

62/ 63

Rural modern. Themes and contexts

**Enrico Prandi,
Tommaso Brighenti
Cristina Pallini**

City vs. Countryside. For a revival of interest in rural settlements

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**Magazine del Festival
dell'Architettura**

ricerche e progetti
sull'architettura e la città

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For the purposes of the assessment, the essays must be sent in Italian or English and the translation in the second language must be sent at the end of the assessment procedure.

In any case, for both types of essay, the evaluation by the experts is preceded by a minimum evaluation by the Direction and the Editorial Staff. This simply limits to verifying that the proposed work possesses the minimum requirements necessary for a publication like FAMagazine.

We also recall that, similarly to what happens in all international scientific journals, the opinion of the experts is fundamental but is of a consultative nature only and the publisher obviously assumes no formal obligation to accept the conclusions.

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ARTICLES SUMMARY TABLE

**62/63 october-march 2022/23.
Disegno e progetto**

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NEXT ISSUE

64 april-june 2023.

Concrete YU_topia. Balkan architecture
edit by Marina Tornatora, Ottavio Amaro

If there is a place where East and West touch, clash, and contaminate each other, it is the Balkan Peninsula. Predrag Matvejević defines it as a «middle region [...] a confluence between East and West, a crossroads between the East and the West, a demarcation line between Latin and the Byzantine world, a realm of the Christian schism, a frontier of Christianity with Islam». This diversity has often translated into conflict, not favoring the visibility of artistic and architectural production on a global scale. The interpretive stereotype of the *in-between* (Mrduljash, 2012), both political and cultural, and the perception of the Balkan Peninsula as a *semi-periphery* of an industrialized West, have contributed to the undervaluation of architectural and urban peculiarities.

The monographic issue of FAMagazine proposes a reflection on the role and singularity of such production in the cities of the former Yugoslavia, where the modernization process initiated after the Second World War remains a page to be investigated in its specificities. Without claiming a historical reconstruction, the different contributions attempt an interpretation of those principles that can still be significant for the contemporary city. In this direction, the issue aims to be a tool for rethinking but also an opportunity for debate and in-depth analysis, especially of architectural production from the 1960s and 1970s.

62/ 63

Rural modern. Themes and context

**Enrico Prandi,
Tommaso Brighenti
Cristina Pallini**

City vs. Countryside. For a revival of interest in rural settlements **8**

Rural modern. Themes and context **11**

**Francesca Bonfante,
Luca Monica
Aleksa Korolija
Emanuela Margione**

New towns and new countryside in Italy from corporatism to post-war reconstruction **21**

Architecture 'in the round' **38**

New Types/One Type. Complex Buildings and public space in the new rural settlements of Agro Pontino **53**

**Vilma Hastaoglou-Martinidis,
Cristina Pallini
Luisa Ferro
Federica Pompejano**

In Greece before the 4th CIAM. Emergency and innovation in the rural colonisation sites **65**

Athens 1933. A new theatre on the urban scene **86**

"Të bëjmë fshatin si qytet!" The urbanization of the countryside in socialist Albania **101**

Two faces of modernity: housing for Portuguese inner colonisation **114**

**Maria Helena Maia,
Alexandra Cardoso
Maurizio Meriggi
Marija Drémaité**

An architectural cross section between city and countryside **130**

Rural modernization in Lithuania in 1950s-1980s: **149**

From functionalist agrocities to regionalist approach

A rural social condenser. The collective farm of Nākotne as an asset and a challenge **157**

**Yuliia Batkova,
Laine Nameda Lazda
Anna Paola Pola
Filippo De Dominicis**

Dazhai, modernity and self-sufficiency in the collectivised villages of Maoist China **166**

Catastrophe, migration, and modernity: Farm Security Administration settlements in Arizona and California **176**

**Lamberto Amistadi
Luigiemanuele Amabile
Claudia Cavallo
Andrea Valvason**

The Architecture of Gino Malacarne. Two exhibitions and two books **185**

Architecture as Life **188**

An architectural lesson by Franco Purini **192**

The other half of the sky: female architecture **195**

Editorial

Enrico Prandi, Tommaso Brighenti
**City vs. Countryside. For a revival of interest
 in rural settlements**

 Abstract

The editorial highlights the two main missions of the magazine: reaffirming the memory of past events that new generations may not be familiar with; making historical experience available for future projects. Considering the almost all-encompassing interest in urban regeneration and functional themes related to PNRR, this issue aims at refocusing the interest of architects and scholars on the territory, currently facing a real “agricultural revolution”. In so doing, city and countryside can thus resume their complementary relationship, in line with Henri Pirenne’s interpretation.

Keywords

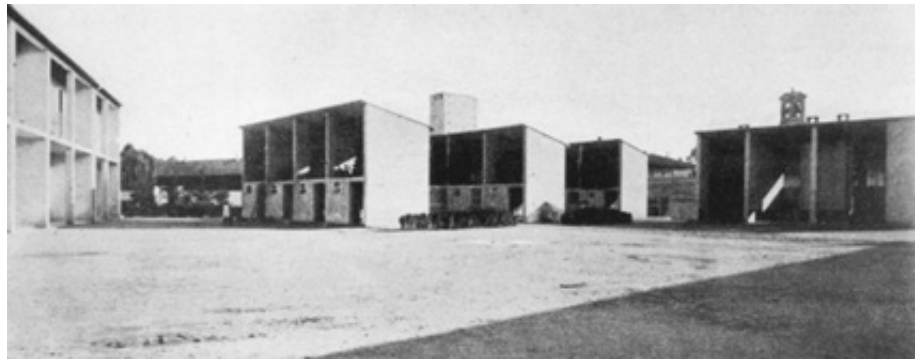
City Vs Countryside — Rural settlement — Agricultural renaissance

Reviving the memory of historical facts for the new generations is certainly one of the journal’s missions which comes along with a second task, just as important: turning historical experiences into triggers for design.

We might well ask what sense it makes today to dwell on settlement models alternative to the city. In fact, such question underpins the present issue edited by Cristina Pallini, dense with outstanding examples of urban and territorial schemes, building types, architectural and figurative conceptions from a broad international context. In reality, this issue stems from research undertaken (and experience gained) during the EU-funded MODSCAPES project (Modernist Reinventions of the Rural Landscape), addressing a special category of rural areas, those subject to large-scale agricultural modernization schemes implemented throughout the 20th century in various socio-political contexts in Europe.

Concentrated as we are on cities and related urban regeneration projects — also on account of the ongoing National Recovery and Resilience Plan (PNRR) — we are running the risk to overlook what happens *extramoenia*. Small-scale interventions have replaced the broader picture as if urban regeneration may suffice to face the overall challenge. Yet, a comprehensive idea of the city may still prove fundamental to overcome the fragmentation of single interventions, restoring the individual parts to the urban whole, in its architectural composition.

Currently, the periphery is prioritized as an area of intervention, particularly concerning the design of new schools (New Schools, Schools 4.0). As if trapped in the urban palimpsest, we are leaving aside the countryside, the actual space in-between cities, where small hamlets and villages, many of which abandoned, punctuate uncultivated areas; this in-between space

**Fig. 1**

Mario Asnago and Claudio Vender, Torrevecchia Pia farm-house complex, 1937.

appears somehow uncharted: *hic sunt leones* they used to say in Latin.

The policy on “Enhancement of Architecture and Rural Landscape” aims at preserving rural and historical landscapes through the protection of material and immaterial cultural assets, also by promoting sustainable tourism-related activities based on local traditions. This, however, does not serve much purpose. In fact, future challenges — such as migratory movements, demographic shifts, and climate change — concern both the urban and rural levels, as clarified by EU documents addressing the liveability and attractiveness of rural life as a mandatory field of action. Particularly so vis-à-vis the recent news about natural disasters threatening our territories, be it floods or inundations, landslides or landslips, earthquakes, or fires.

This is really the time to explore (and some are doing it already) difficult-to-reach Alpine and Apennine regions, now almost abandoned by the younger generations. Problems such as these call us into question — as architects, planners, scholars — urging us to move beyond self-referential attitudes and gestures, gaining instead a thorough understanding of the relationship between identity features, future scenarios, and desirable transformations. Such a global approach requires a full awareness, and a frame of knowledge ranging from engineering to social studies.

History teaches us that, after the year 1000, city and country competed for the supremacy of urbanism. In history, prosperity and crises on either side cyclically followed each other, with consequent migratory flows in both directions.

Although later than cities, whose evolution catalysed a massive concentration of studies, the rural landscape also underwent profound change, a transformation that deserves due consideration also by architects.

We should move beyond landscape conservation or enhancement, as if landscapes were to be considered mere tourism destinations as proposed by the authors of the PNRR. Just as we criticize the museumization of cities, we should equally stigmatise the crystallisation of rural landscapes, in full awareness that no evolution comes without transformation (possibly in line with environmental compatibility criteria).

Perhaps we cannot speak of a true ‘agricultural revolution’ (a concept of Marxist origin), nevertheless we must recognise that a return to the countryside could also benefit from technological developments applied to agricultural production, so much so that we commonly speak of Agriculture 4.0 or Precision Agriculture, regenerative agriculture, etc.

The Covid-19 pandemic triggered a renewed interest in rural life, closer to nature, along with a revival of settlements (hamlets, villages) unlocking the possibility of further reflection about life outside the city, as it has not happened for a long time.

Habitats and environments bearing witness to the life of past societies may become part of future collective projections, challenging architecture to meet functional, social and economic needs, as well as empowering the cultural dimension, hence a coherent spatial syntax and formal expression. In today's Europe, these same regions can offer us a clear source of inspiration for long-term strategies aimed at increasing the overall quality of the living environment.

Along this line of thoughts, the case studies included in this issue of FAM offer a shared cultural heritage, often largely underestimated, that today represents tangible evidence of recent European history where the role of architectural design became decisive in the definition of the “anthropic space”, in bringing into focus design problems often overlooked. Some examples represent crucial settlement experiments that, ever since, have constituted a common challenge for the ideas and tools of architects and engineers, agronomists and social scientists, planners and landscape architects. Here then, the example of an extraordinary season of modern architecture in dealing with agricultural land and its functional, architectural, and figurative needs appears as a valuable guide for the revival of a fundamental dualism onto which the evolution of the world has always been based.

Enrico Prandi (Mantua, 1969), architect, graduated with honors from the Faculty of Architecture in Milan with Guido Canella with whom he carried out teaching and research activities. He has a PhD in Architectural and Urban Composition at the IUAV of Venice, obtaining the title in 2003. He is currently Associate Professor in Architectural and Urban Composition at the Department of Engineering and Architecture of the University of Parma. He is director of the Parma Architecture Festival and founder-director of the international A-class scientific e-journal «FAMagazine. Research and projects on architecture and the city» (ISSN 2039-0491). He is scientific manager for the Parma unit of the *ArcheA. Architectural European Medium-Sized City Arrangement* project (published in volumes Routledge, Aión and LetteraVentidue). Among his publications: *Luigi Vietti, scritti di architettura e urbanistica* (with PV. Dell'Aira, Altralinea, Florence 2022), *The project of the Polo per l'Infanzia. Architectural experiments between teaching and research* (Aión, Florence 2018); *The architecture of the linear city* (FrancoAngeli, Milan 2016); *European City Architecture*, (with L. Amistadi, FAEdizioni, Parma 2012); *Mantua. Saggio sull'architettura* (FAEdizioni, Parma 2005).

Tommaso Brighenti (Parma 1985), architect and researcher at the Politecnico di Milano (Department of Architecture, Construction Engineering and Built Environment), he graduated from the Scuola di Architettura Civile of the Politecnico di Milano. In 2015, he took a Ph.D. in Architectural Composition. He is currently developing teaching methods at the Politecnico di Milano where he teaches architectural design. He has collaborated with several Italian universities, in particular, the Politecnico di Torino and the Università di Parma, giving lessons and participating in design experiments. He is editor-in-chief of the online journal FAMagazine devoted to research and projects concerning architecture and the city. He has published a book entitled *Pedagogie architettoniche. Scuole, didattica, progetto* for the series AAC – Arti | Architettura | Città – studi, temi, ricerche (Accademia University Press, Turin, 2018).

Abstract

Modernity is almost always associated with cities, where urban planning and architecture have contributed to rationalizing space. However, the rural-backwardness binomial cannot be taken for granted: throughout the 20th century, rural modernization overturned the physical and settlement geography of many regions in different geopolitical realities. The role of architectural design in these processes must be examined on a case-by-case basis. The contributions of this issue embrace some of the most significant ones: from the management of refugee emergency in Greece in the 1920s, to the better-known *ruralisation* of Fascist Italy. In Portugal, as in Italy, rural architecture offered a contextual counterpoint to the dictates of the Modern Movement. In the countries of the Soviet Bloc, collectivization brought with it the *urbanization of the countryside*: prefabricated condominiums with standardized collective buildings, at least until the *thaw* of 1956. Experimentation resumed, in the 1970s and 1980s, with the large administrative centers of collective farms, trying to give expression to diverse identity demands.

Keywords

Rural modernisation — Inner colonisation — Rural settlements

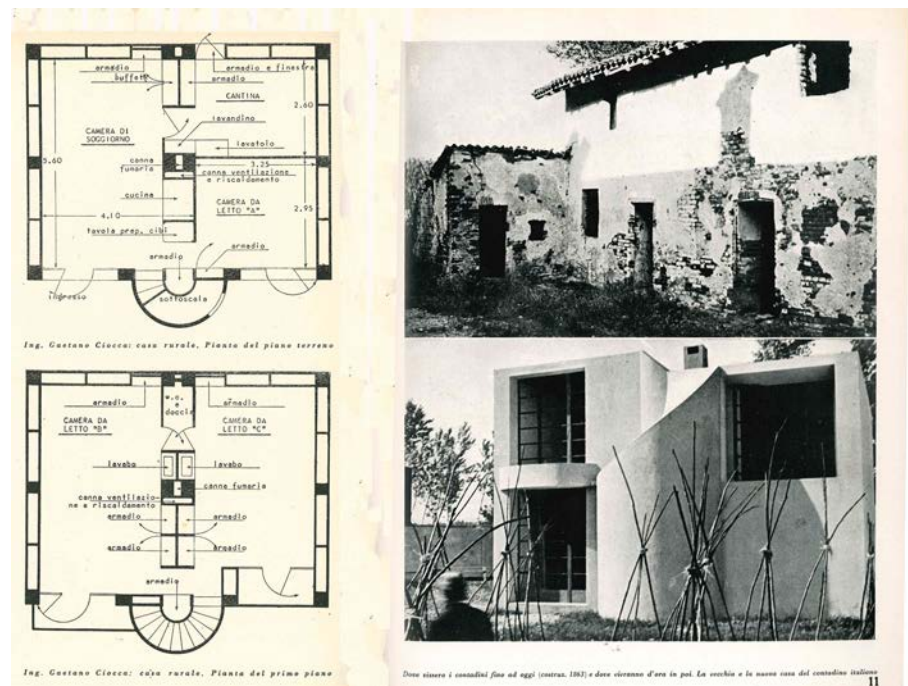
If, as Eric Swyngedouw argues (1999), modernity was basically a geographical project, one wonders to what extent rural modernisation is necessarily also characterised by a technical landscape, a direct outcome of the synergy between settlement strategies, political will, scientific knowledge, and technological innovations. A confirmation seems to come from rural modernisation schemes framed into nation-building processes, a common testing ground for experts from various disciplines: agronomists, geographers and hydraulic engineers, physicians and sociologists, architects and town planners, artists, and landscape architects.

According to Le Corbusier, the *era of roads* was to favour a return to the land, especially where new villages would foster better living conditions for farmers (Le Corbusier 1934a, 25; 1934b). His *village radieuse* was to provide scattered farms with basic services, aggregated in line across the main road to rationalise handling and storage of agricultural products (Simone 2018). In the same years, Giuseppe Pagano was extolling the various traditions of rural Italy as an immense «dictionary of man's constructive logic» shorn of celebratory intentions. Addressing a world in which necessity prevailed, Italians would finally distance themselves «from a time chronologically defined by stylistic attributes» and find their own path towards modern architecture (Pagano 1935). This *dictionary* finally materialised at the 6th Milan Triennale in the section on rural architecture (Pagano and Daniel 1936).

In the now numerous studies on the export of Western models to other contexts, adjectives such as *other*, *hybrid* or *border* modernism often recur. According to Maiken Umbach and Bernd Hüppauf (2005), by looking beyond the cornerstones of European architectural rationalism, some

Fig. 1

Gaetano Ciocca, rural house in prefabricated elements built near Garlasco (source: Quadrante 16, June 1935, pp. 10-11).

**Fig. 2**

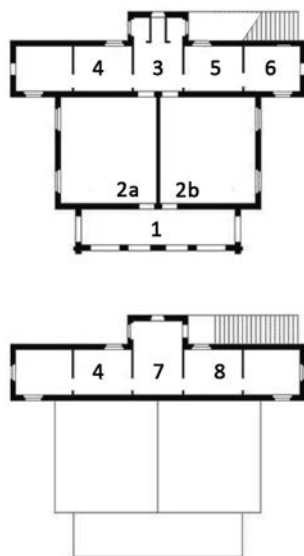
Gaetano Ciocca, the central trough of the model pigsty at Cascina Capannelle, 1938 (source: Schnapp 2004, p. 98).

concrete experiences of many quality architects have come to the fore, showing the continuity of vernacular traditions. This enduring presence is even more relevant in processes of inner colonisation (Sabatino 2010; Chyutin and Chyutin 2016; Dremaité 2017; Lejeune 2021; Sezer 2022). In his monograph on the villages of Franco's Spain, Jean-François Lejeune quotes Mies van der Rohe about the historical development of architecture. In a 1926 lecture, Mies outlined two fundamental areas of intervention: buildings animated by spiritual atmospheres and those integrated into the landscape and more responsive to concrete needs (Lejeune 2021, p. 15). Taken as a whole, the settlements entrenched in rural modernisation schemes raise a series of questions. Firstly, one wonders what their novel features really were, and whether the underpinning models of social organisation found full architectural expression. A common feature laid undoubtedly in the relationship between the rationalising order introduced by town planning (also for a better circulation) and the position of the main public buildings. In the Italian case, they overlooked public spaces conceived to enhance new behaviours patterns, on political rallies as well as in everyday life (Falasca Zamponi 2003). *A modern day* (Lupano and Vaccari 2009, p. 10) was in fact marked by working in the fields, but also by going to the post office, to the Casa del Fascio and the Opera Nazionale Dopolavoro (Workers' Club).

The concrete needs of the rural world did trigger many inventions, such as Gaetano Ciocca's prefabricated rural house, model pigsty, and the concrete road (*betonvia*), between the farmsteads and centres of the Pavia countryside (Meriggi 2002, Schnapp 2004). [Figg. 1-2]

In many cases, as in the rural schools of the Roman countryside, the symbolic-iconological dimension resurfaced prominently. Built in the 1920s, these schools were equipped with a bell-supporting structure and decorated with ceramic bowls: both features made them look like miniature churches (Morpurgo 1921, 364; Bonfante, Lombardini, Margione, Monica 2019; Cantatore 2021). [Figg. 3-4]

In the villages for Italian settlers in Libya, vertical elements signalled the presence of a church, market, and fountain to those driving along the new

**Fig. 3**

The rural school at Casal delle Palme with teacher's quarters (1922). Ground and first floor plan (source: drawing by E. Margione). Legend: 1. Portico; 2a. Schoolroom; 2b. Kindergarten classroom; 3. Changing room and toilets; 4. Kitchen; 5. Pantry; 6. Administration; 7. Entrance hall; 8. Living room.

Fig. 4

The rural school at Casal delle Palme seen from the Appian Way (photo by C. Pallini, May 2022)



coastal road (Gresleri 2007). [Fig. 5-6] Equally emblematic of a return to the symbolic dimension is the sovkhos of Juknaičiai in Lithuania, with its gabled-roofed health centre and monastery-like retirement home. [Fig. 7] Despite the specificities of each individual case study, village design necessarily addressed new imagined communities (Anderson 1983). From this point of view, the identity traits of the new rural settlements were often entrusted to an orchestration of space capable of enhance the collective dimension. [Fig. 8] While in Italy buildings and public spaces emerged simultaneously as the manifesto of a functional and cultural programme, in Greece public space consisted of plots left vacant while waiting for funds to build a school and a church.

Le Corbusier's studies demonstrate once and for all that rural modernisation posed new themes of architecture. Many ventured into these themes: from academics with a solid theoretical profile to technocrats with no artistic culture, from local professionals to employees of large planning offices. In Maoist China, for example, simple technicians drew up the necessary plans to realise collectively discussed projects. In the face of this plurality, it may seem reductive to merely distinguish textbook solutions from authentically original works, without going into the merits of individual case studies.

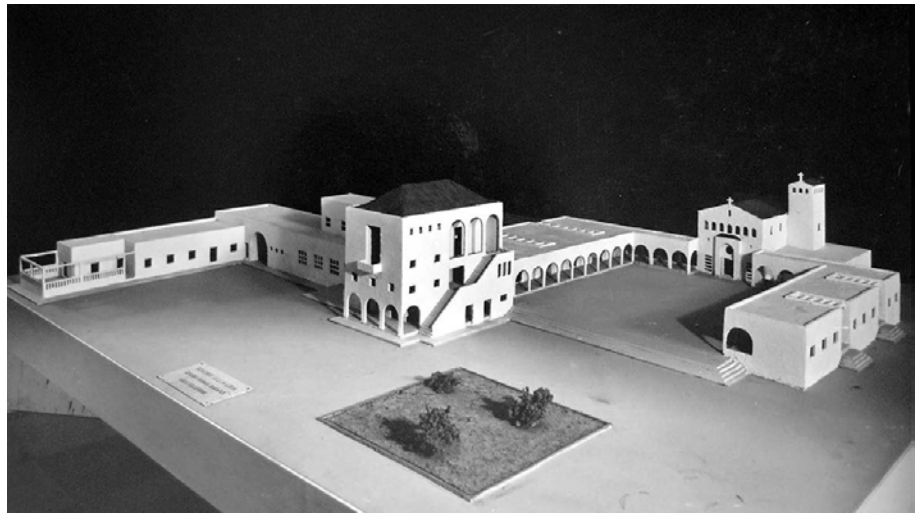
Contexts

For a better understanding of differences and similarities, the contributions in this issue are associated in relation to contexts, starting with Italy and the new settlements built in the Agro Pontino followed by two essays on Greece, selected as the 1933 CIAM venue while refugee settlement was still in progress. The article on Portugal dwells on the exploration of the rural hinterland by architects who, alongside geographers and anthropologists, followed the lines advocated by Giuseppe Pagano. The Albanian case straddles Italian events and collectivisation: in the Soviet Union of the 1920s, Lithuania and Latvia after the Second World War. The last two contributions expand the discussion to the United States and the People's Republic of China.

The international resonance of the Agro Pontino venture, ever since the outset, has given rise to a long tradition of studies by scholars from various

Fig. 5

Giovanni Pellegrini, model of the central core of Baracca village (today al-Farzugah) in Cyrenaica located along the coastal road about 50 km from Benghazi, 1938 (Archive of ISIAO, Istituto Italiano per l'Africa e l'Oriente, Rome). This nucleus included the church, the Casa del Fascio, the town hall, the school, the post office and a pharmaceutical dispensary; it was to serve about 1,500 settlers from the farms scattered in the surrounding area producing wheat, grapes and olives.

**Fig. 6**

Giovanni Pellegrini, Casa del Fascio at Baracca, 1938 (photo by V. Capresi, 2009).

**Fig. 7**

Stanislovas Kalinka, plan of the heath centre at Juknaičiai (Lithuania), 1978. Legend: 1. Music room; 2. Disco; 3. Space for art exhibitions; 4. Rest rooms for visitors from other villages; 5. Winter garden; 6. Swimming pool. (source: Dreimatė 2017)

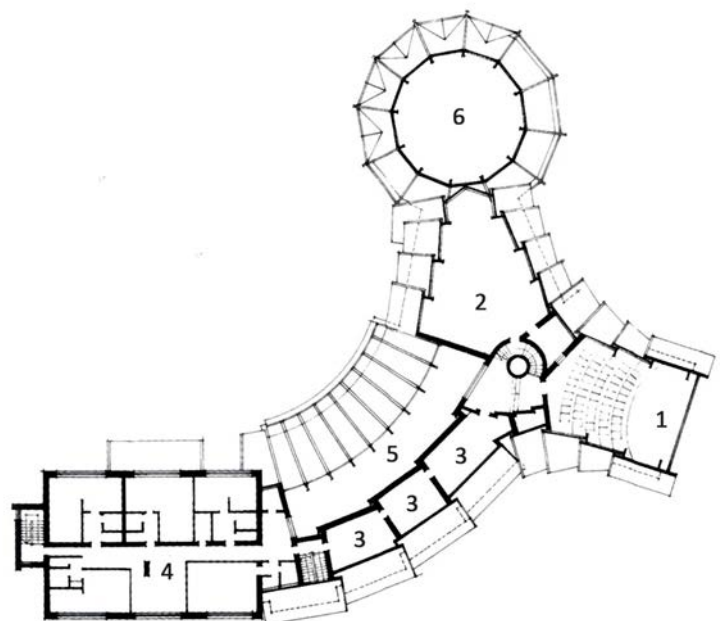




Fig. 8

Resting at the miradouro in the agricultural colony of Martim Rei, ca. 1944 (source: Guerreiro 2018).

disciplines (Mariani 1976, Nuti, Martinelli 1981, Ghirardo 1989, Besana, Carli, Devoti, Prisco 2002; Pellegrini 2005, Caprotti 2007, Pennacchi 2008). Francesca Bonfante and Luca Monica focus on planning problems posed by the construction of new settlements in the redeemed countryside, while framing the hierarchy between farm, village, and town within the corporate structure of the Fascist state, according to which all settlements were to be tiered by size and functions. In the 1950s, this approach gave way to a new relationship between town and countryside, with new architectural interpretations marking different points of balance between *rationalism* and the picturesque. Emanuela Margione goes into the new building types experimented in the new towns and villages of the 1930s. The Casa del Balilla, Casa del Fascio (House of the Fascist Party), Opera Nazionale Dopolavoro, and the new welfare institutions – such as the Casa della Madre e del Bambino or the Casa del Contadino – may all be considered *ante litteram* complex buildings. Aleksa Korolija deals with piezometric towers, technical artefacts standing on the edge of town and country, while giving monumental expression to the presence of water as a key modernising element: from that of the water table raised in the tank-towers, to that channelled from the marsh into the sea.

Vilma Hastaoglou-Martinidis and Cristina Pallini concentrate on the emergency measures implemented by the Greek government with the help of international institutions – such as the League of Nations – to deal with the arrival of refugees from Asia Minor. The difficult balance between the mass of destitute people, available resources, and limited time, paved the way for new prefabrication methods and standard solutions, also for village layouts. Athens hosted the 4th CIAeM at a critical time when the boundary between architecture and mere construction was blurring, and present problems were overshadowing any glory of the past. Luisa Ferro presents the Athenian scene of the early 1930s. The housing shortage, added to the difficult management of urban expansion, led Dimitris Pikionis to reassess the value of tradition and advocate the architectural quality of the new neighbourhoods.

The Pontine Plain and northern Greece may help us highlight some fundamental differences, such as the significance of internal colonisation – and of the regions concerned – in the nation-building process. Other differences concern the sequence of land transformation interventions, the number of settlers and new settlements in relation to the national overall population and, above all, the role of architecture and town planning in the process.

Helena Maia and Alexandra Cardoso take as their starting point the early-20th-century rediscovery of the Portuguese hinterland, a common experience for architects, agronomists, geographers, and anthropologists which laid the basis for the establishment of seven rural colonies and of the Junta de Colonização Interna within the Ministry of Agriculture. The time span between the late 1920s and the late 1950s was long enough to experiment with different alternatives concerning the settlements layout and the architectural characterisation of collective endowments. The farmhouse, however, remained a central theme, quite distinct as it was from the houses for technicians and administrators in residence.

The fifteen years between the first Italian landings (1914) and the military occupation of Albania in 1939 were dense with studies and projects: on the physical geography and resources of the country, its communication routes and main cities, the ethnic composition of the population. Several key institutions were established in the region of Vlora: the Agrarian Office (1916), the Agronomic Observatory, the Babizza Piccola experimental estate and the first Agrarian School (1927) (Gresleri 1993). In 1939, Albania had still a feudal economy and a population of peasants and labourers. Federica Pompejano traces the country's transition to the socialist model, based on the mechanisation of agriculture and the collectivisation of land. The attempt to eliminate the gap between town and country involved the adoption of new settlement models: the newly built socialist agricultural centres and cooperative settlements integrated existing villages with newly founded ones.

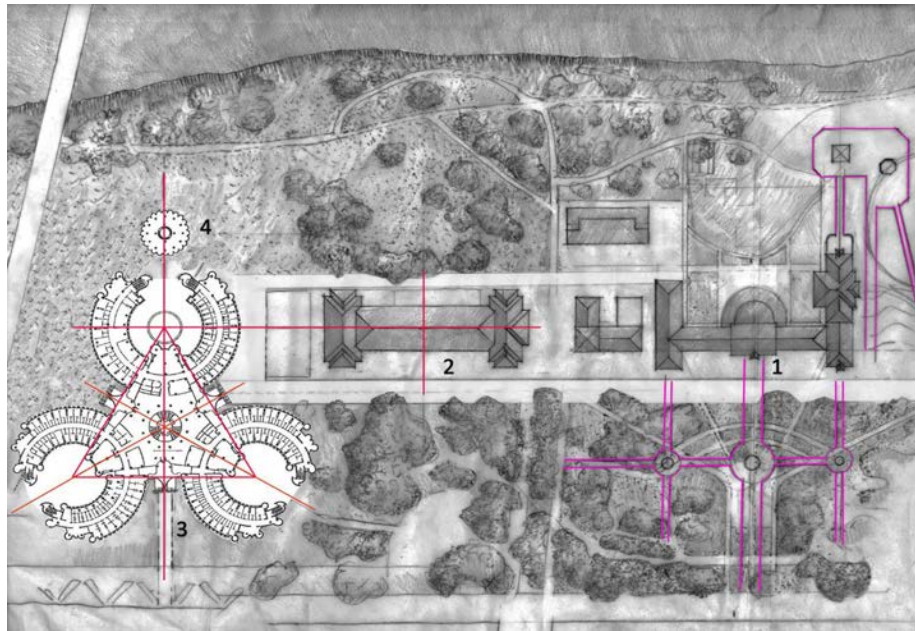
The three contributions on Eastern Bloc countries cover a time span from the 1920s to the collapse of the Soviet Union in 1991. Maurizio Meriggi discusses the dialectic between *old* and *new* (from the title of Sergei Ejzenštejn's film) in the transition between the New Economic Policy (1921-1928) and the First Five-Year Plan (1928-1932), arguing that, in the early years of rural collectivisation, collective buildings and housing met the canons of constructivist architecture.

Marija Drėmaitė discusses Soviet Lithuania (1940-1990) by relating spatial planning to new architectural problems. While the design of farmers' residences could rely on a series of precedents, the overall configuration of collective farms and their provision of services posed new problems. Over time, the presence of the administrative centre became increasingly important and functionally complex, with solutions which revived forms and styles of local architectural traditions in the wake of post-modernism. In Latvia, too, administrative centres went beyond standardisation. Yuliia Batkova and Laine Nameda Lazda examine the case of Nakotne, a special one both for the articulation of the overall layout, functional density and architectural configuration of the sports and cultural centre.

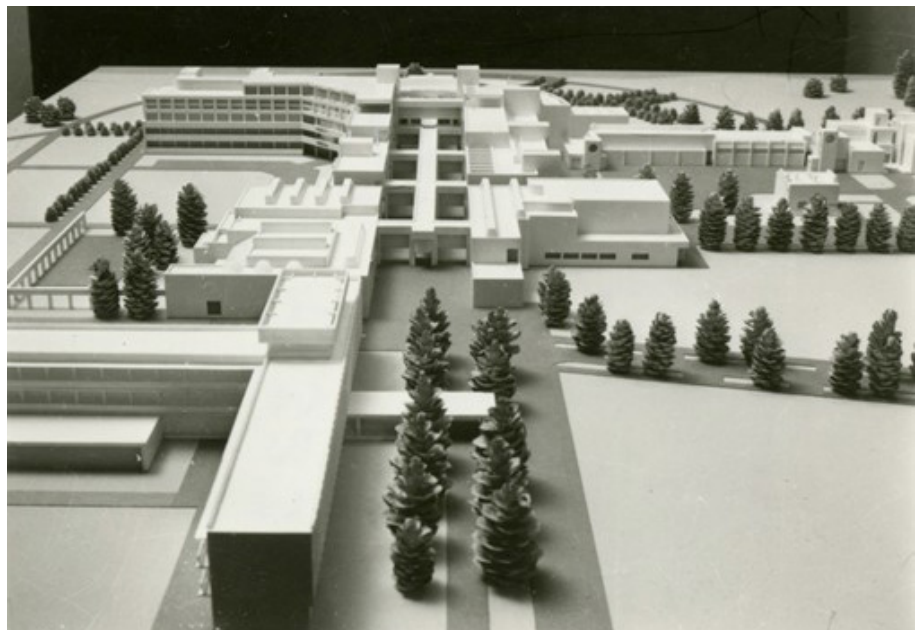
Addressing new problems of architecture related to rural collectivisation, one cannot overlook the large sanatoriums for *kolkhoz* and *sovkhos* workers built in the main holiday resorts of the Baltic republics (Dremaitė 2017). Conceived as mass hotels in exceptionally scenic locations, Soviet sanatoriums catalysed new behavioural patterns. During their holidays, workers had access to free medical care and state-of-the-art health treatments, alternating rest with recreational activities and gaining self-awareness in a new society. Indeed, Tijana Vujošević (2017) claims that public healthcare was decisive in the construction of the Soviet new man. After the productivism of the early years, a representative ethos emerged, within which public baths, as well as sanatoria, encapsulated the social order as microcosms of

Fig. 9

A section of the Druskininkai riverfront (Lithuania). Legend: 1. Sanatorium built on the site of Tsar Nicholas I's residence; 2. Balneotherapy Centre, Vsevolod Ulitko, 1954; 3-4. Hydrotherapy Centre and water tower, Romualdas and Aušra Šilinskas, 1976-1981 (source: drawing by C. Pallini, 2023).

**Fig. 10**

Kalju Vanaselja and Ell Väärtõnou (first phase 1966-1970) and Vilen Künnapu (second phase, 1976-1988), model of the Tervis Sanatorium in Pärnu (Estonia). (source: Eesti Arhitektuurimuuseum).



collective intimacy for physical and spiritual transformation. [Fig. 9-10] The last two contributions focus on the United States and China. During the 1930s, the southern Great Plains of the United States were devastated by a series of sandstorms caused by decades of inappropriate agricultural techniques. This ecological disaster forced farmers to migrate; just as Greek Orthodox refugees had to leave Asia Minor to face an uncertain future in the countryside of northern Greece, so American farmers, deprived of the means of subsistence, were forced to move west. The problem of mass resettlement emerges in its cyclical nature.

Filippo De Dominicis examines the interventions promoted by the Farm Security Administration, including projects by Vernon DeMars, Garrett Eckbo, and Fran Violich. With the demand for spaces capable of stabilising closer relations, the difficulty of finding a balance between American settlement culture and the principles of new architecture affirmed by Le Corbusier came dramatically to the fore.

The case of China presents clear analogies with the experiences of the Soviet republics: the first three decades of the People's Republic (1949-1979)

were in fact characterised by a collectivist and planned economy, in the context of which the countryside underwent a veritable metamorphosis: forests were cleared, lakes drained, and slopes terraced. Anna-Paola Pola reconstructs the story of the Dazhai village during that thirty-year period. Completely rebuilt by its inhabitants, Dazhai became an example for hundreds of collectivised villages, which reinterpreted the ideas and models of the party with all available means. The modernity of the new villages was expressed in their regular and compact layout vis-à-vis a landscape shaped by man.

Editorial note

This issue builds on the MODSCAPES project (Modernist Reinventions of the Rural Landscape) funded under the HERA call Uses of the Past (grant 5087-00420A). MODSCAPES covered the three-year period 2016-2019 and, in addition to Politecnico di Milano, involved the Université libre de Bruxelles (Project Leader), the Cooperativa de Ensino Superior Artística do Porto CESAP, the Eesti Maalikool (Estonian University of Life Science), and the Technische Universität TU Berlin, with the participation of DOCOMOMO International, CIVILSCAPES (Bonn), ECLAS European Council of Landscape Architecture Schools (Vienna).

The centrality of the Pontine case in the project also depended on additional funding from the Deutscher Akademischer Austauschdienst DAAD obtained by TU Berlin and Politecnico di Milano for the joint seminar Rethinking the Rural Landscape (Pontinia 28 April - 6 May 2018).

MODSCAPES involved 22 senior researchers, 6 PhD students and 4 research fellows and ended with the exhibition Enter the Modern Landscape (Bozar Brussels 29.11.2019 - 12.01.2020)

After the closure of the project, the course Composition and reality: investigating the tools, coordinated by Elvio Manganaro and Henrique Pessoa Alves at the AUIC School of the Politecnico di Milano (a.y. 2020-2021), included the Thematic Seminar Rural Modern, a testing ground for architectural design coordinated by C. Pallini.

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Francesca Bonfante, Luca Monica
New towns and new countryside in Italy from corporatism to post-war reconstruction

Abstract

This contribution examines the relationship between architecture, town planning and rural landscape within the plan for construction of new towns in areas subject to large-scale reclamation and agricultural development before and after the Second World War. In the 1930s, these processes were largely based on theories about the Fascist corporate state. Corporatism purported a clear hierarchy between settlements, each bound for a given role, for which specific functions were to concentrate. Shifting from the territorial level to the urban space, the hierarchy between farm, village and city comes into focus, along with architectural expressions hovering between classicism, rationalism or picturesque. The concept of integral reclamation had a long-lasting impact, inspiring as it did the institution of Land Reclamation Authorities that were to outlive the regime. Taking into consideration the cases of Agro Pontino and Matera, this contribution purports to show the continuity between extensive land reclamation undertaken during the 1930s and rural redevelopment schemes of the 1950s.

Keywords

Integral reclamation — New towns — Reconstruction — Countryside architecture



Fig. 1

Map of land reclamation in Italy, according to the Serpieri's law, between 1931 and 1935 (from Serpieri 1931-1935).

Introduction

The literature on the transformation of the Pontine Marshes and the construction of *new towns* is very broad and belongs to the different fields of knowledge directly involved in *integral reclamation*, from economy to politics, from agronomy to landscape history, from geology to hydrography, from urban planning to architecture. It is therefore difficult to untangle the complex interweaving of knowledge and the criticisms made at the time and after the project.

Many studies on Italian architecture and urban planning of interwar time (mostly published in the 1970s and 1980s) deal with the intricate political and cultural events of Fascist Italy, often criticising projects undertaken in the Pontine Marshes. These authors question the actual ability of the Fascist regime to organically plan economy, society and territory, while stigmatising Italian architects who embraced rationalism for compromising *form* and *ideology*, rather than finding real alternatives to regime architecture (Mariani 1976, Sica 1978, Nuti and Martinelli 1978, Ciucci 1989).

However, beyond propaganda, the reclamation of the Pontine Marshes is a key case study to question the relationship between the actual building sites and ideas behind them, between methods, results and contradictions of the fascist territorial management.

Many questions about the role played by the rural alternative in the strategy of a possible rebalancing between city and countryside are still open. Also, the historical judgement on the impact of actions linked to *integral reclamation* on the economic development has been complex and many-sided. On the one hand, reclamation produced an increase in ag-



Fig. 2
Excavators at Casale Perazzotti,
Acque Alte channel, near Latina,
in 1929 (from Zucaro 2012).

ricultural production but, on the other, it was unable to carry through its promise: a genuine «renewal of production structures and the formation of small-scale active and enterprising holdings backed by public land credit system» (Castronovo 1975, p.281).

These effects did however form the instrumental promise for a revival which occurred starting from the 1950s, especially in the south of Italy, as mentioned by Manlio Rossi Doria:

Immediately after the war, the situation of southern reclamation was extremely confused and uncertain. [...] Those years saw the formulation of principles that later materialised in the institution of the *Cassa per il Mezzogiorno* [Fund for the South] programme for adequate multiannual appropriations, a long-term plan, an extraordinary institutional body to realize it, a differentiation between districts, a concentration of efforts on the most ready and promising among them, a systematic study and investigation of the countless reclamation issues, and ultimately, a close connection between public works and land transformation, to finally render Arrigo Serpieri's luminous conception concrete also in the south. (Rossi Doria 1961, p.82-83. (Transl. by authors).

At the same time though, the economic background changed radically. However, despite the new historical and ideological context, architectural projects implemented after the Second World War were as exemplary as those produced in the interwar period.

In fact, if the project for the Agro Pontino was the most clear experiment among the *integral reclamation* in the 1920s and 1930s, the same can be said for the district La Martella, one of the most significant interventions of the *ricostruzione* period, once again inconceivable outside the actions of the reclamation consortia by the Serpieri laws, established.

The Italian question: corporatism and ruralisation

The ruralisation of the country through *integral reclamation* – starting on massive public works – found institutional support in Corporations that were supposed to resolve a fundamental contradiction of capitalism, i.e. the conflicting relationship between employer and workforce. Giuseppe Bottai, Minister of Corporations, tried in as dynamic a way as possible to interpret this institutional tool meant to uproot the causes of latent conflict¹. According to Bottai, each social group was to have its own role in the corporate state, a role which the political power was to recognize and guarantee. Corporatism was therefore a tool for economic planning, since corporate bodies were setting the State free from the various economic sectors and related constraints.

«Quadrante» soon turned its attention to formulating concepts and pronouncements for the implementation of the *corporate city*, an urban translation of corporative principles whereby each city would grow within a regional and national plan, following a precise functional vocation. The national plan was to identify a specific role for each city and its countryside, thus fostering the balance between inner immigration, ruralisation, moral and hygienic rehabilitation. At the same time, every urban centre was to pursue its specific *productive* specialization – be it industrial, artistic, educational or agricultural – vis-à-vis the pre-existing *old city*.

The idea of *corporate city* came to the fore and, in this respect, global spatial planning was seen as tool to correct Italy's macroscopic economic imbalances. *Anti-urbanism* thus became the official ideology of fascism, although its implications were not such as to change the country's economic structure, founded on industrial development. In fact, while in 1935 some 50% of agricultural land was classified as reclamation land, investments were less than half of those allocated to industrial bailouts and fewer than 3% of the unemployed were deployed in reclamation work. The geographical area in which the regime did have some success was the Pontine Marshes.

The question of farmworkers, and more generally the development and adaptation of the agricultural economy, was part of a historical legacy which was frequently on the agenda of social and political analyses, without the ruling classes being able to develop and implement a coherent policy of interventions.

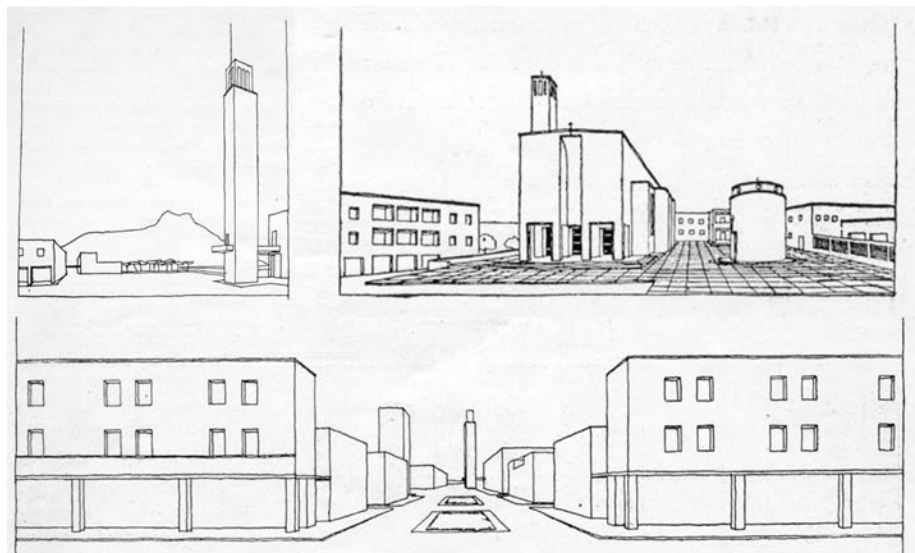
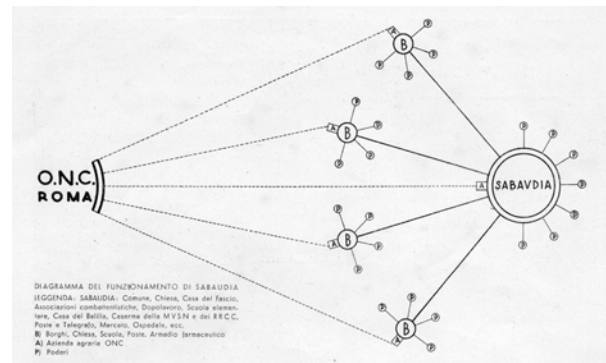
The problem of agrarian reform in Italy became more clear-cut in the late nineteenth century (Castronovo 1975), with the approach of Unification and recognition of the marked discrepancy between northern and southern Italy. Even the hypotheses of agrarian structures were different. In the north, Carlo Cattaneo anticipated the *construction* of a rural system in Lombardy, also through the idea of complex settlements that would define a new type of *agrarian institute* (Cattaneo 1847), conceived in adherence to the characteristic of the territory, wittily described in his studies on Lombardy.

In the south, instead, prevailed the conflict regarding the economic structure of the organization of land, between backward-looking *latifundia* and resources for new entrepreneurial development.

In this extended idea of *integral* action, the land reclamation consortia, would play a key role in the great hydraulic initiatives across the country, along with land reorganization, infrastructure development and the creation of new settlements that would characterize the new Fascist towns and villages of the Pontine Marshes, the Capitanata in Apulia, the marsh-

Figg. 3-4-5

G. Cancellotti, E. Montuori, L. Piccinato, A. Scalpelli, Town of Sabaudia, 1933-34. Functional diagram of the city, project plan and perspective drawings of the centre (from Piccinato 1934).



es around Ferrara, the Sulcis mining basin in Sardinia, but also mountain territories. The action of the land reclamation consortia would continue even after the Second World War with new incentives and would be a key part of the post-war *reconstruction* process in Italy, with a renewal of its approach to policy and agrarian economics.

With regards to population movements, since 1906-08 there had been measures and plans for immigration by families of settlers into Italy's southern provinces and islands. The *Opera Nazionale Combattenti* (ONC) was set up to this aim in 1917 to encourage productive employment for ex-combatants through financial and land allocation measures.

The first important legislative acts under fascism were the law of 1923, which brought together previous legislation regarding land reclamation, and the law abolishing use requirements of 1924, regulating thousands of acres of land and affecting thousands of people.

The period of *integral land reclamation* was inaugurated by the 1928 Mussolini Law, including a financial plan for the sector to extend over 14 years starting from 1930².

Agricultural policy took a new direction; the concept of *integral reclamation* involved land drainage, but above all, prioritized the different distribution of agricultural land, regional organisation, settlement and resettlement. The theoretical, programmatic and legislative framework was the work of Arrigo Serpieri, who as Under-secretary for reclamation, together with others, drew up a general plan of areas to be reclaimed (Serpieri 1919, 1930, 1938).

Serpieri's roots date back to the early decades of the 20th century, first in the *Società Umanitaria* and *Società Agraria* in Milan, then in Florence's *Accademia dei Georgofili*. Milan was where he received his technical and vocational training through an intense period of teaching and research: here he made his first connections with the world of agriculture in the context of agrarian reform (Prampolini 1976).

For the *Società Agraria* Serpieri did important research into the Alpine meadows of Switzerland and Lombardy, highlighting the problems of collective ownership and forms of state intervention. In Tuscany, from 1912 to 1923, Serpieri set up and managed the *Istituto superiore forestale nazionale*, in contact with an agrarian situation very different from that of Lombardy, characterised by sharecropping rather than rent and a capitalist enterprise. Serpieri proposed a new way of looking at agriculture and began to develop his philosophy of agrarianism.

Serpieri, departing from previous ideas, with the concept of *integral reclamation*³ initiated an interesting debate which sought to reconcile economic theory, Government practice and corporate opinions in a scientific and ideological *unicum*.

Pontine Marshes and the triade farm-borgo-town

The reclamation of the Pontine Marshes brought together a variety of technical skills: hydro-geological, land economy, demographic, health etc. Such a territorial reinforcement, that within ten years would lead to the building from scratch of an entire province, was built up step by step in relation to the growing need to procure goods and services. A hierarchical pattern of settlements interconnected the isolated houses, villages and main cities; the latter were generally centrally located in relation to farms and villages, at the intersection of the main routes of regional communication and close to the railway. An organisation directly related to the traces

of previous reclamation attempts – from the earliest efforts to those carried out under the Papacy – and in fact in a continuum with the civil engineering interventions undertaken from 1918 and 1921.

During and after the work thousands of workers were encouraged to move from all parts of Italy, but particularly the North-east. They became the principal players both in the reclamation work but also in the overall territorial reorganisation.

The persistence over time of the results of the entire operation is mainly due to *centuriation* grid land-division, and which led to the definitive alteration of the existing landscape. The territorial transformation of most of the Pontine Marshes, entrusted to the *Opera Nazionale Combattenti* who turned over 54,000 hectares into farmland (plus a further 11,000 by *Università agrarie* and private individuals), provided 25,000 head of cattle, as well as modern equipment and machines.

The extension of the farm ranged from 5 to 30 hectares; the farm houses, complete with service buildings were constructed along the roads according to clear criteria of regularity. Each group of about 100 families came under a *borgo*, conceived as a business centre and located at the intersection of the new secondary road network, often corresponding to sites established in the earliest stages of reclamation.

The *triade* of farm-borgo-town, in a varied arrangement of different types of settlement, reflected the intention of creating a stable social and productive structure for farmers, tied to the land by share-cropping agreements, and to the institutional regime by a series of public places, which together served to neutralize the attraction of the big city.

Towns, designed for a population of between 3,000 and 5,000 inhabitants – except the provincial capital of Littoria – were the epicentres of settlement for the entire area and served the preeminent function of administrative, technical and representative hubs; Pomezia, Pontinia and Aprilia, Littoria were aligned at the centre of the area of reclamation while Sabaudia was more on the edge, beyond the Circeo National Park, by Lake Pola, in an area destined to become a major tourism attraction.

The organisation of the territory, which in this case would achieve a consistency unknown elsewhere, aspired to be an alternative to the urban life. The dimensions of the agrarian grid pattern and the relative distances between towns are the expression of the dual presence of the urban and rural, even more evident in the architectural precision of public buildings and communal space *par excellence*: the piazza, acting as counterbalance to the basic and economic housing types found on the farms.

The apparent contradiction of the term *rural urbanism*, invoked by Bottai at the opening of the 1st National Town Planning Congress in 1937, and clearly aimed at de-urbanisation, masked a search for new balances between city life and the role to be assigned to the countryside.

Lasting for almost a century, the colonization of the Pontine plain may be considered as a testing ground for national agricultural policies, well beyond of the regime's ideological concerns.

Urban composition and new figurations

Competitions for the *new towns* (Sabaudia, Aprilia and Pomezia) and the implementations of projects were an important laboratory for both architectural and figurative experiments, as well as for the development of a *technical-scientific* know-how in urban design. These are places where the meeting of *old* and *new*, between *monumentalism* and rationalism, between

traditional and modern language, are manifest in all their complexity and interplay. Cancellotti, Frezzotti, Libera, Montuori, Muratori, Piccinato and many others researched the fundamentals of modern Italian architecture and town planning, contributing, through experimentation *on site*, to the passing of Italy's first planning legislation in 1942.

The first town, Littoria, designed by Oriolo Frezzotti for the Commissioner for Reclamation Orsolino Cencelli, went counter to the opinion of Mussolini, who was at pains to emphasize its character of *anti-urban* rural village; however, the growing attention to new towns, especially by the media, led to the competition for the designs for Sabaudia to attract significant nationwide interest.

The national competition launched by the charitable organisation *Opera Nazionale Combattenti* (ONC) in 1933, was won by a group of architects including Gino Cancellotti, Eugenio Montuori, Luigi Piccinato and Alfredo Scalpelli.

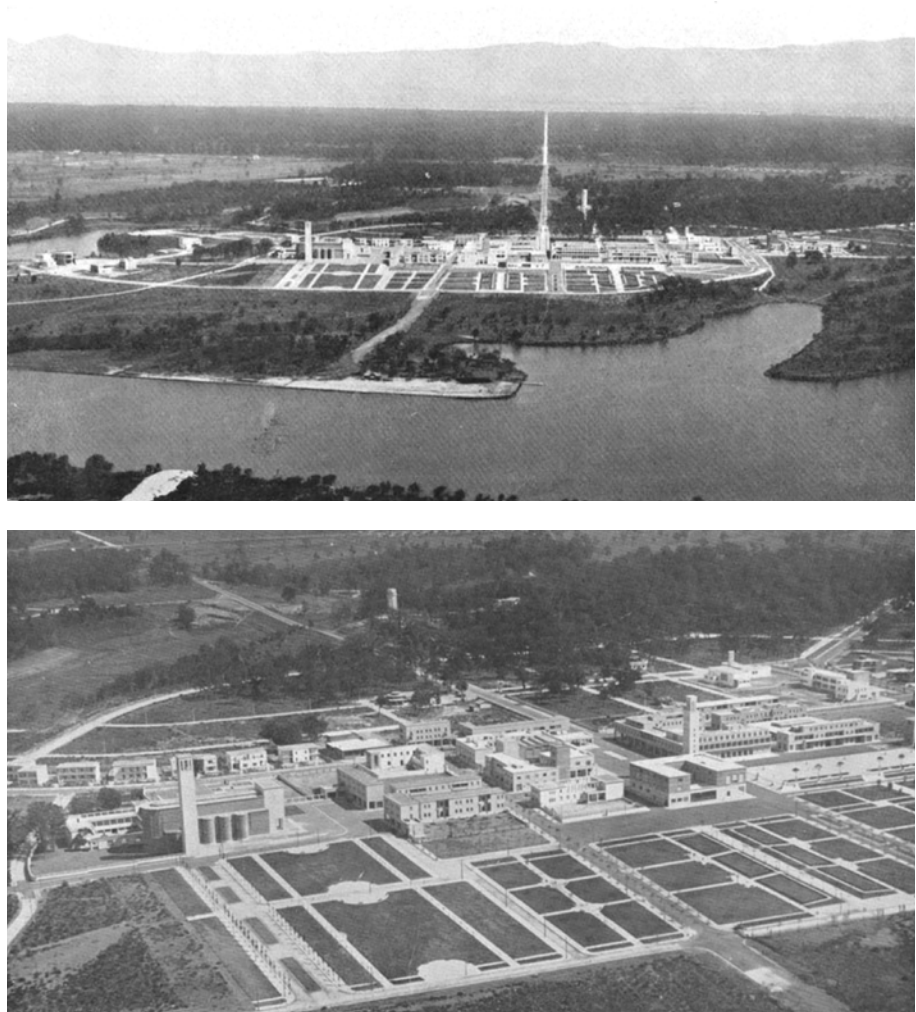
To understand the nature of Sabaudia it is necessary to conceive its role within the rural territory it depends on: in the diagram that Piccinato published together with the project (Piccinato 1934), it emerged as a political and administrative centre, which led to it being a key nerve centre of a series of radial relations between functions: farmstead – village – town of Sabaudia – ONC Rome.

