



ADDITIONAL INFORMATIONS

Comparative Analysis

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The Comparative Analysis in the application dossier (pages 107-108 of the dossier) is comprised of 6 elements. These are:

1. The period of industrial development (especially between the 1930s and 1960s);
2. The urban dimension (in particular, that of small and medium industrial cities);
3. The production model (work organization) and the type of industry, focusing specifically on the mechanical industry and its evolution;
4. The close collaboration between the industrial project and architectural / urban culture in the making of the industrial city, focusing specifically on modern cultures, united in a social and industrial project;
5. The relationship between the production and the social organization in the making of industrial urban communities;
6. The relationship between the city and territorial contexts with the creation of a particular *landscape*.

With reference to the elements identified for the comparison, the case studies selected took into account both the history of the industry and its relationship with twentieth century architecture.

In light of the clarification requests received, it is believed that some cases, shown in Table 1 of the Comparative Analysis, can be excluded. This is because the comparison with industrial buildings has induced ICOMOS to believe that the object of the comparison could be single buildings or industrial complexes.

The motivation behind the choice was the desire to underline the architectural value of the architecture built in Ivrea between the 1930s and 1950s. Specifically, the first expansion of the ICO Workshops (1934-36) and the Olivetti residential units (1939 - 1941). Therefore, the comparison with Berlin Modernism Housing Estates, (pages 122-123; Fagus Factory and Van Nelle Fabriek, pp. 124-125), can be considered irrelevant.

Now, the comparative analysis focuses on the possible aspects of the industrial city and its subsequent articulations. Therefore, of the cases suggested by ICOMOS, we can consider: the mill village of Chicopee in Georgia, the Russian cities of Magnitogorsk, Orsk, Avtostroï / Nizhny Novgorod, and the ZIL / Moscow industrial plant. These comparisons strengthen the candidacy proposal.

The village of Chicopee in Georgia

The village of Chicopee in Georgia was designed starting in 1925 by Earle Draper for the Chicopee Manufacturing Corporation, a subsidiary of the Johnson and Johnson Company, for the production of surgical and sanitary dressings. Since 1906, the Manufacturing Corporation was seen in the American world as a pioneer in welfare work, offering medical, legal and social services as well as low-cost housing for employees. The settlement model used by Draper was that of the city garden in a rural direction. The attention to the rural landscape is perceived in the way the village plan is set up and the use of a clear vernacular language in the construction of the various housing types and buildings for the workers' community.

The village of Chicopee represents an evolution in the construction of workers' villages and company towns in the 1920s. As already suggested in the comparison with Crespi d'Adda, Ivrea is not a company town (page 112 of the dossier).

Ivrea is not a workers' village but an industrial city in all respects. It is characterized by phenomena such as the extension of the factory over a vast territory (and, subsequently, abroad), its extraordinary productivity, the longevity of the phenomenon, the ways in which the industrial city binds itself to the city of Ivrea, to the point of substituting it, both morphologically and socially, in the attempt to implement its urban and territorial social system (for further reference, see page 112 of the dossier).

The cities of Magnitogorsk, Orsk, Avtostroï / Nizhny Novgorod

The cities of Magnitogorsk, Orsk, Avtostroï / Nizhny Novgorod are part of that nucleus of new Soviet industrial cities that were born in the framework of the first two Soviet five-year plans (starting in 1928). Initially, also European architects and exponents of the Russian avant-garde worked on their design.

The birth of these cities is the result of the development of heavy industry in the framework of the new Stalinist industrial economy, which, along with the introduction of Taylorist systems (changed by direct knowledge of and exchange with American production engineers) channelled the industrial effort towards development of an extensive regionalization program, with the subdivision of the USSR into 6 economic regions and the creation of integrated urban centres in the production poles.

The construction of these cities initially sees a rich theoretical debate on the very models of the new settlements (with the prevalence of the Miljutin linear city model), the application of residential models developed in the West and applied to the new settlement reality (such as the superblocks designed by Ernst May for Magnitogorsk), and sees the functional specialization of spaces, also in a social sense, with the creation of enclaves for the Soviet Communist Party elites and workers' clubs.

