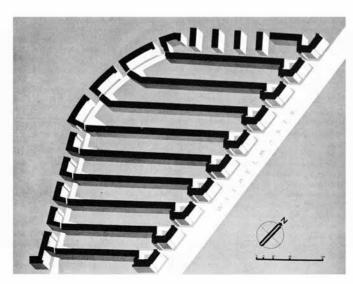


Fig. 2 Frankfurt, from top to bottom: Siedlung Römerstadt, Siedlung Westhausen, and Siedlung Riedhof-West.



Frankfurt by Ernst May, Berlin by Martin Wagner, Hamburg by Fritz Schumacher, Rotterdam by Jacobus Johannes Pieter Oud, Copenhagen by Kay Fisker, Vienna administered by Karl Seitz, etc: these important architectural experiences in Europe between the World Wars can be observed through the same perspective. This is a wide and complex overview of examples that discussed and contributed in different ways to achieve the same objectives.

If «the ultimate test of the theoretical hypotheses was the confrontation with the city» (Tafuri, 1976, p. 103), then we can identify different models, which conceived the relationship between architecture and the city as the connection between spatial organization and social practice (Panerai, Castex, Depaule, Samuels, 2004). Exploring these experiences along this point of view is an objective reading of the abundance of opportunities that the 1920s-1930s produced in the field of architecture and society. Through this observation we are able to recognize the two most important cases, two cities that correspond to coherent spatial and social concepts (Kähler 1985): on the one hand Vienna with the Hof (courtyard block, Fig. 1), on the other hand Frankfurt with row houses in the slab formation of the Siedlung (settlement, Fig. 2).

If Tafuri (1976) had already established the dichotomy between Expressionism and Neue Sachlichkeit, then more precisely «Vienna and Frankfurt are the extreme polarities of the history of social housing in Europe in the first decades of the twentieth century» (Ortelli, 2013, p. 192).

Utopia: the form of the city

Das rote Wien and Das neue Frankfurt propose mechanisms and the most compelling solutions in terms of quantity and quality, compared to all other European experiences.

«The architectural proposal, the urban model on which it was developed, and the economic and technological premises on which it was based [...], were all indissolubly connected. Architectural science was totally integrated with the ideology of the plan, and even the formal choices were only variables dependent on it» (Tafuri, 1976, p. 114).

This favorable situation is the starting node through which collaboration between the democratic administrations, intellectuals, and the organization of the city itself becomes inseparable: for Tafuri this node corresponds to the utopian aspect of architectural culture in the 1920s and 1930s to propose a "different world". In this sense the image of the city and the daily life of modern community are a new human utopia (Tafuri, 1976).

The Vienna and Frankfurt cases are of particular interest for the typological *recherche* and the relationship with the morphology of the city. They constitute two different models in opposition to the

nineteenth-century speculative city. In both cities the urban block assumed the role of a basic unit for the urban organisation and the development of the city.

In Vienna, the courtyard block or the ensemble of courtyard blocks lie within the dense urban fabric: on the one hand they accept the urban character, on the other they differ in the masterplan and architectural features. The principle of the courtyard is not an invention of the 1920s: indeed, from a typological point of view the Hof embodies a long tradition of court disposition, which began in the sixteenth-century and went through constant transformations during the centuries (Bobek & Lichtenberger, 1966). New features of the Viennese Höfe mainly concern the relationship between built surface and the free space of the court; instead, the urban structure and the relationship with the street and existing urban trafic already belong to Viennese urban history.²

The Höfe show that «the urban structure influenced by the social housing could be improved (in its internal and external relations) without becoming isolated from the growth of the city as a whole» (Aymonino, 2009, p. 50). Interestingly, despite the large production of Viennese urban policy (382 built interventions), a general city planning does not exist. While the reference to the urban vision of Otto Wagner is obvious, the residential interventions are concentrated in the empty areas of workers' districts that arose during the building speculation (Bobek & Lichtenberger, 1966, p. 144). Especially, the specific choice³ to not apply the Siedlung and garden city models allows following the town plan of 1893, making a few changes to the parcels' structure for the construction of perimeter blocks with large courtyards.⁴

On the contrary, in Frankfurt am Main the "experimentation" on the urban block, conducted by Ernst May and his collaborators, is based on the one-family row house and the construction of low-density Siedlungen. The diagrams by May published in the review Das neue Frankfurt show on one level the aim of applying a precise urban plan to give shape to the pre-existing industrial city, and on another one the representation of a rational research towards the development of the traditional concept of urban block.