Long straight access roads link it to the Appian Way and the neighbouring towns and villages, crossing the complex and evocative morphology of the surrounding territory: wooded hinterland, coastal line and lakes, reliefs, canals and reclamation roads. Around the intersection of these axes developed an orthogonal system of squares, skilfully disengaged within the perimeter, in which to represent the main political and civic institutions: the Town Hall, the *Casa del Fascio*, army barracks, associations, a cinema, a hotel and public offices.

The *Casa del Fascio* and the Town Hall are isolated volumes in the surrounding urban fabric: the former, positioned at the crossing of the four main roads, arises as an ideal link between the civic centre and the adjacent religious centre; the latter, featuring a tower with a balcony symbolically centred with respect to the axis towards the Appian Way. The shifting sight lines of the central nucleus strongly characterize the town, metaphysically suspended in an urban layout that has very little to do with the picturesque environment of medieval Italian villages – one of the supposed references⁴ – but rather a homage to the ground plans of Ancient Roman tradition with their orthogonal grid and central square featuring porticoed buildings.

During the 4th CIAM Congress of 1933, the urban scheme of Sabaudia, deeply against the grain with respect to the European urban planning of those years, was presented as an example of a functionalist city and gained international admiration. However, Le Corbusier was somewhat sceptical when in reference to Sabaudia he spoke of this architectural project describing it as «un doux poème, quelque peu romantique, plein de goût, signe évident d'amour» (Le Corbusier 1935, p.329), in opposition to the idea that the «'Village Radieux' sont préparées pour s'offrir à l'industrialisation à grande échelle», speaking of his proposal for the future city of Pontinia (Le Corbusier 1935, p.330).

The architecture of Sabaudia therefore seems to encompass the conflict already expressed by Tafuri:



Figg. 6-7

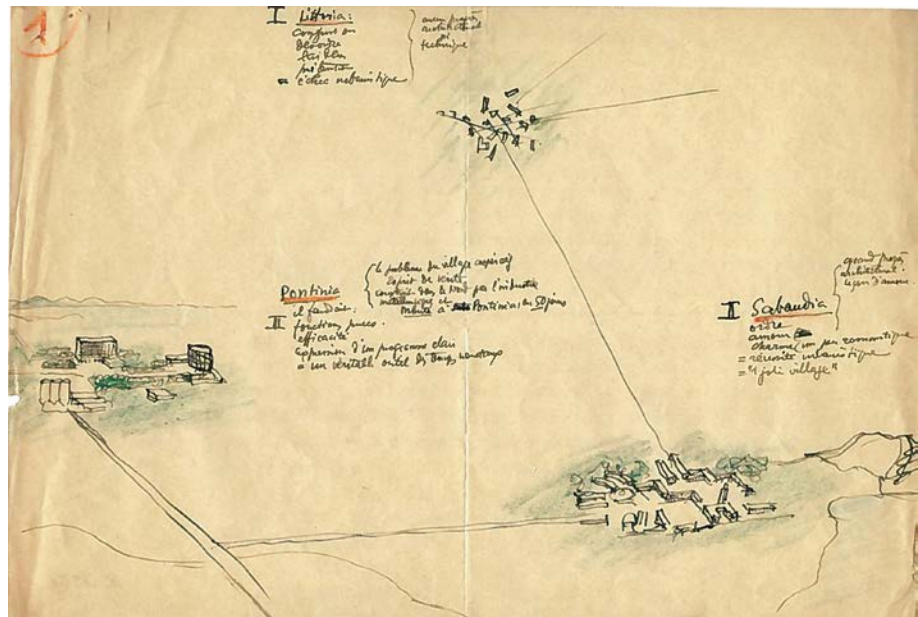
Aerial views of Sabaudia (from "Sabaudia dall'aeroplano" 1935).

[...] the one recognized as the only positive example of a “rationalist” city made in Italy, ultimately did not differ that much in its *cardo-decumanus* backdrop, in the rhetoric of its central or quasi-central perspective, in its categorization of buildings, in its academic compositional canons grafted onto an organism, on the contrary, that was new and intelligent in the organization of its various parts in relation with the territory (Tafuri 1964, pp.35-36. Transl. by authors).

How then should we regard the volumes and spaces of the Sabaudia project?

On the one hand, we must look at the perspectives sketched by Piccinato, for the stereometric volumes making up the civic core, whose buildings are represented cinematically in a succession of fluctuating spatial frames, following a futurist-suprematist aesthetic. On the other hand, the debate of those years invites us to shift our gaze to the spatial composition that characterizes Sabaudia with respect to its surroundings, borrowing the view-point from the famous aerial photographs published in "Sabaudia dall'aeroplano", in 1935⁵ or from the representations of the Futurist painters who establish its most significant iconic images.

Analysing the hierarchical addition of the volumes of the civic centre brings out the compositional intentions of the architect, aimed underscoring the central elements with respect to the rest of the urban fabric detectable in the ground plan, whose lots are in a continuum with the countryside.

**Fig. 8**

Le Corbusier, Study drawing for Pontinia, 1934 (from Ciucci 2012).

Overall, among the natural landscape of lakes, dunes, remains of woodland, and the technical landscape of canals, railways, pumping stations, the *new towns* reflected an idea of urban composition capable of conquering the new territorial space resulting from reclamation, give life to a rarefied anthropic environment and physical expression to the relationship between town and country.

What we want to emphasize is the persistence of a deeply rooted Italian urban culture, here interpreted as a settlement grafting on multiple points across the territory, where the *city effect* is not so much in the single civic centre as in the system of nuclei. There is an analogy here with Amos Edallo's analysis of the territory and rural settlements in the Po Valley after the Second World War, both over a broader area and in an urban context (Edallo 1946). The orographic structure, the system of roads and canals, the distribution and density of settlements combine in the modernization of agricultural production work, in accordance with a new design of *paese rurale*.

Thus in the case of the Pontine Marshes we see a combination of facts conducive to a lasting settlement based on a territorial dimensions (scale) and original integrated by rural hubs (urban sites).

From Sabaudia to Matera

Between 1950 and 1959 one of the noblest experiences of post-war Italian architecture took place in Matera, which immediately gave rise to a wide range of historical-critical literature that revealed the key role and premise for a new commitment to the reconstruction and development of civic life. From its inception, this episode had in fact transformed the very concept of *ricostruzione*, seen as post-war repair, and by extension, a more *integral* commitment, delivering the physical form and substance of the landscape to the city and the territory in Italy's economic and social development. The Sassi, the ancient rock town forming the original nucleus of the city of Matera, began to represent a sociological study case to reflect upon, also abroad.

The first definition of an operational strategy was born on the inspiration of the US ECA mission (Economic Cooperation Administration) entrusting the task to the *Consorzio di Bonifica della valle del Bradano*, directed

by Nallo Mazzocchi Alemanni, who compiled a report published in 1950 that established the bases for the three kinds of construction for the population of the Sassi in Matera to be carried out at the same time: residential villages in rural areas; peripheral residential districts; direct action for the renewal of the Sassi.

In the case of rural villages outside the centre, new settlements were identified: La Martella, Borgo Venusio, Torre Spagnola, Salati and the service centres of Picciano and Timmari.

On this initial hypothesis, initiatives coordinated by Adriano Olivetti immediately converged as a part of the *Commissione di Studio della città e dell'agro di Matera*, formed by INU and UNRRA-Casas. This interdisciplinary working group would define the hypothesis of the rural village, La Martella, directly inspired by social concepts of *community* long theorized by Olivetti in studies, publications, and cultural and political actions.

The context of this agrarian landscape consisted of large *latifundia* and unquestionably represented a backward and absolutely static production structure, but on the other hand it could constitute the starting point for transformation towards a modern agro-business industry. It was therefore important in this context that the territorial unit of large agrarian resources and new rural settlements be preserved, all immersed in a landscape of rare beauty with rolling horizons and surprising small compact towns and villages.

This sensibility for an *aesthetics of the landscape* of the agricultural economy, did not escape Manlio Rossi Doria's notice:

When – leaving the villages crammed with the poverty of the farmworkers – I went on to consider the vast tracts of land without roads, without investments or technical means, it seems to me I was not wrong in evaluating those resources as susceptible to allowing, if not a prosperous life, at least a civil agricultural life for those populations for whom I saw no other alternative at the time (Rossi Doria 1961, p.81. Transl. by authors).

Among the actions of the two reclamation consortia involved at the time – the Bradano Valley Consortium directed by Mazzocchi Alemanni and that of Metaponto directed by Rossi Doria – continuing the role undertaken pre-war, there were hydraulic works intended for irrigation of the large estates for agriculture, with the realization of dams for the large artificial irrigation reservoirs, such as the one just south of Matera in the Bradano Valley, opened in 1952.

The 1953 *Piano Regolatore Generale* for Matera by Luigi Piccinato (Piccinato 1955), was born as a coordinative action of the various interventions under one single design, to provide rehabilitation (of the Sassi and the Agro di Matera) in the form of an urban planning and therefore architectural design.

In this elaborate system of poles outside the city, also the internal structure of Matera came apart, maintaining compact only the fabric of the administrative city that arose between the nineteenth and twentieth centuries on the winding edge that overlooks the steep slope of the Gravina with the city in the rocks, and behind it, on the plateau, other hills surround it, and beyond the neighbourhoods that would be realized in this second phase: Spine Bianche, Serra Venerdi (L. Piccinato, L. Anversa, 1955-1957), and Lanera (M. Coppa, M. Fabbri, 1955-59).

Piccinato's design for the *Piano regolatore* of Matera incorporated a

scheme developed with UNRRA-Casas and the Bradano Valley Consortium, almost as if to use the same diagram already designed in 1934 for the Agro of Sabaudia, but in a quite different context. On the one hand, a branched system in the countryside, formed by four rural villages and the two service centres. On the other hand, inside the city, the system of the new residential districts, as *parti di città formalmente compiute* (using Aymonino's words), in addition to an urban centre innovated by an ancient road system with a long territorial extension. The two emblematic examples of this architectural work would therefore be La Martella (L. Quaroni, L. Agati, F. Gorio, P.M. Lugli, and M. Valori, 1949-1954) and the Spine Bianche district (C. Aymonino, C. Chiarini, G. De Carlo, M. Fiorentino, M. Girelli, F. Gorio, S. Lenci, M. Ottolenghi, V. Sangirardi, H. Selem, and M. Valori, 1955-1959).

Two works of architecture to be looked at again today, beyond the more or less agonized transformations, still for a potential role (and a possible restoration in the built forms) to be found among the functions of today's agrarian economics. From the point of view of the architectural design, the relationship with the past experiences would appear to be less clear, and a comparison with the works of architecture at Sabaudia by Piccinato, for example, seem too stereometrically defined, too balanced and proportionate. The turning point between the experiences before and after the Second World War, inside the Italian Rationalism architectural debate is represented by the research of Pagano about rural architecture, presented at the Triennale in 1936 (Pagano and Daniel 1936, Bilò 2019). A sophisticated balance between rural tradition and rationalist morality, along essential lines of pure geometry and into the materiality of the construction, which stand out in new dimensions of the landscape.

The photos taken all over Italy in the small towns, villages and countryside constitute a wealth of documentation, hitherto practically unknown, that would give rise to a comparison between the various characteristics of regional architecture, with no vernacular nostalgia.

The experiences of the post-war period, indeed, proceeded by fragments and were even inspired by ideas of construction technique, also starting from Mario Ridolfi's 1946 *Manuale dell'architetto*, which was recognized as the expressive starting point of new Italian architecture (Ridolfi 1946, Muratore 1974). Other important fragments were the diagrams of the aggregation of rural houses which Ridolfi began to study for the CNR and UNRRA-Casas in 1949, and which had an important antecedent in a 1940 project for a rural settlement type in the Pontine Marshes.

In this case, the stereometric integrity of Piccinato's solid volumes begins to break up and dissolve in search of minimal, formal and functional units, corresponding to the fragmentation of the crofts that the agrarian economy still supported pre-war. In fact, La Martella would be the first of this aggregated type of settlement, and its architecture would continue to re-compose the fragments that little by little were being studied and analysed in a combinatory way and provided its premises.

Morphologically, La Martella was laid out starting from typological knowledge of the settlement tradition of the old villages of Lucania, like Grassano, formed by volumes under the light, a *white city*, brimming with life, just as the black and white photography of the most refined Italian cinematography was able to represent. The images published in *Casabella-Continuità* in 1959⁶, remained imprinted in our memories as a splendid and moving possibility, line by line, surface by surface, an image that to-

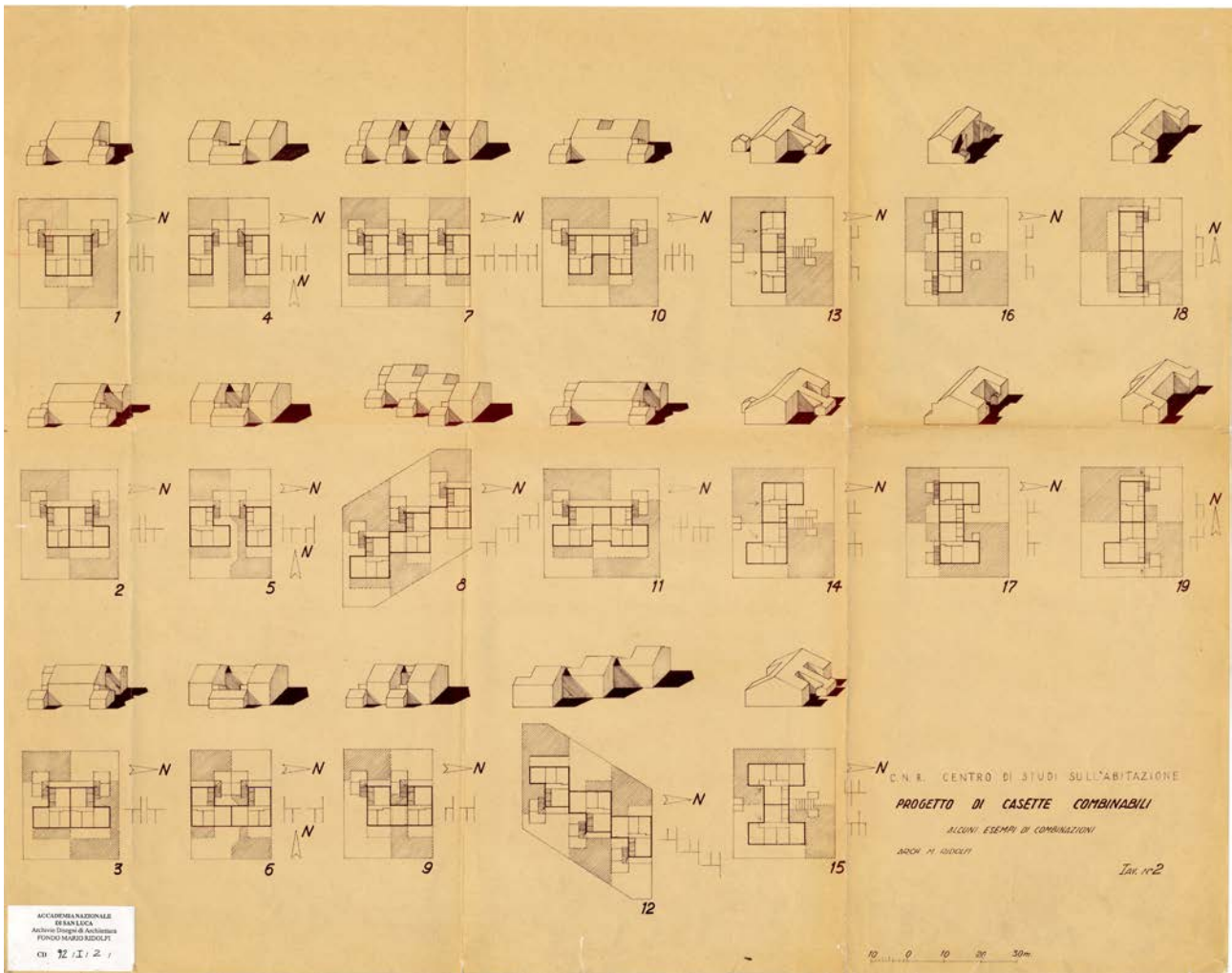


Fig. 9
Mario Ridolfi, Project for modular rural houses for CNR and UNR-RA-Casas, 1949. (Archivio Accademia Nazionale di San Luca, Roma).

day no longer exists, almost as if they were on the brink of a lost ruin.

From the point of view of architecture the real substance of the secret of La Martella is a sophisticated balance between rural tradition – mindful of the research of Pagano into rural architecture in 1936 – and morally traceable to its essential lines of pure geometry, which stand out in new dimensions of the landscape, waiting for a new agriculture.

While from the point of view of urban design, the presupposed new relationships between farm and town, intended to accommodate the farmers living in the Sassi di Matera, remained substantially on paper because they could hardly *reproduce* the original settlement pattern of Apulia and Basilicata, real *agrocittà* where farm workers returned to after a day's work.

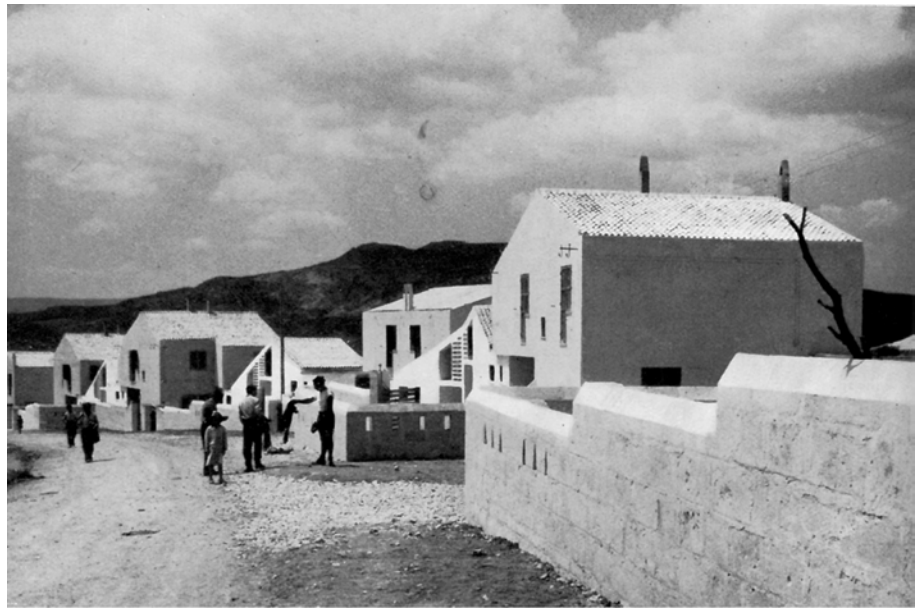
Conclusion

When considering the relationship between town and country, it is useful to remember how over time attitudes to the landscape have changed. In recent years, the complex distinction between the rural and urban landscape in densely urbanized areas has led geographers to devise terms like «rurban», «rural-urban continuum», «peri-urban», «urbanised countryside». Terms sometimes with very different meanings, coined mainly in the context of sociological and geographical research.

From a theoretical point of view, the economic-political conceptions of *Economia corporativa* and *Bonifica integrale* had a strong impact on the renewal of architectural culture and town planning in Italy – in the best and most authentic sense – toward themes and functions that built new re-

Fig. 12

Houses of La Martella (from Go-
rio 1954).



relationships between the city and the territory, outwith, and as an alternative to, the interventions on large and medium-sized cities.

The exemplary episodes of Sabaudia, the Pontine Marshes and Matera, testify to a strong continuity between these experiences which extend well beyond the various political-ideological conditions and difficulties of Italian architecture, being based on a continuity of the main institutions of support for the rural sector (both technical and economic), such as the *Consorti di bonifica*, still active and operating on more than 50% of Italy's territory.

These experiences were considered failures in some respects, due to the inability of these new settlements to correspond to a social and rural development that turned out to be flawed with respect to the initial premises. However, the architecture proved able to demonstrate important capacities for experimentation, in its application of different types and a unique modern design aesthetic to the rural landscape. Fixed points that remain and are still available for a renewed ruralism.

In the case of Sabaudia, which remained in its original foundation state until after Second World War, Luigi Piccinato himself took a long hard look at its virtues and failures when designing the new masterplan in 1971 (Piccinato 1971, pp. 369-378). According to Piccinato, in light of the recent situation, which had exploded into an uncontrolled urbanization of individual houses and small factories throughout the system of interventions in the Pontine Marshes, a greater degree of constraint in rural activities and the centres was required, gained for the reclamations with public funds, leaving the industry further inland and preserving a greater compatibility with the landscape and tourist aspects. In this sense, Sabaudia immediately represented an exception with respect to its neighbouring new towns. Even if the in-line compact residential fabric originally planned was realized only in a minimal part, today the town appears less compromised and more integrated with the territory.

The case of Matera is completely different. Immediately after the opening of Borgo La Martella in 1953, one of the most profound migration phases began (both internally and externally), which crossed Italy from south to north and other countries undergoing industrialization. The result was a sudden failure of all prospects to reconstruct an agrarian economy in

Southern Italy. A situation that remained up until the most recent stages of return immigration. Borgo La Martella, drained of its meaning and with its fabric strongly tampered with, has become a peripheral suburb alongside an expanding industrial context.

Recent research conducted on the various districts of the Olivetti season in Matera (Mininni 2017) have proposed hypotheses of urban redevelopment starting from micro interventions on open spaces and including hypotheses of restoration, but without interacting with the agricultural economics currently being revitalized in Southern Italy.

Indeed, the assignment of the title of “European Capital of Culture 2019” to the town of Matera only emphasizes its current growth in terms of historical awareness, economy and culture. However, the cave village of the Sassi, partially restored and habitable, has become a splendid monument to itself and no longer hints at a relationship between the town and a productive rural countryside.

Notes

¹ In 1927 the «Charter of Labour» established the general principles of the legal system of the State and the guiding criteria for interpretation and enforcement of the law. In 1929 Bottai was appointed Minister of Corporations and completed the long and difficult iter of Law 206 of 20 March 1930 on the National Council of corporations. In 1930 Bottai founded the «Archivio di studi corporativi» review, in which many articles were devoted to Soviet planning and economy, mixed economy, collective law, State intervention in USA, Germany and Italy.

² In 1933 the Consolidated law 215 was a systematic ordering of all the relevant legislation relating to the integral reclamation of almost 5 million hectares, subdivided into regional districts.

³ Arrigo Serpieri was undersecretary of the Ministry of Agriculture from 1929 to 1935. In this capacity, Serpieri passed the Consolidated Act on the complete remediation (Law No. 215 of 13 February 1933). This clarified the role of the State in reclamation works and established different financing rules, defining an integrated plan of works and complementary services.

⁴ After Sabaudia, Piccinato published studies that can be referred to the early experiences, between the tradition of the Italic constructed landscape and villages and rationalist volumetric spatialism. Other studies connected the tradition of the medieval village and *piazza* in central Italy to the architecture of the Fascist new towns, as the important essay by Ghirardo and Forster (1985).

⁵ “Sabaudia dall’aeroplano” (1935). *Architettura*, fasc. XI, pp.643-645.

⁶ “Quartiere ‘C’ Lanera”, (1959). *Casabella-Continuità*, n.231, p.31-35.

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Aleksa Korolija
Architecture ‘in the round’.
Water-towers in the New-Towns of the Pontine Plain.

Abstract

In the convergence between Fascist ideology and rural modernisation, the exploitation of water resources for landscape change empowered planning as a key to achieve a new settlement pattern and hierarchy. In the outskirts of Rome, the Pontine Marshes underwent major infrastructural and technical transformations which prompted large-scale experimentation. In this process, some “hybrid buildings” came to the fore. Hovering between engineering and architecture, they enshrined utilitarian and symbolic meanings in the new townscapes. This is precisely the case of water towers which, in the Pontine area, stood both as technical buildings and figurative landmarks.

Keywords

Technical landscape — Water towers — Pontine Plain

So, it is evident that all those subjects that we have excluded from architecture proper – bridges, obelisks, fountains, triumphal arches, clusters of trees, etc. – actually are all part of urban spaces. Facades in particular come all into play in the formation of urban spaces (Zevi 1948, p. 28) (Transl. by author).

Referring to Portugal, the historian Tiago Saraiva (2009) emphasises the convergence between internal colonisation schemes and the frontier. According to him, the policies aiming to modernise the rural landscapes and extend the cultivated lands accelerated the synergies between engineering, technology, planning and architectural experimentation within the nation-states.

Frontiers between untamed nature and the man-made environment were a common feature of several European countries in the early 20th century, yet these frontiers were imaginary constructions, especially in the political narratives of totalitarian regimes, where technological innovations supported the creation of new settlements, also underpinning the representation of an emerging society.

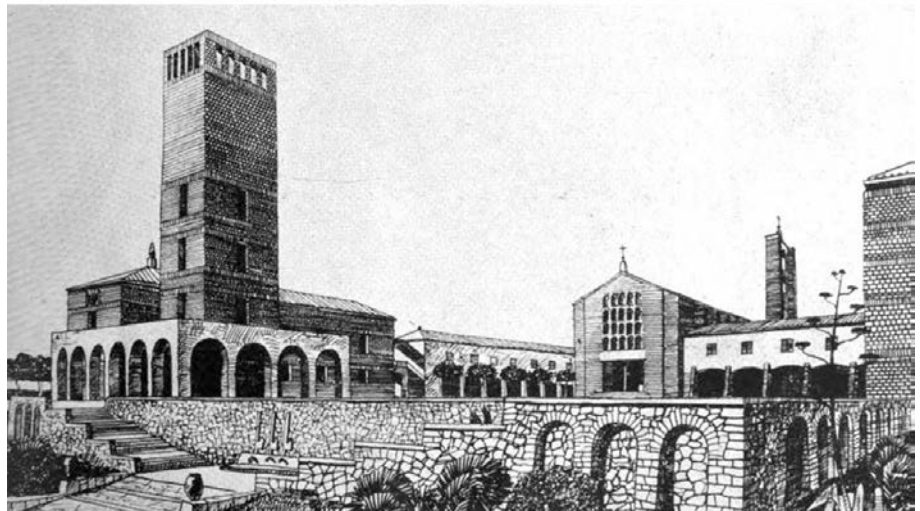
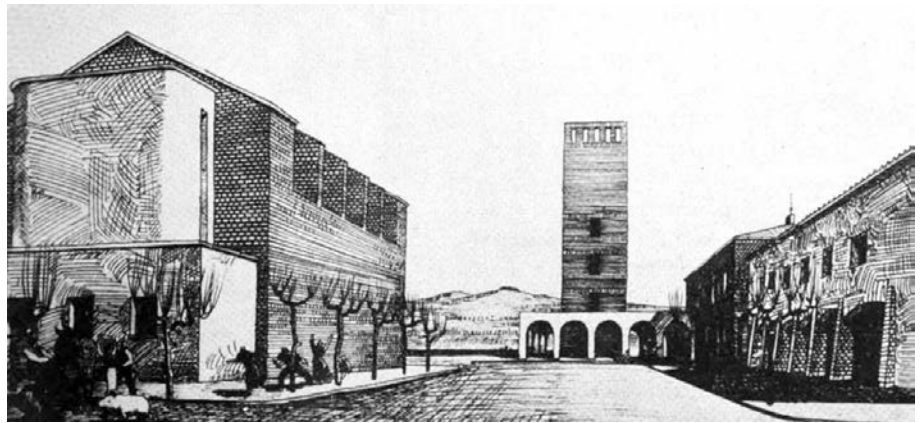
When we think about the frontier, the image of rarefied landscapes often comes to mind: roads covering great distances, orderly settlements alternating with isolated buildings.

The long-standing European colonial experience imparted into the general culture the need for seizing the frontier through the construction of new towns, qualifying them as embryos of a new social order (Nicolini 2006). Geometry, abstraction and grids indifferent to topography (Culotta et alii 2007) dictated urban and territorial settlement schemes as an attempt to match the newly established ideal society.

A possible common denominator between colonial ventures and 20th-cen-

Fig. 1

Pomezia Master Plan by Petrucci Tufarolli, Paolini, Silenzi, (from *L'Ingegnere* 1938).



ture inner colonisation schemes lies in the presence of a military matrix aimed at controlling the territory, allied to a figurative abstraction of the urban layout. Farmhouses, farms, stables, warehouses and sheds thus became the object of constructive experimentation, setting the ground for repetition and typological inflections.

A technical landscape in the making

It is no surprise that the military metaphor recurred so often in the Fascist propaganda¹ (Mussolini 1932, p. 3) about the hydraulic reclamation of the Pontine Marshes. Taming the marshes – dubbed ‘branch of hell’ (Savinio 1936) – was like a warfare, entailing recruitment of workers from afar, great manoeuvres of machinery, and daily duties to advance through the swamp (Cencelli 1935, p. 162). The logistics of reclamation resulted in a network of roads, electrified lines, canals and water machines superimposed to the former marshes, featuring altogether what can be defined as technical landscape (Selvafolta 2001).

The importance of this frontier was such that, before reclamation (Armiero et alii 2021), the marshy and wooded areas of the Pontine Plain resulted as uncharted; when the newly built roads reconnected Rome to the plain, the Fascist party advertised it as a restitution of a piece of motherland which materialised into a new Cartesian network of roads and canals hinged onto the ancient Appian Way.

Roads, canals and windbreaks were all elements of this technical landscape that integrated natural elements and artificial networks, meant to make the plain productive and settle the local rural population erasing all traces of pastoralism. To curb massive migration towards the cities, the regime en-

acted rural policies that relied on technology; this, however, caused an increase in the industrial production of seeds, fertilisers and agricultural machinery (Caprotti 2007).

Along with the productive aspect, modernisation implied the distribution of electric light and running water for the residing population. The networks of modern cities (Graham 2001, p. 10) and the technical artefacts assumed an iconic role in the new countryside of the 1930s².

According to Kaika and Swyngedow (2000), the urban transformations of the 18th century marked a new approach to networks and related buildings which became *material shrines of progress* in the urban landscape. In many cases, these buildings, despite their limited accessibility had a figurative intent and were designed to be seen from the city, contributing to the *civic magnificence* of public spaces³.

Seen from the countryside, the architecture of the water towers emphasised the grandeur of the hydraulic works that could be hardly embraced with the eye, as they originated elsewhere and stretched throughout the whole territory. On the other hand, their towering figures contrasted with the historic city, thereby heralding the modernity of a device that enabled new lifestyles. These technical artefacts may be considered architecture of public utility and help us disentangle the evolution of the notion of modernity, whereby technology and architecture complemented each other.

Towers

A water-tower is an elevated reservoir in compliance with the laws of gravity, as water from a higher point can be distributed with increased pressure to several lower points simultaneously. Piezometric towers work on the same principle and provide a more capillary distribution even within multi-storey buildings. Through a pumping station at the base of the tower, water is captured (from a well in the ground or from an aqueduct) and then piped to the upper reservoir. In addition, piezometric towers set a height-rule for the whole settlement, as towers must be taller than the buildings they serve; through a system of pressured secondary pipes, stored water reaches individual houses, even those with several floors.

Initially, water towers were built in the suburbs of industrial towns, near railway stations or along the tracks to provide supply steam locomotives; subsequently towers reached out residential areas.

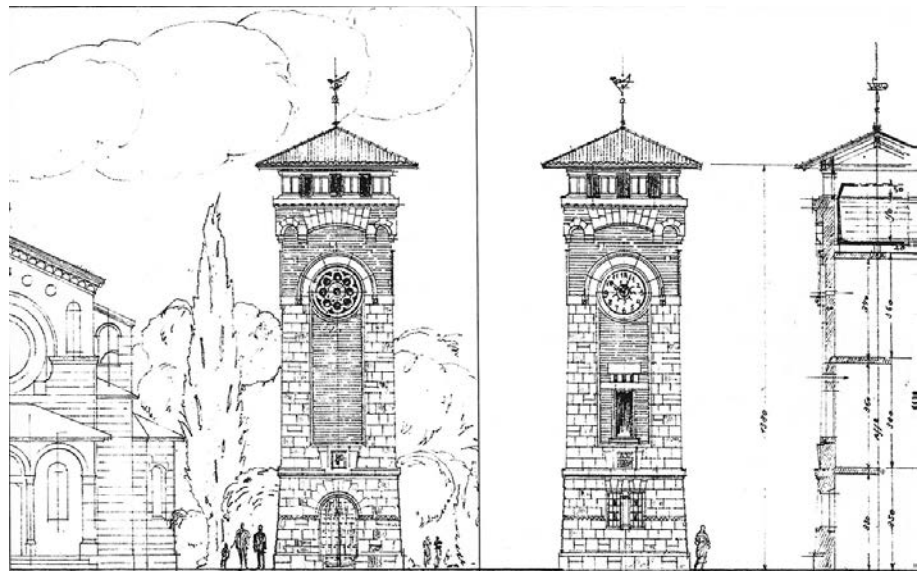
Fascist propaganda used water as a metaphor for the redemption of the land: the regime had injected some orderly movement in the chaos of the swamp (Cavallo 2016), stagnant water was pumped, channelled into linear canals towards the sea; on a smaller scale, machines released underground water and tapped it in reservoirs at the very core of the new settlements.

The proximity between water towers and the urban fabric established a field of experimentation for both engineers and architects. Engineers sought to build lighter and bolder lifting structures (Fasoli 2012), redefining the shape of the reservoirs with respect to different lifting systems and local climatic conditions. While engineers struggled to refine the structure of the shaft and the shape of the reservoir, architects thought about a shape that would harmonise with the surrounding context; they even ventured to embed the tank and the tubes within historical buildings, as in the towers of Milan's Castle by Luca Beltrami (Di Biase 2016).

In the design of a piezometric tower, technical constraints dictated the structural solution, a precondition to envisage the overall form. If, as a general rule, gravity influences the functioning scheme of a water-tower, aspects

Fig. 2

Pontine land Reclamation Authority, Capograssa village, the tower/reservoir project, elevation and section, 1929.

**Fig. 3**

Pontine Land Reclamation Authority, Casal dei Pini Village (later Borgo Grappa) under construction, water-tower in the foreground, 1930.



such as position, orientation and its overall height depend on topological conditions, such as the access to water or the availability of electricity to activate the pumping system; moreover, the size of the reservoir depends from the number of users and the estimated consumption per unit. While defining a benchmark, all these parameters leave some freedom as far as the body of the building is concerned, from the basement to the top.

Formal outcomes are manifold, lending themselves to different interpretations of the urban and landscape role of the building. When we consider water tower architecture the metaphor of the shell is not out of place.

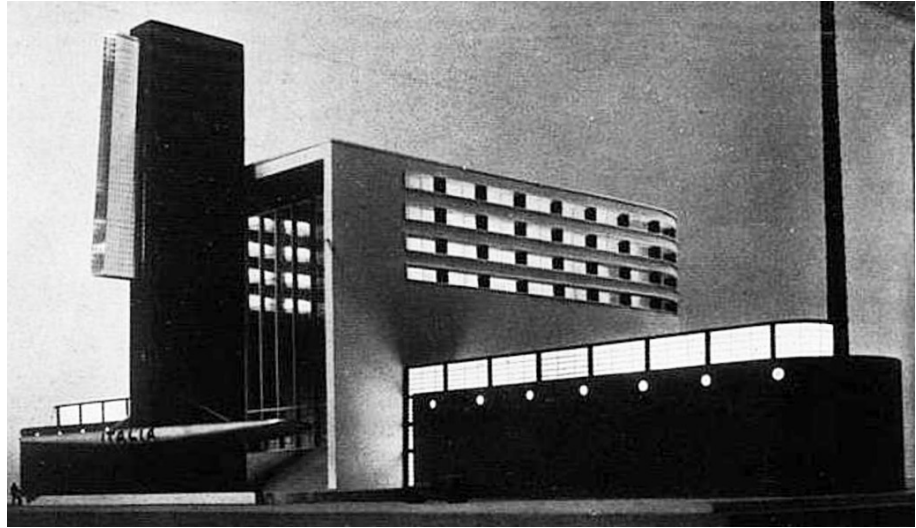
Water-tower design opened up a field of spatial and expressive experimentation for architects, in the attempt to move beyond mere engineering and standard solutions established by railway needs⁴. What we refer to as the «sculpted shell» (Ippolito 2003, p. 41) is actually the enveloping façade of water towers designed with figurative references to mechanical components, the diversified use of cladding materials along with chromatic quality and other features that loaded the public spaces with a renewed sense of civic decorum (Theseider-Duprè 1929).

Between Utilitarianism and Representative Instances

In the late 1920s and throughout the 1930s, piezometric towers were a recurring

**Fig. 4**

Pontine Land Reclamation Authority, Borgo Montenero water-tower, 1930.

**Fig. 5**

Adalberto Libera and Mario De Renzi, Italian Pavilion at Chicago World's Fair, 1933. Photo of the model (from *Architettura* 5, 1933).

design theme for a number of young architects.

Angiolo Mazzoni⁵ designed many water towers, which he usually conceived as cylinder structures with coplanar shaft and reservoir; this rendered them *metaphysical solids* standing out from the historic urban fabric.

The «aspiration to modernity» (Godoli 2003, p. 21) can be detected by the choice to position the inspection staircase outside the tower. This allowed to shrink the diameter of the tower, providing a 360-degree view of the surrounding landscape. Dedda (2017, p. 110) noted that: «In this way a bond established between the building and the context is set [...] it admits a new sequence: building-man-landscape».

The isolated position of Mazzoni's water-towers offered a dynamic reference, perceivable from afar at a speed set by the modern means of transport. The *urbanisation* of water-towers meant that purely technical buildings⁶ acted as vertical landmarks of new public spaces. The composition by contextual adaptation influenced the architecture of water-towers, shifting the focus from the building itself to its urban relationships at different distances⁷.

The solutions adopted for the façades as sculpted shells and non-technical spaces within the water-towers triggered architects to move beyond hand-book solutions.

The issue of the façade was approached avoiding any meaningless decorative aspect (Group 7 1927, p. 468). On the other hand, the limited number of public buildings forming the core of the new-towns rendered technical artefacts part of the urban composition and decor. Designing new public spaces or re-designing existing ones meant harmonizing them with the surrounding context.

From a formal point of view, «setting-in» a building was a basic problem for any young architect trained under the supervision of Gustavo Giovannoni at the Regia Scuola Superiore di Architettura in Rome. This is where many of the planners of the new towns in Italy and the colonies came from: personalities like Luigi Piccinato⁸, Angiolo Mazzoni and Concezio Petrucci, who embodied the figure of «integral architect» in line with Giovannoni's concern about the importance of controlling the impact of individual interventions, be it monuments or ordinary buildings. According to Paolo Portoghesi (2019, p. 9), the culture of «setting-in» marked an important advancement, as «architecture is not just about grandiose monuments, it is something very different. It has the city as its background, not only as a set of buildings but also as a landscape».

Giovannoni's influence on the planners of the new towns cannot be demonstrated through documents; yet, his design proposals suggesting the partial demolition of historical city centres shows some resemblance with the new-towns. Considering the layout of these centres and the resulting townscape, we might venture to identify principles of the grand urban-architectural composition, where no demolition was needed to improve the overall townscape perception.

Squares resulted from staggered layout of the streets, orienting the viewer's perception towards the tallest buildings (bell tower, civic tower, Littorio's tower) and filtering the view of the surrounding landscape with porticoes and monumental portals⁹. The combination of multiple street directions and the «accidental effect» of the built ensemble was enhanced by the interplay of volumes with different heights and façades, where towers acted as landmarks, either defining a corner volume or the final point of a central perspective¹⁰.

In the new-towns designed by Concezio Petrucci towers acted as backdrops of distant views, recalling the territorial impact of Mazzoni's water-towers¹¹. This hypothesis seems to be supported by the fact that the main public and service buildings, such as the Casa del Fascio, the Town Hall or the headquarters of the ONC (Ex-Servicemen organisation), were characterised by an architectural language blending monumental elements with others taken from minor architecture, not necessarily local, reinvented to recreate a «remote and domestic otherness» (Culotta et alii 2007, p. 37).

In the case of Pomezia, the last new-town built in the Agro Pontino, the convergence between technical and representative aspects culminated in the central water tower. This building in fact is at one and the same time a *torre littoria* (the tower of the Fascist party) and a civic tower facing onto the main square. The tower was conceived as an autonomous volume, slightly offset from the Town Hall, at the corner between the main square and the large avenue linking Latina to Pratica di Mare. At the ground level the tower is connected to the neighbouring buildings with a portico surmounted by a terrace. The tripartite composition of the elevation reflects the building programme: the portico at the ground level leads to the circular staircase connecting all levels; the three-storey shaft is punctuated by single-lancet windows and stringcourses, the top element is a panoramic terrace. The prevailing impression is that of a sculpted element with building volumes carved out from a solid block.



Fig. 6
Water-tower-granary silo in Latina (demolished). (From *Architettura* 2, 1933)

Water-towers of the Pontine Plain Agro Pontino: a repertoire of images

The technical office of the ONC – a laboratory (Cucciolla 2006, p. 213) where architects designed both towns and farmland – managed to produce original designs for technical artefacts, epitomising the hybridisation between engineering and architecture.

Being the Pontine Plain a highly artificial landscape where technology underpinned the re-creation of a *second nature*, hydraulic works such as canals, pumping machines and even water-towers were key artefacts allowing for the permanent residence of farmers. In fact, water towers were part of a widespread network bringing a modern commodity from the cities to the countryside.

Just like for Pomezia¹², where the water tower was the tallest building in the main square, in the workers' villages built by the Land Reclamation Authority the provision of services was based on criteria of rationality and economy. The village of Capograssa¹³, built on the extension of Migliara 43¹⁴ served

**Fig. 7**

Littoria water-tower-granary silo.
Postcard, post-1945.

as a logistical centre for workers involved in the excavation of the canal Collettore delle Acque Medie, the widening of the Sisto River and construction of roads. The building site appeared as a battleground: hastily built shacks, makeshift public buildings with basic functions¹⁵, and a dense network of narrow-gauge railways that could be easily dismantled and rebuilt on other sites. Situated at the crossroads of drainage roads, the village core was dominated by vertical buildings. The water tower – with an electric cabin underneath – acted as a temporary bell tower of the adjacent chapel, while a 30-m antenna with a balloon served as a landmark for tracing the road in the season when the vegetation was particularly dense. Construction of the church in 1931 started the metamorphosis of the workers' village into a rural centre. Completed in 1933, Borgo San Michele and its water-tower epitomize the formal and functional hybridization of utilitarian buildings. The water-tower with a clock facing the square is entirely disguised under a 13.80 m tuff cladding whose decorative elements echoed the church façade.

Given the overall extent of the reclamation project and the pervasive network of roads, water-towers were «set-in» against a wider context. It may suffice to consider the tower still overlooking the intersection of the coastal road with Migliara 45. This was the water-tower of Casal dei Pini, a logistic centre for reclamation workers. When the place was converted into a rural village and renamed Borgo Grappa, battlements, buttresses and corner ash-lars were added to the tower outer shell making it a copy of the Torre Olevo-la, an ancient watchtower part of the coastal defence system of Latium.

Borgo Montenero's water-tower near San Felice Circeo was built after 1933. In this case, the «cubic form of architecture for energy» celebrated by Marinetti (1935, 136) was replaced by a fascio littorio (fascist beam) of 21.2 m. The 15 m-high shaft contains a staircase reaching the top reservoir cantilevering onto the square. The intersection of the two volumes is a blatant symbol of the Fascist party, recalling temporary propaganda structures or exhibition pavilions, such as that designed by Libera and De Renzi for the 1933 Chicago Fair.

In Borgo Montenero the water-tower is a tall, isolated building hinged onto the urban layout. The village was described as a squared plan, divided into three rectangular sectors with the smaller side facing the main road. The cen-

tral portion - the narrower – is bounded by two N-S roads and a W-E green axis linking the main road to the piazza with a garden at the opposite side. The backdrop of the green-axis is the axe-shaped tower with a reservoir at the top, a unique case among rural villages (Pennacchi 2008, p. 233). Its highly expressionist outer shell makes it the protagonist of Borgo Montenero's public space and a visual element along the road towards the sea. The axe over a bundle of wooden rods – the fasces – was the symbol par excellence of the Fascist party and the ultimate example of the so-called «politics of the visible» (Culotta et alii, 2007)¹⁶: society and politics were to be re-shaped through the re-shaping of formal features of the built environment; for this, public buildings were characterized by elements recalling the fasces either literary or in more abstract forms.

In many cases, the towers themselves were assimilated with the figure of the fascio to the point that the vertical shaft and the plasticity enhanced by the shadow cast on the areas in front of them was used to enhance visibility from great distances, including the vision from the airplane. Visible from afar from several points, and when driving a car, the water towers were ever-present in the everyday life of rural settlers conveying a sense of modernity as a conquest and domestication of the frontier.

The sculpted outer shell is a distinctive feature of technical artefacts tying together the territorial and the urban dimension. Referring to aqueducts, Vittorio Gregotti wrote: «the design of the building and its form enshrined the interdependence between nature and settlement 'through the cleverness of building'» (1994, p. 5).

In the first three new-towns, Latina (1932), Sabaudia (1933) and Pontinia (1934), water-towers were placed at the edge of the settlement, near agricultural areas and the main access roads. As for the workers' villages turned into agricultural centres, in the new-towns these buildings provided opportunities for functional hybridization and architectural experimentation. In all three cases, the functional tripartition of the water machine was variously interpreted in the envelope, providing gathering areas or elevated observation points. The design of the three water-towers was entrusted to Oriolo Frezzotti (1888-1965), acting either as main architect or as consultant for the urban plans of Latina and Pontinia and for the designs of public buildings.

In the case of Latina, the water-tower originally appeared as an abstraction of *fasces*. Base and shaft were overlapped cylinders of different heights; a third parallelepiped volume with the staircase connected the ground floor to the top. The cylinder at the base, a flattened monolith with ten circular columns, engulfed a series of walled storage rooms facing a semicircle on a porticoed area. The roof terrace above overlooked the countryside and the stadium, allowing a 360 degrees view of the city and the reclaimed plain.

The tower's middle portion, a 12 m high shaft, was made of reinforced concrete pillars set on the perimeter and partially embedded in the outer façade, so as to create the illusion of the bundle on the fasces. Inside it contained a grain silo that could be accessed and filled at various heights; above was the water reservoir.

Located in between the Stadium and the fields crops, Latina's tower may well depict the dual character of technical artefacts, acting as landmarks for people driving along the coastal road and those moving along any urban thoroughfare.

Sabaudia's tower is another example of functional hybridization featuring an iconic reshaping of its shell. Like the water-tower of Latina, the cyl-



Fig. 8

Oriolo Frezzotti, Sabaudia's water-tower. (Archivio fotografico storico, Istituto Superiore di Sanità (c)).

**Fig. 9**

Sabaudia's water-tower and Viale Biancamano. (From Sabaudia Amarcord, Facebook page; downloaded 23 July 2022).

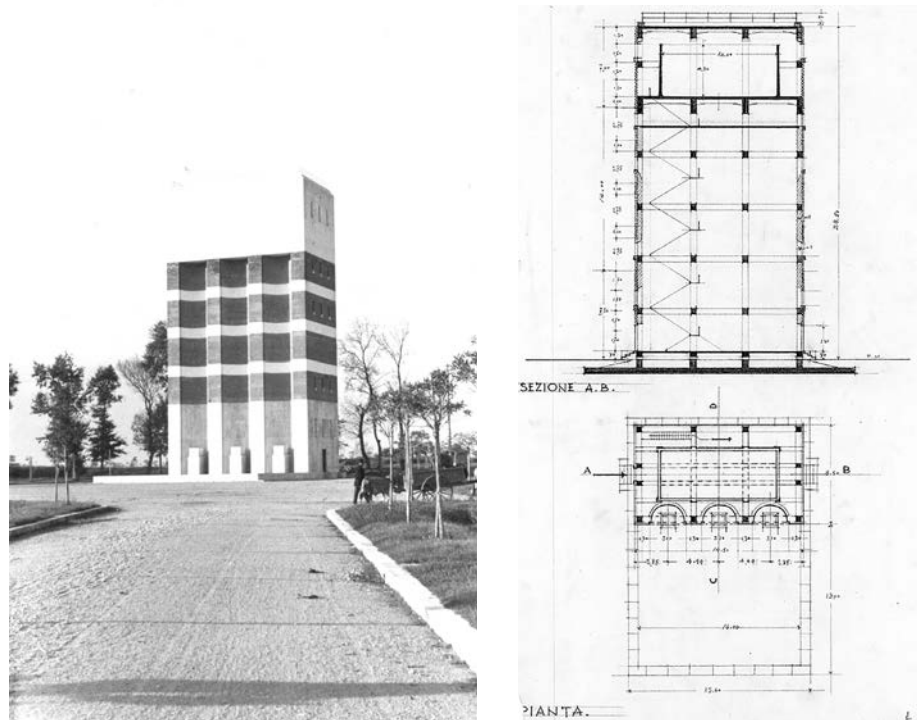
inder shaft included a three-floor silo and a water tank with a capacity of 360 cubic metres; a dedicated pumping machine was located at the ground floor. In this case, the enveloping structure was a double shell enclosing the functional core. This created a ring-shaped cavity of approximately 70 cm for the staircase which connected all the levels of the silo providing a stiffening structure. In the gap between the functional core and the perimeter wall, there was a ring staircase reaching the circular terrace at +20.40 m above sea level (used for tank maintenance). From the machine room to the tank impost, the envelope was carved with flat-edged grooves 15 m high to mark the shaft. The contrast between the solid parts and the chiaroscuro effect of the grooves made the tripartition legible and alluded to the rods of the fasces. The functional nature of the water-tower is once again reinterpreted in a monumental key: a large rectangular water basin (21 m x 13.50 m) with a blue mosaic at the bottom alludes to the fountains and lavatories of the rural world.

Despite its monumental design, the tower was not part of Sabaudia's core. Its offset position on a hilly area made it visible for those driving along Migliara 53. The water-tower marked a threshold between the territorial stretch of Migliara 53 and its urban continuation ending into the municipal tower on the main square. The overall urban design can be described as the final crossing of Migliara 53 with an orthogonal system of squares opened towards the surrounding landscape.

For what concerns the architecture of water towers as part of a wider urban scheme, Pontinia's tower well exemplifies what *in the round* actually means. This concept delves into art and it is a nod to the *in the round* sculptures freely designed structures conceived in such a way allowing viewers to appreciate it from different positions.

Pontinia's water-tower is a parallelepiped (14m x 8, 50m) 28.50m high located on the banks of the Sisto River. From the technical report it emerges that this solution depended on the shape of the tank and the structure required to bear its load¹⁷.

The structure is a framework of 12 reinforced concrete pillars connected by 8 orders of beams clad by stone-brick mixed façades. From outside, the frame structure is not visible and it is further hidden by the alternating horizontal travertine bands which convey the image of a continuous load-bearing

**Fig. 10**

Oriolo Frezzotti, Pontinia Aqueduct Reservoir Tower, Istituto Superiore di Sanità. Historical photo, plan and section a-b, 1934. MAP, Pontinia.

ing wall, almost as if it were a fragment of a larger fortified structure.

The façade facing the central square to the north-west is conceived as an excavated a built mass: three niches define the shaft of the reservoir above like the giant fragment of an ancient monument; each niche accommodates a spout at the base feeding the basin in front. Seen from a foreshortened angle, the interaction between the jet of the gush and the verticality of the niche recalls the shape of an inverted fascies.

Pontinia's water-tower contradicts the peremptory layout of the central square: its offset position and slight rotation qualifies it as an outstanding building within the axial layout of the new-town. The tower marks edge of a trapezoidal composition that combines the geometry in plan – mainly the central axis of the square and the course of Sisto River – and the perspective features emphasized by the elaborated façade.

The final effect of this rotation – unprecedented in the other new-towns of the Pontine Plain – provides a simultaneous corner-view of two façades, one the city and the other facing the countryside. The unfinished project of the picturesque promenade along the Sisto River would have enriched the spatial sequence between the river and the city by making the tower-tank visible from all sides, a solution that reinforces the hypothesis that the «setting-in» of technical buildings in rural new-town was a key symbolic construction as part of the frontier narrative.

Still today, when reaching the terrace above the travertine top volume, the experience of the frontier persists in the dialectic between the territorial scale of the reclamation project, visible in the linearity of roads and canals across the plain, and geographical counterpoints such as Cape Circeo and the coastline to the west, the Appian Way and the Ausoni-Lepini Mountains to the east.

Concluding remarks

Despite Giuseppe Pagano's critical stance¹⁸ about Pontinia as a missed opportunity, one cannot ignore the architectural and urban quality of the water-towers in the new countryside. These towers are examples of an un-

precedented formal and functional hybridization.

The result – at times modest or magniloquent – is the statement of a principle: architectural design should not shy away from expressing figurative choices even when size, location and use are purely utilitarian.

By broadening the spectrum of analysis on the modernisation of rural landscapes and new-towns we inevitably might confront the idea that «agriculture is an industry that does not know it is yet an industry» (Studiati 1930, p. 783) meaning that the role of technology and structures built to sustain either agricultural production or the artificial landscape is fundamental.