Although each city has a different design purpose linked to the economic and political policies of the Stalinist regime, the primary factor that strongly distinguishes the small Piedmontese city is the period and the type of economy to which they belong and the consequences that derive from it. The Russian cities are in fact built in the absence of a land market, they take advantage of forced labour and are implemented within the tight deadlines of the national planning programs. Their design organization involves firstly the architects, who see an unexplored experimentation area in industrial architecture, but is subsequently organized through state planning bodies, which involve both economic planning and an institutionalized design culture in the creation of VAA (*Vsesojuznaja Akademija Arkhitektury*) in 1933.

The construction of the Russian cities touches on the main themes of the construction of industrial cities in Europe and North America at the beginning of the 1930s, when, following the crisis of 1929, discussions were held about the application of the principles of the scientific organization of work, the role of the factory in the national and international economy, the start of great national policies that lead to the creation of the Russian five-year plans and the launch of the New Deal in the United States. These issues are also debated by the Italian fascist state, which even in the absence of a major

national plan, questioned the economy / industry / state relationship and involved Italian industrialists through the corporate bodies of the category.

All these themes are translated into policies that are reflected in the organization of the territory, and allow for a circulation of architectural models and settlements that are known through contemporary publicity and the numerous trips made by architects (the same that then expand the debate on the functional city in the CIAM) and production engineers.

Even if the debate on planning (not its outcomes) can therefore group the Russian examples and the case of Eporedia, there are a number of factors that make Ivrea a very different model of a twentieth-century industrial city. Specifically: the absence of a state policy, the different urban dimensions of the settlements, the diversity of architectural outcomes of the projects, some dating back to the early 1930s, and not part of a super-visionary and institutionalized ideological policy of architectural culture, as in the Russian case. However, what they share is a modern horizon, thanks to which architects and planners have adhered to the Olivetti industrial project since the 1930s.

The ZIL / Moscow

The ZIL / Moscow is an industrial settlement, located in the southeastern area of Moscow, for the production of trucks and heavy vehicles as well as the black sedans of the Soviet *nomnklatura*. This is a historical area where the most productive units of the Russian city are concentrated and reorganized.

The factory began its production in 1916. Following the October revolution, it became one of the most important factories in the country, and at the beginning of the 1930s, is completely renovated within the new framework of the five-year plans, initially thanks to the American company Brandt, and, subsequently, the design studies of the Ministry of Heavy Industry (NKTP), growing from 1,700 employees in 1926 to 20,000 in 1933.

The ZIL / Moscow plant integrates the production spaces in the overall conception of urban construction for groups at the base of the urbanistic conception of socialist realism (the *ansamblevazastrojka*). Its huge dimensions - dictated by the tasks entrusted to it - becomes one of the planning instruments (also social) of the entire city, shifting the axes of functions and ways of urban penetration. The state and the industries govern the urban territory

The comparison between ZIL / Moscow and Olivetti in Ivrea in the 1930s (and for this period only) allows us to grasp important differences, which can basically be attributed to the role of the factory and its construction. The varying application of the scientific organization of work methods is symptomatic of the different types of response that followed the crisis of 1929. For the USSR, this means continuing on the production path imposed by the five-year plans, thereby making the factory part of an ideological system which collaborates in the creation of the new Soviet society, whereas for Olivetti in Ivrea, it means embracing the indications coming from the American social Taylorists and the idea that the principles of scientific management, elaborated in the single enterprise (research, standardization, planning and control, cooperation), can be transferred to a social economy level.

These two reference systems can be identified in the industrial settlement.

In Moscow, the factory grows on itself and uses statist settlement policies implemented to accommodate the new workers of the socialist state.

In Ivrea, Olivetti implements a settlement program for the acquisition of land on which the plant is to grow and does not favour the urban centralization of functions and labour.

In the 1930s, Olivetti started a program of industrial decentralization, exporting production outside of Italy, in Europe and on the international market, and promoting a transport system that allowed workers to reach the small industrial city. In this way, workers are not forced to abandon the valleys that surround Ivrea, and can maintain their roots.

The function of the *after-work* policies implemented by the two companies is also different: the ZIL takes part in the construction of structures such as the ZIL cultural centre, built for its workers in 1937, a masterpiece of constructivist architecture, where the didactic and ideological dimension of the architectural program is very strong.

In the 1930s in Ivrea, Olivetti began a system of recreational post-employment policies (and consequently the construction of buildings of great architectural quality entrusted to important young architects who shared Olivetti's program in terms of the modernization of the Italian society at the time), but also to the training of new factory workers, and policies to support work (with the creation of canteens and nurseries).