The refusal of the radial-development and the introduction of a green belt between the old city and the new settlements are the main ideas for the new city. The city-satellite principle (*Trabantenprinzip*) originates from urban ideas of Raymond Unwin and influences from Ebenezer Howard's vision. However, compared to the English examples *Siedlungen* are not conceived as autonomous villages. With the *Trabantenprinzip* «May wanted to preserve the urban unity. Even though he criticized nineteenth-century city planning, he was nonetheless deeply connected to Frankfurt's history [...]» (Panerai, Castex, Depaule, Samuels, 2004, p. 95).

Despite the presence of a city plan in Frankfurt and the absence of it in Vienna, the Viennese Höfe and the Frankfurt Siedlungen have

the ability to give shape to the city through a rationalization of urban space. Interestingly, in both cases the buildings and the settlements are related to the concept of "urban limit". The Höfe and Siedlungen carry out two purposes: some built examples are in continuity with the existing urban fabric to fix the nineteenth-century city (in Vienna, we remember especially the Höfe ensemble on Margaretengürtel; in Frankfurt, the Siedlungen Höhenblick, Miquelstrasse, and Bornheimer Hang); other larger examples in quantitative terms are placed at the extreme borders of the city or the green areas (such as Karl Seitz-Hof, Karl Marx-Hof, and George Washington-Hof; such as the Siedlungen Römerstadt, Praunheim, and Riederwald), according to the idea of structured urban development.

As Panerai, Castex, Depaule and Samuels (2004, p. 110) point out, we can say that Vienna and Frankfurt are «[...] the case of two sides of the same thought. There was no contradiction, but rather complementarities [...]. In both cases, the reference to the context and the concern for obtaining some variety counted as much as the wish of rationalization». This feature is mainly due to the flexibility of the architectural type. Courtyard blocks and the one-family row houses demonstrate their ability to adapt and change when the theoretical and utopian general urban scheme is confronted with the contingencies of the city.

Referring to the relationship with the existing fabric of the Großstadt, Tafuri uses the concept of utopia to express an inflexible judgment: Siedlung is «an oasis of order, an example of how it is possible for working-class organizations to propose an alternative model of urban development, to realized utopia» (Tafuri, 1976, p. 119); and in Vienna «[...] the Hof abandons its inhabitants when they go out into the world of the reality of events. However, in this world of events the Hof floats. [...] Rather solipsism makes the utopian block a cruel symbolic image of what is not the real world» (Tafuri, 1981, p. 119). Tafuri bases his analysis on an idea of crisis: H"ofe and Siedlungen don't resolve all the contradictions of the historical city. In this sense, the solutions, presented as general models thanks to the unique coincidence of political and intellectual authority, reveal their limited efficiency in concrete situations. For Tafuri, the city is an assemblage of different parts and no construction is able to establish itself as a permanent tool for the urban image (Tafuri, 1976).

In this regard, the buildings in Vienna and Frankfurt are not the final result that the urban policies had imagined. Despite the considerable number of built houses (about 63,000 apartments in Vienna, 12,000 dwellings in Frankfurt), the two experiences did not reach all the goals of the housing program and a definitive urban organization. If on one level this aspect can confirm the utopian character at the urban scale, on another level it legitimizes the hypothesis of a "vision" over time. Especially from our contemporary critical distance, theses cases constitute «a partial but real alternative of improvement, because they interprete the development of the city within its own form» (Aymonino, 2009, p. 50).