The examples from the Pontine plain help expand the field of histographic boundaries and venture into future challenges. In fact we might see a lasting challenge concerning the coherence between architectural design and technological aspects which are often eluded by the entrenchment within disciplinary boundaries. Today, buildings which house or sustain specific technologies, logistics or energy production are dramatically over-simplified by repetition, while standardisation of construction systems almost completely avoids functional hybridisations as a field to develop formal and spatial complexity.

In spite of the obsolescence (Abramson 2016) of the technological networks and supply system and the replacement of the water distribution in the cities of The Pontine Plain, the inoperative water-towers still provide a visual element that helps restore the interplay of perspectives and views dating back to foundation.

We might ask ourselves if the present-day utilitarian buildings – so dramatically exposed to faster technological innovations, shorter obsolescence phases and with ever more limited frontiers to be placed – will soon become architectures of waste, alien to contexts and precarious in terms of identity.

Assuming that one of the future tasks for architects will be to design productive or utilitarian buildings, one wonders how architectural design can still express its ability to orchestrate the spatial organism without being merely a container.

The study of Italian rural modernism and the «setting-in» effort of the water towers shows how public buildings, minor architectures and even structures supporting technological innovations contribute equally to the overall quality of the built environment.

Notes

¹ Corrado Alvaro (1934, p.47) also applied the war metaphor when describing reclamation. He wrote: «It must never have happened to see in such a short time, and from day to day, such a vast and complete transformation of the earth [...] perhaps in the event of war, when a meadow in a brief hour changes physiognomy, and the two or three thousand men who occupied it, each for himself and for all, transform it into an encampment with tents, drains for water, a kitchen, clearings, offices; or rather, on the battlefield, when the elements of destruction were combined with the work of man, the land would change its appearance down to its very heights and a gigantic city of cave dwellers would emerge with the rapidity of the work of the termite mound» (Transl. by author).

² The cultural geography Maoz Azaryahu (2019) analyses the role of piezometric towers in Zionist rural settlements, observing their evolution from iconic buildings of progress to actual memorials of the Israeli War of Independence.

³ Italian examples include the Cisternone (1829-1842) in Livorno designed by Pasquale Poccianti at the head of the aqueduct derived from Monte Colognole springs. The façade is characterised by a Tuscanic colonnade surmounted by a hollow hemispheric shell. A series of smaller pavilions served to regulate the flow of water. Another example is the aqueduct of Lucca designed by Lorenzo Nottolini, ending with two monopterial temples surmounted by a drum and dome: one at the Guamo springs and the other just outside the city walls. According to Matteoni (2001, p. 83), this form which made explicit the public destination of the building, can be referred to the projects of Boullée and Ledoux. In some cases, such as the London sewage works (1864-1874), filtration stations also took on a monumental character; these were two iron and brick buildings designed to lift sewage to facilitate its outflow. The waterworks at Crossness recalled elements of Romanesque architecture while Abbey Mills was inspired by Neo-Byzantine architecture.

⁴ Biagini and Nuti (2003) identify a transitional phase for the development of railway architecture in the shift from the use of coal-fired locomotives to the electrification of the national network, which made many buildings obsolete, while new ones were built such as central apparatus cabins, electric traction depots and workshops.

⁵ Angiolo Mazzoni del Grande (1894-1979) worked in the Technical Department of the State Railways where he designed many stations, as well as numerous postal buildings. After the fall of Fascism Mazzoni moved to Colombia (1947-1963) and then returned to Italy for good. In the Pontinian Plain he designed Latina Scalo station (1932) and the post offices of Latina (1932) and Sabaudia (1932-1934).

⁶ See Maltoni (2013) and Ciccarelli (2014). The piezometric tower in Forlimpopoli is an emblematic example of a hybrid typology. The basement was conceived as a chapel and then as a war memorial. In the case of Osimo, the reservoir tower designed in 1933 to replace the pre-existing one initiated the reconfiguration of the square in front of it. In contiguity with the Romanesque church of San Leopardo, the tower was likened to a bell tower. Many piezometric towers built during the Fascist period have been imagined as littoral towers.

⁷ In describing the Aprilia plan, Concezio Petrucci (1902-1946) emphasised its scenic effect: «The plan extends on a pleasant hillock, from which one can observe the exceptional panorama of the Colli Albani to the north, the chain of the Monti Lepini to the north-east and to the south-east the characteristic outline of the Promontorio del Circeo, which is drawn sharply on the horizon, like a gigantic bulwark that seems to protect the marvellous reclamation that only Mussolini's men were able to carry out» (Petrucci 1937, p. 19). The square in Pomezia, on the other hand, is described as «closed on three sides, it opens up the fourth like a wide terrace, facing the clear horizon of the surrounding countryside with the cerulean shadow of the Albani mountains as a backdrop» (Patti 1938, p. 96).

⁸ Although he was not a pupil of Giovannoni, Luigi Piccinato made some of the most innovative concepts his own; in particular the idea of the city as an organism in which the relationship with the 'new building' was played out (Pane 2015).

⁹ In the new-towns, portals and arcades connected individual public buildings, delimiting the space of the square. In the sanitation project for Bari Vecchia (1932), Concezio Petrucci «continues to pin architectural elements typical of replacement buildings that are, to a large extent, necessary to suture the wounds caused by demolitions during the sanitation project» (Cucciolla 2006, p. 127).

¹⁰ In a way entirely similar to the examples of historic Italian cities and in particular in the interpretation that Giovannoni and his students made of them in their sanitation projects which included demolition and rebuilding. Petrucci's project for Bari Vecchia, in this sense, is the most «accomplished and organic example of the application of the theory of building destruction for sanitary reasons» (Cucciolla 2006, p. 135) since it identified Norman bell towers as the visual catalyst of the intervention, i.e. points of monumental concentration with respect to a minor building fabric (Moschini 2019).

In the thinning plan (*piano di diradamento*) for old-Bari, the demolition of buildings or parts of them to free up the crossing axes also has an artistic purpose: it is the cathedral bell tower that is the goal and visual backdrop of all the planned streets.

¹¹ Cucciolla (2006, p. 245) writes: «The civic tower plays, together with the bell tower, the oft-referenced role of compositional pivot of the entire project and primary visual emergence; the tower is resolved as a compact volume, devoid of openings and made up of a Marino tufa wall, elegantly subdivided into modules by a thin incision [...]».

And more: «Petrucchi uses the cathedral bell tower, which constitutes the highest architectural emergence in Bari, as the main visual goal for the user and as the pivot of the urban reconfiguration, according to scenic criteria that may even make one think of Baroque suggestions or Haussmann-esque citations» (ibid., 126). (Transl. by author)

¹² Designed by architects Concezio Petrucci, Mosè (Mario) Tufaroli Luciano and engineers Filiberto Paolini and Riccardo Silenzi. The group built three new towns on behalf of the ONC: Aprilia (1936), Pomezia (1937), Fertilia (1937-1943); Petrucci designed Segezia (1939-1941) while Paolini and Tufaroli designed Borgo Appio and Borgo Domitio in Campania in 1939.

¹³ The fifth to be built by the Piscinara Reclamation Consortium after Sessano, Passo Genovese, Casal dei Pini and Doganella (Paradiso and Vittori, 2002).

¹⁴ Migliara 43 was laid out at the end of the 18th century in the context of Pius VI's land reclamation.

¹⁵ Collective facilities included a school with accommodation for teachers; a health centre with doctor's quarters; a cinema and after-work club; a building for the head of the Azienda Agraria temporarily used as a technical office; a church, a police station, three blocks of flats for the workers that could be converted into farmhouses, a food pantry, a collective bakery, three fountains with drinking troughs and a lavatory.

¹⁶ The symbol of the fascio littorio did not only represent the Fascist party. It represented the new values advocated by Fascist Italy. From 1927, the fascio became the State coat of arms. From 1929, two fasces flanked the coat of arms of the Savoy family. The fascio littorio also became the symbol used on 1 and 5 lire stamps (Falasca-Zamponi, 1997, p. 99).

¹⁷ The technical report states: «Assuming a stable population of 5,000 people and a per capita use of 100 litres of water, the expected average daily consumption is 500,000 litres, to be met, during the period of maximum consumption, by filling the reservoir three times a day. The reservoir, with an almost square cross-section, measuring 4.5 m by 4 m and a length of 10 m has a capacity of 180 cubic metres».

¹⁸ Pagano (1935, p. 6) wrote : «Pontinia does not lack even some vague fluttering in its frame, some picturesque and seductive elements. It is enough to look out over the riverbed where the river, laid out by Ascanio Fenizi by order of Sixtus V and arranged [...], flows to foresee the urbanistic use that can be made of that watercourse. The Sisto Rivers, in its regular banks, also has the width and serious quietness of the canals of Padania. A tree-lined road will run, in the direction of the river, and it will be Pontinia's Lungosisto. On warm nights, groups will go for a walk along the embankment, just like the villages in the Po valley». (Transl. by author)

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Emanuela Margione
New Types / One Type.
Complex Buildings and public space in the new rural settlements of Agro Pontino.

Abstract

Complex Buildings can be defined as such from their spatial syntax, characterised by a promiscuity of antithetical spaces – indoor/outdoor, public/private – which involves both architectural and urban dimensions. They can thus be understood as counter-spaces, where the physical dematerialisation of pre-established architectural boundaries generates actual heterotopias. The subject has recently been taken up by scholars, with particular attention to the typological aspects of Complex Buildings. In line with this approach, the present text examines the new building types implemented in the context of rural modernisation of the Pontine Plain.

Keywords

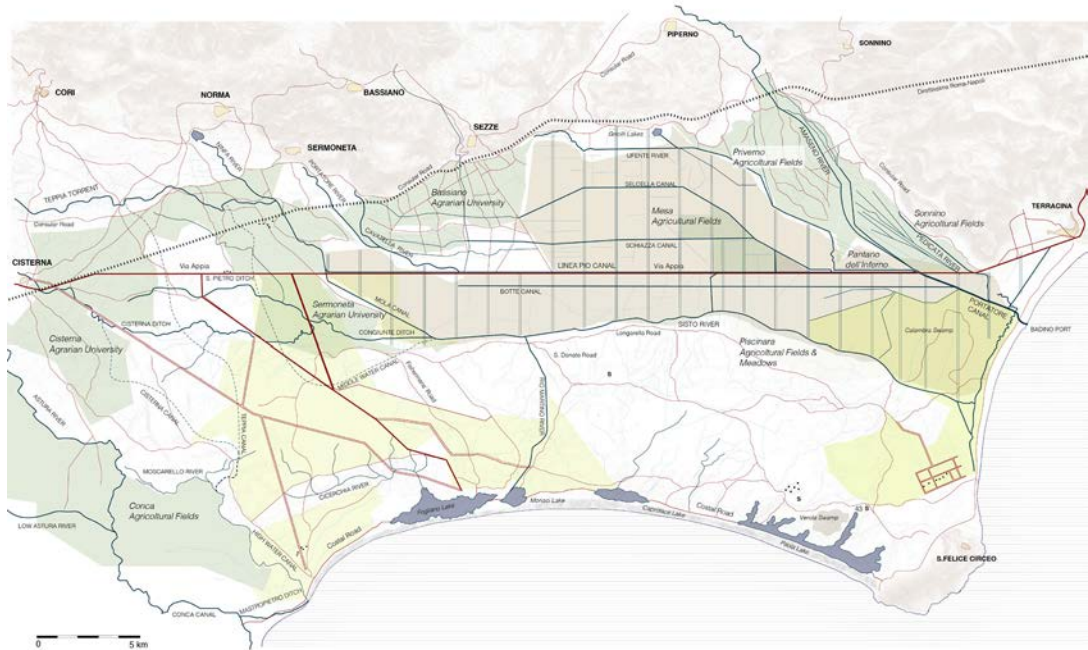
New Towns — Complex Buildings — Social Condensers

Introduction

What we know today as Agro Pontino is a man-made countryside came into being with the *bonifica integrale* of the Pontine Marshes theorised by Arrigo Serpieri in 1923. Technological innovations in mechanics, hydraulics, and agronomy, as well as new architectural, town planning and social theories – mostly emerging within the Modern Movement – were all put to the test at the same time. An area of over 1,000 square kilometres was reclaimed, equipped with road infrastructure and five new towns referring to over 3,000 *poderi* (farms) and sixteen *borghi rurali* (service villages) [Figg. 1, 2] Throughout this metamorphosis, urban design came to the fore both in town and country planning, particularly when defining the scenic character of the new settlements, building a sense of place¹ for future inhabitants, a heterogeneous community of farmers coming from different areas of Italy.

The experiments carried out within this modernisation process also concerned architectural design. In fact, Agro Pontino became an ideal testing ground also for emerging building types such as *Casa del Balilla* (headquarters of the Fascist youth organisation), *Casa del Fascio* (local branch of the Fascist party), *Opera Nazionale Dopolavoro* (National Afterwork Club), *Casa della Madre e del Bambino* (Mother and Child Home) or *Casa del Contadino* (House of the Farmer).

One of the most interesting aspects of this case study is the simultaneous experimentation carried out at different levels: while the urban-rural settlement were taking shape, the prototypes of the new multifunctional buildings were being defined. In fact, their compositional matrix allowed for the co-presence of antithetical spaces that had a close relationship with the ur-

**Fig. 1**

Map of Agro Pontino in 1920, before reclamation. Green: common land; yellow: early reclaimed areas; white: wooden area; grey: swamps; red: ancient roads and paths; blue: water system (author's elaboration, 2021).

Fig. 2

Map of Agro Pontino in 1940, after reclamation. Light green: common land; dark green: remaining wooden area, now National Park of Circeo (author's elaboration, 2021).

ban context. The following paragraphs focus on architectural experiments undertaken in Agro Pontino, arguing that they can be seen as antecedents of what we now call Complex Buildings, whose distinguishing features leave room for further investigation.

Architecture and urban scenography in the new towns

Between 1932 and 1939, five new towns were built in the Agro Pontino: Littoria, now Latina, in less than six months (1932), Sabaudia in eight months (1933-1934), Pontinia in twelve months (1934-1935), Aprilia (1936-1937) and Pomezia (1938-1939) in eighteen months. By 1936, the triad *podere, borgo e città* (farm, village, and city)² materialised in 16 service villages and over 3,000 farms, with farmhouses built along the main roads on the plot of cultivable land. Such rapid sequence shows how timing was a fundamental component of the overall scheme. Indeed, the five new towns – and the entire rural landscape with them – heralded the *anti-urbanist* model purported by the policy of *ruralizing urbanism* launched in the 1920's³. Built from scratch in few months⁴, they did not undergo any slow, spontaneous growth typical of most European cities. Moreover, to hasten the construction process, the same architects involved in the plan designed the main public buildings. For this, Littoria, Sabaudia, Pontinia, Aprilia, and Pomezia, can be considered actual *author cities* (Muntoni 2006) where urban morphology and architectural design cannot be disentangled. This relationship, however, inflects on a case-by-case basis, drawing from the planning theories then being debated at the national and international levels.

When comparing Littoria and Sabaudia, the strong relationship between architectural and urban design becomes explicit. At Littoria, Oriolo Frezzotti reinterpreted the traditional Italian rural settlement in a *theatrical* key, almost defining a scenic backdrop for the modern rural/urban life. In line with the principles of modern planning theorised by Gustavo Giovannoni, the radial pattern of existing roads was embedded in the urban form, to which architecture gave the necessary volumetric consistency. Looking at Littoria's main square – apparently one single rectangle – Oriolo Frezzotti's approach becomes evident: two different systems of hidden geometries fit the square layout in the pre-existing road junction, orchestrating the scenic effect of the public buildings along its perimeter. To obtain their footprints, Frezzotti offsets of the perimeter of the square, thereby defining a two-dimensional architectural composition consisting of meticulously designed façades reflecting the planimetric layout only in part.

Somehow, rather than featuring new spatial solutions, the public buildings along the square clearly show an intent to define what the distinguishing features of a *ruralised* townscape might be.

Three examples can be called into question: the Town Hall, the Hotel, and the Inland Revenue Office (*Palazzo dell'Intendenza di Finanza*). The first two have a very similar floor plan, symmetrically reflected along the median of the square. However, to enhance the overall urban composition, the Civic Tower is slightly offset from the centre of the façade of the City Hall. The Inland Revenue Office, instead, is set along the pre-existing roads meeting at right angles, with a central giant portico facing onto the square. [Fig. 3]

Built in 1934 to the project by Luigi Piccinato, Gino Cancellotti, Eugenio Muntuori and Alfredo Scalpelli, Sabaudia provides a different interplay between town planning and architecture, which also frames the relation-

ship between the urban structure and landscape elements.

Sabaudia has the merit of fully reflecting one of the most typical and noteworthy features of the modern architectural discipline: defining how buildings relate to the environment even before studying their actual typology. In other words, this is a process of understanding the environment, where social life finds an expression of the greatest intensity and naturalness, whereby individual buildings are an inseparable part of the whole. (Piacentini 1934)

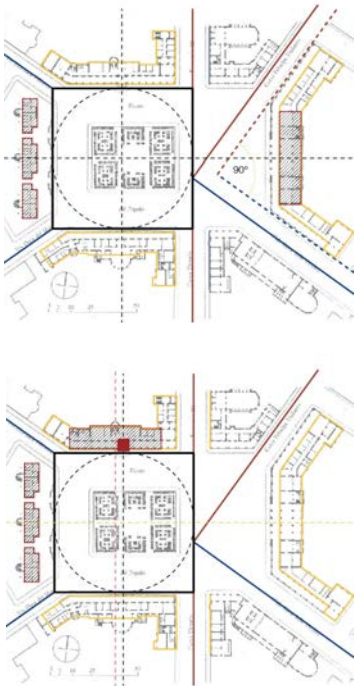


Fig. 3

Definition of the core in Littoria. Geometry and Composition of a Modern Urban Centre (author's elaboration, 2021).

At Sabaudia landscape, urban design, and architecture interlock to form a harmonious spatial flow where «the ensemble of buildings is integrated into the surrounding nature: the masses never imprison hermetic spaces like backdrops, they are skilfully balanced so that the landscape penetrates everywhere through wide openings» (Piacentini, 1934). The visual relationship with the elements of the surrounding landscape empowers the third dimension of architecture; public space is no longer qualified by two-dimensional facades, opening instead onto landscape sceneries from near and far. It may be recalled that Piccinato, Cancellotti, Muntuori, and Scalpelli drew many perspectives at the height for the human-eye to calibrate the rhythmic sequence of solids and voids, enhanced by the interplay between the horizontality of the plain, the vertical elements of the *in-natural* landscape, and the urban enclosures for collective activities.

When focusing on architecture as part of the broader environmental change of Agro Pontino, we should not overlook the recurring presence of self-standing buildings set apart from the blocks' continuous façades. Most often these correspond to the new multifunctional buildings exploiting the adjoining public space as an active element of the spatial syntax.

Genealogy of Complex Building in Agro Pontino

With the introduction of the 8-hour working day – in Italy mandated by the Royal decree-law of 15 March 1923 – the need for new polarities where workers could enjoy their leisure time also arose. This change brought about the development of new building types whose educational agenda was defined both by handbook prototypes and national design competitions. The new towns of Agro Pontino become an ideal testing ground to experiment with new architectural themes as activators of the public sphere. Buildings like *Casa del Balilla*, *Casa del Fascio*, or *Dopolavoro* were to provide settlers with some basic leisure facilities. The *Casa della Madre e del Bambino*, the *Casa dei Mutilati e Invalidi* (House for the Maimed and Disabled) or the *Casa del Contadino* (House of the Farmer) acted instead as social and welfare centres. A careful analysis of these building types reveals a common spatial matrix – a sort of “architectural genotype” – consisting of three primary elements: a main multi-purpose hall, medium-sized and small rooms, respectively covering $\frac{1}{2}$ or $\frac{1}{4}$ the surface of the main hall.

The *Casa del Balilla* at Littoria conceived by Oriolo Frezzotti in 1932 under the direction of Renato Ricci⁵ may be included among the earliest examples of this common matrix. Following the *Prototype of Casa del Balilla with Gymnasium n. 8* (del Debbio 1928), [Fig. 4] Frezzotti designed a symmetrical plan with a central multi-purpose hall that could be used as a gymnasium or an assembly hall. This space dictated the maximum height and extension of the building. Two big rooms – one used as a fencing gym and the other occupied by lockers – were set on opposite sides of the cen-

tral hall, whereas the smaller rooms surrounded the semi-circular entrance atrium, accommodating ancillary spaces and the stairs reaching the gallery overlooking the main hall, a feature testifying to Frezzotti's intent to build a sort of "theatre of sport". [Fig.5]

Alfredo Pappalardo's designs of three prototype *Casa del Fascio* for the villages of Agro Pontino (1935) are equally interesting⁶. They all comply with the outcomes of the 1932 national competition for a prototype *Casa del Fascio* for rural, inland and frontier settlements, adaptable to accommodate the basic public services for the community concerned. [Fig. 6, 7, 8] These included rooms for the local members of the Fascist party and for the labour union, the doctor's office and a small emergency room, spaces for educational and recreational activities: a library, a small playroom, a dance hall, and a gymnasium. Considering the figurative aspects, these buildings clearly recall the case of Littoria in both their layout and "scenic character" enriching the surrounding environment.

As the construction of the new towns progressed, the *rural city* model was inflecting into a series of possible alternatives, and the new types were gradually subsumed into building clusters conceived as "urban machines" which, maintaining the individual parts of the spatial matrix, also included spaces adaptable to accommodate welfare and leisure facilities. These building clusters embedded in the urban grid were to act as *social condensers*.

An example can be found at Sabaudia, where the *Dopolavoro*, the Trade Unions, the *Casa del Fascio*, the Cinema-Theater and the restaurant were aggregated in two perpendicular interlocking volumes forming a linear sequence of commercial and residential porticoed spaces,

The general layout was organized help define the urban scene, also animated by distant landscape views. At Sabaudia, long-distant views break the monolithic nature of the blocks widening the cone of vision hinged on the Civic Tower, designed as a monumental conclusion of Migliara 53⁷. [Fig. 9]

The building as carved from a solid mass whose proportions compare with the territorial scale. Voids and solids have the same compositional value and sculptural quality, defining a sort of "heterotopic citadel" on the walls of which the *Dopolavoro*, the Cinema-Theatre, and the public square, are grafted.

In fact, the square was meant as an open-air gymnasium, almost as an extension of the building. [Fig. 10, 11]

A different but equally interesting case is that of Pontinia, the third new town of the reclaimed plain⁸. Here the building cluster, still ascribable to a broader design, is set along the diagonal of the main square, a geometrically perfect square, the side of which corresponds to the Town Hall. [Fig. 12, 13] The north-western corner of the square is defined by the *Dopolavoro* and Cinema-Theatre, the two interconnected buildings providing another inflection of the original spatial matrix.

Further examples of *social condensers* are to be found in the rural service villages, such as the twin buildings implemented at Littoria Scalo and at Borgo S. Donato, and that at Borgo Hermada.

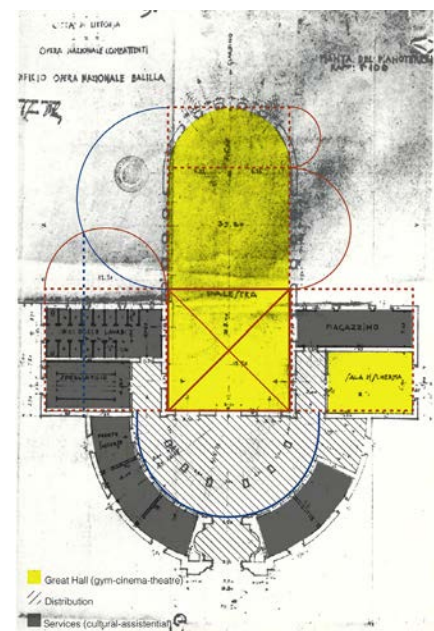
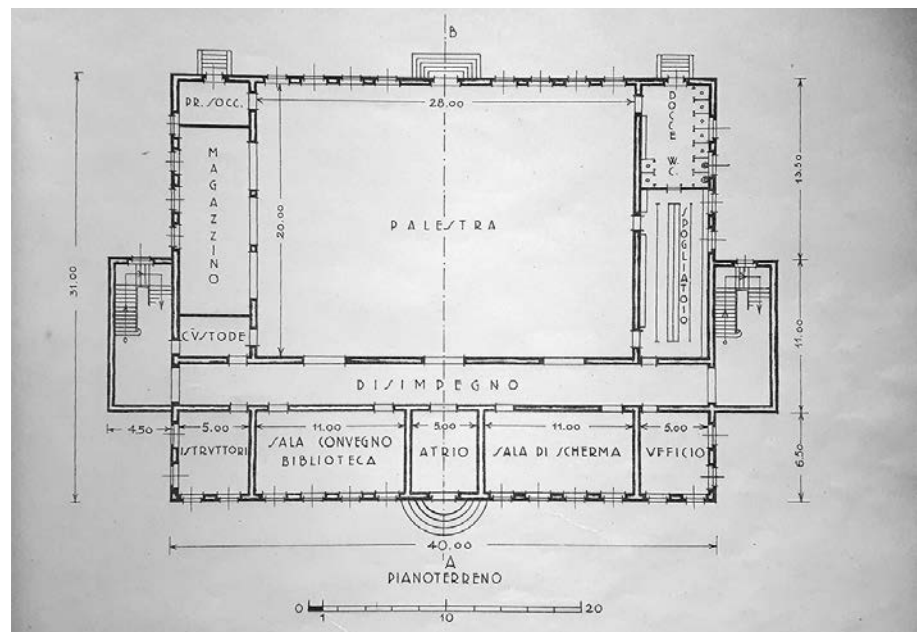
The building at Littoria Scalo and Borgo San Donato are defined by a strict symmetrical layout consisting of three autonomous sections reflecting the original matrix. The central multipurpose hall accessed by a portico hosted *Dopolavoro* related activities, such as cinema-theatre, dance hall, gymnasium, and assembly hall. The lateral volumes accommodated the big rooms housing respectively the Post Office and the *Casa del Fascio*. The smaller

Fig. 4

Enrico del Debbio, *Prototipo di Casa del Balilla con Palestra* n. VIII (del Debbio 1928, table XXXV).

Fig. 5

Oriolo Frezzotti, *Casa del Balilla di Littoria*, 1932.



rooms connecting the two volumes hosted ancillary services. [Fig. 14] The building of Borgo Hermada [Figg. 15, 16] – now radically transformed and almost entirely unrecognisable – was defined by three autonomous contiguous volumes. The multipurpose hall formed one header of the building, while the other accommodated the *Dopolavoro* and the large rooms for the Trade Unions. The connecting linear body consisted of a series of small rooms housing the Opera Nazionale Balilla and the welfare offices for war veterans.

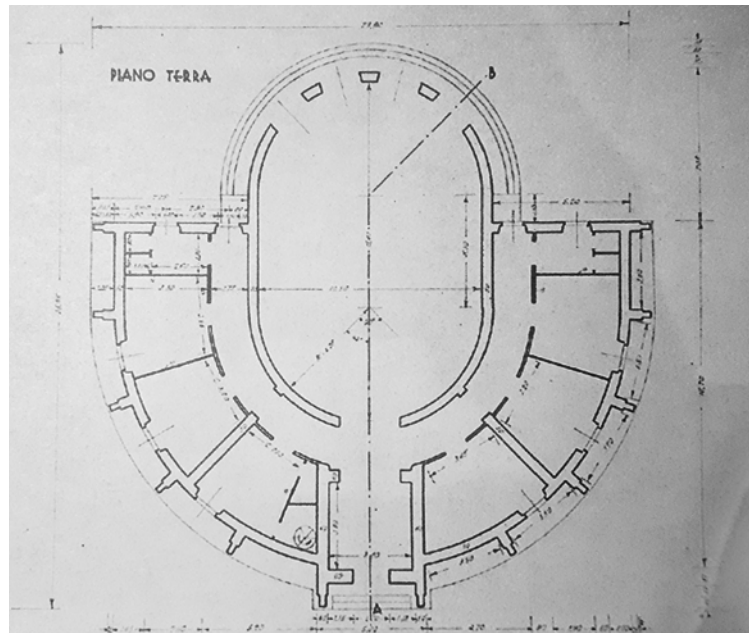
All these examples are characterised by presence of antithetical spaces – interior/exterior, public/private, served/servant – and by the overlapping, albeit temporal, of the activity program. At Sabaudia, for example, the public square was designed as an extension of the building. At Pontinia instead, the distinction between *Dopolavoro* and Cinema-Theatre was disguised.

New Types / One Type: learning from the past

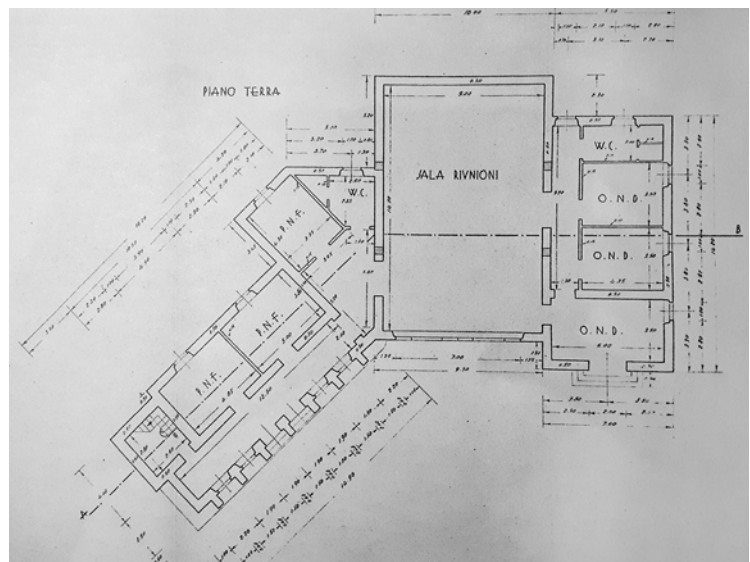
Complex Buildings have regained momentum in the scholarly debate

Fig. 6

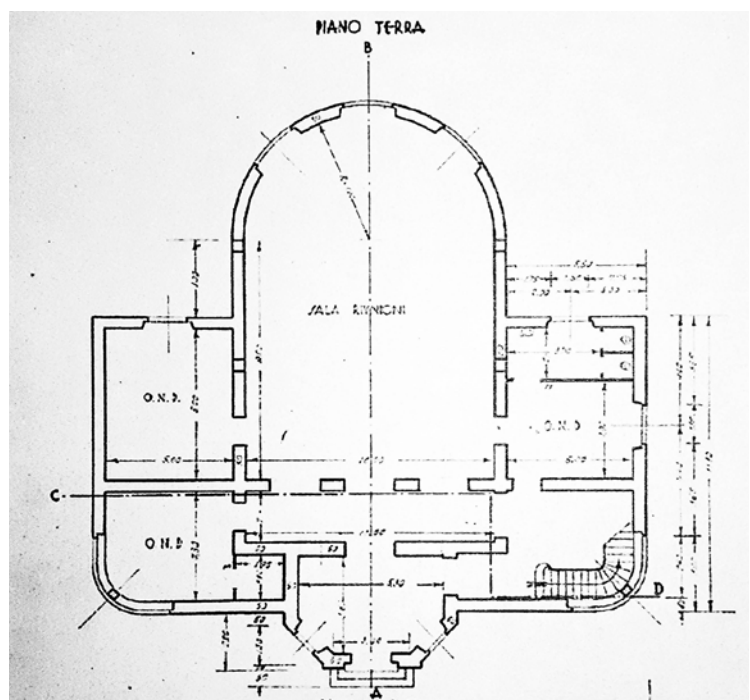
Alfredo Pappalardo, *Progetti di Tre Prototipi di Casa del Fascio per i Borghi dell'Agro Pontino* — Tipo 1, Borgo Piave, 1935 (Archivio Centrale dello Stato, Opera Nazionale Combattenti – Progetti, 54/111.1).

**Fig. 7**

Alfredo Pappalardo, *Progetti di Tre Prototipi di Casa del Fascio per i Borghi dell'Agro Pontino* — Tipo 2, Borgo Isonzo e Borgo Sabotino, 1935 (Archivio Centrale dello Stato, Opera Nazionale Combattenti – Progetti, 54/111.2).

**Fig. 8**

Alfredo Pappalardo, *Progetti di Tre Prototipi di Casa del Fascio per i Borghi dell'Agro Pontino* — Tipo 3, Borgo Carso, 1935 (Archivio Centrale dello Stato, Opera Nazionale Combattenti – Progetti, 54/111.3).



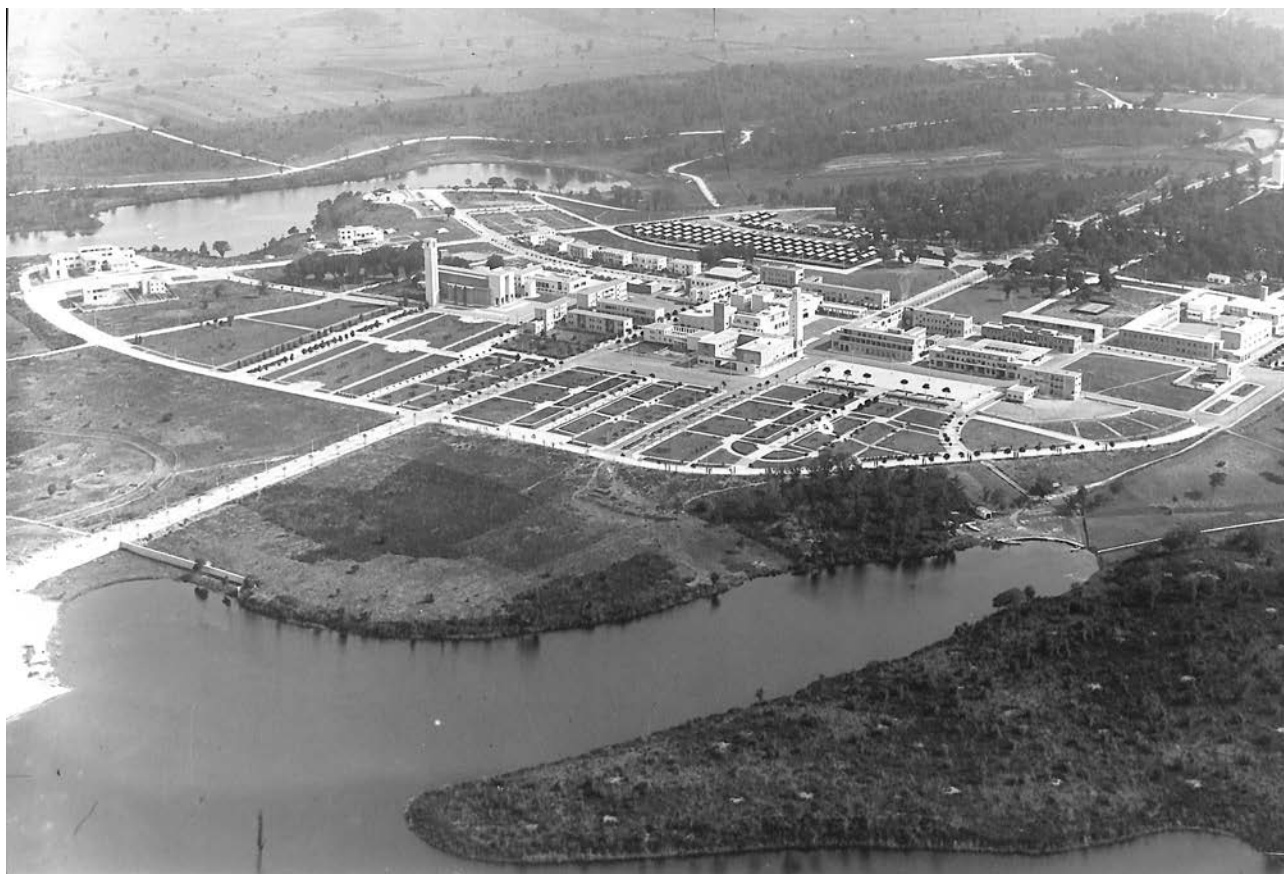
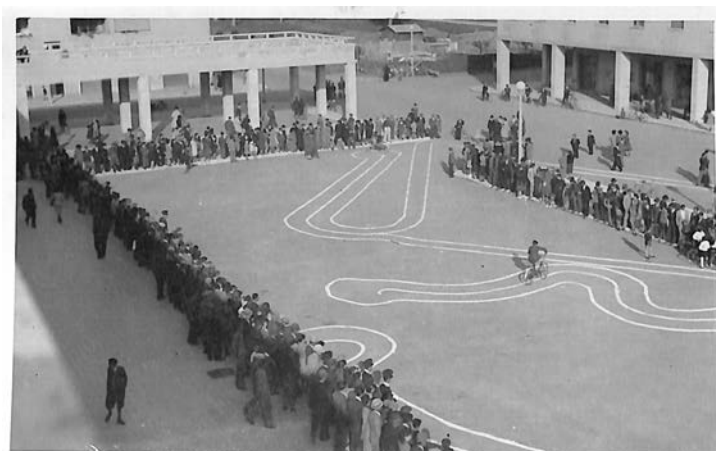


Fig. 9

Aerial view of Sabaudia, 1934 (Catalogazione fototeca, Archivio Comunale di Sabaudia, Vol. 5.5/595b).

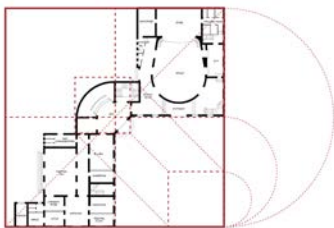


Figg. 10-11

Gymkhana in the central square of Sabausia, 1934 (Catalogazione fototeca, Archivio Comunale di Sabaudia, Voll. 7/323-324).

**Fig. 12**

Compositional Scheme of Pontinia's Complex Building — Urban proportions (author's elaboration, 2021).

**Fig. 13**

Compositional Scheme of Pontinia's Complex Building — Geometrical composition of the building (author's elaboration, 2021).

thanks to three issues of «A+T» published in 2017 and 2018. Aurora Fernández Per introduced the topic starting from the definition of “social condenser”, namely the spatial response to the state’s need to organise recreational, cultural and welfare activities in controlled environments in the early 20th century. According to other authors, the genesis of Complex Buildings can be traced back to the Soviet Union of the 1920s, in parallel with the rise of Hybrid Buildings in the US. These latter, opening towards the city, encouraged a new use of public space capable of “densifying” the relationships between heterogeneous community members (Fernández Per 2017).

A comparison between the Soviet and American experiences with the case of Agro Pontino, can be attempted, focusing on the spatial and social aspects. Indeed, the new building types implemented in Agro Pontino were dictated by the state’s desire to control and organise the settlers’ leisure time. Moreover, their spatial flow involved the urban scene, transforming public squares into an open-air multi-functional halls.

More recent sources reinforce this parallelism. According to Kerstin Sailer, for example, Complex Buildings can be defined as systems where multiple activities can coexist, and where the confluence of spaces may trigger a range of new spontaneous collective behaviours. It is therefore not surprising that these aspects came into play in Agro Pontino, to activate the public sphere in newly built contexts.

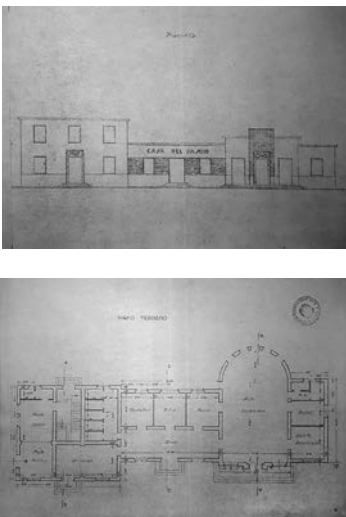
Despite these recent publications, the genealogy of Complex Buildings – so widely referred to, particularly in urban regeneration projects – has not been fully investigated. A critical reinterpretation of case studies like that of Agro Pontino could contribute to the phenomenological understanding of Complex Buildings and to the definition of their possible future applications.

Moreover, the identification of similarities between the Pontine experi-



Fig. 14
The *Dopolavoro* at Borgo S. Donato (photo by E. Margione 2018).

ments and current Complex Buildings show the modernisation of the rural landscape through a reading lens focusing on the compositional relationship between architecture and urban design, overcoming the interpretive bias that often affects a case study so loaded with political implications.



Figg. 15-16
Alfredo Pappalardo, Luigi Piccinato, Project for the Casa del Fascio of Borgo Hermada. Plan and elevation 1934. Archivio Centrale dello Stato, Opera Nazionale Combattenti – Progetti, 19/24.

Notes

¹ See Frampton 1974.

² Luigi Piccinato gave a theoretical definition of the Pontine settlement system (Piccinato 1934).

³ *Ruralizing urbanism* translated the Italian expression *urbanistica ruralizzatrice*. See Mariani 1976, and Mioni 1980.

⁴ Except for Aprilia and Pomezia, implemented when Italy was subject to the sanctions imposed due to the Ethiopian War

⁵ On 3 April 1926 Renato Ricci founded the *Opera Nazionale Balilla* a youth section of the National Fascist Party promoting physical activity as an integral part of education for schools of the first and second grade. The Fascist regime relied on sports to mould the Italians of the future, the so-called *italiano nuovo*. In 1927, Ricci entrusted Enrico del Debbio with the first project for a *Casa del Balilla* in view of establishing an Academy to train teachers of physical education. A year later, Ricci commissioned del Debbio a handbook including a series of architectural prototypes adaptable to different settlements across the nation, highlighting «[that] typological and formal identity capable of compositionally restoring the values of the *Opera Nazionale Balilla*» (Ricci 1928).

⁶ The blueprints are among the holdings of the Central State Archives, Opera Nazionale Combattenti, envelope 54 app. 111.

⁷ The *Migliare* roads perpendicular to the Appian Way were implemented in the late 18th century as part of the reclamation scheme promoted by Pope Pius VI.

⁸ The origin of the Pontinia after the success of Sabaudia is quite interesting. While the leading figures of the Italian academic and professional worlds were asking for a new

design competition, Le Corbusier also tried to get the commission, meeting influential politicians in the hope of presenting his work on the Ferme Radieuse to the Head of Government.

Nevertheless, the plan of Pontinia was “confidentially” entrusted to engineer Alfredo Pappalardo, who was bound not to reveal its location (Mariani, 1976). The publication of the plan of Pontinia with the designs of the main public buildings aroused an absolute scandal. Bontempelli and Bardi (1934) commented that Pontinia betrayed the hopes aroused by Sabaudia. On his part, Giuseppe Pagano commented that the programme of Pontinia was obvious: a rural municipality for a community of farmers, an objective that even a mediocre architect could not fail, by considering the pre-existing roads and avoiding any decorative rhetoric. «I call to witness the illustrations of the project, and believe I am doing an ungrateful yet fair work accusing those functionaries of artistic and technical incapacity. An even more serious crime after the creation of Sabaudia, alive modern and beautiful». (Pagano 1935)

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Vilma Hastaoglou-Martinidis, Cristina Pallini
In Greece before the 4th CIAM.
 Emergency and innovation in the rural colonisation sites

Abstract

In July 1923 the Lausanne Treaty enforced a population exchange between Greece and Turkey. Most Greek Orthodox refugees from Asia Minor moved to newly annexed regions of northern Greece, sheltered in tent camps, makeshift shacks and public buildings. Firstly, a census was taken of their places of origin and potential affinities. In 1923, the Greek government applied for support to the League of Nation who established the Refugee Settlement Commission. The present overshadowed any idealised vision of Greece. Standardised solutions were adopted for the new villages' layout, individual dwellings and aggregation patterns. When prefabrication came into play, the protagonists was Fred Forbát, who also played a decisive role in the choice of Athens as the venue of the 4th CIAM in 1933.

Keywords

Rural refugee settlement — Mass housing — Fred Forbát — Adolf Sommerfeld



Fig. 1
 Geographic distribution of refugees from different places (source: Etablissement des refugies en Grèce - 1933 - La Grèce actuelle, Ministère des Affaires Etrangères, Athènes 1933).

The context in figures: an introduction

In summer of 1933, Pietro Maria Bardi, a protagonist of the Italian cultural debate as co-editor of *Quadrante*¹, travelled to Athens with the Italian delegation attending the 4th CIAM. In a lengthy article (1933), Bardi expressed his astonishment in front of Athens' chaotic sprawl, recalling a conversation with an engineer from the Marathon Barrage who, ten years earlier, had taken in sixteen refugees, among whom a woman about to give birth.

They describe the anguish and confusion of those days. Athens became as compressed as a bale of cotton. One million two hundred thousand newcomers, clueless, without a tool of the trade [...] The demographic case of Greece is unique: 2,800,000 inhabitants in 1907, 5,600,000 in 1921; then the arrival of refugees in the aftermath of a wearying war. The very efforts of the League of Nations, the Autonomous Office and the American Near East Relief were not sufficient to regulate and settle such an amazing human avalanche. [...] we seem to have understood that the super-population set itself up, building hovels and shacks in the most whimsical anarchic manner on very large stretches of land. Each family put itself under a temporary roof with tingling rapidity. (Bardi 1933, p. 16) (Transl. by authors).

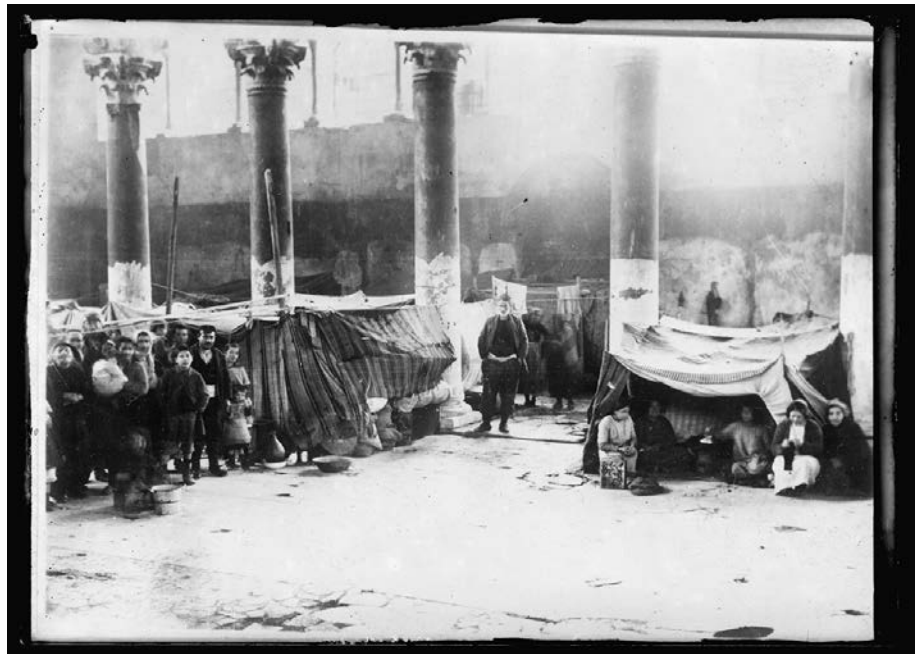
At the time of events, a correspondent for *L'Illustration* (Ercole 1922, p. 437) witnessed the exodus from Thrace from a spotter plane: the quays of Redestos and Dedeagatch² packed with crowds waiting for help and columns of smoke rising from temporary camps. In the reportage *History's greater trek*, the renowned photographer Melville Chater (1925) documented their establishment in Greece. In total, 1,221,849 refugees arrived: almost one fourth of the population of Greece at the time (Kritikos 2005, p. 332). [Fig. 01, 02, 03] Athens and the entire country were under pressure,

Fig. 2

Refugee families temporarily housed in the National Theatre, Athens, 1923. (source: Hellenic Literary and Historical Archive Society ELIA).

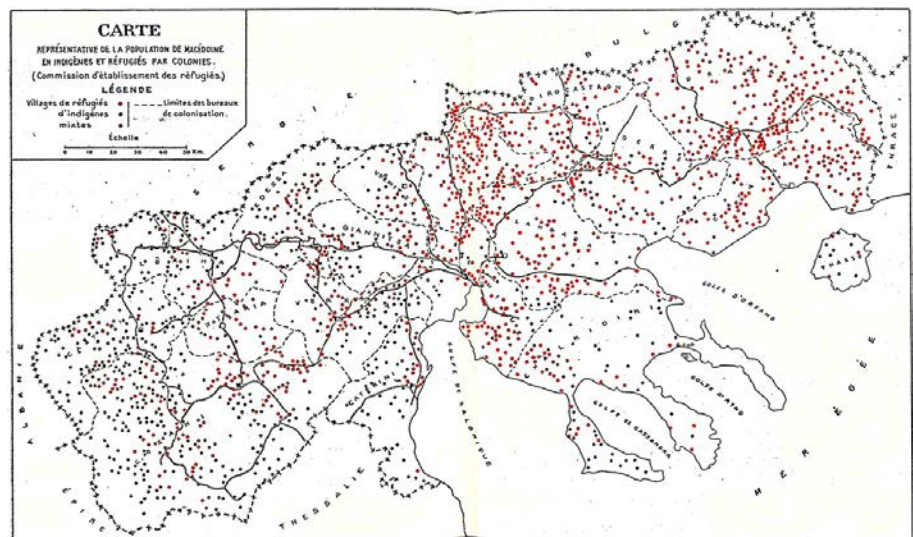
**Fig. 3**

Refugee families in the Byzantine church of Saint Paraskevi in Thessaloniki (source: Archive of the American Red Cross in Greece, Library of Congress, Washington).



yet most of them stayed in the north, where their settlement was to accelerate the Hellenisation of newly acquired border regions³.

In 1922, the Greek government established the Refugee Relief Fund in charge of a housing programme and, in 1923, applied for support to the League of Nations⁴. The gravity of the situation led to the formation of an autonomous supra-national body, the Refugee Settlement Commission (hereinafter RSC) operating from 1923 to 1930⁵ to manage the first foreign loan of 10 million pounds provided in 1924 and the remaining 9 million pounds granted in 1927. From 1922 to 1924, before the RSC services became fully operational, the first 13,487 dwellings had been achieved by the Greek Refugee Relief Fund, who provided refugees with building materials and a small sum (5,000 to 6,000 drachmas) to build their own house; where building materials were of poor-quality, the houses were badly built and gradually disappeared (RSC, Twenty-Seventh Quarterly Report 25.8.1930, p. 11).

**Fig. 4**

Map of Macedonia with refugee villages (red), indigenous villages (black) and mixed villages (red and black) RSC, 1928. (source: Ancel 1930, pp. 148-149).

The Greek Ministry of Social Welfare took care of urban refugees, whereas the RSC was mainly responsible for rural settlements which, by 1928, amounted to 2,085 for a total of 145,127 families⁶. Out of the 1,088 agricultural colonies in Macedonia, only 646 were built from scratch; the remaining 442 were new quarters near pre-existing villages. A considerable number of families were settled in villages abandoned by Turks or Bulgarians⁷. When possible, refugees were delegated to sites according to village of origin, so as to empower existing links of solidarity. They were asked to select their representatives, who were then taken around several districts before choosing a site, the best of which often aroused some antagonism. New settlements were usually named after refugees' place of origin preceded by the word *neo* / *nea* (new); in the case of pre-existing villages, Greek names replaced Turkish or Bulgarian toponyms⁸. [Fig. 4] One of the main tasks of the RSC was distributing the land made available by the Greek government (mostly former Turkish or Bulgarian estates) as its quality and extension dictated the number of settlers of the respective village⁹. Athens was the seat of the RSC, subordinate to it, in Thessaloniki operated the General Directorate of Colonisation in Macedonia (hereinafter GDCM) headed by Ioannis Karamanos, an agronomist trained at the Agricultural High School of Portici (Naples). The success of the colonisation plan envisioned by Venizelos¹⁰ depended not only on the work of surveyors, topographers and hydraulic engineers, but also on the fact that doctors, engineers and architects had their place near the colonist himself (RSC, Twenty-seventh Quarterly Report, 25.8.1930, pp. 16,17; Ancel 1930, pp. 152, 194-195)¹¹.

Macedonia and Thrace were divided into 17 districts with their respective Colonisation Offices where agronomists ran agricultural stations and doctors the anti-malaria and anti-tubercular dispensaries (Metallinos 1931). In the same regions, the RSC established 15 model agricultural and stud farms (Hope Simpson 1929, p. 588; RSC, Twenty-second Quarterly Report, 27.5.1929).

From 1922 to 1929, a total of 130,934 rural houses were built throughout Greece¹²: almost all – 116,905 houses for 128,912 families – in Macedonia and Thrace (Twenty-Seventh Quarterly Report, 25.8.1930)¹³.

Emergency and innovation

In 1924, on behalf of the RSC, the League of Nations held an international

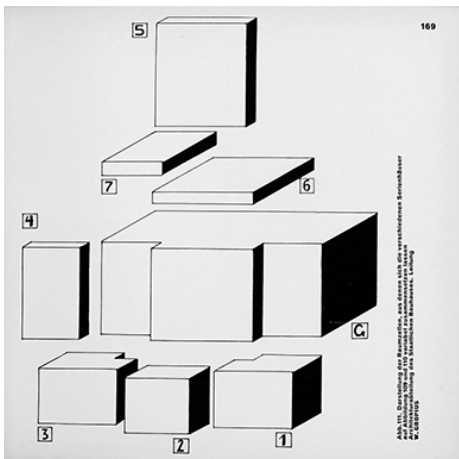


Fig. 5
Walter Gropius and Fred Forbát:
Honeycomb System ('Waben-
bau'), 1922. (source: Nierendorf
1923, pp. 169–70)

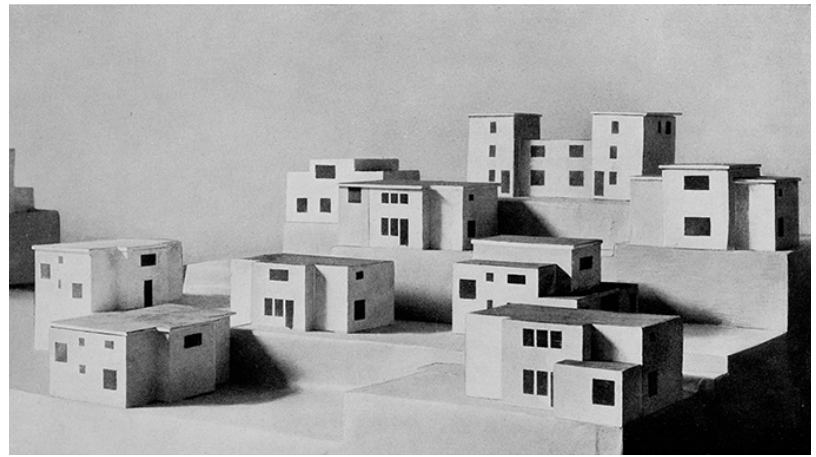


Fig. 6
The loading deck of Steamship
Attika, 9.9.1924 (source: Paul
Sommerfeld family archive).



Fig. 7
Adolf Sommerfeld (first from the
left) and Fred Forbát (standing)
on a trip to Athens). The lady in
the middle is possibly Renee
Brand, Sommerfeld's second
wife. (source: Paul Sommerfeld
family archive).

tender for 10,000 prefabricated rural dwellings. The tender-winning company was Danziger Hoch und Tiefbaugesellschaft mbH (Danzig Building and Civil Engineering Company DHTG), founded for the purpose by Adolf Sommerfeld, a Berlin-based contractor specialised in prefabricated timber structures. The "Sommerfeld method" developed during the First World War¹⁴, rose to the realm of architecture with the famous chalet at Berlin Dahlem designed by Walter Gropius and Adolf Meyer using teak obtained by dismantling an old ship and producing the interior wooden finishes in the Bauhaus workshops¹⁵. The building's completion in 1921 was celebrated with several hundred guests, signalling its cultural and spiritual importance. In 1921, Gropius and Meyer also designed the Sommerfeld Headquarters near Berlin Botanical Garden. In view of the industrialisation of the sector, the two *bauhausers* invented the "big construction kit" and the "honeycomb-system" (*Wabenbau*)¹⁶ in collaboration with Fred Forbát, an Hungarian who had worked with them since 1920 (Colonas 2003, Tournikiotis 2019). [Fig. 5]

In 1924, Sommerfeld hired Forbát to coordinate the DHTG sites in Macedonia¹⁷. The company was registered in the Free State of Danzig¹⁸, with headquarters in Belgrade handling production, delivery and technical assistance (Forbát 2019, 86). Wooden studs were produced in Sommerfeld's woodworking plants of Schneidemühl (Piła), Dragemuhl, Szczecin and Kolmar (Poznan) and shipped to Thessaloniki via Szczecin. [Fig. 6, 7, 8] Scheduled for implementation within half a year, from November 1924 the May 1925, the project consisted in three types of timber-framed dwellings, varying according to family size. The smallest (35 square metres) consisted of a single room with a kitchenette and a storeroom; the intermediate (45 square metres) comprised two rooms, an entrance porch, a storeroom and a barn; the largest (52 square metres) offered a better distribution and a symmetrical façade centred on the entrance setback¹⁹ [Fig. 9]. According to the contract, DHTG was to provide and assemble the timber frames taking care of the foundation and tiling works. The Company proposed cladding the timber frames by using the "Rabitz system", a panelling consisting of a metal lattice as a plaster base, and plaster mortar: panels could thus be produced on site in shell shapes and then set up as walls or ceilings²⁰.

Forbát was to move to Thessaloniki, from where he could coordinate the assemblage of kits in the 80 construction sites scattered between Giannitsa in the west, Goumenissa in the north, Drama in the northeast and Chalkidiki in the south. The vast area was divided into six districts, each coordinated by a German foreman, where every site also had a German super-

Fig. 8

A DHTG team reaching a site at an early stage of preparation. (source: Paul Sommerfeld family archive).

**Fig. 9**

Different types of DHTG houses (source: Archive of the municipality of Nea Moudania, courtesy of Maria Lilibaki).

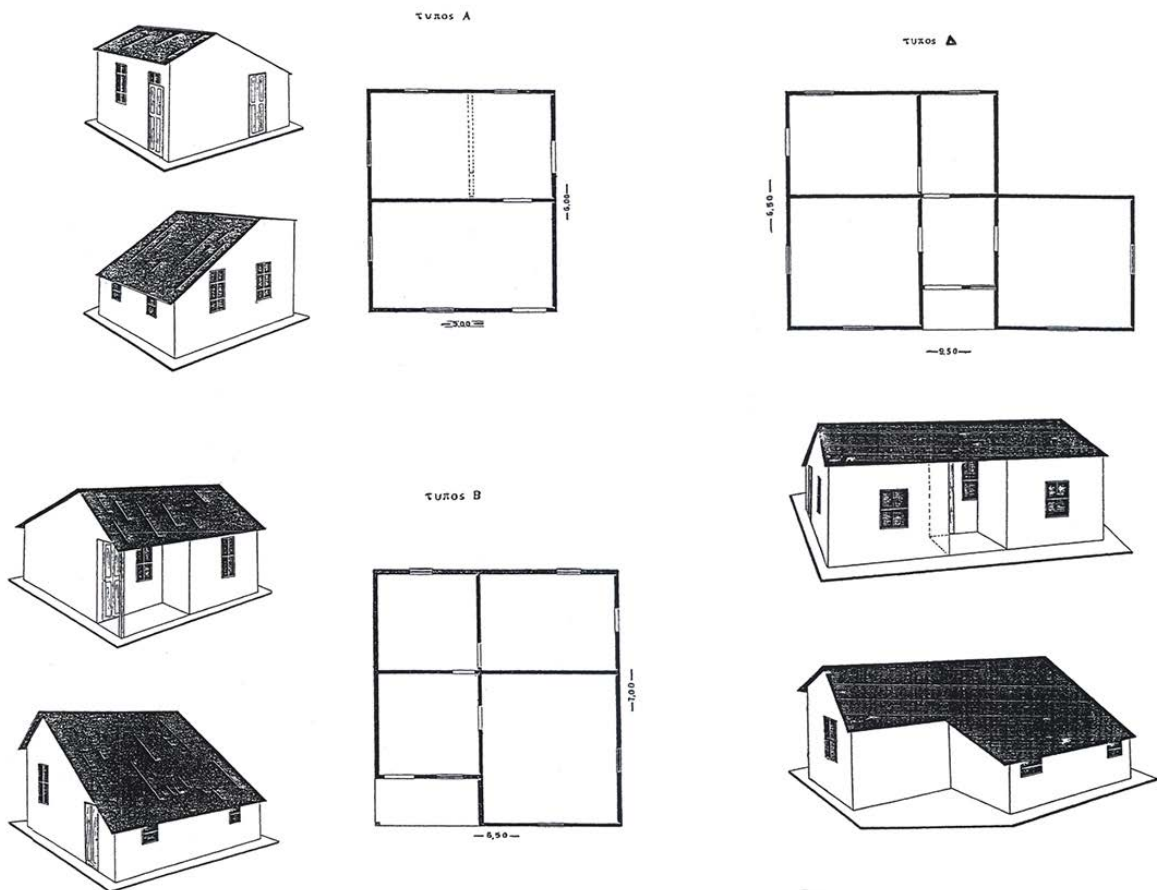




Fig. 10
Construction of a DHTG house
A / I (source: Paul Sommerfeld
family archive).

visor. Interestingly, the DHTG system put into practice Gropius' idea of producing all inter-fitting construction components in various specialized factories, eventually assembling them on site according to pre-tested procedures, so as to guarantee a fast process at a fixed price (Seelow 2018). The Colonisation services were to fill in the walls, take care of inner plastering, installation of wooden ceilings and floors. [Fig. 10]

The entire operation started in January 1925 with the plastering work assigned to local contractors²¹; in many instances, adverse circumstances forced the use of any available material, such as reinforced concrete t panels, cement bricks or plain boards. The 10,000 prefabricated houses were to be ready by May 1925.

Browsing Forbát's logbook

In 2019, the Bauhaus-Archiv published the memoirs written and illustrated by Forbát in 1962, alternating working journals to personal reflections inspired by his encounters and travel experiences (Forbát 2019). Parts of the *Memoirs of an Architect from Four Countries* concern Greece, where Forbát worked from early November 1924 to May 1925, returning there as a CIAM delegate in the spring of 1933.

In early November 1924, Forbát and his wife got off the train at Belgrade central station, where they took another train to Thessaloniki (so crowded that Fred bribed the ticket inspector for the exclusive use of a compartment). At Nish the station swarmed with countless ragamuffins and layabouts. The train entered the wide Morava valley which, proceeding southwards, became narrower and rockier, with many bridges destroyed by the war. Vranje was a cluster of white houses with flat roofs. At Skopje a splendid mosque silhouetted against a large blood-red fortress. The train threaded its way up the steep walls of the Vardar valley. The night was starry and in the morning the couple alighted at Thessaloniki: «a burnt-out city where everything is being rebuilt according to a French plan»²². Only the upper town with the Turkish quarters had remained intact. The swarming district of trade and finance, along with the Jewish, Greek and Muslim quarters of the lower town, had been wiped out.

Forbát described Thessaloniki as a thicket of white minarets and concrete pillars interspersed with horizontal slabs with few habitable houses. Refugees lived in churches, ruined buildings, courtyards, cellars, shacks

cramming every open space. Despite everything, the view of the gulf with sailboats and cargo steamers against the snow-capped Olympus was hauntingly beautiful (Forbát 2019, pp. 80-82).

DGCM director Ioannis Karamanos was supported by a staff of engineers, by a responsible for transports (a white Russian) and by an additional “higher official”: an emissary of the government controlling the officials of the RSC, or an emissary of the RSC with the same task.

On 5 November, Forbát drove westwards across the plain of Thessaloniki.

We crossed a wide endless plain, then went higher and higher until we reached a village where 130 houses are being built. On the way back, it was indescribable how the bay of Saloniki suddenly reappeared in the evening light, with its anchored ships and pointed minarets. [...] The streets were full of little donkeys with two sacks hanging down their backs and an old man enthroned on top in oriental calm. One of them had baskets full of colourful chickens. You can see this everywhere in town. (Forbát 2019, p. 82) (Transl. by authors)

Adolf Sommerfeld arrived and the following day they set off for another construction site, where Forbát was asked to replace «the old Berlin big-wigs». Four days later, heading to Narés²³, one of the largest villages under construction along the Gallikos river, their car stopped on fording a stream. They were rescued by a Red Cross ambulance bus.

In his downtime at Thessaloniki, Forbát designed new housing types, a small school, an urban house that would also work for Berlin (Forbát 2019, 82-83). Forbát met Sommerfeld daily, who soon entrusted him the management of the entire DHTG organisational department. In November 1924, they were already building 60-70 villages, some on quite virgin soil, others next to pre-existing settlements. In addition to Greek refugees, construction workers came from all corners of the Balkans: Macedonians from Yugoslavia and Bulgaria, Albanians and Turks, and some Hungarians. In some villages, a mobile column of Italians worked under the supervision of a German foreman²⁴.

While DHTG was to deliver and assemble the structural skeletons, refugees themselves were to fill in the walls with bricks or dried mud blocks. Sick and weak as they were, the timber skeletons were often covered with a tent. To protect them and prevent the storms from lifting them entirely, the idea came up to integrate the skeletons with a provisional outer skin of cement raffia or wooden boarding.

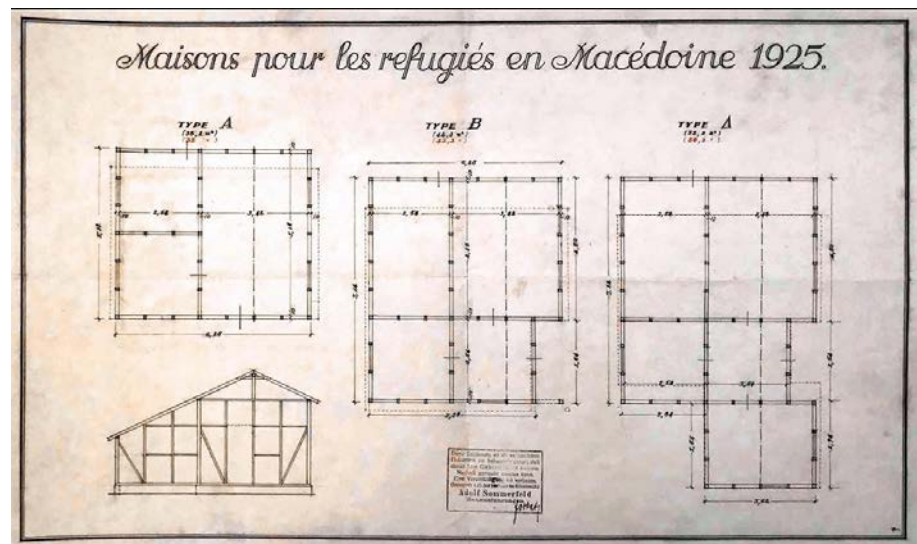
Other problems concerned transport: timber arrived by steamer, numbered according to type, from the sawmills of Schneidemühl, Kolmar and Szczecin. It was unloaded in the huge GDCM storage at the shore west of the port, next to Beşçinar garden (Makedonia, 28.12.1924), where it was bundled according to type. The Colonisation Department was to deliver these kits on sites by lorry or railway, yet in many cases nothing arrived. Challenging a clause in the contract, DHTG took over the transport buying five trucks from American army²⁵ and set up a carpentry workshop by the storage to cope with any unforeseen events.

The Berlin headquarters had standardised the woodworks for each type of house, so there were over 50 different pieces. However, as the project was intended as a prototype for similar emergencies elsewhere (Kress 2008, pp. 96-98; 2011, pp. 129-191), Forbát strove to achieve a higher level of standardisation, working on interchangeable elements, which also eased transport operations. [Fig. 11]

After a few weeks, Stephanos Deltas a former Greek minister part of the

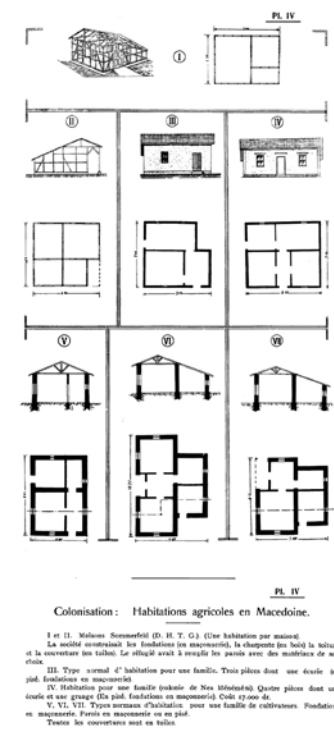
Fig. 11

Alfred Forbát, Drawing of a refugee house, 1925 (source: The Swedish Centre for Architecture and Design, Stockholm).



RSC, expressed Sommerfeld all his satisfaction with the new DHTG leadership. Later on, however, some refugee representatives argued that DHTG workers should be replaced by small Greek contractors. Repeated attacks in the spring of 1925 intimidated the Greek members of the RSC, who allocated all the colonisation contracts to Greek contractors. In early May, Sommerfeld and Forbát returned to Berlin, leaving only a few employees to handle the business in Thessaloniki.

Despite delays due to technical and organisational problems, by summer 1925 a total of 9,673 timber-frame units were ready: 9,228 in Macedonia and 445 in Thrace²⁶. The DHTG project turned out to be more expensive²⁷ than traditional building techniques, and less adaptable to the conditions on site (Notaras 1934, pp. 81-81). The RSC decided to outsource a further 42,045 rural dwellings to small local contractors under the supervision of the Colonisation's technical service (RSC, Eighth Quarterly Report 5.12.1925). [Fig. 12, 13, 14]

**Fig. 12**

A Comparison of different housing types: DHTG (I, II, III, IV, upper boxes) and masonry structures built by the RSC (V, VI, VII, lower boxes) (source: League of Nations, RSC, Twenty-seventh Quarterly Report, 25.8.1930).

Landscapes of standardisation

In addition to the DHTG houses, the RSC built 21,015 dwellings in Macedonia, 10,982 in Thrace, and 10,048 units in the rest of Greece. These houses, also of a standard type – albeit realised with traditional building techniques, masonry foundations and walls, and a tiled roof (Ancel 1930, pp. 154-157; RSC, Twenty-seventh Quarterly Report 25.8.1930) – were slightly bigger and could receive larger families.

The simplest single-family type covered 49 sqm, the two-room house 56 sqm and the biggest one 70 sqm: to save money, they were often combined in a semi-detached unit²⁸. All plots included a vegetable garden, while the standard solution could be easily adapted to the settler's occupation. The grain farmer needed a stable for his ox or horse and a loft for his harvest, the fisherman a vast shed for his utensils and fish, the silkworm breeder a room to spread out the mulberry leaves, and the tobacco farmer a dryer protected from rain and sun. The speed of construction depended on available labour. Since many refugees were unemployed, the RSC provided them with supervisors, building materials (wood, tiles, nails) and money to build their own homes, in return for their willingness to organise their own commuting. The most common construction materials were mud brick and stone. After 1930, the availability of better building materials (i.e. baked bricks) allied to the refugees' improved economic conditions

**Fig. 13**

A semi-detached rural house built by the RSC Colonisation Department in Macedonia, 1925. (source: Archive of the Centre for Asia Minor Studies).

Fig. 14

A DHTG house D / IV at Nea Axos near Giannitsa (source: photo by V. Hastaoglou-Martinidis).



brought about an increased size of the average house. The repetition of standard solutions, however, produced a kind of homologation in the built environment, replacing the great variety of regional styles. [Fig. 15, 16]. The geography and landscapes of Northern Greece changed dramatically. Prior to the arrival of the refugees, the plain of Thessaloniki was characterised by clusters of fisherman huts around Lake Giannitsa (the marshiest area of the plain), and few villages on the lower terraces of the Axios river valley. Their irregular layout had nothing to do with the grid-iron pattern of the new colonies – 38 in total – located along ancient Via Egnatia²⁹ on the high grounds dominating the lake from north and west [Fig. 17]. French geo-politician Jacques Ancel saw this metamorphosis in the making. At Giannitsa, on the foot of Mount Paiko, he could no longer recognise the Ottoman town extolled for its vast market and huge caravanserais. In 1923, Giannitsa had become the centre of a Colonization District. To

Fig. 15

A Refugee village of DHTG houses in Chalkidiki. (source: Benaki museum).

Fig. 16

The village of Mavroneri, former Karabournar, 12 km S-SW of Kilkis (source: Yiannakopoulos 1992, p. 178).



the south, the old town spread out in rubble, with a last standing minaret. Turks and Bulgarians had been replaced by Thracian refugees, still wearing their brown knickerbockers, tight at the ankles, a red belt, a waistcoat and a short brown jacket. They were all sturdy planters of tobacco, corn and vines. Their neighbourhood of white rural houses had been built to the north, while another district of grey workers' houses was rising to the south-west. Out of 9,128 inhabitants, 5,383 were refugees, of whom 4,501 were farmers (Ancel 1930, pp. 193-194). [Fig 20]

Back in Athens in the Spring of 1933

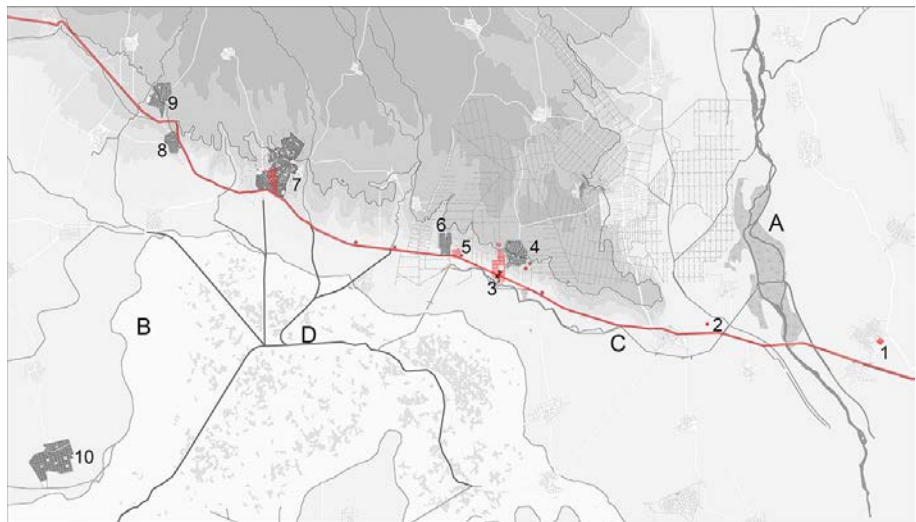
After working in Berlin for Sommerfeld³⁰, Forbát moved to Moscow in February 1932, to join Ernst May who directed an urban planning state department³¹. In July, with other 25 foreign architects working in the Soviet Union, Forbát signed a letter against the negotiations with CIRPAC, triggered by the tensions over the competition for the Palace of Soviets in Moscow³² (Tassopoulou 2020, p. 28). At the end of February 1933 Forbát left for Athens, where he was to probe the actual possibilities of holding the upcoming Congress (Athanasidou et alii, 2019). His memoirs retrace this 11-day journey.

Fig. 17

Old and new villages along Via Egnatia (source: conjectural map by the authors redrawn by D. Erdim)

Legend: A. River Axios/Vardar; B. Giannitsa Lake; C. Via Egnatia (146 BCE); D. Loudias drainage canal (1930s).

1. Jacob Modiano's experimental farm (1906) now Museum of the Balkan Wars;
2. Orthodox church of St. Peter and Paul (19th c.), ruins of a minaret, and cemetery of the Bogomili (9th-10th c.);
3. Archaeological site of Pella (413 - 168 BCE) uncovered from 1914 to 1968;
4. Village of Pella, former Agii Apostoli in Greek, or Postol in Slavonic language (mixed);
5. Site of the Roman colony of Pella;
6. Nea Pella (all refugees);
7. Giannitsa, former Yenice Vardar (mixed);
8. Axios (all refugees);
9. Neos Mylotopos, former Voudrista;
10. Krya Vrysi, former Plasna.

**Fig. 18**

The main road of Giannitsa in 1918 (source: Ancel 1930, p. 161)

**Fig. 19**

New semi-detached house at Giannitsa (source: Ancel 1930, p. 161).

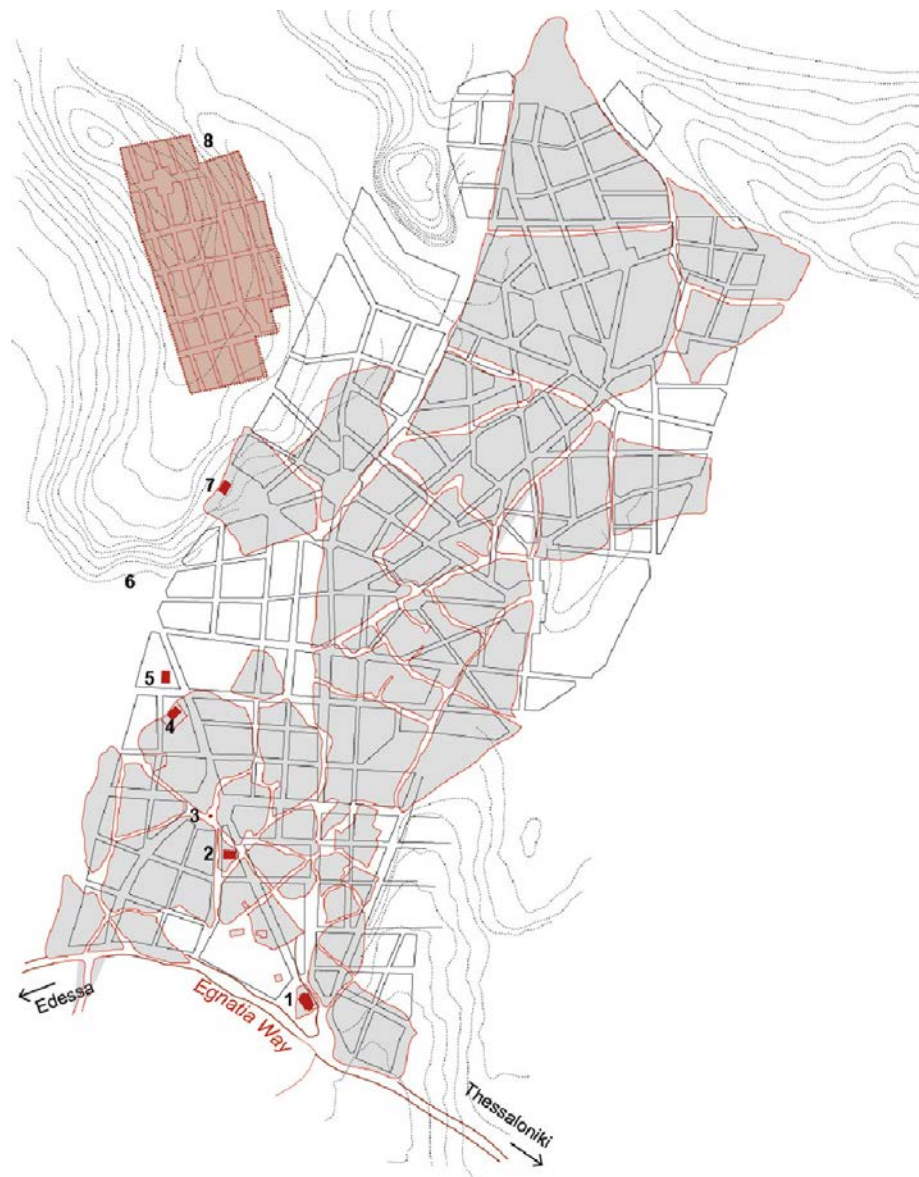


Fig. 20

Map of Giannitsa superimposing the late-1920s plan to the pre-existing urban structure. Conjectural drawing by C.Pallini and A. Korolija.

Legend.

1. Great Mosque, 1510;
2. Evrenos Bey hammam (1390-1400);
3. Mausoleum of Evrenos Bey;
4. Clock tower (1753-54);
5. Mausoleum of Ahmad Bey, late 15th c.;
6. Evrenosoglu Ahmad Bey hammam, ca. 1490;
7. Evrenosoglu Ahmad Bey Mosque, ca. 1490;
8. Thracian refugee quarter.



Having reached Odessa on 1 March, Forbát and his wife embarked on a small cargo heading to Istanbul and, while on board, heard the news of the Reichstag fire³³. The wife of an associate of Ernst Egli³⁴ was waiting for them at the port, and the three of them visited Saint Sophia, the Blue Mosque, the covered market and Eyüp cemetery; eventually, they contemplated the sunset from the Galata Tower and embarked for Thessaloniki late in the evening.

Our beloved white tower was still there, but the white, pointed minarets were missing from the cityscape. We took a walk through the Turkish city to the castle, where we discovered a small Byzantine church. [...] Then we visited the round church of Saint Georgios, a tall, old Roman building where I had climbed around a lot eight years ago. Since then, the magnificent mosaics in the 5th century dome have been completely restored. In the Basilica of Demetrios, too, restoration of the mosaics destroyed in the fire was underway under a temporary roof. (Forbát 2019, p. 139) (Transl. by authors)

In Thessaloniki, the couple embarked for Izmir, disembarking only long enough to visit the bazaar and the large cemetery: Izmir too was being rebuilt³⁵. They left bound to Athens and crossed the Aegean in the midst of a storm that subsided only in sight of Cape Sunio. An architect from Munich (working at large hospital site) would welcome them in Pirae-

us. Soon upon arrival, Fred tried to reconnect with old acquaintances like Vassilis Karamanos, brother of the DGCM Director. Ioannis Despotopoulos, trained at the Bauhaus in Weimar and graduated from TU Hanover, accompanied Fred on the ascent to the Acropolis, asking suggestions about a foreign expert willing to act as consultant for the master plan of Athens. In order to get an idea of the Greek group, Forbát met Stamos Papadakis (1906-1992), whom Giedion himself had pre-alerted, Emmanouil Kriesis (1880-1967), who had built a large university complex, and Dimitris Pikionis (1887-1968) «humanly particularly pleasant, with good buildings influenced by the wonderful cubic architecture of the Greek islands». Impressed by their works and by other recent buildings, Forbát wrote to Giedion about the continuity between modern Greek architecture and the forms of tradition: in the islands, there were endless cubist and constructivist works achieved with local building techniques³⁶ (Athanassiou et alii 2019, p. 1128). Stubbornness paid off: having reached a quorum of eight members, the Greeks wrote to Giedion. In his memoirs however, Forbát could not but comment “this time I did not have a Bauhaus for him”. With his mission accomplished, Forbát left for the Peloponnese. He met Wilhelm Dörpfeld at Olympia, taking part in some surveying work on the cell of the temple of Zeus. Undecided whether or not to return to the Soviet Union, Forbát had already asked Depotopulos about the possibilities of a job in Chalkidiki and, back from Olympia, contacted Vassilis Karamanos. As suggested, he approached the German legation to the Greek government and, in the meantime, visited with his wife Corinth, Delphi and the Argolis. They reached Patras with a small steamer, then went to Pyrgos and returned to Olympia for a few days. The next stops were Nafplio and Epidaurus. The opportunity for a job in Greece did not materialise, nevertheless Forbát decided not to return to the Soviet Union. Very bad news from Germany haunted the last days in Athens: Sommerfeld had been forced to leave³⁷ and Taut was in Vladivostok on his way to Japan. On 1 June 1933, Forbát left for Hungary, his home country³⁸.

Recognising by comparison the specificity of a case study

Massive rural resettlement in Northern Greece took the record time of seven years³⁹, a slightly shorter period than “integral reclamation” of the Pontine Plain in central Italy⁴⁰. Similarities, however, may turn misleading. Firstly, in the Greek case, land reclamation was implemented after settlement operations and not before, as in the Italian case. Secondly, one cannot but emphasise the great disparity of sources: the Italian case immediately catalysed international attention from various disciplinary fields and continued to prompt further investigations and interpretations⁴¹.

Sources on inner colonisation in the Greece of the 1920s are quite different: articles in technical journals such as *Erga* (Works) and *Technika Chronika* (Technical Annals)⁴², periodic reports by the League of Nations, some witnesses’ accounts (Morphentau 1929; Ancel 1930; Allen 1943). Quite recently, historians and architectural historians, anthropologists and political science scholars have returned to such an important period for modern Greece (Colonas 2003; Voutira 2003; Kontogiorgi 2006; Mylonas 2012; Balta 2014; Athanassiou et alii 2019; Tournikiotis 2019).

The fundamental difference between Greece and Italy concerns precisely the role of architecture. In reclaimed Pontine Plain, the “metaphysics” (Besana et alii 2002) of the new towns culminated in their squares lined with state-sponsored institutions. The Town Hall with the arengario tower⁴³,

Fig. 21

Plan of Nea Pella surrounded by fields assigned to refugees. The central road joins the chapel of Saint Paraskevi along Via Egnatia, the neo-Byzantine church of the early 1940s, the school, and the sports field uphill (drawing by D. Erdim).



the Post Office, the National Afterwork Club (*Opera Nazionale Dopolavoro*) the local branch of the National Fascist Party (*Casa del Fascio*) and of the Fascist Youth Organisation (*Casa del Balilla*) each complied with an homologated programme. With their sharp geometries, these functional squares loaded with a strong symbolic meaning identified a centre of gravity for all farmers scattered in the countryside, turning them into an «imagined community» (Anderson 1983) part of a social order granted by the new political course.

In northern Greece instead, the art of building met constraints dictated by economic contingency and lack of time, leaving little room for rhetorical narratives to find solutions to the problems at stake. In the short term, rescuing Greeks from Asia Minor meant taking sanitary measures: still in November 1924 everybody was sick with malaria and mortality was colossal (Forbát 2019, p. 82). Before villages and quarters there were temporary shelters, be it tents, abandoned houses, public buildings or make-shift shacks. Besides, after surveying the reusable buildings abandoned by Turks and Bulgarians, they still had to be repaired (Twenty-Fourth Quarterly Report, 6.12.1929, p. 4).

The construction of 2,085 rural settlements in seven years was made possible by the widespread adoption of standard solutions. Villages and neighbourhoods shared the same layout, defined by perpendicular streets 8-to-3 metres wide according their importance. An average medium-size village covered 80 building blocks, each divided into an even number of identical lots⁴⁴. Unlike re-occupied abandoned villages, new refugee settlements – be it quarters or villages – were clearly recognisable by their gridiron layout and orderly rows of evenly spaced small rural houses of a standard type. [Fig. 21]

**Fig. 22**

The first church of SaintDemetrius at Neos Skopos (Serres) under construction (source: archive of the Orpheus Cultural Association, Neos Skopos).

**Fig. 23**

One of the RSC houses hosting the community centre of Neos Skopos (Serres) with a war memorial (source: archive of the Orpheus Cultural Association, Neos Skopos).

Fig. 24

The two churches of Axos (Giannitsa): the earliest (in the forefront) follows a hall layout, the second (in the background) featured a cross-in-square plan typical of Byzantine architecture (source: photo by C. Pallini, 2018)

In the Italian case, farmhouses were an integral part of the rural estates, in Greece instead refugee were concentrated to form the new village, surrounded by vegetable gardens and, beyond them, allotted fields⁴⁵, some run by agricultural engineers from the colonisation service.

As the village was taking shape, the inhabitants proceeded to build a temporary wooden church, in view of rebuilding it in stone at a later stage. Even before being comfortably settled, they commenced to agitate for a school. Their demands were so insistent, that the RSC reserved a plot for the school in every village (Hope Simpson 1929). Initially, the village centre was made up of empty blocks awaiting for the school and the church (Government Gazette, 1923). [Fig 22] In many villages, the Commission assisted refugees in building a single-hall rudimental structure to serve as a school during the week and as a church on religious holidays. Elsewhere, an extra house was to serve temporarily as a school. Gradually, villagers tested the flexibility/reversibility of use of a standard house to accommodate shops, workshops, cafes and other collective facilities. [Fig. 23, 24] The last report by the RSC (Twenty-Seventh Quarterly Report 25. 8.1930) recorded the total number of 130,934 dwellings made available for rural refugees all over Greece from 1922 to 1929, for which 1,001,722,628 drachmas (ca 3,564,849,2 pounds) had been accounted⁴⁶. Macedonia and Thrace absorbed the quasi-totality of these dwellings, that is 116,905 houses for 128,912 rural families.

Shifting boundaries between construction and architecture

Some architectural historians have ventured to clarify the role of prefabrication in modern architecture. Back in 1978, Herbert Gilbert highlighted the innovative aspects of prefabricated wooden huts in British colonisation (Gilbert 1978). More recently, Itohan Osayimwese focused on Germany (Osayimwese 2017). From 20 July to 20 October 2008 the Museum of Modern Art in New York held the exhibition *Home Delivery: Fabricating the Modern Dwelling* (Tadashi Oshima et alii, 2008) showing how prefabrication engaged many recognised masters, from Walter Gropius to Richard Buckminster Fuller. In June 2021, Haifa's Technion organised a webinar on *Mass Housing and Prefabrication*, involving experts in the field (Aleksandrowicz 2017, Cuypers 2020, Glendinning 2021).

The rural colonisation of Northern Greece offers an unprecedented field of observation on the subject. The settlement of so many refugees, in a situation of housing shortage, accelerated the modernisation of the building sector, promoting the integration of logistics, standardisation, prefabrication, rationalisation and large-scale production. Planning and design problems were part of an overall process of nation building and territorial restructuring. Refugee posed a multifaceted challenge. While taking a census of potential “embryos of community”, the various kind of available resources had also to be mapped: land, buildings and villages abandoned by the Turks and Bulgarians, properties expropriated from religious bodies. Moreover, the grid-iron layout assimilated rural villages to the refugee quarters in the outskirts of Athens and Thessaloniki. [Fig. 25]

The defeat in Asia Minor and the arrival of 1,221,849 refugees, the economic crisis and political instability, overshadowed any idealised vision of Greece. Dire straits set in motion a bottom-up process, whereby the doctor, the engineer and the architect had their place near the colonist himself. Somehow paradoxically, just as the Mediterranean was seen as North Star of modern architecture, the making and remaking of history burst into the



Fig. 25

Thessaloniki in 1928, with the walled city destroyed by fire and surrounded by refugee settlements (source: drawing by C. Pallini), based on Umgebungs-karte von Saloniki, 1928-1939, 1:25.000

present, re-proposing the relationship between architecture and settlement phenomena in all its complexity. Disregarding these phenomena, we may end up talking about architecture regardless of its degree of necessity.

In the 1920s Greece, and the New Lands in particular, became a great laboratory of problem-solving. In 1938, *L'Architecture d'Aujourd'hui* published a special issue on Greece; one of the articles, illustrated by a rich iconographic apparatus, argued that urban infrastructure and tourism had played the lion's share in the modernisation of the country, along with important areas of public welfare, such as education, health, road infrastructure and housing for refugees (Sirvin 1938).

Notes

¹ The architectural journal *Quadrante* was published from 1932 to 1934 promoting rationalist architecture in the context of fascist ideology (Rifkin 2012).

² Dedeagatch, present Alexandroupolis, was the main evacuation centre.

³ These were the so-called New Lands acquired by Greece: Macedonia in the end of the Balkan Wars (1912-1913) and Western Thrace in 1919. Here, with the arrival of refugees from Asia Minor, the Greek-Orthodox population rose from 42.6% in 1912 to 88.8% in 1926 (Aigidis 1934, p. 168, Pentzopoulos 1962, p. 134).

⁴ The League of Nations was founded on 10 January 1920 by the Paris Peace Conference.

⁵ US diplomat Henry Morgenthau Sr. headed the RSC. The other members were John Campbell from the Indian Civil Service (also representing the Bank of England), and the Greeks Pericles Argyropoulos and Stefanos Deltas. The following RSC chairmen were Charles P. Howland and Charles B. Eddy.

⁶ 1,088 in Macedonia, 623 in Thrace, 212 in Crete and 162 throughout Greece.

⁷ Even if many villages had been destroyed during the previous decade of war, there were still houses available (Notaras 1934, pp. 12-13).

⁸ Specialists from the School of Philosophy of the Aristotle University of Thessaloniki played a part in this process (RSC, List of the refugee settlements in Macedonia with their new names 1928).

⁹ Refugees owed to the State for housing, equipment and supplies, but most of their

debts remained unpaid and were eventually cancelled in the 1940s.

¹⁰ It was Eleftherios Venizelos (1864-1936) who signed the Treaty of Lausanne as Greece's representative, a key figure of the Greek political scene until 1932.

¹¹ In 1929, the GDCM employed 1,010 people (more than half of the colonisation staff) of which 130 were agronomists, 112 surveyors/topographers and 112 health officers.

¹² For a total expenditure of 1,001,722,628 drachmas, approximately £3,564,849.2.

¹³ In the years that followed, the RSC strove to maintain existing settlements and prevent the less successful, mostly in the mountains at the border of Macedonia and Thrace, from being abandoned.

¹⁴ Adolf Sommerfeld (1886–1964) experimented with material-saving prefabrication methods for construction of industrial structures, military halls and troop accommodation. He patented a construction system which layered relatively advanced thermal insulation materials between factory-cut, interlocking timber, building a prototype prefabricated wooden house.

¹⁵ The interiors were decorated with reliefs depicting devices and joints typical of carpentry work, evoking sectors of the Sommerfeld enterprise (Berdini 1983, pp. 35-37). At that time Gropius directed the carpentry workshop at the Bauhaus, and sought to facilitate collaboration between masters, apprentices, artists and designers in pursuit of a unity of the arts.

¹⁶ The “big construction kit” consisted of six basic modules of different sizes which could be combined to form different housing units; the “honeycomb-system” instead consisted of a basic module that derived its variability from the honeycomb-like “addition and attachment of linked space cells according to the number of heads and the needs of the inhabitants”. Both were presented at the first Bauhaus exhibition *Art and Technology - A New Unity* held in Weimar in 1923 (Seelow 2018).

¹⁷ Trained as an architect at the University of Budapest and at the Technical University of Munich, Fred Forbát had already worked for the Berlin-based AHAG (Allgemeine Häuserbau AG) run by Adolf Sommerfeld, drawing up a plan for Zehlendorf-West AG, which brought him into contact with Bruno Taut, Otto R. Salvisberg and Hugo Häring (Forbát 2019, 91-92). On its part, Sommerfeld also collaborated with Richard Neutra (Sommerfeld Houses project, 1923; Bürgerhaus quarter, 1930s), and Bruno Taut (Großsiedlung Onkel Toms Hütte, 1926-1932). In 1923, Sommerfeld was also commissioned a housing development on Mount Carmel (Haifa, British-Mandate Palestine), carried out with Erich Mendelsohn and Richard Kauffmann.

¹⁸ With the Treaty of Versailles (1919) Danzig, then a German city, was separated from Germany and made a free city under the protection of the League of Nations. Thereby, from 1920 to 1939, Danzig was a semi-autonomous city-state consisting of a port on the Baltic Sea and nearly 200 other localities in the surrounding areas.

¹⁹ Some of these buildings still remain at the villages of Nea Pella, Nea Axos and Aravissos. Houses of the third type were built in the colony of Nea Menemeni west of Thessaloniki.

²⁰ The Rabitz system was described in detail in the local newspaper *Makedonia*, 21.5.1925 (in Greek). The process was patented in 1878 by Carl Rabitz, a Berlin master mason. The Rabitz system is still in use, especially in interior design and monument preservation. https://second.wiki/wiki/carl_rabitz

²¹ Alternative panelling techniques were also considered (*To Fos*, 21.5.1925). The project was launched in early January 1925, in a meeting between Fred Forbát and the Colonisation authorities (*Makedonia*, 9.1.1925).

²² The fire of August 1917, five years after the port-city had become part of Greece, was another catastrophe with brought about radical change in a matter of years. In 1915, Greek Thessaloniki was the seat of a Provisional Government and a transit camp for the troops of the Entente. A seven-member international commission was set up to study the reconstruction plan. French planner Ernest Hébrard (1875-1933) - already on site when fire occurred as head of the French Army Archaeological Service - soon acquired a leading role.

²³ Now Nea Philadelphia.

²⁴ Forbát's wife filed the weekly reports for the police, listing workers' names and passports numbers.

²⁵ The logistics was coordinated by Fritz Dörpfeld, son of the famous archaeologist Wilhelm Dörpfeld, for which also worked Erich Kühn, a Poelzig student newly-graduated.

²⁶ The total expenditure amounted to £ 572,124.3 with an average cost of £ 55 to 77

per dwelling type (Notaras 1934, pp. 65-66).

²⁷ The high cost of the DHTG project, which according to Celina Kress (2008, p. 97) «made Sommerfeld, paid in English pounds, the largest foreign exchange earner of the Reich», caused the fierce critics of the anti-Venizelist Press throughout 1925 (*Empros* 9.6.1925, *To Fos* 21.5.1925).

²⁸ The average cost of these dwellings was 25,000 to 40,000 drachmas, depending of the dwelling type (Notaras 1934, p. 83).

²⁹ Via Egnatia was built by the Romans in 146 BCE as a military road, an extension of the Via Appia from the Adriatic to the Black Sea. In the plain west of Thessaloniki, Via Egnatia crossed the north-south route of the Vardar and Morava valleys, the same followed by Forbát to reach Thessaloniki by train.

³⁰ In 1926, Forbát joined the Association of progressive architecture *Der Ring*. His collaboration with Sommerfeld continued until 1928 as chief architect of the AHAG. In Berlin, he worked at the Ringsiedlung Siemensstadt (1929-1931) and at the multi-purpose Mommsenstadion (1930).

<http://architectuul.com/architect/fred-forbat> & <http://kg.ikb.kit.edu/arch-exil/312.php>

³¹ They developed plans for the new cities of Karaganda (Kazakhstan), Lopatinski (Volga) and Magnitogorsk (Ural).

³² The failed Moscow conference has received extensive scholarly coverage (Somer 2007, Mumford 2009, Flierl 2016). Andreas Giacumakatos (2003) instead reconstructed the complex interpersonal and institutional relationships that led to the choice of Athens as an alternative venue. On his part, Forbát attributed to Breuer the idea of a congress on board of a steamer travelling from Marseilles to Athens, where the international delegations were to meet the Greek group. This issue has been further explored by Maria Tassopoulou (2020).

³³ The event that marked the rise of National Socialism in Germany.

³⁴ Ernst Egli (1893-1974), an Austrian-Swiss architect and town planner, had moved to Turkey in 1927 where he was to realise most of his works and exert a decisive influence on the construction of Ankara as the new capital (1927-1938). Atatürk himself called upon Egli to modernise school architecture.

³⁵ Giaur (infidel) Izmir was wiped out by fire in September 1922, ten month before the compulsory population exchange ratified by the Treaty of Lausanne. As for Thessaloniki, rebuilding Izmir in Atatürk's Turkey meant erasing the cumbersome memory of the multi-ethnic Ottoman city. On opposite sides of the geo-political scene, both reconstruction plans envisaged a functional city featuring an administrative centre, the port, the university and the trade fair (Hastaoglou-Martinidis, Pallini 2013).

³⁶ Forbát's considerations were confirmed by the CIAM delegates visiting the Cyclades islands: the anonymous architecture, with its white walls devoid of decoration and multi-level sections, anticipated the principles that had been distilled for about a decade.

³⁷ In 1933, due to his Jewish origin, Adolf Sommerfeld moved to Switzerland and thence to France. In 1935 he immigrated to Palestine and in 1938 to Britain, acquiring the British citizenship. After 1945 he returned to Berlin and retrieved his activity in the postwar reconstruction of Berlin and southern Germany. <http://www.tagesspiegel.de/berlin/mann-des-moertels/4682584.html>.

³⁸ In 1938, due to the political situation, Forbát emigrated to Sweden where, in the 1940s and 1950s, he worked in urban planning, teaching at the Royal Institute of Technology in Stockholm.

³⁹ Seven years from the establishment of the RSC in 1923 to its dissolution in 1930.

⁴⁰ Rural development schemes implemented in Mussolini's Italy marked a milestone of a debate dating back to the years after unification (1861). «Integral reclamation» concerned the obligation to reclaim land for agriculture upon completion of hydraulic works, along with the urgency to fight malaria, a basic condition for permanent settlement.

⁴¹ The mutual interaction of town planning and architecture in the Italian new towns of the 1930s has fascinated many scholars (Mariani 1976, Nuti and Martinelli 1981, Besana et alii 2002, Pellegrini 2005, Caprotti 2007). Diane Ghirardo (1989) ventured to compare Fascist Italy and the American New Deal. Italian writer Antonio Pennacchi (2008) proposed an itinerary in discovery of Mussolini's new towns. Armiero et alii (2022) focused instead on fascist approach to environmental change.

⁴² The journal of the Technical Chamber of Greece TEE.

⁴³ The arengario tower reinterpreted and evoked the place reserved for public assemblies and administration of justice in the Italian cities of the Middle Age.

⁴⁴ In general, the number of plots per block ranged from 6 to 8 with an area varying from 500 to 800 square metres. In the village of Axos, the blocks consisted of 4 plots, Nea Pella instead was characterised by oblong blocks of 12 plots.

⁴⁵ Farm parcels granted to each family were scattered in various locations according to the quality of land and type of crop.

⁴⁶ Of which 628,071,472 drachmas in Macedonia and 94,190,959 in Thrace (Notaras 1934, p. 22).

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https://www.getty.edu/research/exhibitions_events/exhibitions/bauhaus/new_artist/body_spirit/architectue

<http://architectuul.com/architect/fred-forbat> & <http://kg.ikb.kit.edu/arch-exil/312.php>

https://second.wiki/wiki/carl_rabitz

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Luisa Ferro
Athens 1933.
A new theatre on the urban scene

Abstract

A small open-air theatre, designed by Dimitris Pikionis, appeared on the Athenian urban scene at a critical moment for the capital: the arrival of refugees from Asia Minor, the resulting housing problem, the ineffective policies of city expansion. In this context, the interwar architectural debate in the capital became complex, contradictory and full of ideological conflicts, and episodically found a way to develop, in particular in the construction of key architectural sites for the new neighbourhoods: open spaces and collective spaces, schools. Adding to the complexity of the debate was Pikionis with concrete responses to the unrestrained reconstruction, the savage destruction of traditional architecture, and discourses on the standard. In the same year, the 4th CIAM arrived in Athens with unexpected turns.

Keywords

Athens — Tradition and the Modern — Theatre

We have a theatre now: an open-air theatre, fully equipped, modern and built on up-to-date principles and concepts hitherto unknown in the Greek theatrical world. [...] On the corner of Heyden Street and Mavromataion Street - which is the first street on the right-hand corner of Patision Street after Alexandras Avenue and on the corner of the Field of Mars, a cool and quiet corner - in less than a month a veritable new world has been created (Kotopouli 1933).

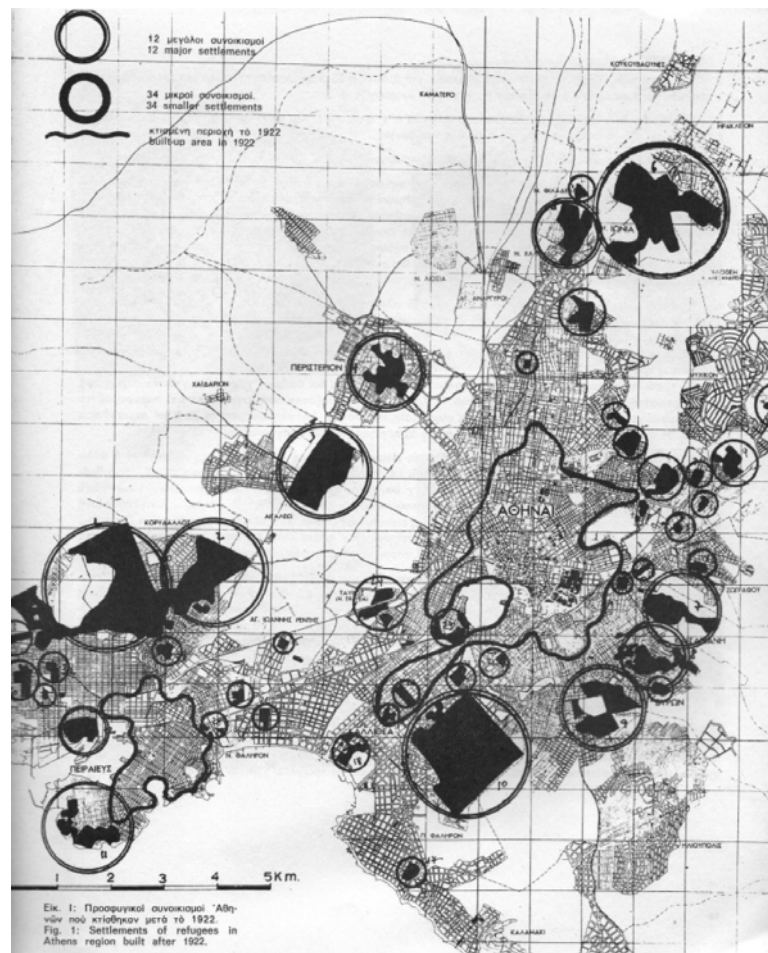
The location of the theatre was not accidental, it was a well-placed move in the Athens under construction. After all, theatres have always been a significant presence in cities, both symbolically and physically. Place (location) is a constitutive element of theatre identity. Moreover, throughout history, we find the theatres, not always in a proper building, but also in fairs, markets, farmyards, and in the gathering spaces of a community. Thus, along with theatres as clearly identifiable building types places, it is the organization of urban space itself that very often acts as the background of representations. In other words, the relationship between the theatre space as a place of performance and its surroundings is always dialectical and multiform, and above all never too neutral. Only recently has the term “environmental theatres” been coined, built in poor or transitory spaces, often in out-of-the-way neighborhoods. This is research theatre (which had already begun with the avant-garde movements of the early 20th century) conceived in close relation to the surrounding context (Brook 1968, Cruciani 2005).

Urban Scene

Modern Athens, that of Nivasio Dolcemare in Alberto Savinio's stories, was a village. A city reduced to its essentials, where the traditional contrast

Fig. 1

Distribution of refugee settlements in the metropolitan area of Athens and Piraeus, post 1922.



between town and country was stripped of meaning: it was no surprise to see herds of transhumant goats from the Pentelicus pushing their way into the centre. The crucial date was undoubtedly 1922 (the Asia Minor catastrophe, the genocide against the population of Pontos and the forced population exchange), when things changed drastically: the mass arrival of refugees completely subverted the urban policy implemented until then. (Clogg 1996) In the face of this enormous drama, it was unclear what values should find expression in the urban landscape. The city adopted the idea of a break with the nearest past: modernism became a sign of optimism and prosperity and left a wide-ranging legacy unparalleled in Europe. The orientation of architectural thought definitively degraded the role of typological invention in housing policy. For people of the shacks (poor and refugees), the price for a more humane life is the apartment block, which spreads impressively according to the logic of the market economy, the engine of a promised prosperity. This process was either self-perpetuating and transcended any urban planning programme. Beside the cultural role and architectural direction of the Modern Movement was replaced by a current "modernist" style, which became the most widespread in post-war Greece, even more than Neoclassical style.

While the Neoclassical started from the monumental models of official architecture and in minor constructions became an expression of continuity with the popular typological tradition, the modernist style distanced from the principles of cultured and refined rationalism, which sought mediation with history, as well from the heritage of tradition. Construction tended towards an international style and became a model for master builders and



Fig. 2
Athens 1933 plan, re-elaboration by L. Ferro.

Fig. 3

The Patision-Alexandras Avenue crossroads is highlighted in the state plan. The first (north-south) connects the large archaeological area, the geometric figure of the neoclassical city, the quadrilateral of the Athens Polytechnic with the new neighbourhoods to the north. The second (west-east) the rationalist neighbourhood for refugees (Fig. 6) with the self-built neighbourhood of Ambelokipi, in which the school designed by Mitzàkis is located (Fig. 7). In the centre of the crossroads is the theatre by Pikionis. (Elaboration L. Ferro)



constructors, leading to the complete negation of the past in the name of modernization. Alongside master plans never truly realized, the vast and unplanned extension of the city advanced (Christofellis 1987, Filippidis 1999, Giacomacatos 1999, Ferro 2004).

But let us proceed in order. Let us begin with the figures revealing the extent of the wave of refugees arriving in a short period and settling in Athens and Piraeus: the population increased by 30.6 per cent, according to the 1928 census. In Athens, refugees represented a quarter of the population, in Piraeus a third. The already existing housing crisis increased dramatically. In 1928, 244,929 refugees settled in the Athens metropolitan area; new expansions required the mobilization of multiple institutions and funds.

The main actors in charge of providing solutions to this colossal humanitarian crisis and organizing its spatial footprint were the Greek state and foreign charitable organizations such as the Red Cross and the Near East Foundation. Initially, the situation was perceived as temporary, so refugees were housed in public buildings or in private buildings occupied or requisitioned for the purpose. The great need for immediate accommodation led to the creation of temporary slum-like structures in open spaces in and around the urban fabric. Later on, having realised the permanence of the situation, a series of legislative measures attempted to solve the housing problem by planning new settlements.