Realism: the collective spaces

Again, Tafuri has contributed significantly to the debate on the question of reality. Specifically, he identifies a necessity of communication within the collective dimension at the base of a realistic attitude (Tafuri, 1985).

In different ways, the architecture of Vienna and Frankfurt are recognizable manifestos of a new collective society and of a new idea of living together. The question, therefore, relates to the use of elements of architectural language belonging to tradition. These elements are capable of generating a discursive form easy to read for the entire community, because "the horizon of reference of realism inevitably assumes populist features" (Tafuri, 1985, p. 123).

Curiously, in the same year of the publication of Tafuri (1980), Hautmann & Hautmann (1980) publish another monograph about the Viennese experience. It reflects on the "socialist realism", which is «the true historical representation of concrete reality in its development» (Hautmann & Hautmann, 1980, p. 218). The originality is the overcoming of the linguistic dimension; indeed, the socialist realism in architecture implies «different ways of designing and means of expression, which have always targeted an action in respect of human relationships and feelings» (Hautmann & Hautmann, 1980, p. 219). Realism, then, is not only a fundamental element of reality, but it has also an educational function for the society.

In taking into account these principles, then, is it possible to identify a specific space with a realistic attitude? That is: is it possible to identify in the projects of Vienna and Frankfurt the elements capable of defining an architectural space according the perspective of realism?

Comparing both housing programs, we can note that one main common aspect is the collective dimension of the projects. In Vienna we read that:

«In municipal buildings generally at least 50% of the surface is left free in the form of courtyard (Hof). [...] The garden courtyard of the council houses has as a function the lighting and ventilation of houses, as well as, not least, to offer a leisure space for kids and resting places for adults» (Die Wohnungspolitik der Gemeinde Wien, 1929, p. 44).

In his essay, May (1930, p. 47) wrote that:

«Despite high land costs, the housing policy in Frankfurt, by promoting the construction of low-rise houses, has realized a garden for each house. [...] We have created resting places within the Siedlungen. [...] Part of the inhabitants can cure the private gardens, the others have the possibility to rest in the solarium, or use parks and playgrounds that are part of the community settlements».

Therefore, the collective space is introduced into the housing program as one of the key elements for the composition of housing projects. Paraphrasing May (1930, p. 45) if the Hof or Siedlung «only offers accommodations to people, that is, without promoting a community spirit, it only partially achieves its purpose». Alongside studies on urban form and typological standardization, the aspect that distinguishes the experiences of social housing in Europe is the spatial research to define a gradual transition from public to private space, meant to provide the community with an image and an identity. The purpose of this research is the comment vivre ensemble, through adherence to the reality of living and to the democratic values of modern society. We can recognize these principles in the so-called "collective space", halfway between the public and private: it is a space that must be recognizable, accessible, and representative of the community, but at the same time it takes on a domestic appearance. The special feature of Vienna and Frankfurt is that the collective space interacts with the city and with the house at the same time.

In Frankfurt, above all, the issue of nature is a central aspect of May's vision. The application of *Trabantenprinzip* at an urban level and the typological study of housing in many settlements involve the assembly of different types of green spaces (Fig. 3). If we look at the case of Niddatal (where the Siedlungen Römerstadt, Praunheim, and Westhausen lie), the green belt, which according to the general plan had the function to limit the built area of the city, is an urban public park. However, the formal choices reach their full meaning only in relation with the architecture and composition of the *Siedlungen* (Grassi, 2007), in particular in the mutual relationship established between the park of the Nidda river and the logic of the green spaces of the *Siedlungen*. Together with private gardens of one-family houses, the common green areas near the multi-storey buildings — the green bastions of Römerstadt, etc. — form a "system" of green spaces: this system assumes an architectural sense and a collective dimension (Fig. 4).

Although the Frankfurt urban plan shows a utopian uniformity, the design of green areas produced a strong debate between two protagonists of German landscape architecture. They represent two radically different approaches, but both explain the importance of the greenery, and the dimension of realism of the Siedlungen.