Several institutional bodies were founded at that time: the Refugee Assistance Fund (in Greek TPP, 1922), later replaced by the Refugee Settlement Commission (in Greek EAP, 1923-1930), financed by the League of Nations in the form of an international loan. The EAP was supposed to act autonomously, without the involvement of the government or any administrative authority. However, the Ministry of Welfare, already involved in



Figg. 4-5

Two photos taken in 1933 by the painter N. Hatsikyriakos-Ghykas during a study visit to the self-built refugee settlements. (Hatsikyriakos-Ghykas Archive, Benaki Museum).

settlement construction, took over the work of the EAP after the land under its jurisdiction had been used (Kairou and Kremos 1983-84, Mandouvalou 1988, Hirschon 1989).

In a first phase, TPP (later PAE and Ministry of Welfare) buildt new settlements in peripheral areas, creating new housing and restoring existing properties, or giving land, building permits, subsidies and technical assistance. A second phase, almost parallel to the first, soon took place: land-owners subdivided their land by selling it to refugees, to build neighborhoods near organized settlements or wherever they found space, creating new self-built settlements. The settlements had an investment character, not a charitable one. Refugees had contracts for houses in the form of a mortgage, paying the rates and the rest with interest. The location of refugee settlements, in some cases exploited the proximity to industrial-manufacturing facilities. In other cases, the process was reversed. However, the main declared objective was that the settlements should be as invisible and socially isolated as possible. Social segregation was accentuated in the spatial layout of the capital with the creation of purely working-class and popular communities: «they must not disturb the normal life of Athens»¹. As the city grew over the following decades, these satellite settlements became part of the city, the previously uninhabited areas between Athens and Piraeus were completely occupied and the two cities, merged two autonomous entities even morphologically, forming a single urban complex. The settlements layout reflected a complicated and heated debate, wheter applying the principles and standards of modernist architecture (a grid system of parallel and perpendicular streets forming blocks of buildings of the same size) or those of garden cities (circular streets and symmetrical squares). The shacks were organized in rows leaving some empty spaces for communal bathrooms, toilets, laundries.

The temporary housing units provided by the OPT and the EAP were: single-family wooden houses, known as “Germanika”, as compensation for the First World War; one- or two-storey houses, single or double; two-storey houses with external stairs, arranged on square plots around a common area; two-storey houses each accomodating two families; a one-storey house with a single room and a kitchenette (about 32sqm per family) with a shared bathroom. (Vassiliou 1936)

In Athens and Piraeus, 56 neighborhoods were formed around the 19th century city, forming a belt of new buildings. The first “prototype” neighborhoods were born, such as Nea Smyrna, Nea Philadelphia, Nea Gallipoli. In addition, there are garden suburbs for middle-class social strata (Psichikó, Filothei...). However, there were very few council houses compared to the need. Thus, a large percentage of the refugees found accommodation in self-built shacks in spaces granted by the state.

Between 1928 and 1932 (Venizelos government) a more organized housing policy was set up. In the 1930s, the use of multi-storey dwellings of which the typical dwelling is about 40 square meters, according to modernist minimum dwelling standards, became increasingly common. These blocks of flats were built to replace temporary housing. The one-room housing type, which can be joined under favorable conditions, followed in detail the standard applied in the Frankfurt municipality’s programmes «for the poorest of the poor». The same standard was applied for two- and four-storey houses, again designed according to German examples (famous are those of Ernst May and Walter Gropius).

**Fig. 6**

In-line buildings for refugee flat blocks on Alexandras Avenue, 1933-35 (architects K. Lascaris and D. Kyriakos).

In spite of the Settlement Law, some very innovative standards were often not respected. In some cases, attempts are made to ease critical social situations through the cheap sale of building land. Thus the most widespread housing type remained that of minimal dwellings (one or two rooms) made of wood, stone or brick with rammed-earth floors, built on expropriated land and parceled out in square blocks bounded by an orthogonal road network (Kandilis and Maloutas 2017, Filippidis 1999).

In this context, the architectural debate between the wars (of the 20th century) in the capital became complex, contradictory and full of ideological conflicts, and episodically found a way to develop, particularly in the construction of key architectural sites for the new neighborhoods: open spaces and collective spaces, schools. Emblematic is the case of schools which became an important testing ground for modern architecture in Greece, not only in the centre, but above all in the suburbs, in the refugee quarters and in the old suburbs. Often built in the midst of undeveloped farmland, the School proves to be the only reference for a different (cultural and urban) use of the city and future development. The open spaces of school buildings became public squares and places for sports in the newly built neighborhoods. (Giacoumacatos 1985, 1999)².

A common theme in the architectural debate was that of *continuity with tradition*, its formal codification in contemporaneity. Thus, at a time when architectural culture strove to assimilate the main international currents, at the same time, in Greece, developed a movement of resistance to cultural imports, giving rise to exceptional works, revolutionary manifestations of art capable of opening a complex dialogue with Greek regionalism. In this sense, the modern transcends those limits that had hitherto been ascribed to it to develop in multiple directions.

Adding to this complex debate was Dimitris Pikionis, a (sometimes uncomfortable) protagonist of the architectural scene. Pikionis intellectual battle (individual and collective³) gave concrete answers to uncontrolled reconstruction (in Athens in particular), and destruction of the traditional architecture. The concept of modernity became increasingly subtle and elaborate, a critical reflection of the legacy of the past (Ferlenga 1999, Ferro 2004 a,b).

Pikionis took a critical viewpoint by using the concept of tradition to highlight the dehumanisation of the contemporary environment. The Greek

**Fig. 7**

Nikos Mitzákis, Liceo ad Ambe-lokipi, 1930-32, ora parzialmente demolito (Archivio di Architettura neoellenica, Museo Benaki).

idiom was a tragic voice, the spirit of dissent, a kind of “light substance” (Elitis 2005), a true category of the spirit to interpret reality. This “Greekness” had vital roots in the ancient world, going back in time (Yannopoulos 1909, Pikionis 1927, Psomopoulos 1993). And the refugees were not “other” than the Greeks, they were part of it. Figures, types, forms of houses, of life and art, everything expressed the same origin. Pikionis reversed the trend on the figuration of the house, identified the characters of that light matter, that ‘red thread’, which gave continuity to the architecture of the Greek gave tradition (including that of Asia Minor) from the typologies of antiquity to the forms of contemporary spontaneous dwellings (Pikionis 1927). The Greeks were up to Asia Minor now in the suburbs of Athens in barracks.

The meaning of tradition had a very broad scope. Tradition was not a heritage that could be easily inherited; those who had to conquer it with great efforts. Art did not improve but was in constant motion. Places had to be studied in their formal values, in their configuration, in their topography, as a spiritual value for the mental associations they could evoke mythical and archaic images that give meaning to things.

«The architect’s work is not to invent ephemeral forms, but to revise the eternal figures of tradition in the form determined by the conditions of the present» (Pikionis 1925, 1927, 1950-51).

The aim was, on the one hand, to preserve popular art that was falling into oblivion and, on the other hand, to hand down memory in contemporary design. «We must not lower us in the direction of vernacular art, in search of the picturesque or genre fascination, but in order to search for leaven to make our work grow» (Pikionis 1927, 1950-51).

To ignore the rhythm of the landscape, Pikionis often wrote, the demands of life in the name of functionalist slogans is to become an uncritical importer of a culture that demands, on the contrary, to be utilized and transformed by imagination.

In opposition to modernist slogans, he proposed formal principles that enshrined poeticism in minimal spaces, which is not a question of square footage but of variation of type, of working on the autonomy of the pieces of the composition, on the volumes and levels that shape the terrain⁴.

To the standard he opposed the theme of diversification of the universal type:

Infinite are the variations that can thus be applied to the basic form. And the line mysteriously takes you now towards the ancient, now towards the medieval, now towards the primitive, now towards a popular neo-classicism. And it is up to you, if you know the mysterious language of form, to express that particular form that would be the symbol both of the deepest essence of your tradition and of the time in which you live. (Pikionis 1925, 1927, 1950-51; Psomopoulos 1993; Ferro 2002a, 2004c)

Thus, the concept of modernity became ever more subtle and elaborate as a critical reflection of the legacy of the past. Conveying the true meaning of domestic spaces was the task of architecture, that is, to express the poetry of everyday life» and to help Greeks remember that kind of "identity of thought" in which even refugees could recognize themselves.

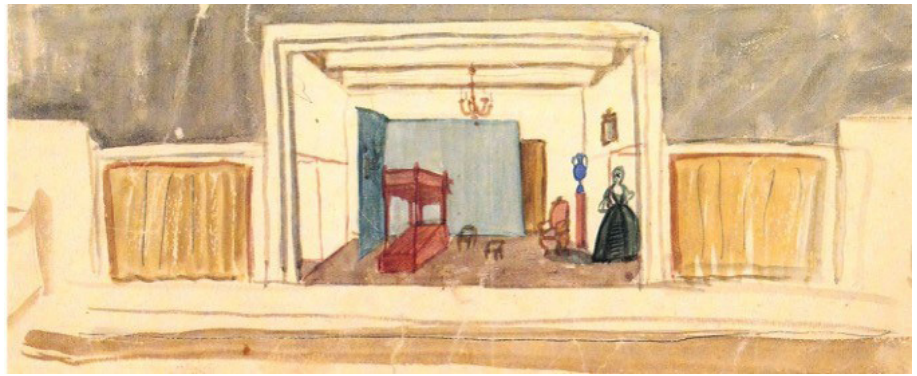
So he studies the refugee villages with their self-built houses, drawing from them a kind of substantial form of human habitation, which basically tells us how cities came into being. He also took into account that many of them had indeed become poor, but they were cultured, well-educated people. «Even in the poorest houses made of old planks and pieces of tin and tar paper, one could find the golden section of Pythagoras. ... We then gained exceptional experiences from our contact with space, a space that confused us, that was neither indoor nor outdoor» (Hatzikyriakos-Ghykas 1934).

The Theatre

As mentioned in the introduction, the location of the new Pikionis Theatre in the city had a very specific meaning. It was located at an important crossroads, the matrix of the future city. The perpendicular axes could have constituted in turn itineraries studded with important urban facts of modernity, specialized places, collective spaces for the city.

Mavromataion Street, run parallel to Patisision (28th October Avenue, the street of the Athens Polytechnic, the Archaeological Museum and the Academy of Art) and with it defined a narrow strip of blocks reaching the Field of Mars, the great green area of the 1920s master plan. Patisision was born from the geometry of the Neoclassical plan for the new capital, the work of genetic engineering, which reshaped the *forma urbis* and compacted in the mesh of the triangle Sintagma, Omonia, Keramikos (Mandouvalou 1988). It was the matrix of an orthogonal (almost Hippodamian) development linking the ancient city to the northern peripheral districts. The design begun with the first expansions (1864- 1909). Following the figure of the orthogonal chessboard, the master plan (Kalligas, Hébrard 1920-25) drew, Avenue Alexandras (north of Mount Lycabettus). The axis connected Patisision with the new neighborhoods to the east, that is Ambelokipi. The design of the planned crossroads was at odds with the rest of the city, which proceeded haphazardly and without coordination (Biris 1966, Filippidis 1999).

These axes line a number of important architectural landmarks: among them the linear blocks of houses, the houses for the "poorest of the poor", shreds of the rationalist city arranged perpendicularly on Alexandras Avenue and facing the green area of the Field of Mars, the Mitzakis school in Ambelokipi immersed in the scene of self-built refugees shacks. And so, in the centre of this important carriage house, the new theatre was established in June 1933, to give new opportunities of entertainment to the neighborhoods under construction, opening up new, even dramatic perspectives, in the city.

**Fig. 8**

G. Steris, *The Theatre M. Kotopouli* by D. Pikionis, 1933 (D. Pikionis Collection, Archives of Neo-Hellenic Architecture, Benaki Museum).

A kind of anticipation of the Biris 1946 master plan (never fully realised): Patision and Alexandras as the new crossroads of the contemporary city. Alexandras connects Kolonos (ancient Academy) with Ambelokipi, Patision the large archaeological area, the design of the capital city with the northern neighbourhoods. New urban places, city design and refugee neighbourhoods within a defined, geometric urban design (Mandouvalou 1988, Filippidis 1999).

In Greece, experimentation with open-air theatres had important contributions.

Despite Greece's marginal position in the theatrical world, Sikelianos, Eva Palmer, the painters Tsarouchis, Steris, Papalukas, Hatzikyriakos-Ghykas contributed, in a way influenced, the changes and experimentation on theatre architecture in the early 20th century (Fessas-Hemmanouil 1999, Ferro 2004b). It was a return to the theatrical tradition of ancient Greek culture and to certain popular performing traditions, a kind of "transmitter of Greek thinking", a factor of identity even for those who came from distant Asia Minor. It evoked a time when theatre was not in a dedicated building, but on moving stage, chariots, raised platforms; spectators were standing or seated at tables, in front of a glass, taking part in the action, replaying the actors; theatre done in backrooms, attics, barns; one-night stands, a tattered sheet pinned to either end of the room, battered panels concealing rapid changes. The problem was not whether a building was beautiful or ugly depending on formal code: the theatre building must become an extraordinary meeting place or it remains unresolved, cold, empty. This was the mystery of theatre and of the architecture of the small theatre by Pikionis encompasses this mystery. It could be a puppet theatre, a shadow play or, as in this case, classical and avant-garde performances (Brook 1968).

The theatre consists of the architecture of a stage set (designed as a prototype) within an enclosure that, like the ancient Dionysian theatre, is open to the city:

All around is a high wall with a promenade with a decorative iron railing. A booth next to the entrance houses the ticket office, while a small building in front of us as we cross the threshold contains a large, comfortable bar. But there is nothing else inside the new theatre, and even these few structures are simple, without any particular decoration. Yet the simplicity is imbued with grace and an aesthetic concept. (Kotopouli 1933)

There were no seats. Chairs (old chairs from the Attic Cinema) were available stacked in a corner. Or else they could be brought from home. «There will be 995 such seats in the stalls, with about two hundred at the back, like a sort of gallery, and it will be possible to place another 150 around the stage at each evening performance» (Kotopouli 1933).

Figg. 9-13

Dimitris Pikionis, Theatre Marika Kotopouli, 1933 (D. Pikionis Collection, Archives of Neo-Hellenic Architecture, Benaki Museum)

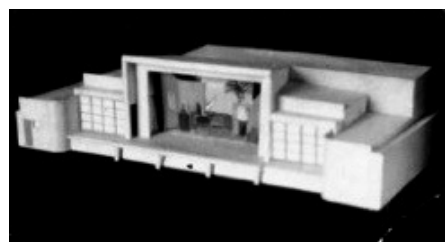
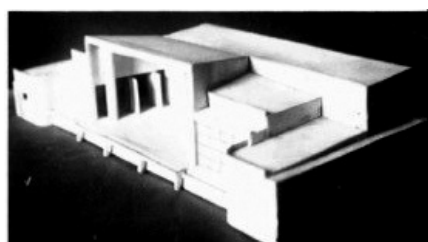
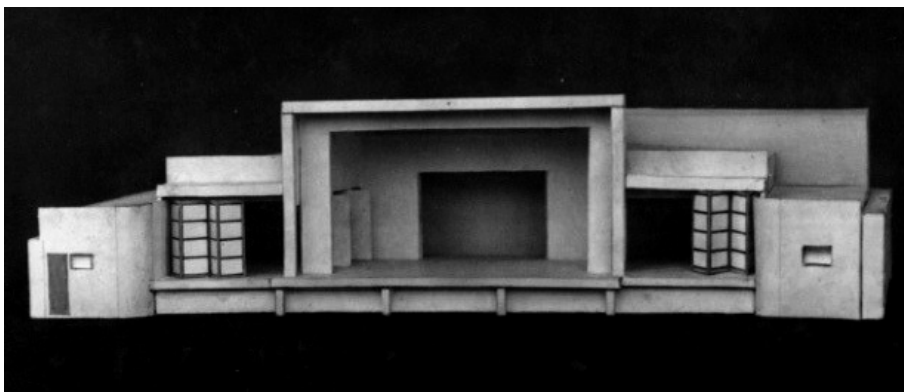
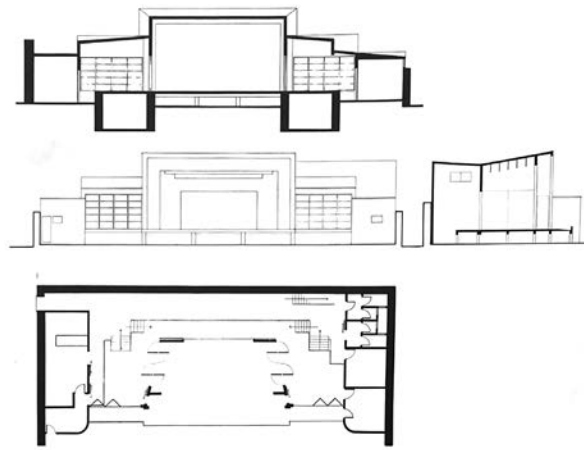


Fig. 14

Dimitris Pikionis, Theatre Marika Kotopouli, 1933 (D. Pikionis Collection, Archives of Neo-Hellenic Architecture, Benaki Museum)



The important part of the new theatre (the only one) was its stage. And it was this dimension that gave it its character, that made it different, that made it a truly valuable acquisition for the Athens of the time.

The stage building

is unusual, especially in that it is divided into three parts, and is quite dissimilar to what we have so far called by this name in Greek theatre. The Athenian scenic space originated from imported models that, in turn, were connected to a basic concept borrowed from painting: that is, the possibility of creating an impression by suspending scenic backdrops and trying to obtain a maximum of perspective. This concept ignored entirely the structure of the building in which it sought to reproduce the desired impression. However, modern developments in the theatre (Kandinskji for example: light and color instead of scenes, or Gropius with his theatre) have introduced the predominance of an architectural concept, i.e. they aesthetically take care of the envelope and the stage by attempting to achieve the atmosphere sought by the author with simple and clear details, without making use of pictorial effects, but rather by using space and a suitable adaptation of color, form, masses. (Pikionis 1958)

The new theatre will have walls on both sides, like walls, which will enclose the stage and truly give it the form of a room, into which the actors can only enter or leave through real doors. Thanks to a special mechanism they can open in the middle and rotate to act as wings. But in addition to the main stage, there are two smaller stages at the sides, where scenes of secondary importance can be performed. ... When the curtains closing the central stage are open, the three-part stage will form a single unit, with only two pillars to remind us of the partitions. (Kotopouli 1933)

Pikionis quoted Japanese theatre as an example, understood not as a kind of permanence of a universal original form. The architecture of the stage was a return to ancient theatre, even to that of the *Mansiones*, the demountable rooms of medieval theatre. But above all it was a reference to popular theatre, to the white cloth of the hut where the animator of the Shadow Theatre moves: «The shadows of the Karaghiosis theatre descend from the mysterious ancient cinema, from the play of shadows projected on the wall of a cave, to which Plato compared our memories» (Yourcenar 1989). The theatre was demolished to make room for new building lots.

IV CIAM

On the first of August, the steamship “Patris II” of the Neptòs company arrived in Piraeus after three days of navigation, with the hundred congress participants on board. The great spectacle of the 4th International Congress of Modern Architecture begun and they were completely unaware of the Greek context and the ongoing architectural debate (Bottoni 1933; Ferro

2002a, 2004 a,c). True, on this occasion the charter of the rational city was drawn up, but it seemed almost out of place: Athens was already going further, in good and bad.

[...] It is hard to imagine a contemporary city as degraded as Athens. Perhaps nowhere else is the lack of a capable and wise creative spirit, of a will capable of counteracting negative forces, so noticeable.

It is fair to say that awareness of this situation is a matter of individual conscience and responsibility: it is natural and human - but perhaps also necessary - to feel diminished, at least the most sensitive of us, when confronted with the state of our city and the ideal solutions, and the efforts of contemporary urban planning. [...] This land is not just any land. Its spirituality is a supreme model, insistently demanding to be applied by dominating and integrating all other demands of functionalist architecture and urbanism. Of course, I am not just talking about a physical place, but also a spiritual place.

Thus I find the operation that every artist must perform twofold:

1. bring his work back to the rhythm of the landscape; 2. submit it to the sacred demands of life. The first operation requires a harmonization of the potential of the spaces, volumes, forms and themes of the work in relation to the dynamics of the light, the rhythm of the landscape, the nature of the climate. [...] The second operation presupposes acute psychological observation, a sensitivity capable of registering and then giving form to the hidden virtualities of our lives. [...]

This twofold operation has no rules. It is, as El Greco says for painting: action, purely personal inspiration. Judging by the form the new movement is taking in our country, I must say that this is the operation we all need to perform, along with all the others, if we want to be cultured operators rather than importers of civilization.

This alone will make us capable of critically reading the transitory mottos of art, which for reasons of polemics and the need to define an artistic movement (rationalism) limit it, excluding the potential of a multitude of virtues, thus limiting the concept of Art.

It is necessary to reflect better on the solutions that the West offers us, in order to avoid what is fast becoming true: the crystallization of a new banality, the establishment of a new academicism. (Pikioins 1933)

The event of the Congress is well known, yet is important to emphasise a kind of “hidden” debate concerning Greece and the concept of tradition. Anastasios Orlandos’s speech during the ceremony on August 3rd at the Polytechnic and Pikionis’s paper, gave an unexpected twist to the proceedings⁵.

Notes

¹ Updated studies have recently been published, see Myifa and Stavrianakis 2019 and Klimi 2022.

² In 1930, Minister Papandreou reformed the Technical Office of the Ministry of Education by establishing a «Directorate of Architectural Services». Head of this office was Nikos Mitzàkis (1899-1941), whose presence became fundamental in defining architectural character and cultural role of schools in the city. Among the design staff was the architect Patroklos Karantinos (1903-1976, a pupil of Pikionis), one of the main advocates and defenders of Modern architecture in Greece linked to the experiences of European rationalism and manifesting a critical awareness of history rooted in the building tradition of the Greek islands.

³ «And then there were the others: Kòndoglu, Papalukàs, and the architect Mitsàkis, Stratis Doukas and Velmos; and then the younger generation: Ghikas, Tsarouchis, Engonopoulos, Diamantopoulos. How many fruitful lessons were drawn from the con-

text between these different spirits, from the antitheses that each of them represented! I honestly do not know what I could give them in return. But I am aware of what I got from each of them» (Pikionis 1958).

Pikionis was the protagonist of real intellectual battles. The guiding principles of these battles also became a vital part of his teaching. A large group of artists and architects, who called themselves Omada Filon (group of friends), worked on them. With the magazine *To Trito mati* (The Third Eye, 1935-37) and other events related to it (i.e. the 1938 exhibition on Greek Folk Art), Pikionis clarified the research direction he intended to take with respect to the Modern Movement.

⁴ In the early 1950s, with the Exonì project and the magazine of the same name, Pikionis fine-tuned his way of thinking about living through a renewed idea of the city. Exonì was a manifesto through which didactics, experimentation and the theory of composition became a motif for reflection, but also a philosophy of life. Every part of this small settlement was designed for refugees and homeless people. On this subject see Ferro 2014.

⁵ Le Corbusier himself, after the congress, manifested a new line of research: modern spirit and archaism, human scale and landscape became the new themes of his architecture. The French architect was strongly influenced by his second and last trip to Greece. In 1934, Christian Zervos, editor of the magazine *Cahier d'art*, wrote a book on primitive art in Greece and published Panos Tzelepis' article on the houses of the Greek archipelago. Le Corbusier's article "La ville radieuse" dates back to 1935: «In 1933, the Congress of Modern Architecture was held in Greece: we travelled around the islands, the Cyclades. The deep, millenary life remains intact. We discover eternal houses, living houses, of today, which rise from history and have a section and a plan, which are precisely what we have imagined for ten years. In this place of human measure, in Greece, in these lands open to simplicity, to intimacy, to well-being, to the rational still guided by the joy of living, the measures of the human scale are present... ».

The journey to the islands is also documented in: Hatzikyriakos-ghykas 1987.

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Federica Pompejano

“Të bëjmë fshatin si qytet!”.**The urbanization of the countryside in socialist Albania**

Abstract

In the aftermath of the Second World War, the communist party came into power in Albania where most of the society consisted of the peasantry. In line with the Soviet model, the new society that the regime aimed to build was constituted of two social groups creating the working mass: workers and peasants. To pursue the ideal of a new socialist society, efforts in bridging the distances and differences between the urban and rural contexts were conceived as a priority and went on in parallel with the land collectivization process, agricultural mechanization, industrialization, and electrification of the whole country. Under the party maxim “Let’s make the village a city!” the urbanization of the countryside was a declared and tangible project toward a modern socialist rural life. Through the examination of archival documents and literature preserved in the main Albanian State archives, this paper underlines which were the new urban planning approaches and settlements’ schemes in rural areas and the main architectural elements composing the new Albanian socialist village.

KeywordsSocialist urban planning — 20th century rurality — Socialist Albania

After the Second World War, Albania developed a harsh dictatorship converging in the socialist ideology. The country, until then considered the most backward in Europe, with a traditionally agrarian society (Kopsidis and Ivanov 2018, p. 36; Brochert 1975, p. 177), started a rapid modernisation process that led to the industrialisation of the major cities and the urbanisation of the countryside. From the very beginning of the dictatorship, this development was sustained, by foreign help from the East European countries and the Soviet Union. The new Albanian society inspired by the Soviet model had space for two main social groups: workers and peasants, that together with the *intelligjencia*, formed the working mass of socialist Albania (Czekalski 2013, p. 82).

In August 1945, the Agrarian Reform Act introduced the principle according to which «the land belongs to the person who cultivates it» and allowed the confiscation of all large properties including these belonging to religious communities. The confiscated land was divided among the peasant families, that until then, owned no or little land. Meant as the first step towards the new socialist life, the Agrarian Reform Act was the very first social-economic scheme implemented by the regime. The implementation had also a political and cultural impact on the peasant population. The impact of political coercion was exemplified in the subjecting of the mass to socialist ideology, underlining its close and direct “democratic relationship” with the state (AQSH 1950, pp. 2-5). Cultural impact was reflected in the opening of schools and public services, and in the great campaign against illiteracy. The collectivization process went alongside the establishment of cooperatives and state farms and was slow (Czekalski 2013, p. 72), ending only in the late 1960s.



Fig. 1
Cover of the periodical *Bujqësia Socialiste* celebrating the 30th years of Albanian Labour Party and the announcement of the imminent ending of the electrification supply campaign in the country expected in 1971 (*Bujqësia Socialiste*, 1, 1968, cover).

At the same time, the regime laid further emphasis on bringing more land under cultivation by reclaiming swamps and marshlands (Brochert 1975, p. 181). The main swamps in the Albanian plains, such as those in the Myzeqe Plain and Korça plains, were reclaimed and transformed into arable land and provided with a rational system of water sources for irrigation. By carefully looking at the territory, it is possible to observe the extension of the vast water network composed of pre-existing main rivers, waterways, and lakes, to which the regime added new water basins, canals, and reservoirs. Following the reclamation of marshy and saline lands, many works of arrangement, embankment, or deviation of water courses were realized by the technicians aimed at implementing the irrigated surfaces. Furthermore, from North to South, the hills and halfway mountainous profiles were shaped in terraces that transformed into bands of arable and cultivated land, mountain pastures became into cultivated fields.

In 1967, 730 villages were provided with electricity (Instituti i Studimeve Marksiste-Leniniste 1974, p. 408) corresponding to 29% of the rural villages of the country. The directives of the Plenum of the Central Committee of Albanian Labour Party, held in December 1967, anticipated the achievement of providing electricity supply in all rural areas by November 8th, 1971; a Party's priority was already expected to be achieved in 1985¹ [Fig. 1].

In this context, rural landscape, urban planning, and architecture were placed at the service of industrialization and urbanization implemented through development aid from the Soviet Union until 1961, and there after from China until 1978 (Mëhilli 2017, 98).

Furthermore, in Socialist Albania issues of urban planning and architecture were related to demographics forecast – in view of the prospective developments of industry and agriculture, cities, and villages – yet conditioned by the economization of the productive and arable lands and fast-paced process of reducing materials and construction costs.

The establishment of agricultural cooperatives and state-farms in the new post-war rurality

Since the collectivization process began alongside the implementation of the incessant propaganda to produce the new modern society conditioned a socialist architectural, construction, and planning code that led to the impellent urbanization phenomena significantly reflected in the rural landscape. During the implementation of the new socialist rurality, Albania adopted two types of rural economies: the *Ndërmarrja Bujqësore Shtetërore* (NBSH), i.e., the agricultural and livestock state-enterprise or state-farm and the *Koperativa Bujqësore* and *Koperativa Blegtorale* (KB), i.e., the agricultural and livestock cooperative². These economic models reflected in two main types of rural settlements: the new socialist agricultural centres built from scratch in reclaimed or most suitable land, and cooperative settlements encompassing existing villages as well as new agricultural centres (Faja, Sukaj and Shehu 1990, p. 4). Most cooperatives started on a village basis, but later several settlements were combined to form bigger units. As Brochert (1975, p. 185) reported, the number of agricultural state farms increased from 13 in 1947 to 32 in 1968, whilst the number of agricultural cooperatives, , decreased from 1208 in 1967 to 643 in 1970 (Geço 1973, p. 37). This was due to the impellent need to transform one of the two social forms of property, namely, the cooperative property, into state property by transforming the major cooperatives into state-farms.

The collectivisation of the land and the mechanisation of the agricultural sector also led to the rapid urbanisation of the countryside. The latter covered a long span of time and was conceived as a complex process strictly linked to and coordinated with the socialist political ideology, the industrialisation processes, the strengthening of the socialist output relationships, the intensification of agricultural output, the country's electrification campaign, the implementation of urban masterplans and the socio-cultural propaganda of the regime. The socialist intent of reducing the differences between the urban and rural areas converged into an effort for creating new socio-spatial settlements for the new society in the making³ [Fig. 2].

Therefore, the development of new rural settlements was a pivotal element in the rural landscape transformation. The minor settlements were to gravitate on major ones and major ones were to be connected the main cities, trying to materialise the communist system of economic, production, and socio-cultural relationships that had to determine the functional structure of the environment (Gutnov et alii 1968, p. 27). Hence, the countryside urbanization process manifested itself in the specific schemes and designs that the regime aspired to implement. The establishment of agricultural cooperatives and state-farms economies and the mechanization of agricultural production necessarily led to the re-organization of the Albanian village. In this sense, of particular interest are the agricultural settlements based on socialist rural planning principles with the intent to create and strengthen the cooperation between the working class and peasants, by narrowing the differences between towns and villages. As Londo (2022, p. 26) pointed out «The identification of the spatial changes following the principle of narrowing the difference between the city and the village [...] can be classified according to a hierarchical system going from the macro-regional to the micro-local scale». At the territorial level, the changing of rural “space” was reflected in the development of masterplans with the intention of ruling and organizing the new post-war rurality and its relationship with a socialist urbanity at different scales. Nevertheless, as also Mëhilli noticed (2017, p. 160), the intricate central planning and the inexperience of professionals and technicians preceded and postponed urban planning evolution.

The overall configuration of the socialist Albanian village

From the analysis of the archival documents preserved at the Central State Archive (AQSH) and Central Technical Constructions Archive (AQTN) in Tirana, it has been possible to retrace the excursus of the urban planning legislative framework identifying the main functional zones and architectural elements characterizing the masterplan of the Albanian socialist village.

The functional zoning of the new socialist village was composed of the residential zone (*zona e banimit*) and the economic zone (*zona ekonomike*) that were arranged to form a grouped settlement. Schemes varied in relation to topography but also according to the distance from national roads that, pivotal in deciding the future urban development of the rural village. The architectural elements forming the residential zone were the individual and collective residential buildings and the common public spaces between them, the streets and squares, the parks and sports fields, the *centre of the village*, and the socio-cultural and administrative buildings. The economic zone could be composed of different architectural elements depending on the economic and productive vocation: i. e., livestock, ag-



Fig. 2

View of a new socialist rural village and a scene from socialist rural life. The text in between says "New villages, new people" (in 40 vjet Shqipëri socialiste, 1984, p. 92).

ricultural or industrial, of the cooperative or state-farm. Usually, although not adjacent, the economic zone was placed in proximity to the residential zone to facilitate workers commuting. [Fig. 3]

Since the 1950s the path towards the *standardization of architecture* also concerned rural housing. The method borrowed by the Soviet Union consisted in the designing and developing standard types that could be applied in different contexts on a large scale⁴. *Typification (tipizimi)* or standardization (*standardizimi*) was considered the principal method of socialist architecture and urban planning⁵. In Albania, however, it had to deal with research and debate around the *national character of architecture (karakter i kombëtar i arkitekturës)* that tried to avoid monotony by delving into and emphasising the historical characteristics of local traditional architecture⁶. As in other socialist countries, also in Albania studies no rural housing types varied and produced a repertoire of workable solutions that, throughout the dictatorship, evolved from one-storey single-family houses and simple two-storey townhouses to four up to five-storey collective housing. The latter typology was most likely to be found in peri-urban areas and new industrial cities. Since the late 1970s and following the directives of the Decree of the Presidium of the People's Assembly (DPPA) no. 5747/1978 to increase the construction index and therefore the population density in the countryside, without compromising productive agricultural

**Fig. 3**

From left to right, example of rural housing in Rëmbec, Korça district (row 1); ruins of the Museum of the Village and the House of Culture in Rëmbec (row 2); agricultural and livestock breeding buildings in the former economic production zone of Rëmbec (Pompejano F., 2021, CC BY-NC-SA 4.0).

land, the housing to be built in the villages of the agricultural cooperatives had to be minimum two-storeys high and possibly grouped in two-storey townhouses' general plans. In the major villages of the agricultural state-farms instead, they had to preferably be built as collective housing (*banesa kolektive*) up to three or four-storey high. Typification was also applied to other architectural elements such as the elementary schools and kindergarten, the administrative, municipal, and health services buildings and the state retail shops so-called *Magazina Popullore (MAPO)*, the cultural buildings such were the House of Culture (*Shtepi Kulture or Vatra Kulture*) and the Museum of the Village (*Muzeu i Fshatit*).

In the urban texture and architectural portfolio of the new Albanian socialist rural village, the *qendra e fshatit*, namely, the centre of the village, played a key role as a socio-cultural and propaganda space. Conceived as an architectural ensemble formed by the main square and central streets around which to build the socio-cultural, administrative, and commercial buildings, the *qendra e fshatit* was the space envisaged for the daily de-

velopment of the new social and cultural rural life. Therefore, it was considered the most important urban unit in the masterplan, around which to arrange and structure residential development and expansion.

Finally, also in the economic zone, design types (*projekt-tip*) were developed for the construction of warehouses for the collection and storage of agricultural products, deposits for the recovery of agricultural machinery, mechanical workshops, and stables for intensive livestock breeding.

Towards the urban planning for a socialist rurality

The advancement of socialist production needed, also in the agricultural sector, the creation of new and increasingly massive territorial-agricultural-industrial complexes, bounding to regroup the working mass at selected geographical points. In the countryside, the new rural economies had to find a correspondent functional structure; the forthcoming socialist architects and urban planners had to be considered the «organizers of [the] social process in time and space» (Gutnov et al 1968, p. 7).

On August 9th, 1947, a Commission for the study for the masterplans of the new rural villages, composed mainly of representatives of the various sectors of the Ministry of Agriculture and Forestry and of representatives from the Ministry of Public Works, the Ministry of Education, the Ministry of Health, and the Central Committee of Cooperatives, met to discuss some issues relating to the design and characteristics of the new rural settlements (AQSH 1947, 4). The Commission agreed that the most suitable areas to settle the new villages were the plain or the gentle hilly slopes with a surface able to ensure to each family a plot of land of about 800-1500 m² and the possibility of a future expansion of the settlement. The design phase of the masterplans was initially appointed to the new-born *Ndërmarrja Studime, Projekte, Kolaudime*⁷ under the supervision of the Ministry of Public Works and in close collaboration with the Ministry of Agriculture and Forestry and the representatives of other Ministries. For each new village, the number of resident families, and the types and number of buildings had to be provided in the masterplan. The Commission addressed every aspect of the issue, appointing each Ministry with different tasks. For instance, the task of designing the most suitable rural housing types in relation to the agricultural production vocation and directives of the settlement was charged to the Ministry of Agriculture and Forestry. Hence, while the Ministry of Health had to decide where, among the new settlements, to build small medical clinics, the Ministry of Education had to plan where to establish schools and of which level, considering on the number of families foreseen by the masterplan, as well as the study and design of socio-cultural buildings, such as small cinema, reading rooms, sports fields, and squares.

Ten years later in 1956, the urban planning of the new villages was still critical: the only drafted masterplans were these of a few *Stacionet e Makinave dhe Traktoreve* (SMT), the Machine and Tractors Stations and the masterplan of the villages of Orman-Pojan and Nishavec in the Maliq Plain (AQSH 1956, p. 32). A report submitted in 1956 by Josif Pashko, the Minister of Construction at that time shows the backwardness of urban planning works in rural and urban areas, due to the lack of trained specialists and a stable and efficient organizational and management structure of planning bodies during the first decade of the regime (AQSH 1956, pp. 34-35).

To overcome the situation, Pashko suggested the establishment of a dedicated urban planning department at the Ministry of Construction, and «[...] to benefit from the experience of socialist countries, especially from countries like ours, [there is the need] to send engineers and architects [to get scientific-technical expertise]. [...] [and] to extend the stay of the Bulgarian architects working at the Urban Planning Sector of the Ndërmarrja 'Projekti'» (AQSH 1956, p. 38). He also attached to this report a very first draft of a Decision of the Council of Ministers (DCM) addressing the problems highlighted around the drafting of the masterplan of cities and of industrial and agricultural settlements.

Therefore, in the aftermath of this debate, two legislative acts were issued. The DCM no. 2974, October 12th, 1959, *On the drafting, approval, and implementation of cities and residential centres' masterplans* and the complementary Regulation *On the planned construction of cities and residential centres* was issued to regulate the urbanized areas. In the introduction written by Pashko, the Regulation was declared to be «based on our experience of constructions in cities and residential settlements of our country» with reference to «foreign literature» (AQSHa 1961, p. 8). It was approved with DCM no. 282, August 16th, 1961, and sealed by the first Deputy Chairman of the Council of Ministers, engineer Spiro Koleka⁸. The first attempts to regulate the construction of buildings in rural areas were firstly reflected in the Decree of the Presidium of the People's Assembly no. 3303, July 24th, 1961, *On saving the land fund in construction and other works* that tried to reduce the misuse of arable land ruling the construction works in the countryside. Until then, construction works came before urban planning, which did not exist.

A few months later, in October 1961, the Ministry of Agriculture in collaboration with the Ministry of Construction issued a brochure titled *Urban Planning of Agricultural Centres (Projektim Urbanistik i Qendrave Bujqësore)*. This brochure provided overall guidance for the selection of the most suitable locations for the establishment of agricultural cooperatives' residential and production zones, with information, materials, and normative data for the drafting of the regulatory masterplans. These guidelines were meant to inform the agronomists, zootechnicians, building technicians, and directors and administrators of agricultural cooperatives (AQSHb 1961a, p. 64/1) and were developed upon the directives of the 4th ALP's Congress, during which Enver Hoxha demanded: «to pay attention to the future development of the villages, which should not only consist in agricultural-economic centres, but also important residential, cultural and educational settlements, to truly represent the new socialist village» (AQSHb 1961, p. 64/3).

This brochure was the first practical and official attempt to regulate urban planning and construction works in the countryside. It described the climate of the country and the geological composition of lowland rural areas; the conditions and aspects to be considered for the location of the residential and production areas; the circumstances allowing the relocation of existing villages and the consequent displacement of population.

The urban planning scheme was supposed to vary with respect to the survey, with the suggestion to adopt a square urban grid in plain areas and an arrangement along the contour lines in the case of hilly terrain. [Fig. 4]

The residential zone had to be located at a higher altitude than the production zone and was divided into administrative, socio-cultural, and housing areas. The organization of the village had to consider the local conditions,

paying attention to pre-existing buildings, especially those of historical value (AQSHb 1961, p. 64/14). However, within the residential zone of the new socialist rural village, the smallest and most important spatial unit was the individual plot or parcel (*ngastër individuale*) belonging to each cooperative member (AQSHb 1961, p. 64/16). The individual plot was composed of the courtyard in front of the house (*oborri para shtëpisë*), the house plot (*trualli e shtëpisë*), and the vegetable garden (*kopështi*) (Fig. 5). It had to be rectangular in shape and cover maximum area of 300 m² including the surface intended for construction of the house; the latter had to be placed transversely along the longitudinal axis of the parcel, at 3-5 m from the street and 4 to 6 m from the adjacent houses.

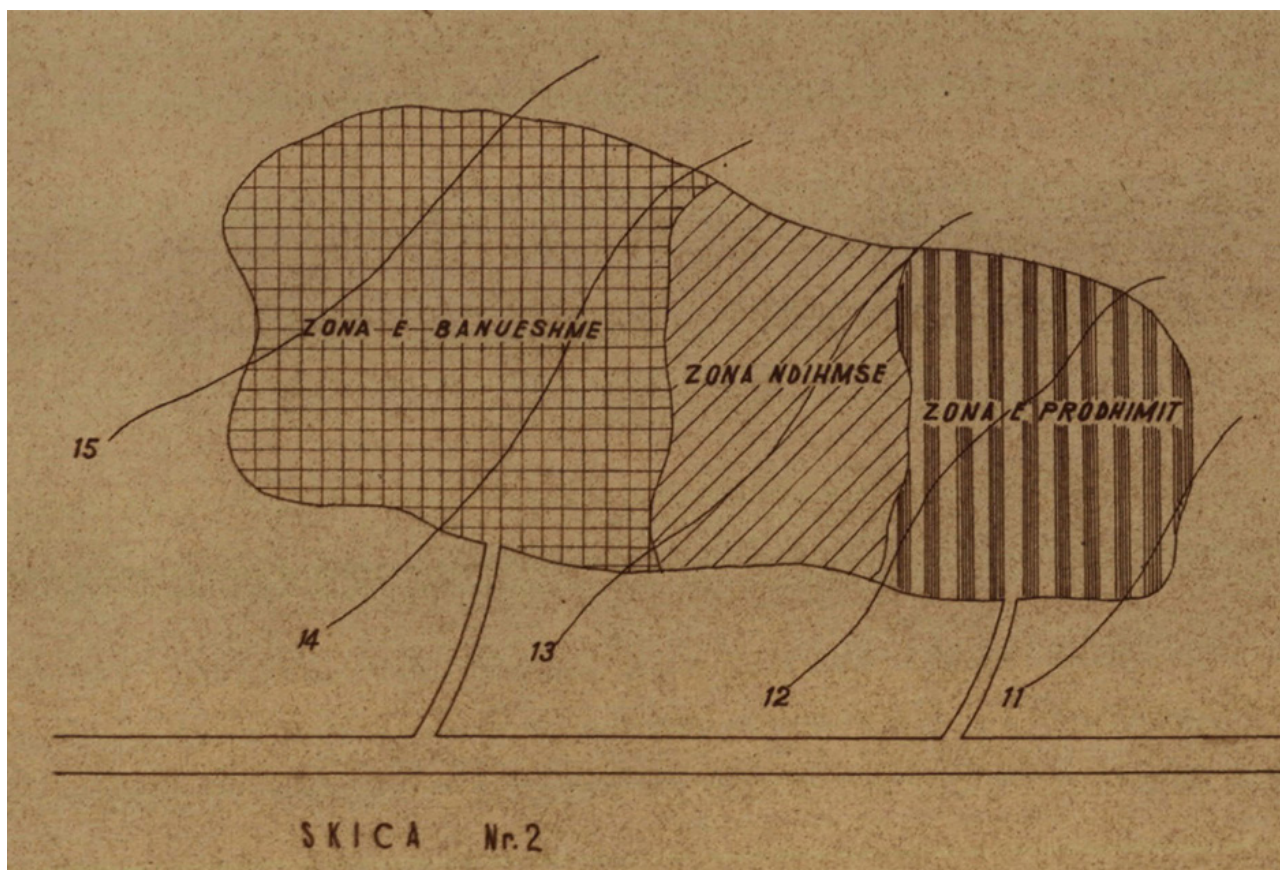
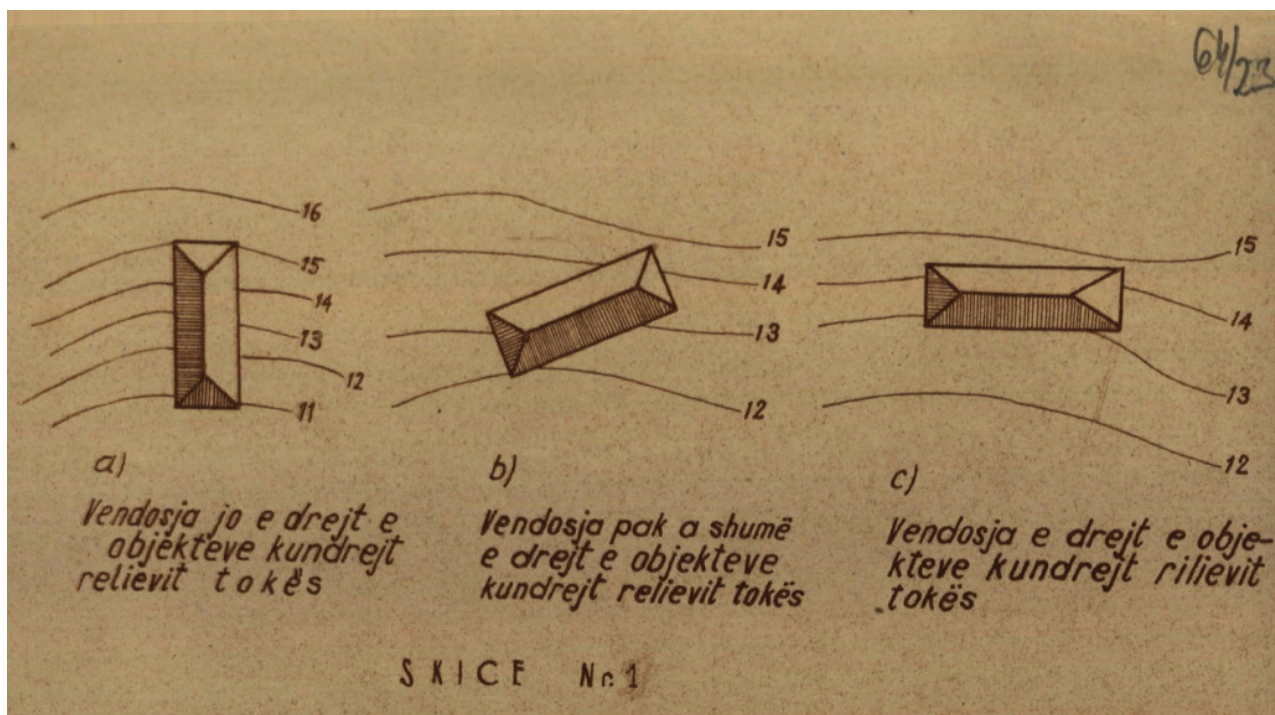
The production zone, including also the auxiliary intermediate zone, was placed in a favourable position with respect to road connections and land cultivated with forage, paying attention to protect the buildings from wind exposure. It comprised all buildings and services intended for intensive farming, the conservation and storage of agricultural products, and related services aimed at maximizing the mechanization of the work processes.

This brochure is important to reconstruct the general urban planning legislative excursus in relation to socialist rural planning in Albania. These guidelines attempted to incorporate the socialist ideology and planning applied to the peculiar Albanian context, in a period when urban planning was an “uncertain ground” either as practice or in theory. Moreover, this document set the beginning of a series of future orders, decrees, and regulations that were to constitute the legislative references for the study of urban planning evolution in Socialist Albania and that culminated in 1978 with the approval of the Decree of the Presidium of the People’s Assembly (DPPA) no. 5747 *For the drafting, approval, and implementation of masterplans of cities and villages* and the respective Regulation *For the drafting and the implementation of masterplans of cities and villages*, approved by the DCM no. 47, July 10th, 1978 (AQSH 1978a, p. 70, AQSH 1978b, p. 102).

The end of the 1970s also coincided with the split from the bilateral relation with China and with the consequent harsh self-isolation of the country. The introductory text of the decree clearly mirrored this historic moment:

[...] the design and construction of cities and villages with a socialist content and a national physiognomy, against any influence of bourgeois and revisionist ideology, for the concentration and grouping of buildings, saving as much as possible the agricultural land, and especially the arable land, for [providing] the solution to current urban planning problems and [giving] perspectives on the basis of scientific studies [...] (AQSH 1978a, p. 63).

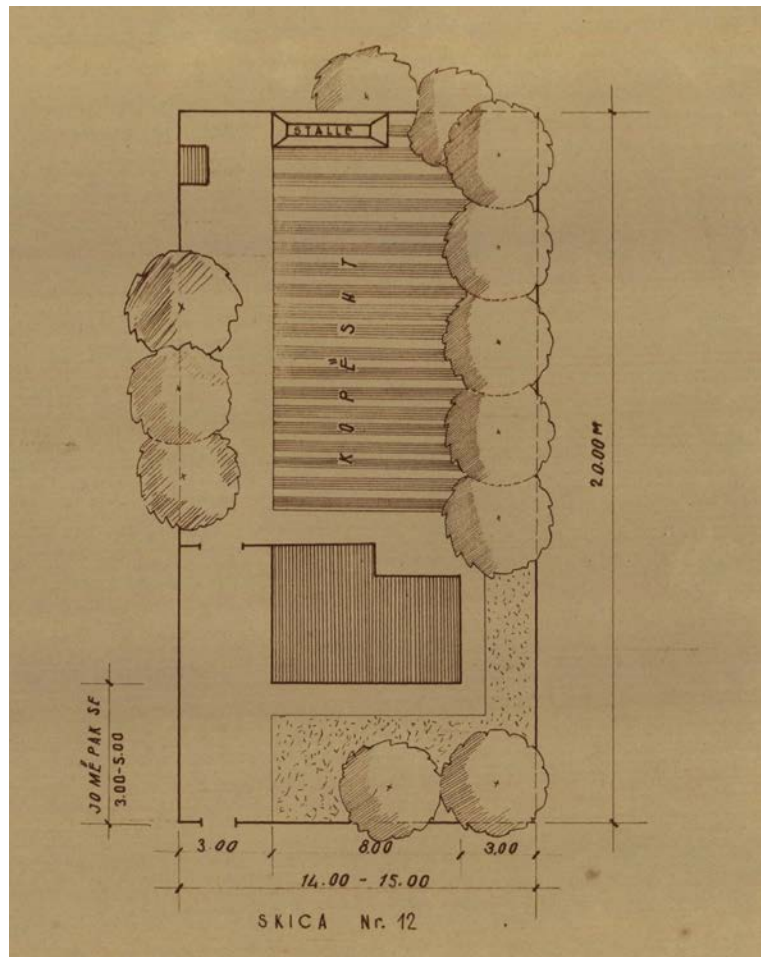
This decree was the first since the beginning of the dictatorship to clarify where the urban planning responsibility laid at central and local government levels, overcoming a long period of professional uncertainty caused by the inexperience of professionals and authorities, during which Albanian socialist urban planning was in a confusing situation. However, despite the above declaration of intent concerning the regime’s priority, the dictatorship mostly considered architecture and urban planning in rural contexts, secondary to industrial plans. Generally, in socialist Albania there was a lack of a real professional and theoretical debate publicly addressed outside of ideological propaganda. Despite in the second half of the 1970s the debate around the role of urban planning and architecture started to gain interest, it remained subordinated to production and economic purposes in relation to the impellent need to industrialize the country.

**Fig. 4**

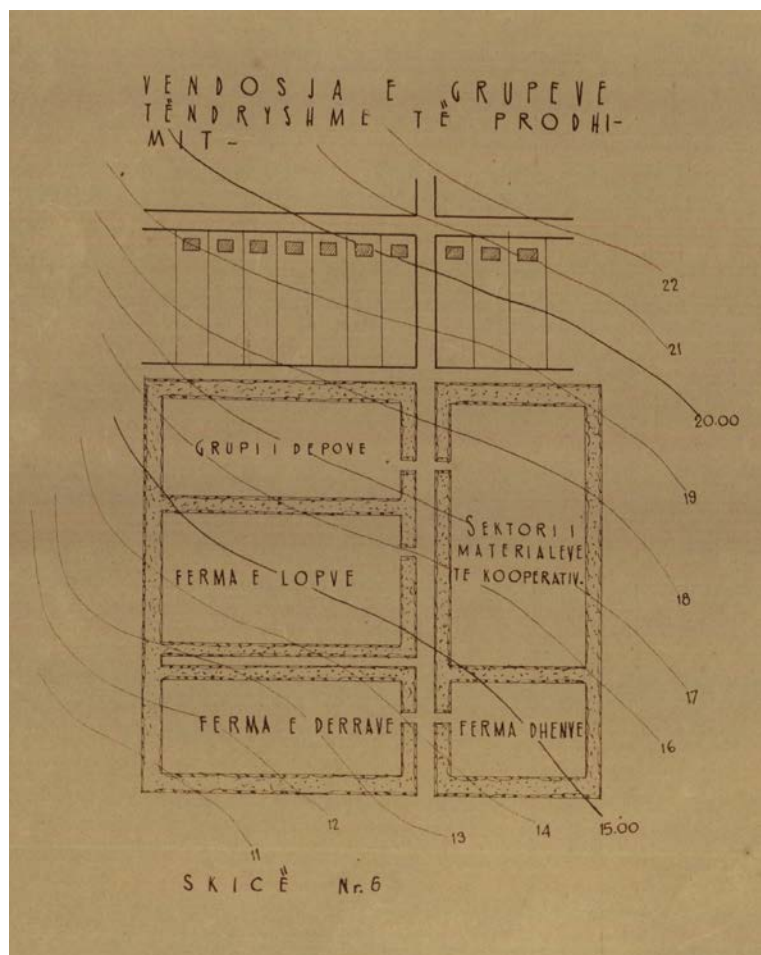
The arrangement of the rural buildings (Skica nr.1) and of the zones composing the new Albanian socialist rural settlement (Skica nr.2) according to the relief as for the 1961's brochure "Projektim Urbanistik i Qendrave Bujqësore" (AQSHb 1961, p. 64/23).

Fig. 5

The residential individual plot or parcel (ngastër individuale) according to the 1961's brochure "Projektim Urbanistik i Qendrave Bujqësore" (AQSHb 1961, p. 64/29).

**Fig. 6**

The arrangement of the service, breeding and production buildings composing the production zone of the new Albanian socialist rural settlement according to the 1961's brochure "Projektim Urbanistik i Qendrave Bujqësore" (AQSHb 1961, p. 64/26).



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Notes

¹ The date November 10, 1971, corresponded with the celebrations for the 30th anniversary of the founding of the Albanian Labour Party (ALP).

² The first agricultural cooperative was established on November 11, 1946, in Krutje, near Lushnjë, in the Myzeqe Plain, Central Albania (Skarço 1987, p.27).

³ The motto “*Të bëjmë fshatin si qytet!*”, *Let's make the village as a city!*, was very common among the ALP propaganda to promote the urbanization of the rural areas.

⁴ The terminology is borrowed and translated by Soviet literature. Hence, in the Albanian documents one can read *tipizimi* (typification) and *projekt-tip* (type-design).

⁵ It must also be emphasised that, alongside the increasing evolution of the disintegration of political and economic relations with the other states of the Soviet Bloc and China, since the late 1970s the process of *simplification of projects* (*thjeshtimi i projekteve*) was introduced along the typification with the aim to save more raw building materials and reduce production and construction costs.

⁶ See Pompejano (2021)

⁷ With the creation of the *Ndërmarrja Projekti* in 1947, this governing body, supervised by the Ministry of Public Works, was suppressed. In turn, the *Ndërmarrja Projekti* was then suppressed and replaced in 1965 by the *Instituti Shtetëror të Projekttimeve* (ISP), i.e., the State Institute of Design. The latter was finally substituted in 1973 by the *Instituti i Studimeve dhe i Projekttimeve të Urbanistikës dhe Arkitekturës* (ISPUA), i.e., the Institute for the Study and Design of Urban Planning and Architecture. Articulated in eight sectors, ISPUA was under the direction of the Ministry of Construction. At the local level, the *Zyrat e Urbanistikës dhe Projektimit* (ZUP), the Urban Planning and Design Offices, located in the twenty-six districts, assisted the ISPUA with the implementation of technical and methodological tasks.

⁸ The Decision of the Council of Ministers (DCM) 2974, October 12th, 1959, *On the drafting, approval, and implementation*.

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Maria Helena Maia, Alexandra Cardoso
Two faces of modernity: housing for Portuguese inner colonisation

Abstract

In Portugal, inner colonisation was the outcome of a long debate began in the 19th century; nevertheless, only seven colonies were realised on common or state-owned land, some including several nuclei. Milagres was built in the 1920s and Martim Rei in the following decade. Gafanha, Pegões, Barroso, Alvão and Boalhosa were built after the Second World War by the Junta de Colonização Interna. The history of Portuguese agricultural colonies has been the subject of recent studies, yet this contribution focuses on the architecture of the farmhouses in comparison with the residences of technicians and administrators.

Keywords

Rural housing — Portuguese inner colonization — Modernities

Rooted in the 18th century debate about the need of agrarian reforms (hampered by opposition by large landowners) Portuguese inner colonisation was very limited, particularly if compared to other European countries. Only seven rural colonies were built – Milagres, Martim Rei, Gafanha, Pegões, Barroso, Alvão and Boalhosa – on vacant green land (often arousing the hostility of the local population) or State-owned land, some consisting of more than one nucleus. The original local council-based plan was later abandoned in favour of a programme for upgrading existing settlements. Unlike Milagres, which started to be built in the 1920s, and Martim Rei, built in the following decade, the other five colonies were implemented after the Second World War by the Junta de Colonização Interna (Inner Colonization Board, hereinafter JCI), an ad hoc state agency established in 1936.

To gain a better understanding of this subject it is important to bear in mind that Portugal – a colonial power until 1974 – was essentially a rural country whose territory was fully explored only rather late. Isolation and poverty were part of an ancestral way of life and forms of dwellings which, recurrently revisited, became a reference in the search for a *genuine* national identity (Maia 2012).

Over time, this matter was approached again and again, with an increasing degree of scientific knowledge. Ethnologists, agronomists, geographers, anthropologists, and architects, all revisited the countryside, focusing on the rural habitat and, above all, rural house. The earliest rural dwelling survey campaigns aimed at identifying regional variants date to the turn of the 20th century, coinciding with the nationwide appeal for architects to develop a *Portuguese house* in line with modern living conditions. These

Fig. 1

Arnaldo Araújo CODA - Forms of Rural Habitat - North of Bragança (workfield 56-58). Arnaldo Araújo was one of the architects Survey of Regional Architecture.

© Arnaldo Araújo collection.



two approaches to the subject of rural houses occurred essentially at the same time while, in both cases, the notion of *Portuguese house* had frequently overlooked implications. Indeed, we could identify two different processes: one of *identification* and another of *invention* (Maia 2012), one was *retrospective* and the other *prospective* (Figueiredo 2007).

In the context of similar movements throughout Europe that, at the turn of the 20th century, were working on the single-family house type, the *Portuguese house* – as developed by architects – evolved into the *Portuguese old-style house*, which was to be contested in formal terms by modernist architects of the 1950s.

With the explicit intent of showing the diversity of vernacular architecture – thereby the groundlessness of the *Portuguese house* – in 1955-56 the National Union of Architects carried out a *Survey of Regional Architecture*, partially published in 1961 with the title *Vernacular Architecture in Portugal*. This book had a profound impact on Portuguese architecture yet, younger members of the survey team were so enchanted with the forms of tradition they photographed and sketched to the point of aestheticizing poverty. [Fig. 1]

It may be added that, in the eyes of ethnologists, the *Portuguese house* had always been a plural reality ever since it was first identified (Rocha Peixoto 1899, 1904-1905). On their side, geographers tried to highlight correlations between the characteristics of dwellings and the physical features of the regions concerned (Ribeiro 1945).

In parallel, anthropologists also began to take an interest in rural dwellings; in 1947 they went as far as to propose «a comprehensive study on this subject by analysing the dwelling in its complex variety of architectural, ethnographic and historical aspects». The aim was to realise a *comprehensive survey*, carrying out dedicated studies of the different types of dwelling that were published in the 1950s (Oliveira 1986).

On their side, agronomists had tackled the matter since the 1930s, when conducting the government-mandated *Survey of Rural Architecture*. Based on scientific methods, they had to take a census of the real living conditions of the rural population. Eventually however, the censorship prevented the publication of the last volume¹. Some of the authors of this survey were to play an important part in Portuguese inner colonisation.

All these studies had the merit of establishing a link between traditional architecture (in its forms and building materials) and regional landscape fea-

**Figg. 2-3**

Milagres, settler's house: type 1–
Norberto Correia, 1926.

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tures. This was to be reflected in many proposals for the *Portuguese house* put forth in the early 20th century (Lino 1933), as well as in the regionalist forms of much of the architecture produced at a later stage. Considering the national cultural context, and the fact Portuguese inner colonisation was managed by experts from the National Institute of Agronomy (where it functioned as a field for experimentation) we may gain a better understanding of the solutions adopted for the rural house.

The role of Portuguese agronomists was similar to that played by their Italian and Spanish counterparts in the respective resettlement schemes, particularly after the Instituto Nacional de Colonización (hereinafter INC) was set up². News and visit reports, particularly from Agro Pontino (Caldas 1937, Pereira and Ferreira 1949), also explain the solutions adopted for the layout the farm plots along the main roads. Agro Pontino was also a reference for the differentiation of programmes and idioms between the houses for farmers and those for people doing other jobs. In this disparity, architecture reflected the social hierarchy: despite modern facilities and formal reinventions, the farmer's house embedded an understanding of the rural habitat as a universe of its own, far remote from the formal universe of reference of those whose education and profession was more urban in nature³.

Portuguese agronomists travelled across Europe and studied other inner colonisation experiences⁴, bringing back home references that went well beyond farming matters, later architects took over the resettlement process. International references came along with them. Initially, JCI commissioned architectural services to other State bodies, then it established its own technical department (Guerreiro 2018, p. 162). Architects contributed to shape Portuguese inner colonisation settlements as a dichotomous environment combining traditional values and various types of international references.

Over the past years, Portuguese inner colonisation has been the object of new scholarly work, including Elisa Lopes da Silva's MA and PhD theses (2011, 2020) in the field of history, and Filipa de Castro Guerreiro (2015) in the field of architecture. However, while settlements' layout, common facilities and the rural dwellings have been studied in detail, the same attention has not been paid to the housing for non-farmers who were an integral part of the settlement process. For this reason, this text pays particular attention to them.

Early experiences

A study of Portuguese inner colonisation based on the farmhouse, the farmer's dwelling and farming outhouses, leads us to identify two different moments. The first phase corresponds to the first two rural settlements built by the Direcção Geral da Acção Social Agrária (General Directorate



Fig. 4-5-6

Milagres, settler's house: type 2, 3 and 4. Norberto Correia, 1927.
© DGADR Historical Archive

of Agrarian Social Action): Milagres, in the 1920s, and Martim Rei, in the 1930s and completed under the auspices of the JCI based of an existing scheme. In the second phase, the 1940s and 1950s, the JCI built the remaining five settlements.

Both phases had in common the concept of *family couple* (*casal*) as the basis of social and economic organisation, thereby of the distribution of land⁵. Each *family couple* received a single-family house. In the first phase, the rural house grouped together independent volumes serving different purposes, whereas in the second phase all functions were integrated into one single building.

At Milagres, some experimental dwellings were built from 1926 to 1928. The new rural settlement was organised into three cores – Alcaidaria and Mata (later renamed Milagres), Triste Feia and Bidoeira – and was rather small: of the 38 family houses initially planned, 16 were actually built, of which only 12 were occupied in the early 1930s (Lopes 2003, p. 58); these houses were scattered along the roads, with some basic facilities at the intersections. However, in a few years, four different housing types were implemented, all designed by Norberto Correia. In the first type (1926), identified in the documentation as Type 1, the dwelling, stable and chicken coop were all prefabricated in wood and easy to dismantle; they were completed with the opening of wells and installation of the respective pump systems. Four such houses were built, most of them in Triste Feia (Lopes 2003, p. 53). This model was abandoned because of the considerable costs. [Fig. 2-3] This experiment with prefabrication, rather surprising in the Portuguese context of the time, recalls what was happening in Greece, where the League of Nations had intrusted Sommerfeld-DHTG to build prefabricated wooden houses for refugees from Asia Minor (Hastaoglou-Martinidis and Pallini 2023).

The remaining family houses of Milagres were built in 1927-1928, showing a range of formal references. They shared the organisation in separate volumes of the various functions around a sort of courtyard, recalling traditional Portuguese rural houses. Furthermore, with only one exception, they featured a semi-outdoor area at the entrance, or a *transition space* as Pedro Vieira de Almeida referred to them (1963, 2010). In Type 1, 3 and 4, these outdoor terraces were very similar to the traditional outdoor living rooms; Type 2 featured a portico, a solution recalling the image of the bourgeois house. [Fig. 4-5-6]

These early four designs feature a number of variants: a kitchen and four bedrooms in the case of Type 1; three bedrooms, a kitchen and a living room for Type 2; and 3 bedrooms and a kitchen for Types 3 and 4. Types 1 and 3 also had an entrance atrium serving as both a distribution and a living area. These variants also correspond to the same number of experiments in terms of planimetric composition⁶. One should note that as early as 1927, the designs featured three bedrooms as standard, which was to be maintained in all future constructions. Indeed, that choice introduced urban moral hygiene values into the rural universe and was reflected not only in the separation of the sleeping quarters for parents and children, but also for children of different sexes. This solution was also defended in the *Survey of Rural Architecture* (Guerreiro 2022) and in texts and documentation on rural housing in general. The fact that the number of children, frequently high, was not always compatible with this simple separation does not seem to have concerned the responsables for the housing programme in the 1920s, nor indeed in the three following decades.



Fig. 7-8

Milagres, settler's house: "modern-type". Damásio Constantino, 1937.

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When the JCI took over the inner settlement programme, it began by studying the Milagres experience, the only example available, and the reasons of its failure. At the time, only 6 couples had been housed and the nucleus of Triste Feia was deemed to be too degraded, so it was abandoned. In relation to the remaining houses, a study was carried out with a view to restructuring the settlement and generally upgrading the family houses, with extension of the agricultural outhouses providing the basis for the interventions carried out in 1939, the year the final houses were built (Lopes 2003).

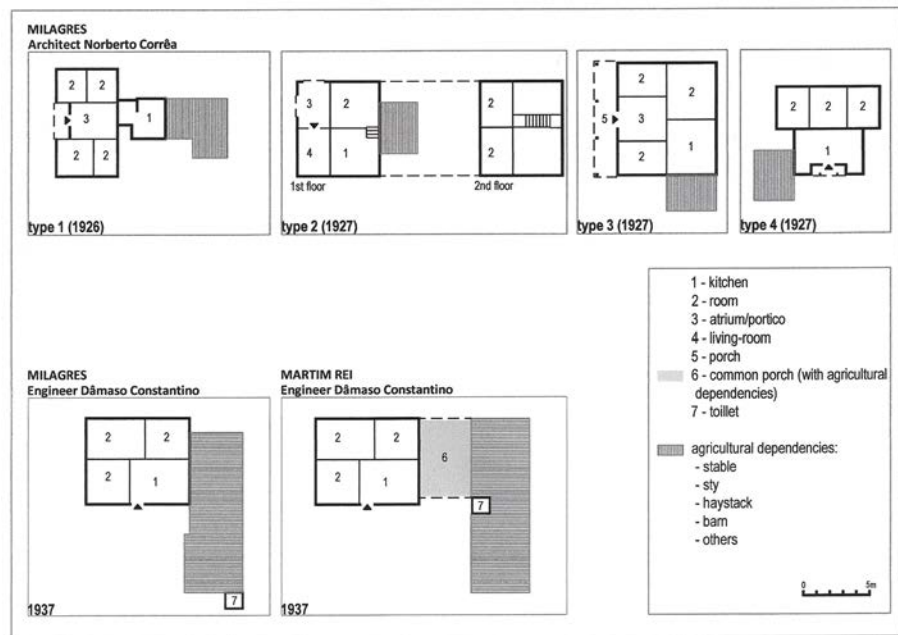
Meanwhile, in 1936, the year the JCI was set up, the Martim Rei agricultural settlement was already in the layout phase. This helps us understand the similarities between the two colonies: a dispersed settlement, with houses placed along paths/roads and facilities at the intersections. It was a modest solution close to the Italian *borghi rurali*, Italy being a country whose settlement experience was by then well known, but also, one suspects, close to the ideas derived from Fermín Caballero's (1864) *coto acasado*⁷, which was still defended by some in Spain (Calzada Perez 2006).

The absolute need for an intervention in the two settlements also led to the construction of the same house type, designed by Damásio Constantino and designated *modern type*, perhaps simply because it was the most recent. This was the most elementary design adopted in this initial phase: a kitchen and three bedrooms were organised in a cross-shaped plan consisting of a central access hallway also providing internal distribution. The facade was very simple while the dwelling and farming outhouses were laid in an L shape. This was perhaps the only design that came close to the everyday rural regional architecture. The architects' different training background emerged and leads us to presume some investment constraints on behalf of the JCI, not yet ready to take full action. This is particularly clear in concerns with keeping work costs to a minimum. [Fig. 7-8]

However, the *Settlement Scheme for the Sabugal Wasteland (Peladas)* dating from 1937, namely Martim Rei, shows a clear differentiation between houses for farmers and those for other residents included in the JCI programmes. Houses for farmers had to comply with functionality, comfort, hygiene and safety, while also containing costs by using cheap building materials (mortar made with clay and sand applied in masonry) avoiding ornaments and «everything that could increase the cost of works without a corresponding benefit» (JCI 1937 p. 101; Silva 2020, p. 276). A house for a technical assistant generally had two floors, was built in stone, completely plastered and whitewashed while also including a bathroom and an ante-chamber for the bedrooms on the upper floor (JCI 1937, p. 121; Silva 2020, p. 277). In terms of programme and form, this house closely resembled the bourgeois single-family dwelling, an architectural translation of the social hierarchy. [Fig. 9]

The settler's dwelling

Pegões and Gafanha, the first two settlements entirely designed by the JCI, opened the way to a second phase of conceptualisation and design of the rural house. The Italian precedent was maintained, placing houses on opposite sides of the roads to mitigate the sense of isolation. Another innovation concerned the establishment of subsidiary cores, almost always at road intersections, including facilities that might foster a sense of community. Two such facilities, quite small in size, can be found at Pegões Velhos (Pegões). At Gafanha the round central plaza was somehow contradict-

**Fig. 9**

Schemes of settler's house – 1st phase of JCI.

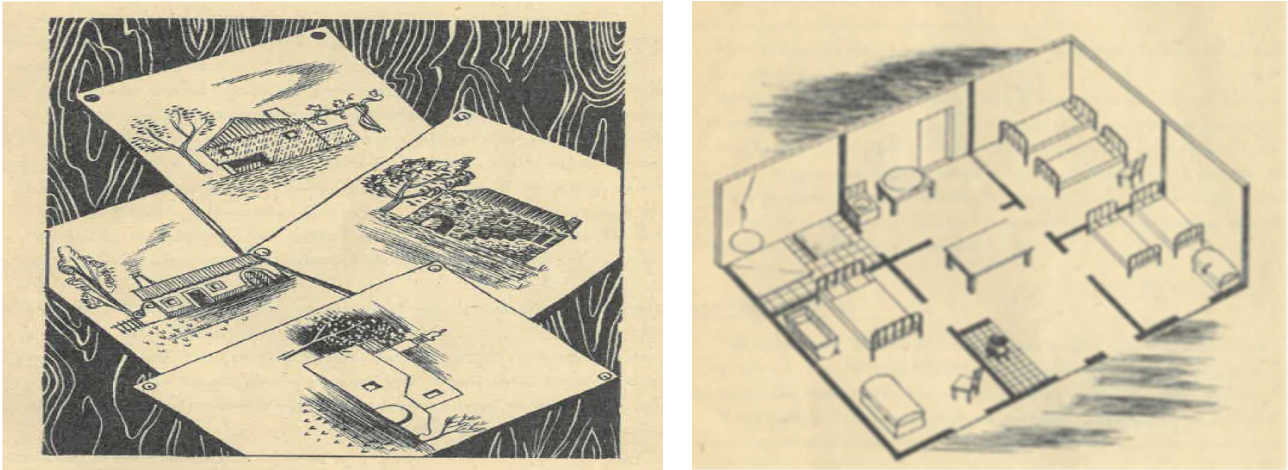
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ed by the loose positioning of buildings. At Boalhosa instead distribution followed a series of concentric semicircles sloping down the hillside, recalling the Spanish precedent of Esquível and the *moshav* of Nahalal in British-Mandate Palestine. Only in the case of Barroso the core acquired a certain autonomy (as in the Italian model) identifying the civic centre for two of its largest nuclei (Maia and Matias 2016, Guerreiro 2022).

Here we can appreciate a dichotomy, also in terms of architectural language, between houses for farmers and those built for other members of the colony. This dichotomy reflected the social hierarchy by the use of elements borrowed from traditional rural architecture, or else referred to the urban context and more attuned with international modern architecture⁸. The influence of the Italian settlements built in Agro Pontino can be identified not only in the layout of the rural house, but also in the different idioms adopted according to its inhabitants. This was to become a common feature of JCI settlements, regardless of whether their layout evolved towards greater concentration and complexity.

Let us begin with the farmer's house. If we consider the close connection between the National Institute of Agronomy – with its tradition of studies on the rural house documented by the *Survey of Rural Architecture* – and the JCI, we cannot belittle its role in the choices made. The countrywide survey identified problems to be faced: windowless rooms, over-occupation, insufficient ventilation and natural light, limited privacy in sleeping areas, the need of bathrooms and toilets, the separation between animals and members of the family.

In 1942, when the *Survey of Rural Architecture* was published, the Directorate General of Agricultural Services also published *A Casa Rural. A Habitação* (The Rural House: The Dwelling) by agronomist Mário Botelho de Macedo. The book was distributed for free to enhance its pedagogical purpose: disseminating technical practices (on building materials and techniques, sun exposure, lighting and ventilation, thermal insulation, and damp protection) with the support of drawings and exemplary projects. Macedo's book provided a repertoire of solutions to problems identified by the survey, while helping us decode the architectural inflections adopted by the JCI. Macedo (1942, p. 10[a]) argued that the rural dwelling should not stand out from the architecture of the region and – just as Raul Lino (1933)

**Figg. 10-11**

Schemes: rural housing and the architecture of the region (left) and the compartments that make up rural housing (Macedo, 1942).

– provided a number of drawings suggesting possible solutions in terms of reinterpretation of the regional language. [Figg. 10-11]

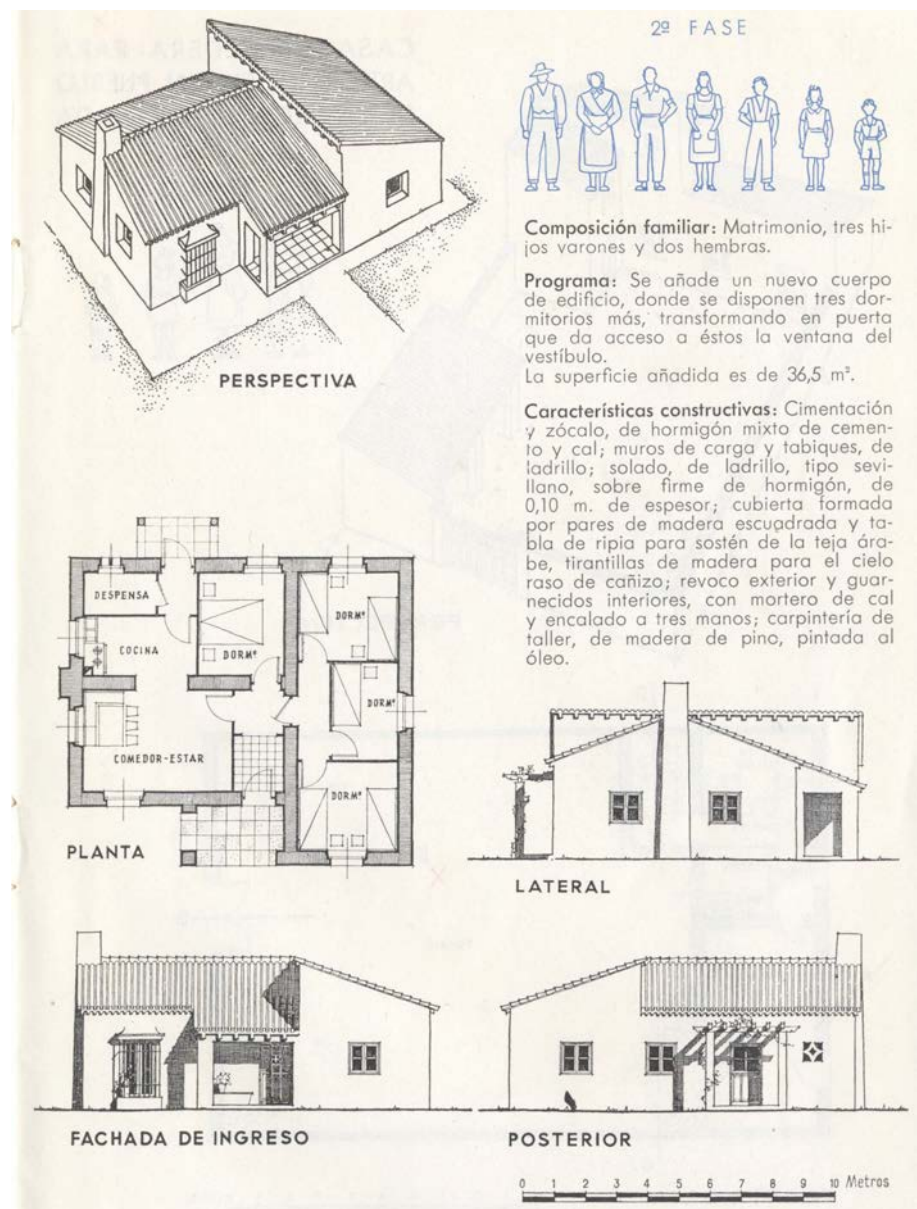
The house proposal corresponded to the programme adopted in all JCI settlements: a kitchen also used as a dining and living room directly linked to the parents' room and those of the sons and daughters, a separation fostering «the hygiene and moral benefits» (Macedo 1942, p. 21). When indoor, the bathroom (at least a toilet with the possibility of a shower) was close to the plumbing connections of the kitchen. In short, Botelho de Macedo presented a functional solution for the rural house: not much flexibility in terms of internal organisation, but a certain coherence: «the interior of the rural house, as well as the exterior, can only gain from simplicity which, after all, is a reflection of the dwellers' character» (Macedo 1942, p. 23). Issues of hygiene, health and moral uprightness in the rural house had a transnational relevance. In 1954, the Spanish Ministry of Agriculture published a book by the Nacional Institute of Colonization (hereinafter INC) titled *Viviendas Rurales* which clarified what to avoid and adopt in rural dwellings. The author – José Tamés Alarcon (1954, p. 34), head architect at the INC technical department – also included some of his own designs, arguing that a joyful and spacious house, in line with the hygiene standards, facilitates work in the field and contributed to the well-being of its residents.

The design criteria for rural dwellings were those already mentioned in Portuguese publications: natural light and ventilation, keeping animals away from living spaces, a lack of hygiene and cleanliness, windowless bedrooms directly next to each other with no separation of the sexes. In addition to references to regional architecture and materials, Tamés Alarcón's proposals shows a clear separation of the dwelling from the agricultural outhouses and from the animals' quarters, all arranged around a walled courtyard with independent access. The author designated this kind of rural house as *casa crecedera*, a house that met the farmer's basic needs (living room, kitchen, and bedroom) and could be extended at a later stage⁹. In terms of the organisation of domestic space and family's social life, the dining room played a central role. In some cases, there was even a complementary living space, while the kitchen was part of a service area. Another feature was the entrance vestibule, often linked to a porch, interposed between the exterior and the main dwelling area, which was thus protected from sun exposure, rain and winds while guaranteeing a certain privacy. [Fig. 12]

Most probably borrowed from Spanish examples, this kind spatial organisation around a courtyard – already proposed at Milagres and Martim Rei

Fig. 12

Vivienda crecedera [evolutive house] (Tamés Alarcon, 1954).



– was studied by the JCI for the extension of the houses of Milagres (Machado 1957a). It appeared in the scheme for the agricultural settlement of Gafanha¹⁰, both designed by architect António Trigo (JCI 1942, p. 33; Trigo 1946). The solution adopted at Gafanha reflects the initial approach of the JCI, whose technicians considered «an advantage leaving the greater part of the works and agrarian improvements to the settlers; particularly in terms of the constructions of the house and farming outhouses» (JCI 1942, p. 33). Even if the JCI provided financial support to those who implemented the original architectural design, self-build was never seen as an option. The same can be said for the arrangement of independent buildings around a courtyard; in the 1960s this was the choice for new settlements established in the Portuguese colonies of Angola and Mozambique (Guerreiro 2022), yet it was never applied again in Portugal. In the new settlements designed from scratch by the JCI, houses were handed over to the settlers fully built, also to prevent possible extensions. The houses built by the JCI in the 1940s and 1950s were all equipped with farming outhouses and animal sheds, all gathered under one roof. [Figg. 13-14] This solution may depend on the combination of two factors. Firstly, by including all functions in one structure, the latter took on a bigger scale,

Fig. 13

Santo Isidro de Pegões (Faiais nucleus): first agricultural colony built from the beginning by JCI, settler's house, 1943.
© Mário Novais, Calouste Gulbenkian Foundation Archive (left).

**Fig. 14**

Boalhosa: the last agricultural colony, settler's house (semi detached type), architect Pinto Machado, 1956.
© Alexandra Cardoso/MOD-SCAPES 2016.

closer to the bourgeois single-family dwelling and therefore socially more desirable. Secondly, by preventing possible extensions, adult children did not have any opportunity to remain, supporting the idea of rural colonies as *nurseries* for future settlers in the colonies overseas (Silva 2020, p. 180).

From the formal point of view, reinventing the rural house responded to the vision purported by agronomist Mário Botelho de Macedo (1942): approximating the traditions of regional architecture in terms of idiom and materials, without being confused with them. Several alternative proposals were drawn up for the five settlements entirely built by the JCI, yet many remained on paper as only six rural house designs were actually built, two from the 1940s and four from the 1950s.

Only at Pegões though, attempts were made to mitigate the monotony resulting from repetition. The houses of each nucleus were in fact slightly different due to small variations in the façade, depending on the position of the entrance (three alternatives) and on that of the bedrooms (two solutions). None of these variants, however, altered the overall composition of the houses and annexes. Minor variations in the application of the same design in different settlement areas were also identified (Guerreiro 2022).

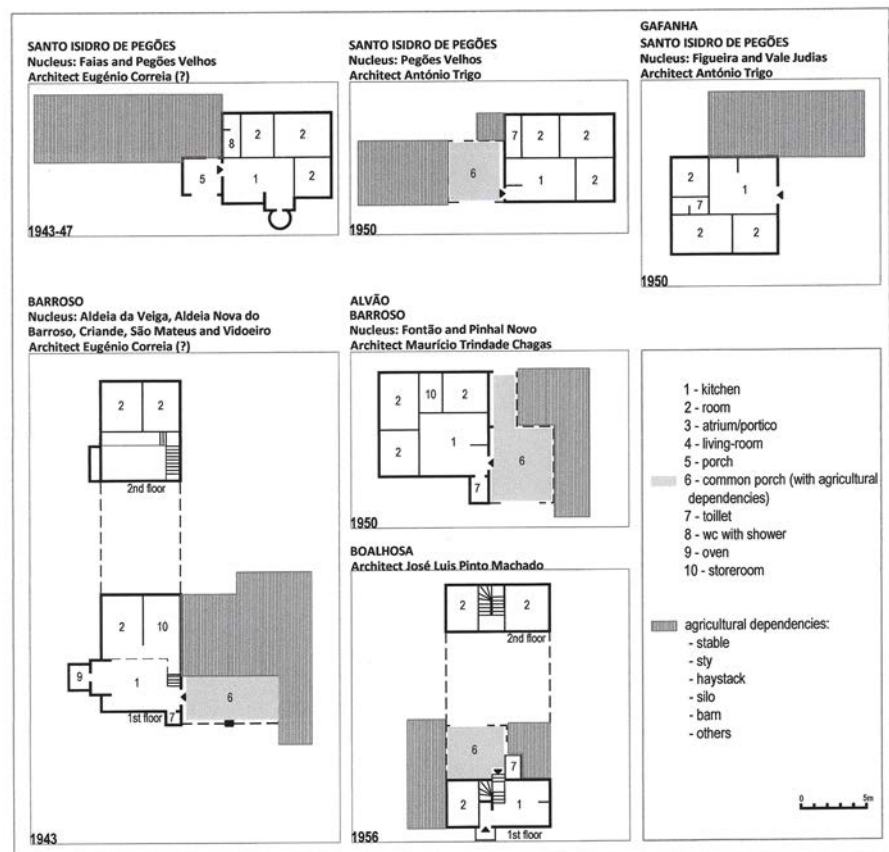
Despite the greater complexity in volumes and facades, combined with the inner organisation, these houses consisted in minor variations of the *modern type* established in 1937: a single floor, an entrance eat-in kitchen also used as a living that sorted into the three bedrooms. This *poor* model was common to most housing built at the time for the lower classes. If we consider the spatial structure of the house – despite the presence of sanitary installations since the 1940s (often only a WC), a pantry, and an oven – there were no major changes. [Fig. 15]

Only two of the six designs implemented at Barroso (1943) and Boalhosa (1956) featured a more complex programme, as they were organised on two floors with two adjoining bedrooms on the upper floor. At Boalhosa, a staircase connected the kitchen to the upper floor. At Barroso the design was entrusted to architect Eugénio Correia (Guerreiro 2022, p.173)¹¹, who ventured into a more complex spatial treatment with the insertion of a mezzanine corresponding to a raised ceiling in the kitchen. While all these designs concerned detached single-family houses, Boalhosa stood out as

Fig. 15

Schemes of settler's house – 2nd phase of JCI.

© Cardoso and Maia, 2022.



an exception. Here in fact the JCI built three crescents of semi-detached houses, without introducing significant changes to the inner organisation of the living area.

Houses for local professionals

Houses for local professionals (technicians, teachers, priests), unlike those for farmers and workers, show substantial upgrades in terms of programme, form and architectural references.

At Pegões Velhos, the initial core of Pegões, we find a quite original solution, namely the social centre designed by the architect Eugénio Correia in 1951, which included the house of the priest and two houses for two ladies who worked as teachers. These three houses closely resembled the church and the two schools featuring paraboloid vaults. They were built using the Ctesiphon system (Rabasco Pozuelo 2015): a ceramic screw system still new in Portugal (Guerreiro 2022, p. 222). [Fig. 16-17]

Some criticised these buildings as «a naïve attempt based on the old ways of building limekilns» (Acciaiuoli 1991, p. 652, cit. in Guerreiro 2022, p. 219), others instead praised them as a «cry for radical modernity», both in terms of materials and form (Pereira and Ferreira 1949, p. 39; Guerreiro 2022, p. 223). Undoubtedly, these building testify to the architect's inter-nation upate. In fact, these three houses show some resemblance with the design for a holiday home published in the Spanish periodical *Informes de la Construcción* (Moreno 1951, p. 35, Rabasco Pozuelo 2015, p. 923). We may also notice a direct influence of Spanish publications, not to mention the reference to Niemeyer's work at Pampulha (Brazil), which reached Portugal in 1945 following the exhibition *Brazil Builds* held at MoMA, (1943) (Milheiro 2012, p. 18). Even if the vaulted ceilings did create a unique space, the interior organisation of these three houses was more con-

**Fig. 16-17**

Casa de férias (Moreno, 1951); Santo Isidro de Pegões (Pegões Velhos nucleus): priest/teachers' houses. © Mário Novais, Calouste Gulbenkian Foundation Archive.

**Figg. 18-19**

Santo Isidro de Pegões: Pegões Velhos nucleus technicians' houses. ©Josefina Gonzalez Cubero/MODSCAPES 2020.

ventional, somehow dictated by the relationship with the vaults (Guerreiro 2022). The transversal vault, which defined the main dwelling space, was split by a wall along 2/3 of its length, so as to generate relatively small spaces in the smaller section.

The programme included two bedrooms on either side of the living room with a fireplace. This latter, accessed directly from outside, can be considered as main living space, separated by a door from the area including the kitchen, a complete bathroom, and a small office. The presence of a small hallway was another novelty, particularly when we consider the efforts to contain construction costs by eliminating all corridors and other wasted space.

The three houses at Pegões Velhos, however, remained an exception, as none of the other houses designed for local professionals show the same level of experimentation; much rather they share a modern *pragmatic* idiom (Guerreiro 2022) and a layout very different from that of farmer's dwelling. All designed by António Trigo, the houses for agricultural technicians at Pegões (1953) and Gafanha (1954a) and the teachers' houses in Gafanha (1954b) are very similar in terms of programme and architectural expression, particularly considering the roofs recalling Frank Lloyd Wright's *prairie houses*. In both cases, in Gafanha, the descriptive texts are the same, except for the programme. In all other cases (Boalhosa and Barroso), one finds variations of architectural language, even if there is no major formal difference. [Figg. 18-19]

All the houses for technicians and, exceptionally, the teacher's house at Boalhosa [Figg. 20-21], were designed for families with children of both sexes, and in the case of the technicians' houses, also for a live-in maid. In programmatic terms, they were all equipped with a kitchen, living room, three bedrooms, a fully equipped bathroom and a room and smaller bathroom for the maid. At Pegões the programme also included an office, which, except for one of the designs for Barroso, is absent in other designs; in both designs for Gafanha though, one of the bedrooms had a door from the entrance vestibule, so that it could also be used as an office in case of need. The technicians' house at Gafanha also included a food/drink serving area and a storage zone, while at Boalhosa the teacher had an open-air courtyard, plus another for laundry, as well as a roofed balcony on the upper floor.

Apart from the two houses designed for technicians in Pegões, which were L-shaped by imposition of the plan, all the others consisted of independent vol-



Fig. 20-21

Teacher's house at Boalhosa: architect Pinto Machado 1957. © DGADR Historical Archive and ©AlexandraCardoso/MODSCAPES, 2016.

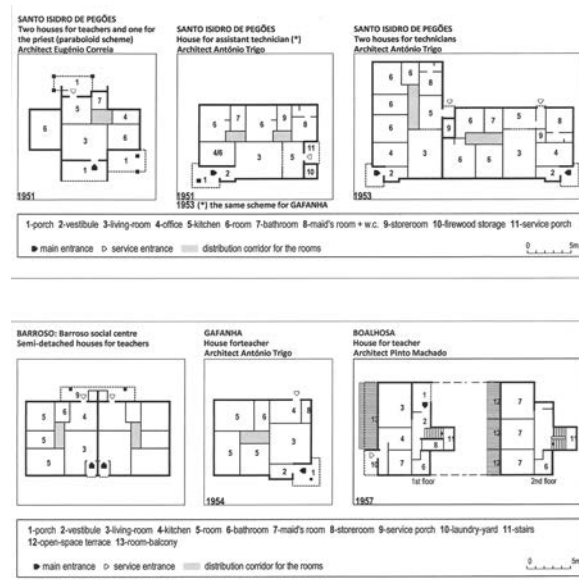


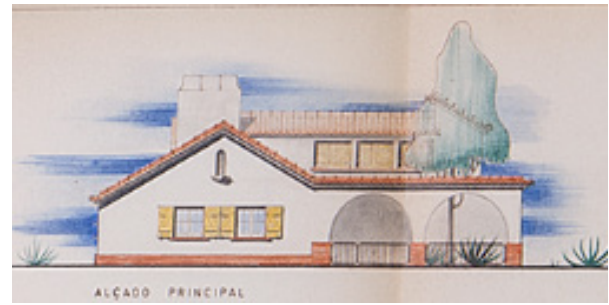
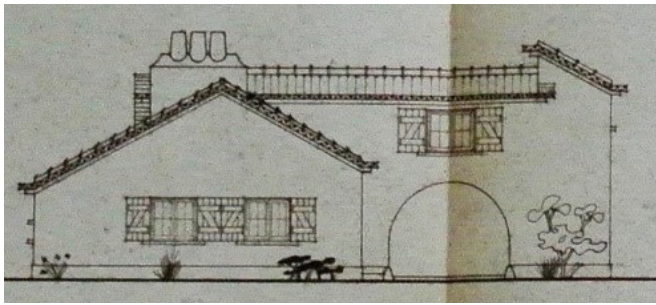
Fig. 22

Schemes of technicians' houses. © Cardoso and Maia, 2022.

umes and a rectangular plan (except for the house built for agricultural officers in Barroso). Having a single floor was the most common choice. However, the houses for agricultural officers and assistants and the teacher's house in Boalhosa were set on two floors. The houses built for the teachers and agricultural assistants in Barroso were the only semi-detached houses. [Fig. 20-21]

In trying to contain construction costs, everything deemed superfluous was eliminated to prioritise the actual living conditions (Machado 1957b); this led to avoid corridors (Trigo 1953, 1954a, 1954b) and wasted space in general (Machado 1957b), resulting in a relatively simple organisation into two zones: a sleeping area with the bathroom and a living space with the kitchen, possibly connected to the maid's room. Distribution areas shrunk into an entrance vestibule (Gafanha, Barroso and Boalhosa) and a corridor in the sleeping area. Basically, these houses materialised a conventional programme and an organisation that reflected the needs of a bourgeois family of the time. [Fig. 22]

A design report concerning the conversion of a farmer's house into the residence of the head of the local *Guarda Nacional Republicana* (Rural Police Force) at Gafanha, also by António Trigo (1961), bears witness to the aspirations for an *architectural upgrade* of a standard farmer's house: «the aim was that his house did not merge, in terms of its external aspect, with those of the remaining farming couples» (Trigo 1961, p. 1). To this end, two sheltered areas were added (one for a car and another as an all-purpose outdoor area),

**Figg. 23-24**

Gafanha: settler's house, 1950 (left) and its transformation into a house for the commander of the Republican National Guard (GNR), 1961, Architect António Trigo.

© DGADR Historical Archive.

and a courtyard surrounded by arches and brickwork to the facades. Internally, the house was similar to the teachers' houses, making use of the whole ground floor as a living space and using the attic as a storage. [Fig. 23-24] António Trigo's (1948) design for the house of the agricultural officers in Barroso is also worthy of note, as its regionalist idiom incorporated «symbolic elements of the regime-approved architecture, such as the pillar/but-tress of Romanic inspiration, and at the same time, elements that reveal a modern approach to the dwelling, such as the pass-through for dishes between the kitchen and living room» (Guerreiro 2022, p. 217). This latter was a common feature in the great majority of designs. One should also point out that Barroso is a good example of the reflection of social hierarchy in architectural terms, not only of the differences between settlers and more elevated workers but also amongst the latter themselves. There were detached houses built for agricultural officers and semi-detached houses for agricultural agents and teachers, with one storey for the latter and two storeys for the former.

Final considerations

The houses built in the seven Portuguese inner colonisation settlements reflect signs of modernity in their evolution, made clear in the progressive concerns with physical and moral hygiene. Yet, there was also a social hierarchy among the residents, where the normal settlers formed the base of the pyramid, followed, in order, by the primary teachers, agricultural assistants and agricultural officers. Concerns to clearly distinguish the image of a settler's house and that of a professional translated into architecture by way of language differentiation or introduction of external additions (in cases where the original rural house was upgraded).

The outcome was that any reference to regional architecture dominated the reinvention of the rural house, whose internal organisation in the lived-in part showed practically no variation for three decades. On the other hand, there are examples of references to international modernism in the houses of more elevated workers, the programme for which corresponded to the everyday bourgeois dwelling of the time. Sanitary installations prove this differentiation. While, from the late 1930s onwards, the programme for the design of the more elevated workers' houses included complete bathrooms, it was only in the 1940s that they were no longer outside; even so, they were largely limited to a WC.

On the other hand, if the variations in reinventing the settler's house can generically be referred to as *vernacular modernity*, in line with Lejeune's interpretation of the Spanish case (2019), the same does not apply to the more elevated worker's house and many public facilities. Hovering between clear modernity, pragmatism, or nationalistic regionalism (Guerreiro 2002), the solutions often provided by one and the same architect – as in the cases of Eugénio Correia or António Trigo – enables us to detect a

clear knowledge of international architecture allied to a certain degree of indecisiveness as to the choice of architectural idiom. All the dwellings, whether for the normal settlers or for more elevated workers, had in common a concern with keeping costs low, which indeed helps understanding some of the choices made. Either way, proceeding from Scott's (1998) definition of High Modernity, one can argue that all houses were modern, but this modernity had two faces that coexisted in the same space and time.

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Notes

¹ The survey included three volumes: *The Northern Region* (1942), *The Central Region* (1947), and *The Southern Region* edited by by Fernando Oliveira Baptista, João Castro Caldas and Maria Carlos Radich and published in 2013.

² While agronomists always played an important role, architects had the decision-making power in the devastated regions; this situation was inverted when the INC was set up.

³ See also the striking idiomatic difference between the settlement houses and the architecture of the town centre, for example in the case of Sabaudia.

⁴ By way of example, see the travel reports on Italy (Caldas 1937) and Italy, Switzerland, and Spain (Pereira and Ferreira 1949).

⁵ Portuguese inner colonization established the *casal agrícola* as a legal entity which encompassed a plot of land, a house, associated agricultural facilities, tools, animals for traction and pasture that ensured the economic self-sufficiency of the family.

⁶ The analysis of the agricultural house plans is based on a survey carried out by Filipa de Castro Guerreiro (2015, 2022), who redrew the plans to make her arguments clearer.

⁷ According to the Spanish geographer Fermín Caballero, the *rural population* would only consist of farmer families living in isolated house, on the plot which they cultivated without forming a settlement (Calzada Perez 2006, p. 15; Caballero 1864, pp. 12-13). This scheme became as a model for rural settlement known as *coto acasariado*.

⁸ This difference in architectural idiom was already noted in the case of Pegões (Nunes 2019). Filipa de Castro Guerreiro (2022) also draws attention to the difference between houses and facilities related.

⁹ The Portuguese proposal to CIAM X (Dubrovnik 1956) raised the topic of rural planning, with a focus on the expandable farmer's house.

¹⁰ «The dwelling, together with the threshing space, forms one of the lateral wings. In the opposite wing are the grain store – kept separate from the house by an exterior space with an entrance for a car – stable, pigsty and a storehouse for straw; between the pigsty and stable are a latrine and a ditch next to a nitrary. The two wings are covered, at the back, by a roof that keeps wood and farming tools, etc. dry. A threshing space completes the whole» (JCI 1942).

¹¹ Filipa de Castro Guerreiro (2022, p. 173) bases her attribution on information gathered from an interview with the JCI architect J. L. Pinto Machado conducted on 15.01.2012.

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Maurizio Meriggi

An architectural cross section between city and countryside. Notes on constructivist architecture in the agri-food sector between NEP and First Five-Year Plan.

Abstract

The film by S. M. Ejzenštejn “The Old and the New”, documents the process of collectivization of the countryside in USSR between the end of the NEP and the First Five-Year Plan. This text, documents, in parallel, the process of transformation of the city and the countryside in this period. The city from “center of consumption” and market of agricultural production becomes “center of distribution and production” of meals, The agrarian settlement from the village becomes a “sovkhoz” (state farm). The plans of the sovkhozes of Gigant and Verbljud with their facilities and communal housing represent significant cases of constructivist architecture in rural areas, before the affirmation of the architecture of Socialist Realism both in the city and in the countryside.

Keywords

URSS — Constructivism — Sovkhoz planning

1. Old and New

Old and New is the title of the film shot by Sergei Mikhailovich Eisenstein between 1926 and 1929 (Kepley 1974) that documents the transition of the organization of the Soviet countryside between the NEP (New Economic Policy, a hybrid model between liberalism and cooperative organization), and Five-Year Planning, a pure socialist model centrally governed (Carr, Davies 1969).

Eisenstein circumscribed his task to the “general line” of the 14th Congress of the Communist Party of the Soviet Union addressing rural collectivization: an ideal opportunity to produce a monumental fresco with «agricultural peasant material» (Eisenstein, 1928). In 1928, however, he had to complete *October* for the 10th anniversary of the Revolution. When he moved back to *The General line*, that was the title of the script in 1926, the reality of fast-paced collectivisation had surpassed fiction.

Finalising the movie in February 1929, Eisenstein had to change the film’s ending and title: *Old and New* and, on 4 June 1929, condensed his impressions in a letter to the French movie critic Leon Moussinac:

[...] I just had a remarkable run through northern Caucasus and Ukraine. I have seen with my own eyes what ‘building socialism’ means. Nothing could be more heroic and full of pathos! The immense ploughing of the new sovkhozes (founded this year). The huge factories under construction. I went to places where, three years ago, there was nothing but endless plains, and now huge half-finished factories are rising. Not yet covered with roofs, they are already operating; it is amazing, almost impossible to describe. By dint of propaganda, we involuntarily stop believing in what we are promoting. Every cardinal is an atheist. All the sudden we see in pure reality what we said, propagated and wrote [...]. (Morandini 1966, pp. 55-56)

Fig. 1

Frames from the film by S. M. Eisenstein *Staroe i Novoe* (*Old and New*), 1929.

1a – *Old and New*, film in 6 acts; 1b – Written and directed by S. M. Eisenstein and G. V. Aleksandrov; 1c – Architectural setting by Andrej Burov. Scenography by V. I. Kovrigin, V.A. Rakhal's; Tractors columns of Sovkhoz Gigant; 2a – The young peasant Marpha; 2b – The Agronomist; 2c – The bull Fomka; 2d – The Tractor driver; 3a – The village of the poor peasants; 3b – Agricultural works by hands (mowing) and animals (ploughing); 3c – The Soviet headquarter (Gosprom in Kharkov); 3d – The Industrial plant; 4a/d – The Sovkhoz (scenery designed by A. Burov); 5a – Tractor production; 5b – Marpha and the Tractor Driver carrying away the Old ox carts; c/d – The charging towards Socialism of tractor columns from the Sovkhoz Gigant.



«General'naya liniya» was a quote from Lenin, stressing the importance of a voluntary transition towards collectivisation: in some cases, an efficient work organisation by local communities proved more effective than many centralized institutions (Eisenstein 1926). In 1929, when collectivisation became a reality, the new title *Staroe i novoe* (another quote from Lenin) shifted the focus to large-scale industrialisation, ending with the spectacular scene shot in the spring of 1929: columns of tractors and the title “forward... forward... towards socialism” (Eisenstein, October 1929).

Staroe i novoe, however, did not differ much from General'naya liniya. Depicting rural modernisation in a village in Caucasus steppes of the 1920s, where reclamation and agrarian colonization works were then underway (Baranskij 1956), Eisenstein's protagonists include “the Agronomist,” heralding the scientific organisation of agriculture, “the Bull”, combining animal traction (the *New*) and fertility (the *Old*), and “the Tractor” epitomizing mechanisation. In addition to the traditional Russian rural linear village and the *sovkhoz* scenography by A. Burov, the locations include the tractor manufacturing industry Putilovsky in Leningrad and the famous *Gosprom* building designed by Sergei S. Serafimov in Kharkov, representing the Soviet administrative centre.

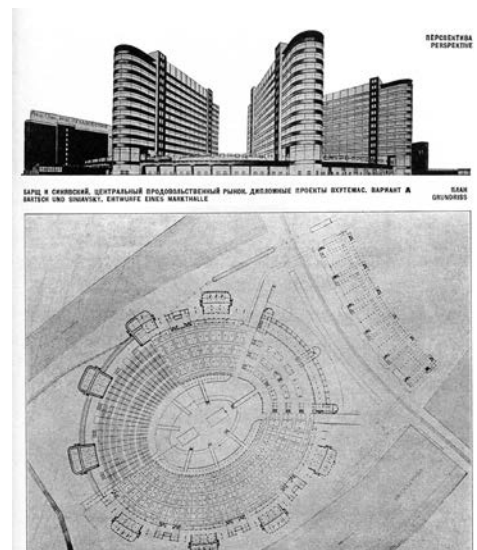
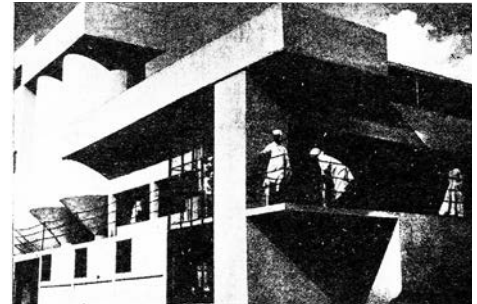
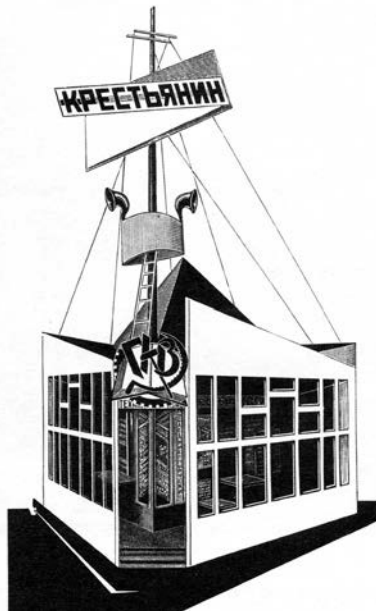
The final scene showed columns of Krasnyy Putilovec tractors¹ operating in the Gigant State Farm in marching towards socialism in a collectivised



Figg. 2 (1-2-3-4-5-6)

The architectural imagery of the avant-garde between countryside and city during the NEP, 1923-1926.

1. Moscow Pan-Russian Exhibition of Agriculture and Crafts, 1923: view from Moscow river; 2. A. Gan, Book kiosk for a peasant village, 1926; 3.-4. A. Burov, Scenography of the mechanized farm for *The General Line/ Old and the New*, 1926; 5. I. I. Sobolev, Bread Factory, 1926; 6. M. Baršč, M. Sinyavsky, Project of a vegetable market in Balotnaya Square in Moscow, 1926: view and plan of variant A.



countryside, was shot in the Salsk steppes, near the sovkhos Gigant, whose machines were lent for filming, also appearing at the end of the titles of the “interpreters”.

The *Old* of the film, however, was not only the archaic arrangement of rural society in the USSR before the socialist collectivization of Five-Year Planning, but also the very structure of the first Soviet society developed with the NEP. The corrections that Ejzenštejn, accomplishing precise requests from the Party (Kepley 1974), had to bring to the script thus also reflected the change in the project of the socialist settlement set by the Plan with the intensive industrialization of the country, and in forced stages. The idea of modernization expressed by the scenography of the “futuristic” mechanized farm of constructivist inspiration designed in 1926 by A. Burov (1926b), still linked to the architectural imagination of the NEP, contrasted with the spectacularism of the mechanization of agriculture expressed by the mass of tractors of the final scene, showing the greatness of the Plan. In fact, the form of conducting agriculture was no longer that of the small cooperatives of the *artel* of a few dozen hectares that the young Marfa (the *komsomolka*² protagonist of the film) organized in the village, but had become that of the sovkhos, a state company of exceptional size of 50-100,000 hectares whose heart was the agricultural machinery and tractor station (*Mašinno-traktornaj a stancija*, henceforth MTS) gathering a battalion of over 300 tractors. Perhaps coincidentally, such concentrations of machines could be found at that time precisely in the Salsk Steppes in the North Caucasus: nearby, where the film had begun in 1926, were two of the best-known experimental sovkhoses of the First Five-Year Plan, Gigant (which lent the team of tractors for filming) and Verbljud, were under construction since the late 1928.

2. The NEP architectural imagery of the reform of agricultural production in the countryside and the city

In 1926, the scenography by A. Burov was published in the journal of the OSA (Association of Modern Architects) *Sovremennaya Arhitektura* (Contemporary Architecture, henceforth S.A.), directed by M. Ja. Ginzburg and A. A. Vesnin, leaders of the constructivist movement.