The first protagonist of the green design in Frankfurt is Leberecht Migge. The landscape architect is an advocate of the rational design of green areas as a central point of the new settlements, in order to find the right balance between city and countryside (De Michelis, 1981). In particular, Migge focuses his attention on the realization of small vegetable gardens connected to one-family houses and on theories on food self-sufficiency in the metropolis. While common spaces of multistorey buildings are substantially free green areas without predefined patterns, the private gardens show a geometric organization of floral and plant apparatus.

The theoretical and design research by Migge reaches its best in the general plan of urban green areas in 1929, utopian as it may be. «Migge dealt with abstractions: everything was to fit within an overarching diagram, all in support of self-sufficiency, a set of concepts today associated with sustainability, organic urban farming, and recycling. Everything else was to be discarded [...]» (Haney, 2011, p. 76). Migge stands out for his rigor in the application of grids and patterns that allow for a total control of the soil, so as to achieve uniformity in Siedlungen and public areas through a process of abstraction.

The other important figure for the green design process in New Frankfurt is Max Bromme. He was in charge of the Frankfurt City Garden Office and worked together with May in several *Siedlungen* (Fig. 5). Bromme, unlike Migge, was sensitive to using pre-existing vegetation and to the natural habitat of the site, without referring to schemes and land subdivisions from purely functional principles.

«Bromme commented in an article written in the early 1930s after May's departure that "functionality" was never to be the basis for good settlement design. This criticism aimed at Migge directly, and more generally against abstract planning which simply levelled all existing features to serve a preconceived programme» (Haney, 2011, p. 76).

If we consider his sensitivity to the context and the local nature, it is curious that Bromme was in charge for the design of the green areas in the Siedlung Westhausen, certainly the Siedlung reaching the highest point of standardization. If on the one hand the ingenious escamotage to assign a garden to each inhabited floor reflects the rigid grid of the settlement, on the other hand it produces continuous green bands alongside the residential strees. Even if they are private gardens, their configuration takes on a collective character. Finally, three orthogonal bands of collective green areas cross through the Siedlung: thanks to their simplicity and the presence of tall trees, they play an important role to change the repetition and uniformity of the settlement (Fig. 6).

In contrast, the design of collective spaces in Vienna is closely related to the architectural typology of the courtyard block. Whereas the speculative activities of the nineteenth-century utilized the maximum exploitation and densification, leaving free only 15% of the available land, the Höfe were based on the principle of occupying at most 50% of land, in some cases it even falls to 30%. The available space allowed the construction of large courtyard-gardens: on one level, they have the task of providing ventilation, sun exposure, and the hygienic requirements for housing. On another level they offer the spatial and architectural opportunities to realize a symbol of collective living.

Again, as for the morphology of the city, there is not a general plan for the green areas; unlike Frankfurt, here there were no landscape architects in charge for the projects, neither in the construction nor in the debate on urban greenery. Despite being a fundamental and explicit point of the municipal program, it is surprising that the courtyard

Fig. 3 Frankfurt, collective spaces and private gardens in Heimatsiedlung.



Fig. 4 Frankfurt, green areas in Römerstadt Siedlung.





Fig. 5 Frankfurt, collective garden in Bornheimer Hang Siedlung.



Fig. 6 Frankfurt, collective garden in the Siedlung Westhausen.

projects were carried out in some cases directly by the architects of the buildings, or in other cases by the technicians of municipal offices (Mang, 1993). Without theoretical concepts, the collective space of the courtyard finds its legitimacy in the concrete problems related to housing and society. Since the architectural type is already defined at the start, the project of the courtyard is part of the same constructive process of perimeter building. In essence, the project must be thought of as a whole: it is also symptomatic of the fact that an architectural type is named with the term that indicates the non-built space, that is, the Hof.

The compositional principles of the collective spaces of *Höfe* are simple: once the perimetral geometric outline is defined, the entrances to the staircases are connected through linear and direct paths, the use of different plant and trees depending on the resulting geometric forms (Fig. 7).