In the same year, S. A. published other project almost if they were the elements of an architectural section of the agri-food sector between the countryside and the city. Together with the mechanized farm by Burov, these projects fix the key points of the reorganization of food production and distribution in socialist society in the mid-20s:

- The project of a book kiosk with the function of a peasant club by Alexei Gan for the Sovietized village.
- The mechanized farm of the same scenography as Burov.
- A plant for the industrial production of bread.
- The central wholesale market of food products in Moscow.

The project of the book kiosk-peasant club by Gan is presented in this framework:

The Sovietization of the countryside follows several paths. The tractor and electrification, the cooperation of the rural population, new forms of land cultivation, political-educational work, and much more, were constituting that colossal socio-cultural activity conducted by the party and by the proletarian society that was developing in

the countryside. In the absence of sufficient means, the involvement of the peasants in the construction of new social and economic forms, continues to grow in the old situation of the rural courts-izbas and also their collective cores, which are already integral parts of the Soviet countryside (the reading izbas, the clubs, etc.) but which nevertheless remain architecturally undefined.

In the rural villages of the past only the church occupied, if one can say so, an architectural place. This does not have a rival building in the countryside, which can play a role of agitation for a new lifestyle with its presence in the architectural context of the village. (Novikov 1926)

Gan's project was therefore functional to define an "architecturally identified place" in the village, to promote through the acculturation of the peasants the modernization of the traditional agrarian settlement. The design of the book kiosk/peasant club adopts the compositional clichés of early constructivism, halfway through folkloric tradition and avant-garde, such as that of the pavilions of the *Moscow All-Russian Exhibition of Agriculture and Crafts* held in 1923 at the end of the Civil War, six years after the October Revolution, where Russian rural stereotypes merged with avant-garde solutions in a scenography of wooden structures anticipating a possible balance between modernity and tradition (Astaf'eva-Dlugač 1991, pp. 108-117).

Returning to the film *The General Line/Old and New*, the core of agricultural production during the NEP was still represented by medium landowners (the *kulaks*) and the small owners of the *Slavic village* founded on the ancestral organization of the *obščina*, celebrated by nineteenth-century Russian populists such as Bakunin as a communist society *in progress* through the collective management of agricultural property and production (Venturi 1972, p. 405). The film documents the reorganization of the *obščina*, where Marfa lives, into a dairy *artel*. Its modernization is represented in the introduction into the *artel* before the mechanical skimming machine of milk, and then showing the form that the same *artel'* could take in the future – namely mechanized farm scenography - which in the film is called Burov's "Sovkhoz", a term that was to take on a completely different meaning after 1928.

Burov himself wrote (Burov 1926 b) that he had avoided decorative effects, to focus instead the viewer's attention on the new life and methods of industrialised agriculture, synthesised by a new architecture achieved with new materials and construction techniques (Burov 1926, p. 470).

The Soviet city of the end of the NEP that appears from the projects published in the first three years of S.A. from 1926 to 1928, is essentially a workers' settlement, and a commercial settlement. There are many constructivist projects for commercial company headquarters in Moscow that parallel those for Soviet institutions and that outline a city made of large tertiary complexes, starting with the emblematic Soyuz Center by Le Corbusier (1928), headquarters of the Union of Consumer Cooperatives through which, during the NEP, farmers could trade 70% of their harvest on their own.

The two other buildings published in S.A. should be placed, completing the series of named projects for the agri-food sector of the NEP of the constructivist avant-garde.

The project by student of the VChUTEMAS I. I. Sobolev (laboratory of A.

A. Vesnin) for the Bread Factory (Sobolev 1926), is an industrial complex dominated by the mass of the two grain silos (rye and wheat) connected to the railway serving the mill and the mechanized bakery. The bread factory became a central theme in the reform of food distribution in industrial cities in the late 20s with the Five-Year Planning, with a type, however, totally reformed.

The Moscow Wholesale Food Market is the graduation project at VChUTE-MAS by M. Barshch and M. Sinyavsky (rel. A. A. Vesnin; Barshch and Sinyavsky 1926), replacing the ancient Balotny annonario market (vegetables, grains and spirits) significantly located in front of the Kremlin on the island between the Moskva and Vodootvodnij canal. The complex combines in two planimetric variants of the gallery of wholesalers' shops, a series of blade buildings for commercial offices³.

The Wholesale Food Market was not realized because a few years later, with the Five-Year Plan, the distribution system of food products changed radically with the disappearance of the "market" of small producers and distributors replaced by centralized distribution at prices set by the State⁴.

3. The new form of agricultural production of the Five-Year Plan: the Sovkhoz

Eisenstein himself, on 16 October 1928, admitted that the sovkhoz scenography impressed even the technicians engaged in rural modernization, so much so that the Zernocentr (Grain Centre) called upon Andrei Burov to design a huge sovkhoz, 'Zernovoy fabrik', near Rostov «in image and likeness» of the movie set (Khazanova 1973, p. 468).

This assignment announced to Burov was not implemented yet, in the steppes of Salks in the Rostov-on-Don Region, two experimental granary sovkhoz (*Zernosovkhoz*) by *Zernotrest*⁵ were built from the beginning of 1929 to 1931, whose project of the central settlement (*central'naya usadba*) was entrusted to the company Teplobeton of Moscow (Kazus 2009, p. 99), with another famous constructivist architect P.A. Golosov⁶ acting as consultant.

The plan of the central settlement, and its buildings, designed by the Teplobeton for Gigant in 1928, were repeated in variant by the same team of architects and engineers in other two sovkhoz designed in 1929 and 1930: the experimental-educational sovkhoz Verbljud in the Salsk steppes and Karabalyk in Kazakhstan (Eramishancev 1930, p. 13).

All these settlements assembled the same standard buildings flanked by the *Mashinno-traktornaya stantsiya* (MTS), with the mechanical repair workshop and the logistic node with grain silos (the high-rise of the Sovkhoz), which were the engines of the production system replacing the traditional ones of the small and medium agricultural funds of the villages. The common residences services of the central settlement replaced the Slavic village form of the *obščina* presented in *Old and the New*.

The greatest part of the central blocks of the state grain sovkhoz central settlements were occupied by collective residential buildings, forming single complex with their green areas, facilities and cultural buildings facing a system of squares. The sovkhozes of Verbljud and Karabalyk included also a higher educational institution and student dorms. At Gigant was also built a lower level of educational institution Institut Agrotekhnikum, a vocational secondary school for farmers also providing training courses for tractor drivers (just like the "tractorist" of the film).

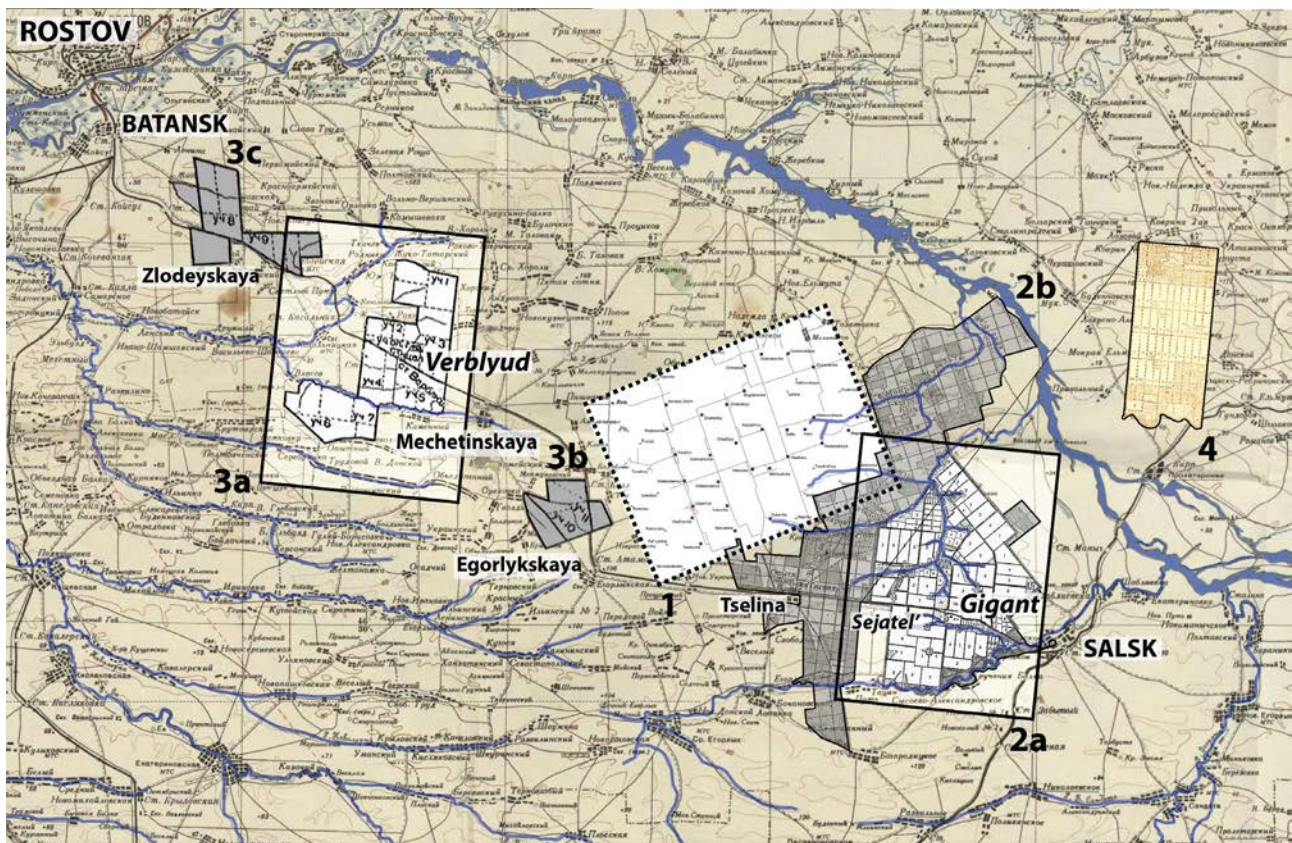


Fig. 3

Agrarian colonization of the Salsk steppe 1920-1934 (author's elaboration 2022).

1 – Land colonised by Molokan and Dukhobor refugees, 1922-23; 2a – Territory of sovkhoz Gigant in 1934-37 (48.671 ha.); 2b – Territory belonging to the Sovkhoz Gigant until 1934 (total extension 127.078 ha.); 3a – Territory of the Sovkhoz Verbljud (today Zernograd); 3b, 3c – Branch settlements territories of Sovkhoz Verbljud in 1929; 4 – Territory of Sejatel' commune, founded by Russian immigrants from USA in 1922, in the 1930's renamed kolkhoz Stalin. Map base *Zapad SSSR na karte RKKa 1:50.000* (West USSR on the Map of the Red Army), 1938; sovkhoz, kolkhoz and colonization area of 1922-26 boundaries are extracted from publications (see text); the 3 rectangles shown in the map represent areas of 30x40 km.

Gigant – the large-scale production unit

Zernosovkhoz Gigant, established in 1928, originally stretched across 127.078 ha, with its central settlement at Tselina (Abrosimov and Koval', 1939: 6, 32-34).

The new central settlements built from 1929 to 1931 near Trubeckaya railway station (170 km from Rostov and 19 km from Salsk), later named Gigant, was equipped with a MTS including an initial allocation of 300 tractors. In 1934, the land was subdivided into three different sovkhozes, of which Gigant covered 48.671 ha. Initially, in 1929, the sovkhoz employed 771 permanent farmers and 1.600 seasonal workers from the surrounding communes, kolkhoz, and agricultural *artel'*, and organised training courses for 800 tractor drivers (Strumilin 1930).

The population of Gigant in 1938 amounted to 6,600 inhabitants of which 4.655 concentrated in the central settlement and the remaining 1945 lived in eight secondary settlements (*usadba otdeleniya*). These latter reproduced the traditional linear village with a population of nearly 200-220 inhabitants each, whereas the central nucleus was a workers' settlement (*rabochikh poselok*), including training students.

The 1928 scheme envisaged the central settlement made up of five parallel functional strips – logistics, production, facilities, housing and leisure – connected by three perpendicular axes starting from the two production units of the MTS. The two outermost axes extended southwards into two bridges across the river to reach the dairy plant and the southern portion of the sovkhoz. The central axis instead extended northwards across the railway into the Rostov-on-Don/Salsk road, which reached the logistic area of the railway yard including the grain silos⁷.

The production sector (*proizvodstvennyj sektor*) corresponded to the MTS, and included garages, repair workshop, fire brigade. Another diagonal axis stemmed from the passenger railway station, which, before reaching the cen-

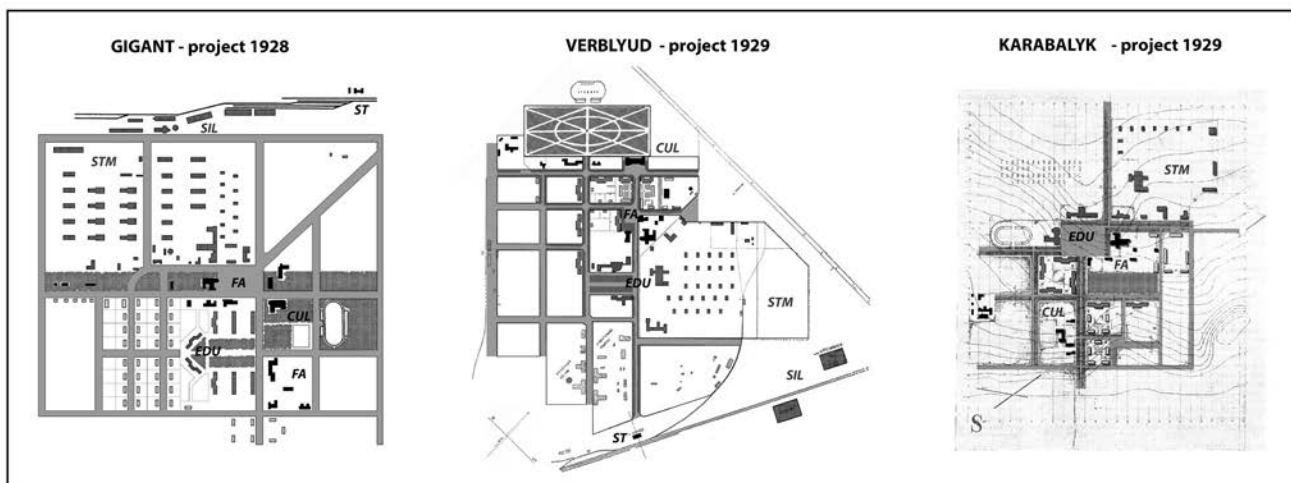


Fig. 4

The standard project for the central settlement (*central'naja usadba*) of the Experimental State Grain wovkhoz by Teplobeton, 1928-29 (author reconstruction, 2022).

Legend. EDU - education: Sovkhoz Gigant (expected population in the central "Agrotekhnikum" Institute settlement - 4000 inhab.) - Institute "Agrotekhnikum" - 100 students; Sovchoz "Verblyud" (expected population in the central settlement - 4000 inhab.) - "Institute of Engineers-Mechanics of Socialist Agriculture" - 1000 students; Sovchoz "Karabalyk" (Kazakhstan, expected population in the central settlement - 2000 inhab.) Institute "Agrotekhnikum" - 600 stud. CUL: Palace of Culture; Workers' Club, Park. FA - Services: 1st and 2nd level school; nursery, administrative centre of the State Farm; public canteen and factory-kitchen; sauna-laundry; cooperative shop; hospital. STM - tractor and agricultural machinery station: mechanical workshop; testing laboratory of tractors and towed machinery; garages for tractors, for combines, for seeders, for convoys; garage for cars and trucks. SIL - Silos: mechanized grain touching; supply stores. RES - Residential types: student hostels, houses with 2 and 3-bedroom apartments; single houses for 2 families; Cottage. ST - railway station.

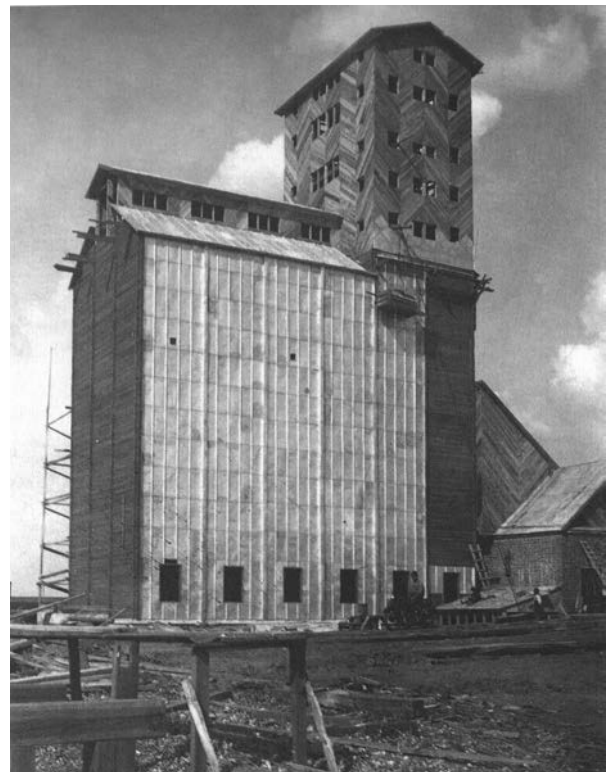
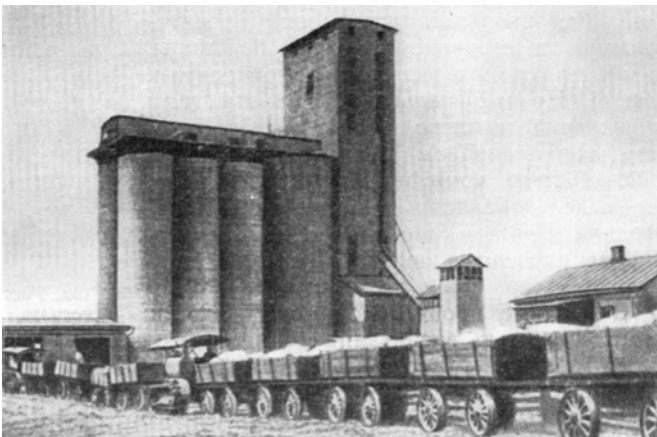
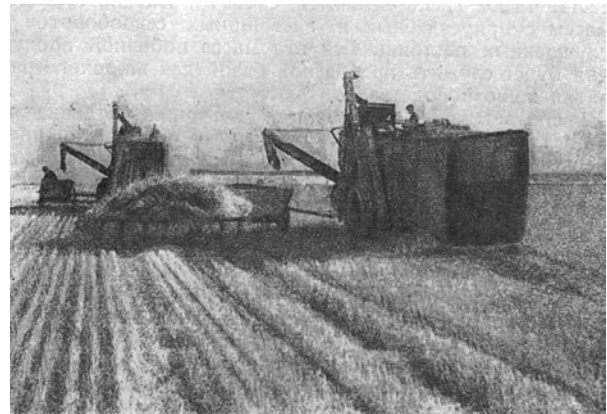
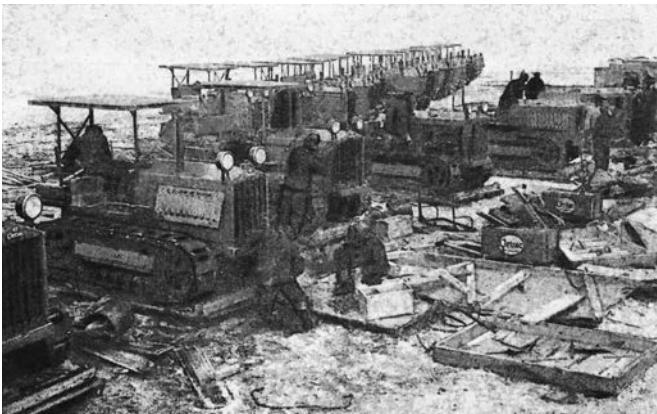
central square, aggregated all public buildings: Sovkhoz direction, kitchen factory (*Fabrika kukhnya*), department store (*Universal'nyy magazin*), school and workers' club. A green buffer zone separated productive from residential units, which also included some multi-storey communal buildings, terraces of single-storey houses of a traditional type, and the *Agrotekhnikum* student dorm designed by P.A. Golosov, and replicated in Verbljud. The embankments of the ponds near the dairy plant catalysed the resort area.

Verbljud – the “educational town” and its American experts

Against the same steppe background, Gigant and Verbljud central settlements had a rather different character. Sovkhoz Verbljud spanned over 50,000 ha: 30,000 near the central settlement at Verbljud railway Station and 20,000 corresponding to *Zlodeyskaya* and *Egorlykskaya* railway stations (Eramishancev, 1930: 12). Verbljud was established as an “Educational-experimental grain state farm” (*Uchebno – opytnyj zernosovkhoz*) in line with plans by the American agronomist and manager Harold Ware⁸, enrolled in 1928 as a consultant of *Zernorest* to set up a network of scientifically managed farms in northern Caucasus and Kazakhstan. In his capacity of Verbljud Deputy Director of Production and Training, from 1929 to 1932, Ware invited American experts to work as adviser and trainers of Russian staff, or else as teachers in the first agricultural-engineering university in USSR, namely the Institute for mechanical engineers of socially-owned farms for 1000 students (*Institut inzhenerov-mekhanikov socialisticheskogo zemledeliya*)⁹ established in Verbljud in 1930.

The presence of American experts materialised in the houses assigned to them: six cottages (Tokarev 2017, p. 45) designed as a kind of semi-detached Russian *izba*. Vasilij Eramishancev¹⁰, who designed Verbljud along with other grain state farms, explained that Verbljud had a special character, not only due to its «rationally organized mechanized economy», but also because it provided cadres for standard state farms. These included tractor drivers, machine operators and mechanical engineers from the school of theoretical training, who knew all the processes of machine processing. State farms were implemented and managed in accordance with a broader program, thereby acting as cultural, training and scientific centres (Eramishancev 1930, p. 11).

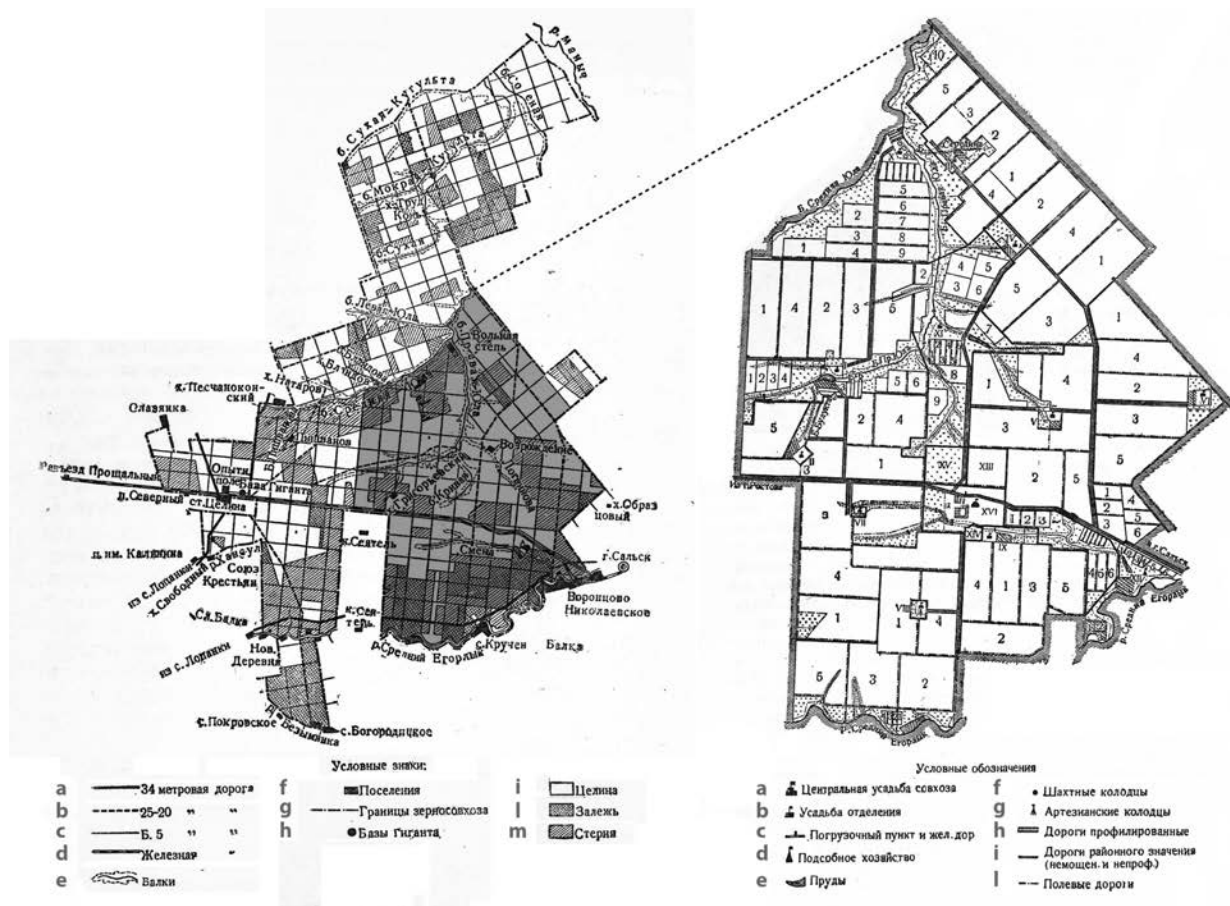
The initial construction program of Verbljud foresaw 1,200 residents, an Institute for 200 students and an agro-technical laboratory. Courses for 500 students were launched as early as spring 1930, which, by the end of that year, were upgraded into a university training of 1.000 machine engineers



Figg. 5 (1-2-3-4-5-6)

The production units of the sovkhos.

1.-2. Verbljud tractor and agricultural machinery station: Agricultural laboratory, workshop; 3. Column of tractors in the fields; 4. Mechanized harvesting; 5. Gigant silos and freight yard; 6. Verbljud Silos.

**Fig. 6**

Extension and territorial articulation of the sovkhos Gigant, 1928-34.

On the left, area of the sovkhos in 1928-1933, ha. 127.078: in dark tone the sector of the sovkhos Gigant in 1934; a – 34-m. large road; b – 20/25-m. large road; c – 5-m. large road; d – railway; e – depressions; f – settlements; g – boundary of the sovkhos; h – bases (tractor columns); i – terr. belonging to Tselina distr.; l – terr. belonging to Zalezh distr.; m – terr. belonging to Sternya distr. On the right, farming organization of sovkhos Gigant in 1934, ha. 48.671: a - Central sovkhos farm; b - Farm branch; c - Loading point and railway; d - Ancillary activities; e - Ponds; f - Mine wells; g - Artesian wells; h - Profiled roads; i - Local roads (unpaved and not profiled); l - Fields roads. Source: Abrosimov and Koval' (1939).

of socialist agriculture. To meet these new requirements, the settlement expanded to 4.000 inhabitants (Eramishancev, 1930: 11) and in 1939 accommodated 8800 people.

The Plan of the “Central Settlement of Verbljud” materialised its “scientific” character along the axis stretching from the railway Station to the Park of Culture. This narrative sequence included the *Institute of mechanical engineers of socially owned farms* (equipped with a dedicated Laboratory, the Mechanical workshop of the MTS, and the sovkhos Direction), the square of collective facilities (kitchen factory, club-school, and department store) and that of the Palace of Culture (with the Park of Culture encompassed by schools and hospital).

Unlike *Gigant* central settlement, the sectors of the town were not parallel to the railway but inclined of 45°, to optimize the buildings exposure to insolation and winds.

The Institute of mechanical engineers of socially owned farms and its laboratories differed from the rest due to strong constructivist character of their Architecture. In comparison with those of *Gigant*, the residential buildings of Verbljud, are more varied, responding to a more articulated social composition. In fact, they include a large student dorm, a small hostel for singles and small families, 2 and 3 rooms apartments and the cottages for guest experts.

Agrarian Constructivism

The two experimental *Zernosovkhos* Gigant and Verbljud stood out from other rural settlements realised in the 1920s and 1930s due to their constructivist design, marking a clear break with traditional layouts and architecture made up of linear terraces and izbas.

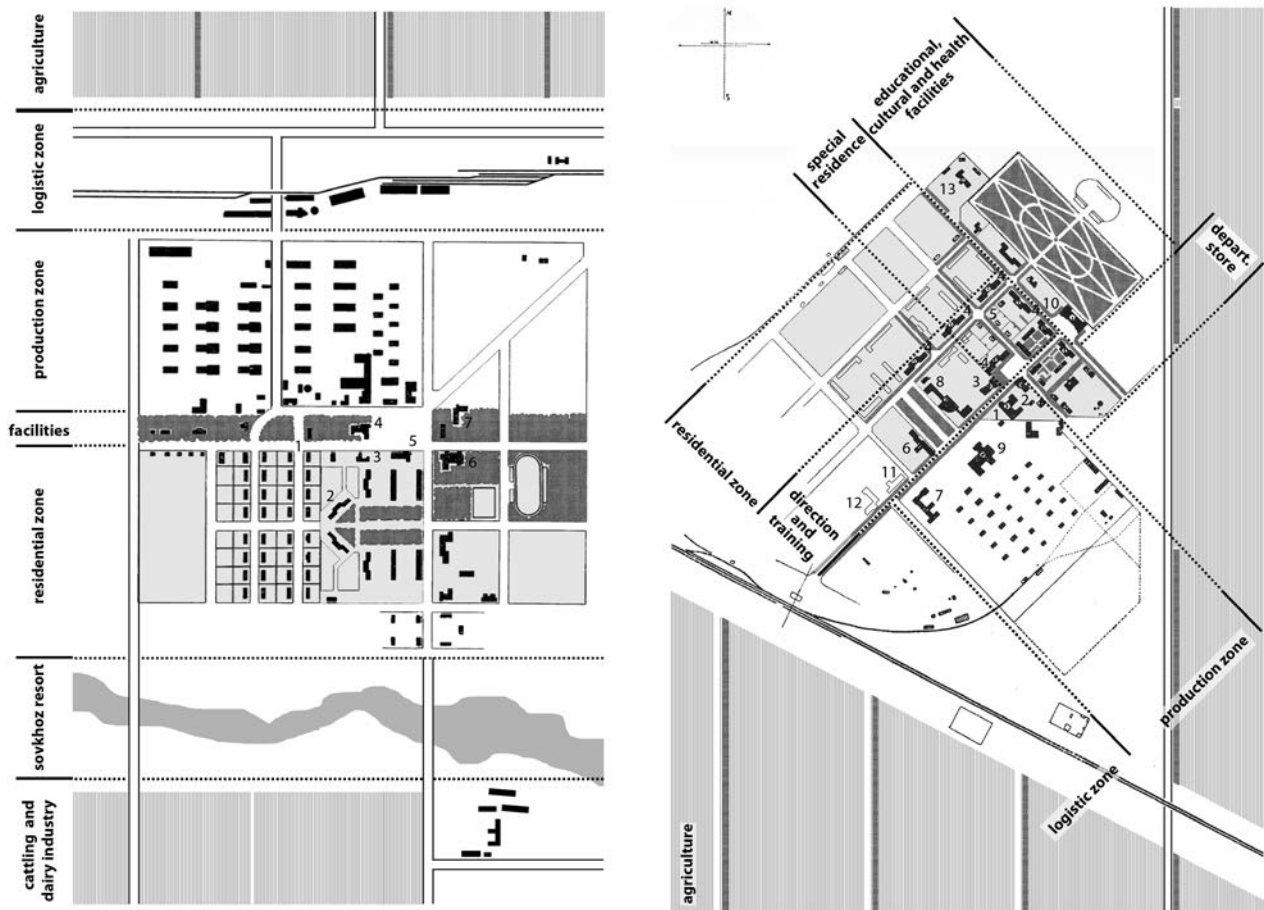


Fig. 7

Plan of the central settlement of Gigant and Verbljud, 1928-20. (author's reconstruction, 2022)

Gigant, originally planned by V. I. Eramishancev, P. A. Golosov, N. M. Vavirovskij, F. N. Andreev and A. M. Krylov, 1928-early 1930s.: 1 - residential area with terrace houses, 2 - Agrotekhnikum, 3 - Sovkhoz Direction, 4 - Communal kitchen, 5 - Department store, 6 - Worker's Club, 7 - School. (base map source: Baranov, 1975 : 138)

Verbljud, Originally planned by V. I. Eramishancev, P. A. Golosov, N. M. Vavirovskij, F. N. Andreev, A. M. Krylov, 1929- early1930s: 1 - Communal Kitchen, 2 - Department Store, 3 - Club-school, 4 - Hostel-house for students, 5 - Cottages for foreign experts, 6 - Agro-technical laboratory, 7 - Repair Shop, 8 - Institute of socially-owned farms' mechanical engineers, 9 - Mechanical Laboratory, 10 - Cinema-theatre, 11 - Sovkhoz Direction; 12 - Hotel. (base map source: Eramishancev 1930, p. 13; Baranov 1975, p. 140; Bylinkin et al. 1985, p. 78)

Yet, the central settlement diluted constructivist architecture into traditional elements and building types. The school, the department store, the workers' club and the dorm in Gigant resemble other buildings of the same type built in the industrial towns of URSS during the first Five Years Plan. The residential units instead were a simplified version of the houses found in linear Slavic villages.

The dorm and the other collective apartment buildings designed by P.A. Golosov at Gigant and Verbljud featured the same volumetric composition enhanced by flat roofs with bower, just like the contemporary designs by Ilya Golosov for the industrial city of Ivanovo-Voznesensk in central Russia. During the implementation, however, pitched roofs replaced flat roofs. Facing this "domestication of form" P. A. Golosov elaborated a color plan of the facades that exalted their abstract and constructivist composition.

The adoption of pitched roofs, so common in Russian rural architecture, in the constructivist sovkhos buildings was probably coping with the need to differentiate industrialised agricultural settlements from industrial towns. The founding settlements of Gigant and Verbljud in 1928-29 were a real laboratory during the making of the First Five-Year Plan.

The theoretical debate on the socialist city began at the beginning of 1929 (Ceccarelli 1970) while the Five-Year Plan, as Eisenstein observed while concluding the filming of *Old and New*, was already producing a radical transformation of the territorial and urban planning with the two sovkhoses of the Salsk steppes now under construction. The two sovkhoses were thus able to offer a concrete example for the elaboration of theoretical models of socialist cities¹¹.



Figg. 8 (1-2-3-4-5-6)

Architecture of the facilities buildings and educational system of the sovkhos Gigant and Verbljud, 1929-31.

1. Club-school (left), of the factory-kitchen and canteen (right) of Verbljud with the communal housing for students in the background; 2. Gigant shopping centre; 3. Gigant Workers' Club; Gigant Primary and Middle School; 5. Complex of the "Institute of Mechanical Engineers of Socialist Agriculture" in Verbljud, 6. Dormitory for students and cottages for foreign lecturers in Verbljud.

4. The landscape transformation of the urban workers' terminal of mechanized agricultural production of the First Five-Year Plan.

Countryside reorganization with sovkhoz and kolkhoz systems from the First Five-Year Plan, with the mechanization of agriculture and the production of a surplus of agricultural products to feed a growing urban working population,¹² also changed the organization of the distribution of food products in the cities comparing with the years of the NEP. During the initial years of the First Five-Year Plan, still in a frame of experimentation with building types that were to characterize the socialist city, two new types were developed in the agri-food sector: the kitchen-factory and the bread factory, the latter in a radically reformed version compared to the past (Fisenko, Volchok 2018).

The model working-class district of the socialist city is illustrated in a propaganda manifesto by Aleksandr A. Deyneka entitled *Let's transform Moscow into the socialist model city of the proletarian state* of 1931. The slogan divides the space into three sectors: the area of production, the residential area, and the area of consumption, linked by the transport network. The residential part illustrates an animated scene of the residential complexes gathered around the green space with the services.

The “socialist facilities” are set in the green park surrounded by buildings for culture, like workers' club and the school, enclosed by the large complex of the factory-kitchen in the background. The complex of Stachek Square in Leningrad in the Kirovsky district (Kirikov and Shtiglic, 2008) is among the different examples of this type of socialist civic center, one of the most accomplished of the time is; in this district were located the famous Putilovsky plant producing the tractors of the final scene of *Old and New*.

Around the square, were the Gorky Palace of Culture and the adjoining building of the House of Technical Studies, (Kirikov and Štiglic 2008, pp. 94-103) on one side and the House of Cooperation on the opposite one. The latter includes a kitchen factory capable of distributing 84,000 meals a day, to which is attached a shopping center (*universal'nij magazin*), cafes, and restaurants¹³.

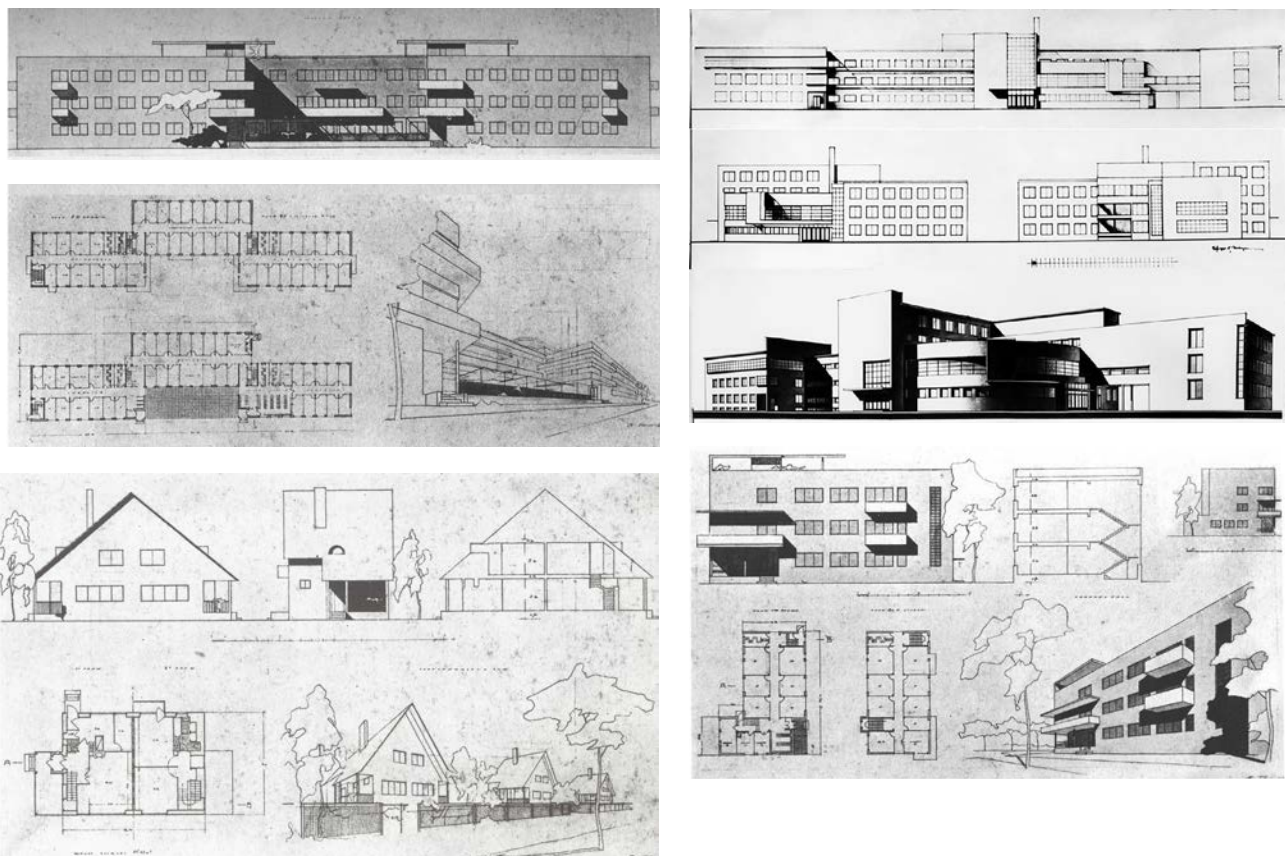
The large complex had the most sophisticated mechanical systems at that time for meal production and distribution.

The other protagonist of the new form of food distribution was the large bread factory, the most important example of which were the factories built with the “system” of engineer G. L. Marsakov, constituted by a compact cylindrical organism that uses ring conveyor belts for the different stages of production, distributed on different levels connected by belts and elevators.

Five plants were built in Moscow and two in Leningrad following the “Marsakov system”. According to size they were able to produce from 30-60-100 and up to 180 tons of bread per day.

Marsakov also designed a kitchen-factory based on the same system as circular conveyor belts.

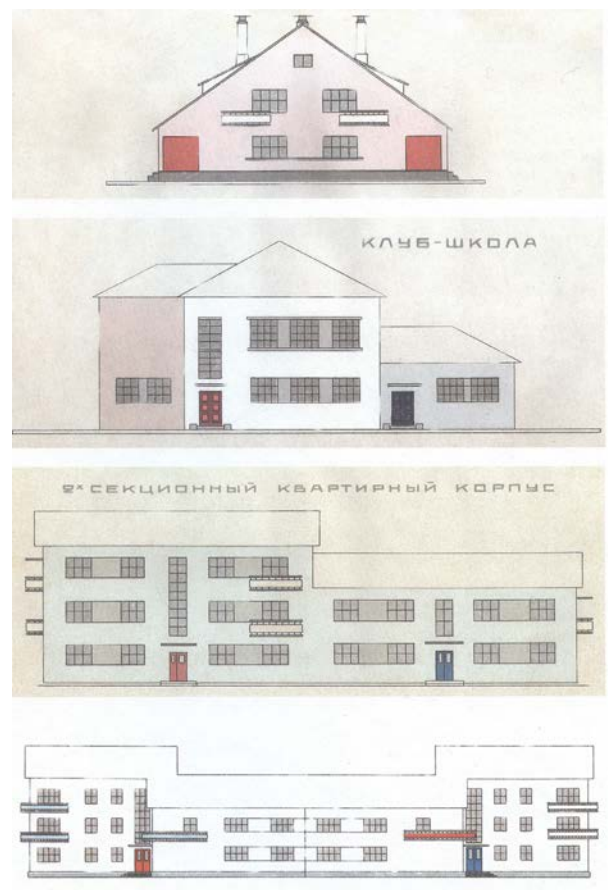
Compared to the bread factory project of 1926, inaugurating the sequence of this type of plant, the mill, and the silos are now ideally located in sovkhoz agro-industrial complex. In this new context, the vertical landmark of the silo has disappeared appearing otherwise as a distinctive landmark of the reformed agrarian landscape. The other element that disappeared from the urban landscape is the wholesale market replaced by complexes of the type of the Leningrad House of Cooperation.

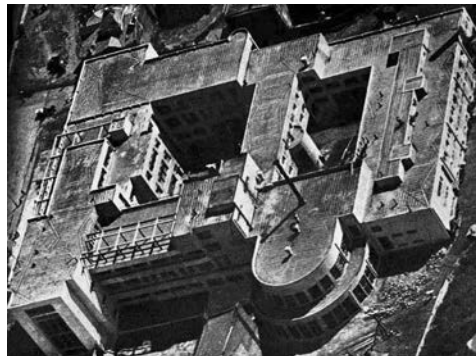


Figg. 9 (1-2-3-4-5)

Agrarian constructivism. Projects of the company Teplobeton» for Gigant and Verbljud, 1929.

1.,2.,4. P.A. Golosov, Dormitory for students, cottage for foreign teachers, residence of studios for Verbljud, 1929; 3. N. M. Vavirovsky, complex of the Institute of Mechanical Engineers of Socialist Agriculture in Verbiud, 1929; 5. P. A. Golosov, Color plan for the foreign teacher's cottages, the club-school, the apartment building and the Verbljud student dormitory, 1929.

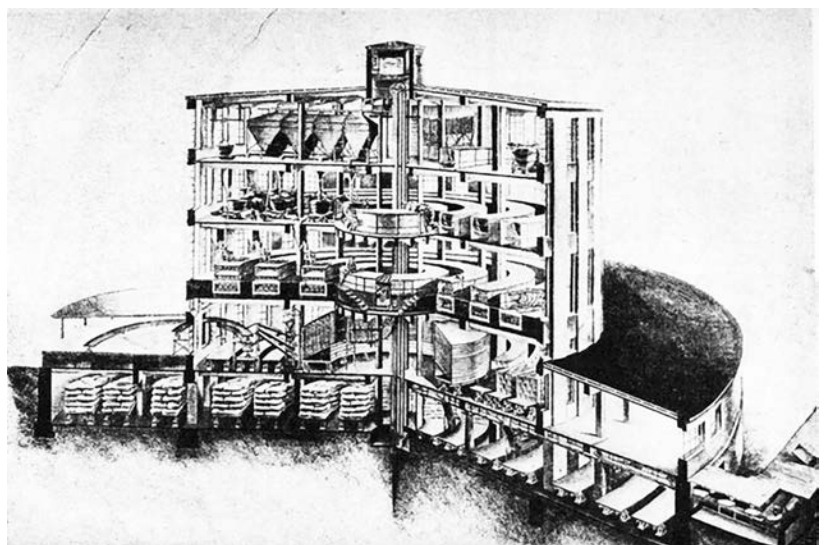
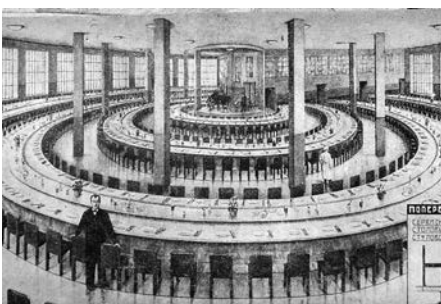




Figg. 10 (1-2-3-4-5)

Food distribution devices in the socialist city of the First Five-Year Plan, 1929-31

1. A. A. Dejneka, Propaganda Manifesto of the First Five-Year Plan *Transforming Moscow into the Socialist Model City of the Proletarian State*, 1931; 2.-4. A. K. Barutčev, I. A. Gil'ter, I. A. Meerzon and Ja. O. Rubančik, House of Cooperation including the factory-kitchen in the Kirovsky district of Leningrad, 1929-31: bird's eye view, mechanized kitchens and canteen; 5. G. L. Marsakov, Factory-kitchen project with mechanized distribution of meals, 30s; 6.-8. G. L. Marsakov, Bread Factory No. 11 (1937), Bread Factory No. 5 (1931) and scheme of operation of the bread factory plant with the "Marsakov system" (1930).



Concluding note

In presenting these projects as a whole, as an architectural section between city and countryside in the USSR of the 1920s and 1930s, we tried to highlight the extremes of architectural research that imagined, on the one hand, the construction of an articulated system with typological specifications identified at all scales, and on the other tried to picture a specific expressive of modern rural architecture.

After 1933, with the Socialist realism in art and architecture, the avant-garde project for the socialist countryside and for the socialist city in the USSR, had been forcibly abandoned.

At this juncture, reinterpretation, and reproduction (in the worst case), of the Slavic village's traditional models of architecture became the only admitted research address in the countryside.

This phenomenon is evident in the soviet literature dedicated to countryside architecture from the late 1930s until the Khrushchev Thaw.

In this context, the ideal architectural section that linked the city and countryside in the avant-garde project was divided into two different sheets: “vernacular” became the term epitomising countryside architecture, and “engineering” the term epitomising the urban food distribution facilities.

Notes

¹ A Russian production of the Fordson model (Cohen 2020).

² The *Komsomol* was the Soviet communist youth organization.

³ The two architects built in 1929 the famous building of the Moscow Planetarium among the icons of architectural constructivism.

⁴ In the Soviet system, food products were collected in warehouses (*ovashchaya basa*) that provided for distribution to state food stores. The Balotny Market was partly transformed into a park, and in the area of the Spirits Market was built the House on the Riverfront, the large residential complex intended for the cadres of the Soviet state, built by B. Iofan in 1929-31.

⁵ *Zernotrest* (State Association of Soviet Grain Farms) existed from 1928 to 1931.

⁶ Pantelemon Aleksandrovich Golosov (1882 – 1945), brother of better-known Ilya, also OSA member.

⁷ The actual settlement differs in the disposition of collective residential buildings.

⁸ An agronomist and member of the USA Communist Party, in the early 1920s Harold M. Ware (1889–1935) worked in the Soviet Union, in Perm in the Urals. In 1926-1928, he organized the *Russian Reconstruction Farms*, a joint Soviet-American venture supporting training and experimental farms. Ware was also plenipotentiary representative in the USSR of major American producers of agricultural machinery. Moving back to USA in 1932, Ware became a Soviet agent but died in a car accident in 1935 (Carr and Davis, 1969; Harris 1986; Fitzgerald 2003; Nikulin 2010).

⁹ Today «Azov-Black Sea State Agro-engineering Academy of Sciences» (Taranov and Zaydiner, 2012: 7).

¹⁰ In 1927, Vasilij I. Eramishancev (1875-1958), worked in the Supreme Council of the National Economy and was engaged in the design of workers' settlements for *Zernotrest* in North Caucasus and Kazakstan. See: Kazus' 2009, p. 189, 488; Eramishancev 1929, pp. 782-785; Eramishancev 1930, pp. 11-13.

¹¹ We have developed a detailed reconstruction on this aspect in a contribution in printing progress entitled “Old and New. Delving into the origins of collectivization” (Meriggi 2022).

¹² The model of economic development set by the Five-Year Planning aimed, as well known, to accelerate the industrialization of the country. In general, the strengthening of agricultural production was functional to produce a surplus of foodstuffs intended to feed the working population in the industrial cities, composed of former peasants released from rural work thanks to mechanization. See Baransky 1956.

¹³ By A. K. Barutčev, I. A. Gil'ter, I. A. Meerzon and Ja. O. Rubančik, of 1929-1931, authors in the same years of other factories-kitchen in the main working-class neighborhoods of Leningrad. See: iidem, 1933; Kirikov and Štiglic 2008, pp. 104-108.

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Marija Drémaitė
**Rural modernization in Lithuania in 1950s-1980s:
 from functionalist agrocities to regionalist approach**

Abstract

The modernist post-war spatial organisation and territorial planning was a strictly hierarchical network, guided by the principle of development from the centre to the periphery and best revealed through an examination of regional planning, the functional zoning, and the urbanisation of rural areas. This paper presents a vast environmental-territorial transformation of rural Lithuania under the Soviet occupation period in 1940-1990, during which the forced collectivisation of agriculture resulted in new territorial development. As a reaction to functionalist approach, the regionalist trends were started to be manifested in late 1970s.

Keywords

Rural modernization — Regional planning — Modern Lithuania

Introduction: regional planning and rural modernization

The urbanisation and industrialisation of the Soviet occupied Baltic republics – Lithuania, Latvia and Estonia – in 1940–1990 had significant socio-economic consequences. It was precisely at this time that the economic development network encompassing the long-term industrial and territorial growth plans emerged.

Rural urbanisation brought tremendous change to the provincial landscape of Lithuania. After the Soviet Union occupied Lithuania in 1940, one of the first issues to be addressed was the land nationalization, agricultural reform and forced collectivization. This forced restructuring of agricultural sector directly impacted nearly 70 per cent of the Lithuanian population with land holdings. The process had two clear ideological vectors: the elimination of single-family farmsteads as the backbone of private property, and the Communist Party's goal of bridging the city and the rural village. In 1947, the Communist Party adopted a resolution *On the Construction of Collective Farms in the Lithuanian, Latvian, and Estonian Soviet Socialist Republics*, including a provision calling for model collective farms to be outfitted with modern technology to promote the collectivisation ideology among the farming community. By 1952, nearly 93.8 per cent of Lithuania's rural population (encompassing 343,200 privately held farms) (Butkevičius 1980, pp. 9–10) had been forcefully consolidated into collective farms, prompting the Lithuanian Communist Party's Seventh Congress to proclaim the successful end of collectivisation in Soviet Lithuania.

However, Soviet collectivisation was met with popular discontent and resistance. As a result, only a few model communities were constructed in this period, largely for propaganda purposes. The challenge then became

the mass construction of agricultural settlements. Schemes were drawn up for zoning and locating major agricultural facilities, followed by the approval of general and detailed settlement plans and the adoption of designs for industrial centres and their location.

From 1959 to 1964, the Lithuanian Regional Economic Council was established and produced a *Long-Term Scheme for the Urban Development and Distribution of Industry* that outlined the location of industrial facilities, the construction of rural settlements, the laying of roads, the proper use of water resources, and the resolution of matters pertaining to urbanisation and agricultural restructuring (Drémaitė 2017, pp. 116–145). By 1960, a *Planning Methodology for Rural Districts* (directed by architect Steponas Stulginskis) was prepared for the entire republic and was later used as the basis for regional planning schemes. Between 1967 and 1991, nearly 115,000 of the family farmsteads owned privately prior to Second World War were disbanded, and by 1983, 64 per cent of Lithuania's rural population was living within the jurisdiction of collective farm settlements (Vėlyvis 2000, pp. 25–31). By 1975, Lithuania had 3,089 rural settlements, divided into two categories: central (1,542) and secondary (1,547) (Butkevičius 1980, p. 99).

Two central architectural questions continued to be present throughout the entire period of rural urbanisation. The first had to do with the house typology of the collective farmer: single-family homes (with a small, adjoining farm) or collective arrangements? Another important issue was the architecture of new collective farm settlements and the functions such centres needed to serve. In this regard, opinions changed radically – shifting from the mechanical transplanting of urban structures to rural communities to a revival of regional ethnographic foundations and the embrace of postmodernist experimentation.

The 1960s: urban standards for rural settlements

Rural urbanisation progressed nearly exclusively through the process of forced collectivisation. Ideologically, *kolkhoz* (collective farm) and *sovkhov* (Soviet farm) settlements were meant to constitute a new, Soviet, way of life. Each new *kolkhoz* settlement was subdivided into functional zones: a town centre, a residential area, and zones for agricultural industry. However, residents were gradually abandoning the new Soviet villages impoverished by collectivisation, and well-trained agricultural specialists were also in severely short supply. Thus during Soviet Communist Party leader Nikita Khrushchev's modernisation in the late 1950s, proposals were made to bring urban comforts to the rural environment to attract the necessary talent. He proposed the replacement of millions of villages with agro-cities of 10,000 inhabitants (Pallot 1993, pp. 211–231). The *Zarya Kommunizma* (Dawn of Communism) agro-city, built in 1961 near Moscow, was presented as a model town.