The courtyard has the same degree of flexibility as the architectural type. For example, the space has the ability to absorb the terrain's irregularities (Reismann-Hof) and the slopes (Reumann-Hof, Professor Jodl-Hof). In some cases, sequences from public to collective spaces (Karl Seitz-Hof, Fuchsenfeldhof) produce numerous variations and solutions (Fig. 8), keeping always constant the spatial expression and the unity of the complex (Mang, 1993). As a result, some Höfe include within their shape some urban elements typical of the city: for example, a square and a market in the Schlinger-Hof (Fig. 9), a crossing street in the Winarsky-Hof, a public square in the Reismann-Hof.

Another recurring quality of Viennese Höfe, not completely developed in Frankfurt, is the collective equipment. In addition to the decorative character of elements such as fountains, pergolas, and sculptures, in the Höfe there are collective structures (Fig. 10) as rest areas, kindergartens, laundries, public baths, cooperatives, clinics, children's pools, common rooms, district libraries, etc.

By intersecting these structures with the simple composition of the green areas and, especially, with the physical dimensions of the courtyard, in most cases the Höfe offer a spatial and architectural quality that confirms the main definition of "collective space": in this case the public dimension is mixed with the private one, the space being linked to everyday life. If we look at the old pictures, the collective spaces of the Hof are used as "outdoor living rooms" (Mang, 1993). These aggregations of spaces reinforce the community identification of inhabitants to the Hof.

After having highlighted the different concepts of collective space, we can deduce that these constitute a critical urban reading instrument for both architectural experiences. The design of green areas, in particular, becomes an element that participates directly in the general composition and organization of the city at the same level of the built urban fabric. Quoting Camillo Sitte, Grassi (2007, p. 29) wisely states that «the art of building the greenery in the city [is] "a major and

popular art"». It is an architectural element of the modern city, but it is also part of the urban artifacts and of the urban history, that is the reality of the city. In this sense, recognizing the collective character in the architecture of the city is an act of realism.

Vision: towards an urban, collective architecture

Taking into account these built projects, the most important lesson from Das rote Wien and Das neue Frankfurt is their critical approach to architectural design as location and image of the society (Kähler 1985). For this reason Höfe and Siedlungen contribute to shape the contemporary city. This is because the two models have never forgotten their relationships with the historic city, with the "place". Aldo Rossi (1989, p. 71) notes that "The program of the city of Vienna was intended above all to realize typical complexes whose form would be intimately linked to the form of the city. [...] The relationship between the dwelling and its area thus became primary». The Siedlungen, however, are the most appropriate example for the analysis of urban artifacts: "It is therefore necessary to study actual conditions and artifacts; [...] we have so far considered the Siedlung in itself without referring to, indeed ignoring, the context in which it was produced" (Rossi, 1989, p. 81).

Although both cases are partial or not completed models, thanks to their form and their urban placement Höfe and Siedlungen are nowadays examples belonging to the urban structure of the contemporary city. For this reason, they are no more "urban limits" but new points of urban development, because they establish continuities with the existing urban fabric. This aspect represents, despite the transformations, the ability to define spaces that are involved in the urban organization and daily life of their inhabitants. It is in this sense, perhaps, that Höfe and Siedlungen find their complete form. Although "utopia" and "realism" gave rise to the logic and character of urban form and collective spaces, in the 1920s it was not possible to imagine the adaptability to the contemporary city and society. This corresponds to a "vision", namely an unstructured idea that is not linked to specific historical periods or to specific social forms. 11 The spatial components participate in a flexible way, without losing their nature, to the changes that characterize the city and the society.

Today, Höfe and Siedlungen continue to offer housing and collective spaces to thousands of people. In Vienna they still belong to the social housing system of the city, whereas, in some examples in Frankfurt the one-family houses have been sold to private owners. Significantly, in both cases Höfe and Siedlungen prevented the degradation of the periphery, one of the most serious problems of major European cities. The first reason is that all interventions are conceived and built in connection with the pre-existing city: on the one hand the typologies of courtyard block and row houses show an "awareness" of the urban origin of the place, on the other the infrastructural system ensure the connection to the rest of the city. The result is continuity and coherence

Fig. 7 Vienna, courtyard of Schüttau-Hof.



Fig. 8 Vienna, sequence of courtyards in Karl Seitz-Hof.





Fig. 9 Vienna, the square and the market at the Schlinger-Hof.



Fig. 10 Vienna, collective equipments in the Fuchsenfeldhof.

with the urban fabric that avoids the emargination of Höfe and Siedlungen from the urban context.

On the contrary, the principles of the Athens Charter of the IV CIAM Conference in 1933 had a huge impact on urban planning and social housing programs after World War II. In this case high-rise buildings, high standardisation, and non-alignment to the streets produced isolated machines à habiter: objects and the consequent fragmentation of the urban fabric. In addition, several cases in the European cities (for example La Cité des 4000 in Paris, Nuovo Corviale in Rome, and Le Vele in Naples) demonstrate that the shortage of collective spaces, facilities, and transport in social housing interventions produces degradation of urban space and social problems. Vienna and Frankfurt seem to confirm this tendency: since their origins, and still today, Höfe and Siedlungen include facilities and collective spaces (Kindergarten, collective laundry rooms, libraries, etc.), sometimes at the scale of the neighbourhood. For this reason, they offer an essential spatial quality to their inhabitants and also to the entire city.

The composition of the external spaces, especially the project of the greenery, is a fundamental component that clearly shows the "vision" of the protagonists of these experiences, which the built examples embody nowadays. In both cases the green spaces constitute an architectural project, where the choices define the organization and the character of the external areas. In particular, only in the current conditions of the interventions is it possible to appreciate the potential of the vegetation, which must be understood in its relationship with the built volumes.

The Vienna courtyards maintain the structure, based on the union of areas for collective functions and greenery. Interestingly, the vegetation does not depend on the size of the courtyard itself. Tall trees compete directly with the high density of buildings; in contrast, little hedges delimit the different collective functions and the paved paths. In this way, it is clear that the vegetal element focuses on the inhabitants who use the court and on their activities: this is a composition choice that confers a domestic and protective character to the collective space. The permeability and the accessibility are other essential features of the courtyards. They are always directly accessible from the street and in most cases there are several passages: crossing the Höfe it is possible to move within the city using routes alternative to the vehicular roads.

Considering together these two features, it is legitimate to observe the collective spaces of Höfe as a continuum at the urban scale, which, like the buildings, participates in the construction of the urban fabric. For this reason the ensemble of Viennese courtyards takes on the appearance of an "urban park", where each Hof invites to linger and to appreciate its spatial form as a common good belonging to the city.

Even today in the Siedlungen of Frankfurt the external spaces consist of a system of different types of green areas organized according to a *plan d'ensemble*. Although the private gardens have lost the

original principles and directives of landscape architects, owners being currently free to alter them at their will, the spatial and compositional logic is unaffected. In particular, the intensity of Siedlungen's greenery is the flexibility of the project idea adapting itself to the practice of contemporary society. For example, introducing cars in the Siedlungen did not produce the elimination of Vorgarten (front garden), while at the same time the possibility to park the car on the street in front of the houses is a new quality of row houses; or the recent practice of buying two contiguous housing units produces the unification of the two adjacent gardens. Behind the apparent rigidity and abstraction, the composition and typological principles have several adaptative features that satisfy the changes of contemporary living. Despite the loss of the self-sufficiency concept developed by Leberecht Migge in the private gardens and the permanence in some settlements of so-called Schrebergarten (allotment garden), Frankfurt could be considered the pioneer city of some contemporary concepts, such as "urban farming" or "urban agriculture". Today, this type of practice is used primarily in local town planning for urban development in a sustainable way. However, the autonomous production of food and the community's social interactions through a direct relationship with nature are not inventions of recent years. The exceptional meaning of the Frankfurt approach is considering the different types of green spaces as part of the architectural project, as typical component of the building type, but capable of offering variations in the spatial perception. In this sense, the case of Westhausen appears to us as one of the most successful ones, where the richness and the presence of vegetation is more intense today than the serial arrangement of the settlement plan. Emblematic is the Siedlung Riedhof-West: in the eight collective spaces with the same width, produced by the repetition of the same house type, the only element that changes the character of each space is the different tree species along the street.

In the end, the comparative observation concerning the 1920s exemples does not aim to find the most impressive solutions for social housing, but to provide suggestions and approaches for the architectural design in the contemporary practice. The results of Vienna and Frankfurt examples represent an "architecture for the city" attitude, which is able to define spatial forms compatible with current urban dynamics. This critical approach intends to reflect on the construction and the quality of urban and architectural space for everyday use. In this sense, the notions of "utopia", "realism", "vision", and their spatial realizations are not simply a list of characteristic elements of modern architecture, but instruments to indicate a direction for contemporary architectural design having the architecture of the city as a purpose, aiming at a «return to a reflection on the dimensions of the collective» (Secchi, 2013, p. 78).

- 1 o Few comparative studies and architectural history textbooks have focused on the social housing experiences in Europe in the early decades of the twentieth century. The importance of Manfredo Tafuri consists above all in the «courage and intellectual honesty» (Ortelli, 2013, p. 195) to provide rigorous critical contributions about Vienna, Frankfurt, and other housing policies of the 1920s. See Dal Co & Tafuri (1979).
- $2 \rightarrow 0$ n typological origins of <u>Wohnhof</u> and dwelling transformations in Vienna see Bobek & Lichtenberger (1966) and Fabbri (1986).
- $3 o ext{In Die Wohnungspolitik}$ der Gemeinde Wien (1929) the reflection on a possible application of the <u>Siedlung</u> occupies a specific paragraph. Essentially the reasons to reject this hypothesis are: single-family house with garden exceeds the salary of workers and employees; the lack of a network of efficient mass transport; the inability to build productive and economically independent city-satellites; the lack of a sufficient free surface for a garden-city; the high construction costs of a new settlement; the requirement of rapid construction process. Although about 5,000 houses in several Viennese Siedlungen have been built, the high-density courtyard block represented the most efficient and suitable solution.
- $4 \rightarrow$ Interesting is the analysis of Battisti (1975) through the comparison between the Höfe plans and the urban plan of 1893.
- 5 o The famous diagram published in May (1930) shows the evolution of the urban block. It will also become the basic approach of the study of Panerai, Castex, Depaule, Samuels (2004). For May this scheme gives legitimacy to the structural change of <u>Siedlung</u>, passing from a double slab to a single slab on the street. See also the critical interpretation of this scheme in Kähler (1985).
- 6 o 0n the relationship between the <u>Trabantenprinzip</u> and the urban ideas of the garden-city see Panerai, Castex, Depaule, Samuels (2004) and Grassi (2007). We have to note that Ernst May knew the principles and the examples of English garden-cities. Indeed, Ernst May studied at the University College London, from 1910 to 1912 he worked in the architectural office Parker & Unwin collaborating to the construction of Hampstead, and he translated in German the textbook <u>Town Planning in Practice</u> by Raymond Unwin. See Bueckschmitt (1963).
- 7 o Referring to the tradition of the European city, Grassi (2007) provides a sharp analysis on the close relationship between May's <u>Siedlungen</u> and the historic city of Frankfurt, up to the tradition of the European city. See also Rossi (1989).
- $8 \rightarrow$ The concept of "urban limit" is got on loan from Panerai, Castex, Depaule, Samuels (2004) and applied to both case studies.
- $9 \rightarrow$ Tafuri published several texts on the theme of "realism": see esp. Tafuri (1985).
- 10 \rightarrow For the understanding of the green areas' logic of the Siedlung Westhausen see Dreysse (1988).
- 11 \rightarrow Grassi (2007) states clearly that <u>Das neue Frankfurt</u> experience leaves the limits of historiography of the Modern Movement and finds a modernity like the great architectural experiences of the past. It is legitimate to think that the case of <u>Das rote Wien</u> is among these experiences.

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