According to a new programme, all *kolkhoz* settlements were to be categorised as either central (with consolidated infrastructure, an administrative centre, and housing for collective farm employees), secondary (residential communities engaged solely in collective farm activity), or non-developable (with residents to be transferred to a central settlement). The development scheme for the Lithuanian SSR envisioned 2,200 prospective settlements (with 1,150 designated as central and more than 1,000 as secondary) and 1,300 non-developable communities (Drémaitė 2017, pp. 116–145). [Fig. 1]

**Fig. 1**

Photo of model kolkhoz settlement Dainava, A. Palionis, 1974 (Source: Lithuanian Central State Archives)

What followed was the most extreme period of Soviet rural urbanisation. Individual family farming plots were abolished, families were prohibited from keeping domestic animals, and the construction of urban-style apartment blocks began, fundamentally changing the population's relationship with the surrounding environment.

The Dainava experimental settlement, built for 1,000 residents on the Leonpolis Soviet Poultry Farm in central Lithuania (architects Virginijus Šimkus, Ramūnas Kamaitis, Algimantas Staskevičius, 1965–1969) did indeed develop into a model *agro-city*, meant to showcase the Lithuanian village of the future. It was designed to follow a modern *city-like* settlement principle: terrain was levelled to accommodate an administrative centre with public buildings, including the first shopping centre to be built in a Lithuanian village. A 3,2-hectare park was established next to the settlement and all roads were paved. A completely new feature for a village community was the introduction of collective gardening plots, instead of individual plots near houses.

Dainava's central square was ringed by multi-unit 2 and 3-story panel apartment blocks. Outbuildings were also located within a specific pattern: once the apartment buildings had been constructed, it was no longer feasible to arrange service buildings in the traditional fashion, so one large single-story service structure with individual storage rooms for each apartment was constructed some 200–300 metres from the residential zone. [Fig. 2] As in cities, individual automobile garages were consolidated into one large parking building. Privately held animals were also housed on one common farm. This separation of zones was considered extremely progressive from a hygienic and sanitary standpoint, but it was received particularly negatively by residents because of its inconvenience.

Dainava was an extreme example of a period of intensive socialist agricultural reform and a policy of *transplanting the city to the village*. Although it received the USSR State Prize for its design in 1971, such an experiment provoked corresponding reactions. It became clear during the construction of the Dainava settlement that urban-style apartment blocks were not suitable for agricultural workers in need of roomier kitchens, cellars, and outbuildings. Therefore, a series of single-story brick houses with adjoining farming plots soon arose near the Dainava park.

The 1970s: the pursuit of regional individuality

In 1967, critique began to be targeted at the issue of the uniform appearance of new rural settlements and the fact that these new rural communities differed little from their urban counterparts. They were criticised for being *architecturally cold, and lacking the cosiness characteristic of rural villages* (Kalmykova 1968, pp. 15–22). From an ideological point of view,

the criticism gradually introduced the idea that modern Soviet rural settlements need not replicate urban mass housing estates, but should also not be copies of the old style of peasant villages. The challenge, then, was to design a new type of rural settlement.

New political resolutions called for the modernisation of the central part of settlements through the addition of cultural and consumer facilities, diversified housing for farmers (in contrast to standard two- or three-storey panel buildings), and the prioritisation of design and construction in rural urbanisation. The national republics were encouraged to take the initiative in this process and in 1968 rural settlement planning was devolved to local, republic-level institutions (such as the Collective Farm Construction Design Institutes in Estonia, established in 1966, and Lithuania, established in 1968). Regional architectural competitions and conferences were launched and the first Soviet-wide review of *kolkhoz* architectural designs was organised, encouraging construction of experimental settlements to serve as pilot projects for the future.

From the mid-1970s into the 1980s, the Soviet Baltic republics (Lithuania, Latvia, and Estonia) experienced a period of solid growth in their agrarian economies. Newly affluent collective and state farms began to develop new housing and an emerging competition among *kolkhoz* chairmen helped foster innovative architectural designs and garden-city urban planning (Kalm 2009, pp. 128–147). It was also a field for young architects with attitude, who enthusiastically began to implement their ideas. An increasing number of homes were built using custom designs, while expressive administrative, cultural, and domestic service complexes began to appear, complemented by scenic landscaping. This radically different ideology is perfectly illustrated by the title of an article written by Lithuanian architect: *Protect our villages from urban structures!* (Šešelgis 1984, p. 4).

A plenary session of the Soviet Communist Party in 1978 provided another important impetus for the acceleration in the construction of single-family homes. The meeting reaffirmed the belief that well-trained specialists in agriculture could be drawn to work in rural areas by the assurance of better living conditions. This ideology was soon reflected in the so-called *Alytus House* produced by the Alytus Experimental Home Construction Factory in Southern Lithuania, which produced a traditionally looking wooden frame panel houses. It can be seen as perfect compromise between the challenge of restoring single-family homes in rural settlements and the strict requirements imposed on construction industrialisation and assembly. [Fig. 3, 4]

The late 1970s: Garden-city Experiments

A truly Soviet Lithuanian style of collective farming community began to emerge in the mid-1970s and early 1980s – modern settlements that were anchored in the surrounding landscape and closely associated with hybrid regional architectural details. In 1974–1975, free-standing single-family homes comprised 60 per cent of all residential housing in the Lithuanian SSR (Butkevičius 1980, p. 105). An increasing number of homes were built using custom designs, while new and expressive administrative, cultural and domestic service complexes began to appear, complemented by scenic landscaping. Designers began to apply various different architectural approaches: exploiting the natural local terrain, avoiding right angle street intersections, and creating different types of designs for residential housing (including semi-detached and terraced buildings). Planners were

Fig. 2

Design for the single-family rural house 'Šermukšnis' (Rowan) by Alytus factory (Source: A Catalogue Skydiniai namai – 76, Vilnius, 1976)

**Fig. 3**

Design for the single-family rural house 'Šermukšnis' (Rowan) by Alytus factory (Source: A Catalogue Skydiniai namai – 76, Vilnius, 1976)

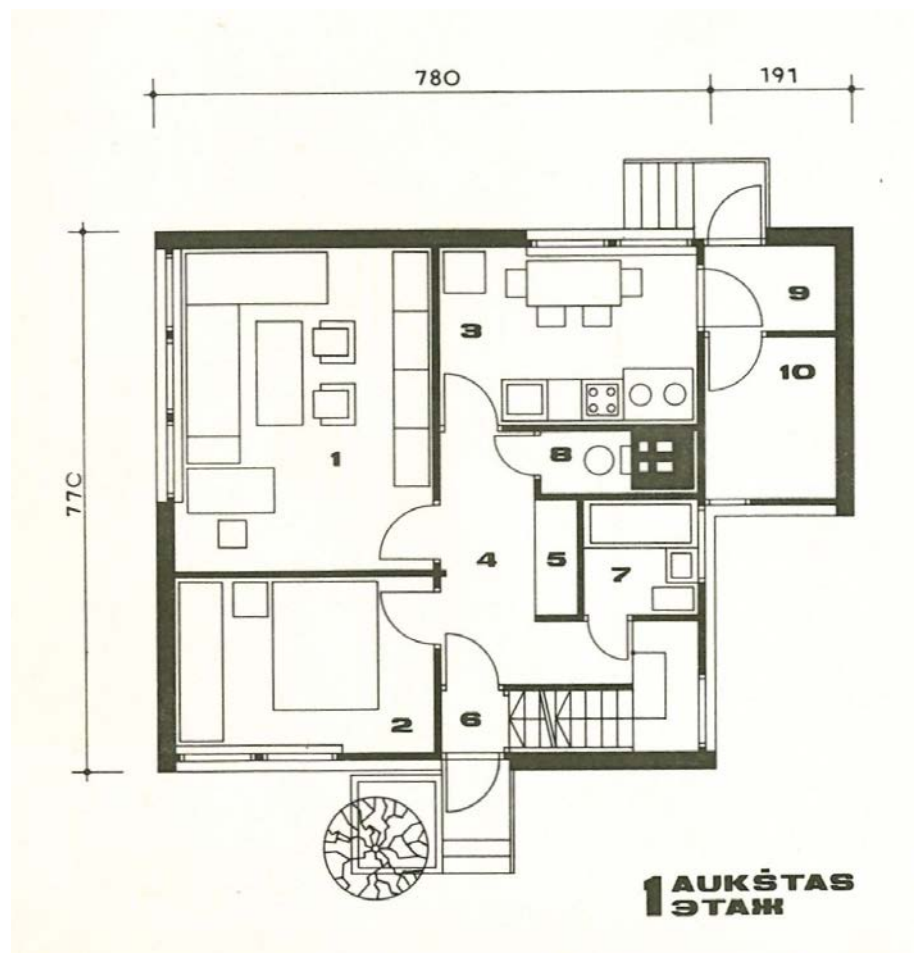




Fig. 4

Aerial view of Juknaičiai garden-settlement, 1980s (Source: Zigmantas Dokšas, Juknaičiai, 1986)

encouraged to build new settlements on the territory of existing villages, taking advantage of the available historical heritage.

The management system of Soviet Lithuania's prosperous collective farming network can be described as a unique amalgam of the collective farmers' serf-like dependence on the estate, a 19th-century paternalist industrial town hierarchy (led by an all-powerful collective farm chairman), and collective farming methods (the *communal pot* approach). More productive and prosperous *kolkhoz* chairmen began competing in the construction of administrative and cultural centres. A new feature on the rural landscape was the introduction of a full-time official architect, evidence of a constant state of new construction and increasing architectural aspirations.

One symbolic location, the result of a convergence of initiatives by an active chairman and the architectural characteristics of late modernism and regionalism, was the model community of Juknaičiai, central settlement of the *sovkhos* in the western Lithuania. An ambitious new chairman, Zigmas Dokšas, had aspirations to create a unique environment to promote the community's welfare. The custom plan for the layout of the Juknaičiai settlement and park, devised in 1974, played a significant role in reinforcing in rural architecture such innovations as the synthesis of landscape architecture and monumental sculpture. At the collective farm chairman's invitation, the community's buildings and park were finished with works by famous Lithuanian artists, the administration added new posts for an in-house architect and designer, and the chairman initiated the construction of custom-designed residential buildings, based on the experience he gained while travelling abroad.

**Fig. 5**

Design for an 8-apartment house in Juknaičiai, architect Stanislovas Kalinka, 1980 (Source: Vilnius Regional State Archives).

The settlement included non-standard one and a half and two and a half-story homes, with apartments laid out over two levels (designed by Edmundas Vičius); eight-unit apartment houses (by Stanislovas Kalinka); fluidly designed, red brick community buildings, covered in sloping tiled roofs; and a retirement home with an enclosed layout reminiscent of a monastery. A water tower served as the settlement's principle vertical landmark, with a small red-tile roof and weather vane typical for the region. Its wellness centre, masquerading officially as a sauna and laundry, resembled a church and adjoining monastery (designed by Kalinka in 1977).

Its unique architectural approach made Juknaičiai one of the most visited model collective farms in the entire USSR. After receiving accolades at a Soviet-wide review, in 1988, Juknaičiai became the first and only *kolkhoz* to receive the coveted Lenin Prize for its architecture, generating increased public interest in the settlement – not only for its innovative style, but also because of the changing values taking hold in rural settlement architecture. [Fig. 5, 6]

Conclusion

Important factors to consider in assessing the exceptional nature of rural planning in the Baltic republics was the relatively late start of their forced Sovietisation in 1940 and the continued influence of traditional ways of farming and living on individual farmsteads. The growth of the agricultural economy and the architectural aspirations of the younger generation of planners from the 1960s to the 1980s were the principle drivers of the emerging spatial and cultural landscape in the Lithuanian countryside. Although Baltic rural communities were constructed in accordance with Soviet directives, they nevertheless developed certain unique features: a socially motivated, personalised approach to a variety of residential forms, the development of original settlement administrative centres combining elements of modernist and regional architecture, and landscape design.

From 1950s to late 1980s the rural architecture in the Baltic republics shifted from monotonous communities and rows of farming plots to ambitious architectural complexes. Estonian architectural historian Mart Kalm has perceptively referred to this aesthetic shift in Baltic agriculture as establishing *oases* on the industrialized Soviet rural landscape (Kalm 2007, pp. 352–373). Planners sought to design a new type of Soviet rural community that neither fully replicated the urban mass housing neighbourhood, nor

could be considered reminiscent of a traditional rural village. In this field, values changed rather radically from urbanised agro-towns to *uniquely designed* garden-cities.

In 1989, one year prior to the restoration of Lithuanian independence, the Lithuanian SSR had 750 collective farms (employing 280,000 workers) and 275 Soviet farms (with 118,500 workers) (*Tarybų Lietuvos enciklopedija* 1988, 265). The collective farming system in Lithuania was ended with the declaration of independence from the Soviet Union in March 11, 1990, but formally it lasted until 25 July 1991, when the newly elected democratic Lithuanian parliament passed a Land Reform Act that began the dismantling of the Soviet agricultural structure. Socialist experimentation with rural urbanisation unquestionably helped modernise the living standards of many Lithuanians, but it was done at the cost of terror, and this risky endeavour ended in the collapse of the kolkhoz system.

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Yuliia Batkova, Laine Nameda Lazda

A rural social condenser.**The collective farm of Nākotne as an asset and a challenge**

Abstract

Currently, the Soviet regime and collective lifestyle can be seen only in the retrospective. The strong physical facts of these practices lost their meaning and utility, however, continue to dominate the present materiality of the Post-Soviet context. The article questions the successful example of Soviet collectivist architecture in the context of the relevant discourse over the complex built form. Nākotne (Latvia) is an exceptional case of the Soviet collective farm, where the contribution of the chairman and chief architect broke the neutrality between the Soviet ideology and the formal design through the innovative vision. Specifically, the Sports and Culture Centre of Nākotne is analyzed as a social condenser, which can be considered both a challenge and an asset for the issues of contemporary architectural discourse.

Keywords

Collective farm — Rural architecture — Complex buildings

New collectivism of Soviet Latvia

Conventionally, the Soviet epoch is known as a time of reformation. However, it cannot be denied that it was an era of new formulations that from the perspective of unconventional conceptions which emerged in response to the ideological request of the State. This fact is illustrated by a variety of innovative built forms. The phenomenon of a collective farm, so-called *kolkhoz*, stands in the middle of this discourse. This typology is a bright example of Soviet invention, rather than a result of gradual development, a physical manifestation of the State's ideology written on the blank front of unclaimed land.

Initially, the territory of Soviet Latvia was characterized by the distinction between urban and rural. The outskirts of major cities here were covered with single farmsteads (Bell et alii 2019). However, for the State, the claiming of the Latvian rural land was highly promising from an economic perspective. Besides, the introduction of collective farms in this context was both a tool to affirm Soviet power and the outcome of it. At the physical level, the town and countryside had to be brought to the common denominator, following the standardization promoted by the Socialist principles (Drémaitė 2017). Inserted into the countryside, the collective farms were established in a network around the large urban settings significantly changing the rural landscape (Melluma 1994). Semi-urban settlements were created, based on the needs of industrial production. However, the standardization was operating also at the social level, following the Marxist ideas¹ (Meyer 1931). Thus, collective farms were not planned to act as “industrial apparatus”; Instead, introduced settlements were considered a stage for new a collectivism, where a sense of belonging to the Socialist

doctrines had to be established. In this context, farmers were appropriated and activated the place, resulting in an ambiguous conditions. On the one hand, growing repressions made people join the kolkhozes “deliberately”. On the other hand, to attract owners of smallholdings, settlements were designed with modern amenities for a comfortable life, often found in the cities (Kalm 2009). Thus, the duality of the formation processes resulted in the duality of the result. The urban settlements placed in the middle of the agricultural landscape created a hermetic environment in which a new form of collectivity was shaped. Therefore, the collective farm was seen as both an urban form and a way of collective living, which was mainly represented in the architectural dimension.

While it would be true to say that any invention requires a decision, arguably also sacrifices, the question is if the outcome can justify the action, once decontextualized from its specific position in space and time.

At the time, the Soviet State established a system where living and production were connected in a single cycle. The public sector was crucial as a mediator between the two and served as a principal scene for ideological formation. With the collapse of the State, industrial and residential structures were still in demand. However, the public building reflecting the concept of “collective living” went to misuse or neglect. Considering that the social sphere and the material forms are deeply interrelated, it would be worth asking: from the contemporary perspective, what lesson can be learned from the exemplary cases of seemingly retrograde collectivist settings?

Chairman, innovative vision and the Nākotne collective farm

The town of Nākotne was the first case of the collective farm in Latvia. It was established in November 1946, 65km far from Riga, following the efforts of the Latvia Soviet Socialist Republic (Būmane 1986). After the proclamation of independence in the Baltic Countries in 1991, the settlement suffered stagnation. However, in terms of both the layout and architecture, Nākotne is a unique example of the collective settlement and lifestyle. The exceptional nature of the settlement is grounded in the refusal of conventional formal standardization by the leaders of the farm.

The success of the settlement and the beginning of its urban and economic growth can be traced back to 1966, with the appointment of Arturs Čikste to the position of chairman. The family of Čikste was one among 11 others establishing Nākotne. Starting as a houseboy Arturs' Čikste eventually turned into a successful public figure recognized at a variety of levels. In 1947, he was elected leader of the Communist Youth League and in 1949, awarded the title of Socialist Labor Hero. Consequently, in 1950, after becoming a member of the Supreme Council of the Latvian SSR and the Supreme Soviet of the USSR, he joined the Communist Party (Būmane 1986). These acquired positions allowed relative freedom in managing the farm and guaranteed access to experimental approaches in defining the setting of the Nākotne.

The position of Arturs Čikste as chairman of Nākotne has never been neutral. Instead, it was based on the quintessence of personal and professional experiences, driven by the desire to innovate. Firstly, the disciplinary organization of the collective farm was redirected. Čikste decided to step above the mere production of agricultural crops, which was set as the only industrial activity of Nākotne from 1946 to 1966. Even though expansion of the variety of products was a risk, it ultimately justified itself in gener-



Fig. 1
Arturs Čikste (left), Henrikas Šilgalis (right) and the model of the theatre of the Culture House for 800 people. 1970s.

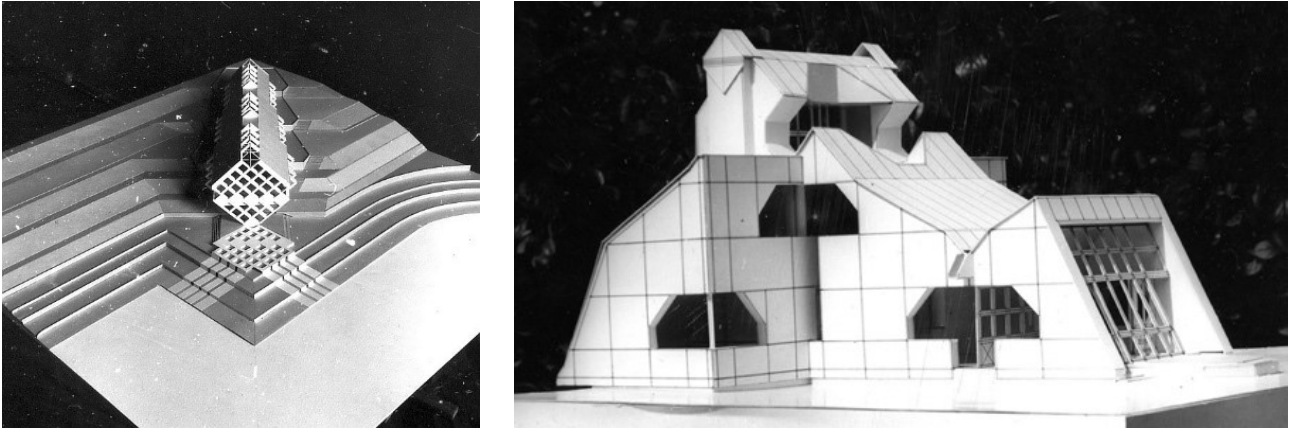


Fig. 2 a-b

Henrikas Kestutis Šilgalis, Model of the proposal for a cultural center, early 1980s (left); Model of a private house in Caucasus, 1980 (right).

ating significant economic growth and making the farm operate as a diversified capitalist agriculture apparatus (Marsden et al. 1986). Secondly, referring to the social perspective, a system tangential to the one typical of the Soviet State was established. In contrast to other collective farms, in Nākotne personal and cultural freedom was not limited. Besides, the possibility of private property and a sufficient salary were offered. It created a high demand for the position in the settlement. Finally, with the consciousness of the rules of strategic development, Arturs Čikste selected only the most qualified candidates to join Nākotne. It largely contributed to the innovation of local facilities, which started to be realized, combining functionality and modern aesthetic vision.

In 1967, led by the search for further development ideas, Arturs Čikste visited the exhibition of young Lithuanian architects in Vilnius. The project of young yet experienced Henrikas Kestutis Šilgalis (1944–2007) raised the particular interest of the chairman. Thus, Šilgalis was invited to become the chief architect of Nākotne (1968 to 1979) [Fig. 1].

As a rule, the collective farm was designed through physical, but also political reality. The chairman was the executive power of the Soviet State carrying the architecture and urban layout capable of assuming explicit economic, productive, social, and representative responsibility. In the case of Nākotne, the collective farm was a physical manifestation of the design process dependent both on the client and the implementor, due to a mutually respectful collaboration between the chairman and the architect.

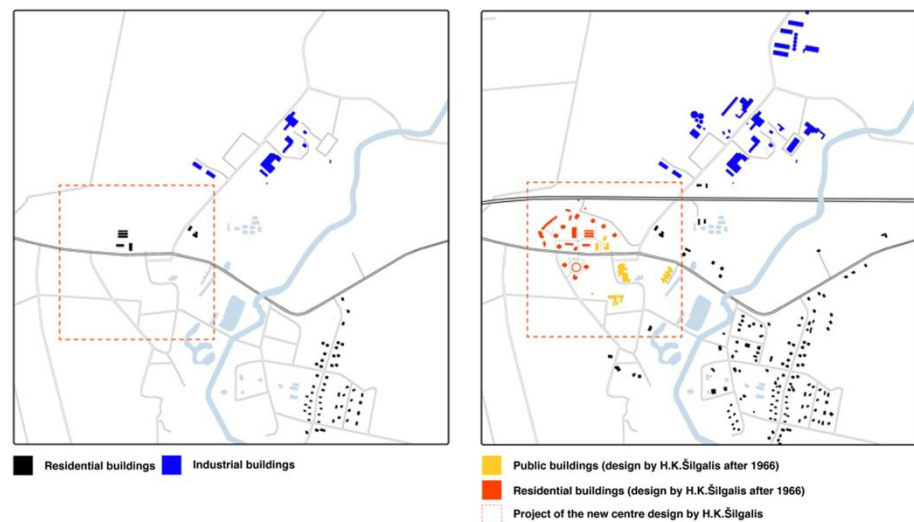
The dissident architect of the Nākotne

Henrikas Šilgalis was given an opportunity to construct his projects at an early age with the help of Algimantas Mačiulis (1931), the head of the Institute of Public Utility Design in Vilnius (Mačiulis 2009). It had an important impact on the Šilgalis formation, strongly influenced by modernist architecture, particularly, the sculptural expressiveness of Le Corbusier. Henrikas Šilgalis refused the technical minimalism and the modernist spirit, which was the dominating architectural doctrine in the Soviet Baltic Countries in the 1960s (Dremaite 2017). He believed that this kind of minimal simplicity did not allow to inter-relate in a single architectural layout the specific functional programs closely linked to the architectural form. According to his colleague, Leonardas Vaitys, Henrikas Šilgalis postulated that public buildings had not only to suffice the functional needs but also fulfill the representative and symbolic role of the local community (Vaitys 2003).

The collective farm of Nākotne ultimately became a testing ground for Šilgalis' experimentation in establishing a personal approach in the middle

Fig. 3

The urban structure of Nākotne in the early 1950s (left) and after 1966 (right).



of the architectural discipline. Given a larger artistic freedom in testing avant-garde ideas, the architect could ultimately define a personal style suitable for the cultural context of his time [Fig. 2].

**Fig. 4**

Masterplan of the centre of Nākotne, 1966; yellow – public buildings; black – residential buildings. Source: Glūda parish archive

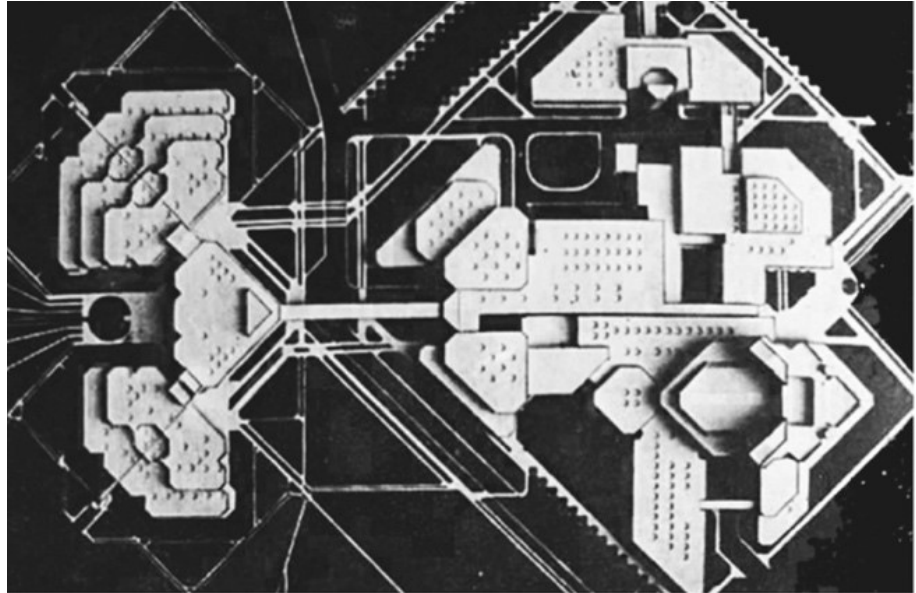
The masterplan of the centre of Nākotne

Šilgalis designed the master plan for the center of Nākotne in the late 1960s when the collective farm had already existed for 20 years. In this context, architecture was a result and catalyst of the social and economic prosperity of the farm. Before the Soviet occupation of Latvia in 1940, the area of Nākotne was characterized by a network of single farmsteads in the context of overlapping urban and natural systems such as the river Auce and clusters of forests. The initial Soviet collectivization model, established in 1946, was not focused on the internal organization of the settlement, but rather on the fact of the establishment itself (Dremaite 2017). Soviet planning did not create a unitary system. It resulted in a dispersed urban pattern and stagnant development. Addressing the issues posed by the setting, Šilgalis proposed the new residential and public zone of the settlement. In the 1960s he proposed a circular spatial organization as a new centrality [Fig. 3], capable to unify the pre-existing elements of the site. Once united by the introduced focal point, the collective farm started to operate as a complete mesh of relationships, where the elements could change but remained connected in a system of meanings.

The proposed master plan (Fig. 4) for the central core of the settlement was inspired by structuralist thought (Söderqvist 2010). The functional clusters of residential and public facilities were set in a radial dialogue with each other, immersed in the landscape. Living blocks were located in a separate zone, offering ample private space. Thus, the community in Nākotne expressed itself in a balance between privacy and collectivity. Each building of the scheme was designed as a free-standing element within unprogrammed natural matter. Thus, the public facility was not a physical, but meaningful centrality of the spatial composition.

Sports and Culture Centre: a monumental dominant of the settlement

In the context of the master plan proposed by Šilgalis, the Sports and Culture Centre (1967) played the protagonist's role [Fig. 5]. Rather than mimetically adapting to its surroundings, the intervention undertook a full representative character as a monumental dominant. The structure consisted of self-sufficient polyvalent units, creating two distinct environ-

**Fig. 5**

Henrikas Kestutis Šilgalis with the model of the Sports and Culture Centre, the drawing of masterplan of Nākotne in the background, late 1960s (left); the model of the Sports and Cultural, 1968 (right).

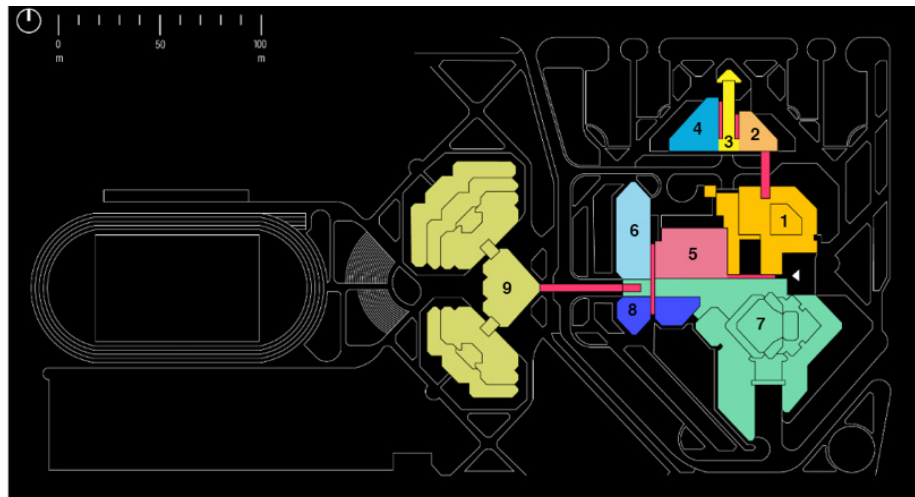
ments: the representative exterior and functional interior. The notion of multifunctionality which served the community rendered the building the social condenser. This concept was developed in the theoretical and then practical work of the Russian constructivists in the 1920s (Meriggi 2014). Meanwhile, according to this vision, the spatial organization could be a dual catalyst of positive and negative aspects of community and individuality. Later, the concept was also adopted by Guido Canella, particularly in the design of public buildings, where seemingly non-compatible functions were complementing each other. Importantly, these experimental layouts were generating a sense of community and unexpected encounters (Chizzoniti 2020).

In the case of Nākotne Sports and Culture Centre, multi-functionality was addressed purely through the architectural composition of the complex. Here, social, cultural, and administrative functions were not merely grouped in relation to each other. Instead, the functionality and accessibility were generated by the combination of different units within the single structure [Fig. 6]. Such a building was characterized by an outstanding level of complexity, performing both as a tool for shaping a community and as an asset responding to essential social needs, providing equal access to the users. The general scheme was organized on a square plan rotated by 45 degrees with two main distribution axes [Fig. 7]. All programmatic activities were connected through the passages guiding the user flows. While the main axis was clearly outlined, the separate units could be accessed from individual entrances. This autonomy was predetermined by the intricate scheme of the Sports and Culture Centre itself. Considering the unprecedented dimension of the complex, which had to be constructed in several stages, each programmatic unit was designed as autonomous.

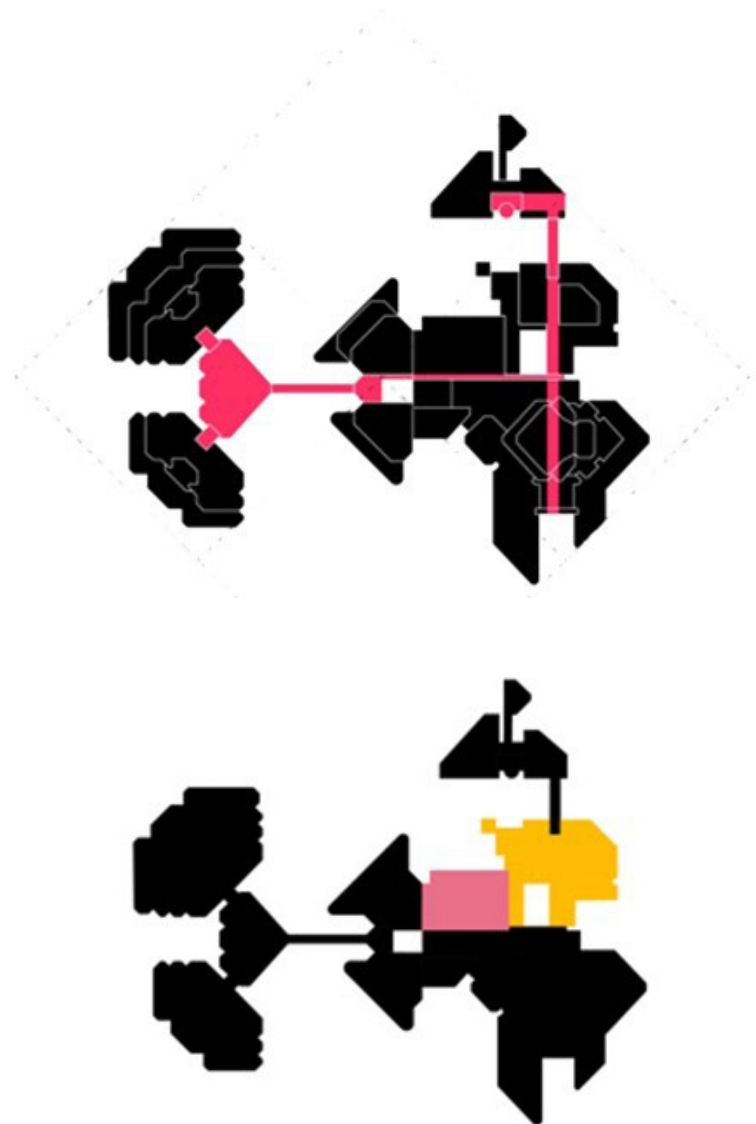
The central block consisted of interrelated functions such as administration, cultural center, sports hall, swimming pool, and canteen. The high school, kindergarten, post office, and ambulatory were placed in separate units. This spatial separation suggests that the unit was not universal but provisioned for a specific group of users. The main axis concluded with the stadium with semi-circular seating looking at the vast arable lands behind. It creates a structure without a “backside”, but also without the central square. Instead of a central gathering space, several semi-courtyards were

Fig. 6

Scheme of Sports and Culture Centre designed by Algimantas Mačiulis and Henrikas Kęstutis Šilgalis (1967); 1 Administration Building; 2 Post Office; 3 Kindergarten and Library; 4 Ambulatory / Hospital; 5 Sports Hall 35 * 18 m; 6 Swimming Pool; 7 Culture Palace; 8 Cafe and Canteen; 9 High School. (Redrawn by authors)

**Fig. 7**

Scheme of the main axis of Sports and Education Centre (left); constructed parts of sports hall (pink); administrative part currently housing with the library and school (yellow) (right). (Redrawn by authors)



carved as subtracts from the initial square scheme. Thus, the outdoor space was permeating the building. This suggests the total use of the spaces, rather than one focal point for the activity within the building.

Post-Soviet: the collective farm of Nākotne as an asset and a challenge

With the collapse of the Socialist State, the utopia of collective farms began to act as a heterotopia of collective living. Nākotne was able to exist under the Soviet regime in Latvia where the settlement and industry were merged into a single organism, providing a type of self-sufficiency. With the change of regime and subsequent dissolution of the collective living in the periphery, structures such as the Sports and Cultural Center of Nākotne lost not only their meaning but also their strategic importance. The current tendencies demonstrate that public services are concentrated in major urban centers. It results in a two-fold problem. From one perspective, the issues are related to urban-rural mobility. On the other, the current economic system is rarely capable of running architectural objects of this scale in the context of temporarily isolated rural settlements (Hatherley 2015). While collective farms were generally neglected as a phenomenon related to specific manifestation and temporality, some examples contain valuable historic lessons. The case of Nākotne highlights the role of the client and architect in the development process: it questions the relationship between those two actors in the creation of prosperous architectural discourse. Henrikas Šilgalis' vision was formulated after an in-depth understanding of the program and requirements of the chairman, Arturs Čikste. Consequently, the client provided knowledge of the social and political context and financial support, as essential tools for successful development. The core of this collaboration was grounded around the clearly defined roles, personal contributions, and input of each actor in the project. As a result, the exclusive system of development was created, where architectural ideas aimed to support collectivist thought were enhanced by the specificity of the development processes. Thus, a specific precedent has been created, where the neutrality in the combination between the ideology and the formal shaping has been interrupted, as enriched by the innovative architectural vision. By refusing fashionable architecture doctrines of the time, Henrikas Šilgalis established a role of individualist and nonconformist whose design process was driven by a search for personal handwriting (Vaytis 2003). The case of the collective farm Nākotne proves that an issue of "style" is as important as functional needs in the contemporary architectural discourse. The combination of the two aspects led to the creation of a unique built complex that shaped the identity of the place and the community of Nākotne.

The recent healthcare crisis has pointed out the need for inclusivity at both social and physical levels. The privatization of the public space by different social groups has led to selective exclusion practices. There is an emerging need in generating a broader discussion over the strategic accessibility of the social space, balanced between integration and diversification, which is at the core of contemporary complexity discourse (Landman 2020). Meanwhile, the society of urban lifestyles and amenities still longs for proximity to nature to maintain mental and physical balance (Nigrelli 2021). In this context, the complex building framework of the collective farm of Nakotne could be relevant in the ability to orient the social behavior through the programmatic setting of the natural and built structure.

Nakotne poses several site-specific open-ended questions. However, from the contemporary perspective, it can be considered both a challenge and an asset for the issues of architectural discourse.

Notes

¹ Architecture was not considered «the art of building», «not an act of composition dictated by feeling», rather a science, «an act of premeditated organization». «The building itself is not a work of art. Its size is determined by the dimensions and functions of its program and not by the shallow pathos of any trimmings». Only the «diminution of the multiplicity of standard elements» would guarantee the elevation of the discourse to its “highest form» as an «indication of the steady socialization of life in the mass».

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Anna-Paola Pola

Dazhai, modernity and self-sufficiency in the collectivised villages of Maoist China.

Abstract

The essay explores facts and collective imaginary that marked the agricultural modernisation of the first decades of the People's Republic of China (1949-1979) through the story of Dazhai village and its reconstruction. From the transformation of the landscape to the creation of services and spaces consistent with the new organisation of work and the associated life proposed by the Communist Party, the contribution follows the evolution and dissemination of models, guidelines, and rural interventions developed during Maoism. The essay concludes tracing the Maoist signs in the current Chinese policies of rural development.

Keywords

Dazhai — Collectivised villages — Production Brigade

China often is compared to the United States since both are about equal in area – China has nearly 3.7 million square miles and the United States slightly more than 3.6 million – and both occupy similar latitudes. Differences, however, are more important than similarities, and perhaps none is of greater significance than the higher proportion of land in China unsuited for intensive agriculture and settlement. Most of China consists of hills, mountains, and high plateaus; only 12 percent of the surface is in plains and about 19 percent in basins. Most of the basins contain semiarid and arid deserts which, thorough flat to rolling, are of little agricultural use. Only 11 percent of China is now under cultivation, and little additional land is physically or economically suitable to augment this total. (CIA 1971)

The *Atlas of the People's Republic of China*, drafted by the US Central Intelligence Agency in 1971, opens with this epigraphic description. Yet, despite such a clear-cut and foreign assertion, China heroically tried to extend its agricultural land by multiplying its arable land on daring terraces (World Bank 2022). The mountain slopes of entire provinces around the central plain – in Sichuan, Gansu, Shaanxi and Shanxi – were divided into thousands of dry stone terraces, built by hand and tended like a garden. Today, travel books describe them as a traditional landscape. Urban visitors nostalgically take photos, dazzled by the idealised image of a rural world believed unchanged and timeless, as if the historical processes that shaped its face had never happened. Yet, there is nothing traditional about this landscape that, for a certain period, found its paradigm of modernity in the victory of humankind over nature (Shapiro 2001). Indeed, China's most audacious and precarious terracing is evidence of the Cultural Revolution and Maoism's years. In previous centuries, the countryside had never been worked with such intensity and care. No matter how populous

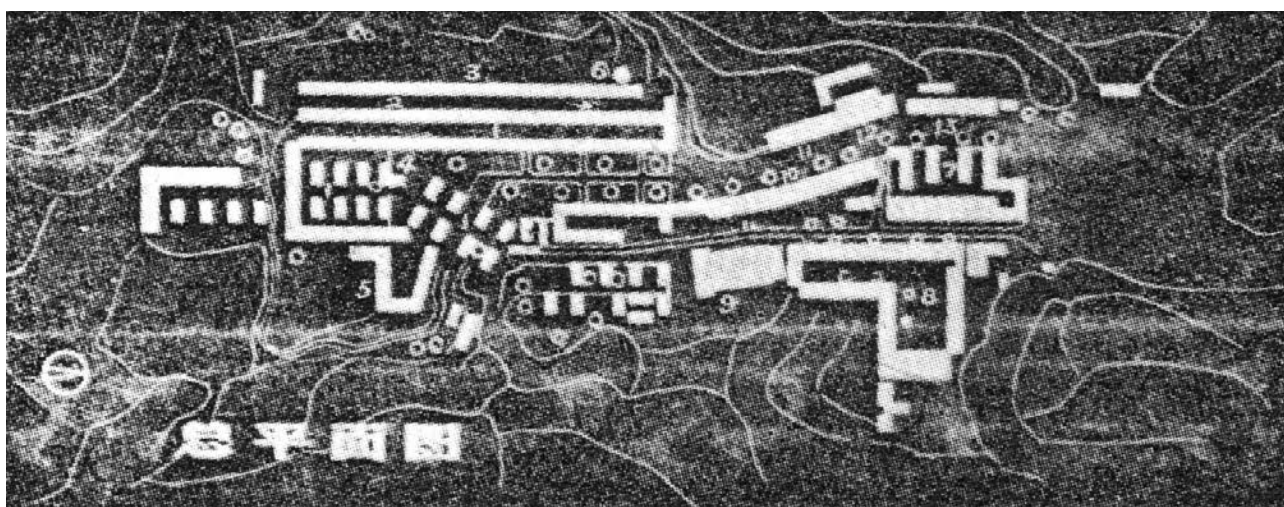
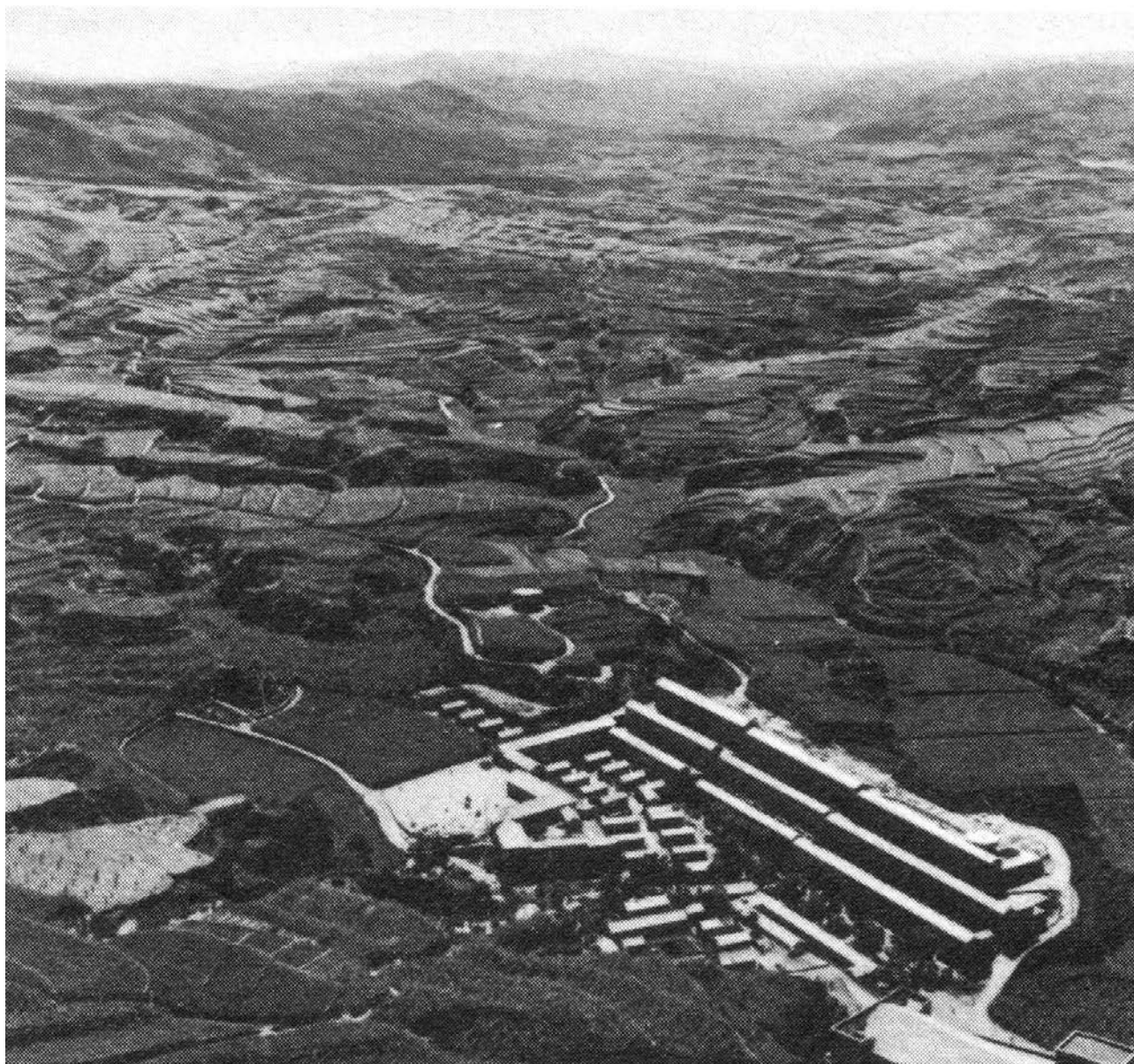


Fig. 1
Panoramic view and floor plan
of Dazhai new village (Spazio e
Società, 5 1979).

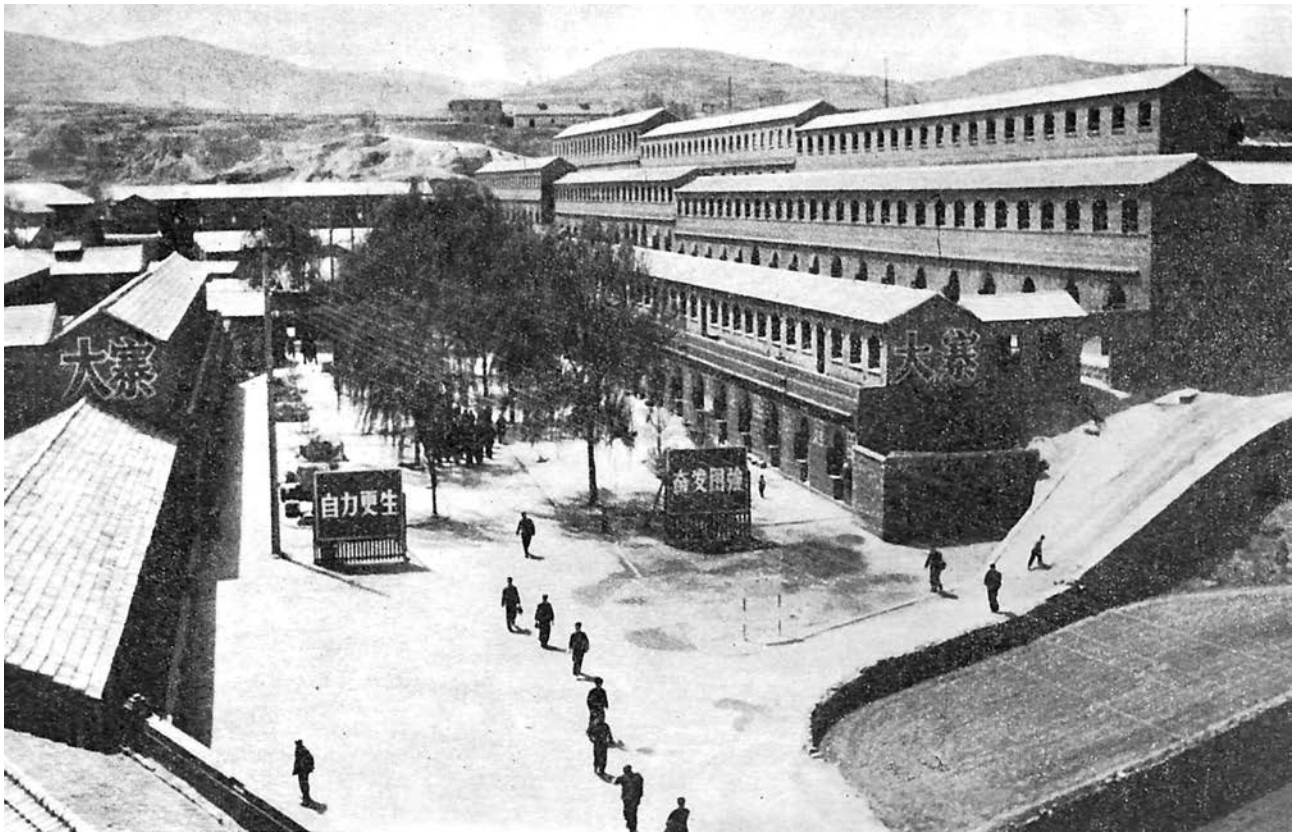


Fig. 2
Dazhai new village (China Re-constructs 11, November 1974).

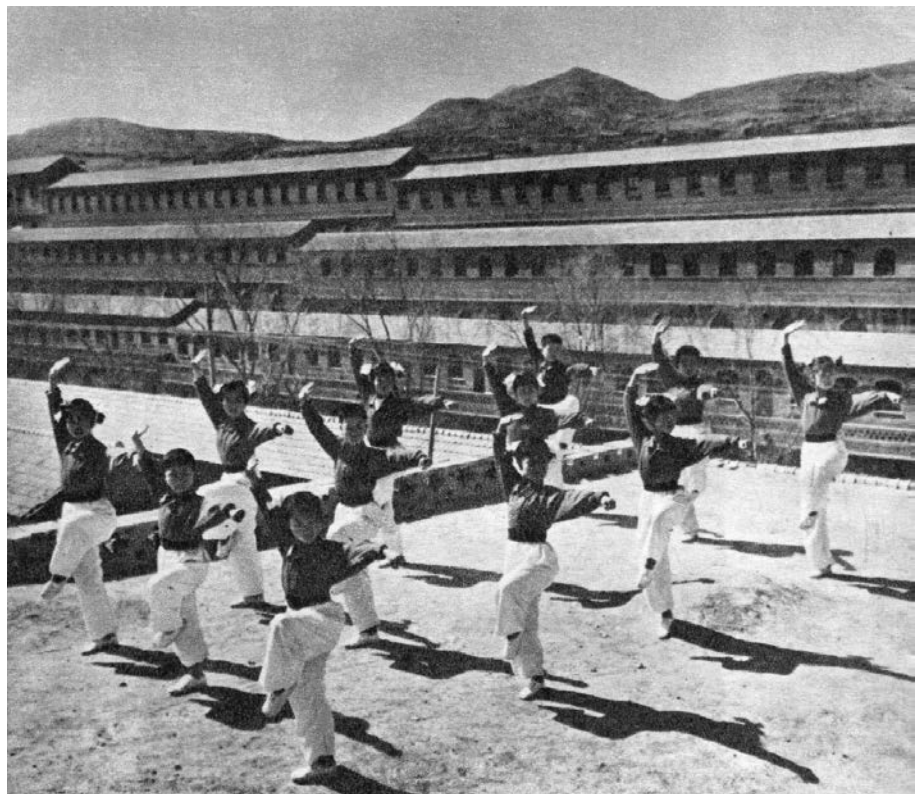


Fig. 3
Children's team trains in Chinese boxing, Dazhai brigade (Tachai: the Red Banner, Foreign Language Press, Peking, 1977).



Fig. 4
Terraces made by the Dazhai brigade (Spazio e Società, 5 1979).

or motivated the country was, it had never had the strength or the economic convenience to push fields so high. Only between the 1950s and 1979, the economic isolation, deepened by the break with the Soviet Union, and an optimistic but irresponsible demographic policy led peasant China to pursue the epic goal of achieving food self-sufficiency by pushing crops to impossible heights (Cammelli 2016). Under the motto: «In agriculture, learn from Dazhai», entire forests were cut down, lakes were dried out, water channelled, and even the steepest slopes were moulded to accommodate agricultural crops.

The small brigade of Dazhai, a village of eighty-two households on some 80 hectares of rocky hills in northern Shanxi province, became the rural paradigm of an entire nation in search of its own version of modernity.

Between the 1950s and 1970s, the inhabitants of Dazhai firstly organised in an agricultural production cooperative, then as a production brigade of the *Red Flag* people's commune, completely reshaped their land and rebuilt their village. Since 1953, following their ten-year land reclamation plan, the brigade transformed ravines and hillsides into cultivable terraces through tenacious, manual excavation and backfilling works. In 1963, after a devastating flood, due in part to human land transformation, the inhabitants of Dazhai rearranged the reconstruction, refusing the aid offered by the state. In February 1964, their story reached the pages of the *People's Daily* and from there, the village's reputation as a model of agricultural productivity and rural self-sufficiency spread throughout the country and beyond. The following work plan included a series of necessary hydraulic works: 11 wells, a 190-metre-long underground tunnel to collect rainwater, 7 km of aqueduct, and a 3150-cube-metres of water reservoir. The only outside support was a Red Army squadron that assisted the brigade in the more complex hydraulic realizations, according to the practice of the time. Proceeds from farm work were then gradually invested to increase production by purchasing tractors, machinery and trucks. They also started a forestry business planting 40,000 fruit trees and 80,000 pine trees (Hinton 1988; Zhao 2007). Between 1964 and 1974, besides agricultural work, also the village was rebuilt. Collective functions were gathered in a series of brick buildings, ordered in parallel blocks on a rectangular geometric layout. Instead, the residential spaces – 770 rooms of minimal size – followed traditional housing types in the region: vaulted houses carved into the slope and in-line houses with double pitched roofs. These types were organised in rows on several levels. The resulting plan layout was thus completely alien to the spatial distribution of traditional rural settlements, organically organised around vegetable gardens and small water basins. Residential rooms faced onto large rectangular open spaces acting as a street, farmyard, exercise ground or courtyard according to the need by Further buildings with a more complex programme, in accordance with the principles of people's communes, were gradually constructed: kindergartens, primary school, night school, clinic, library, youth centre, canteen, post office, and an auditorium. Finally, repair shops were located at one end of the settlement and the breeding farm was built on the hill at a distance from the houses. Everything was completed with brigade members' savings and collective labour (Gavinelli 1979, Knapp 1992, Zhao 2007). Like Dazhai, hundreds of villages and rural areas were radically transformed or rebuilt by their inhabitants, reinterpreting the ideals and models proposed by the Party with the means at their disposal. Since 1952, the press began to focus on the identification of model villages (*mófàn cūn* 模

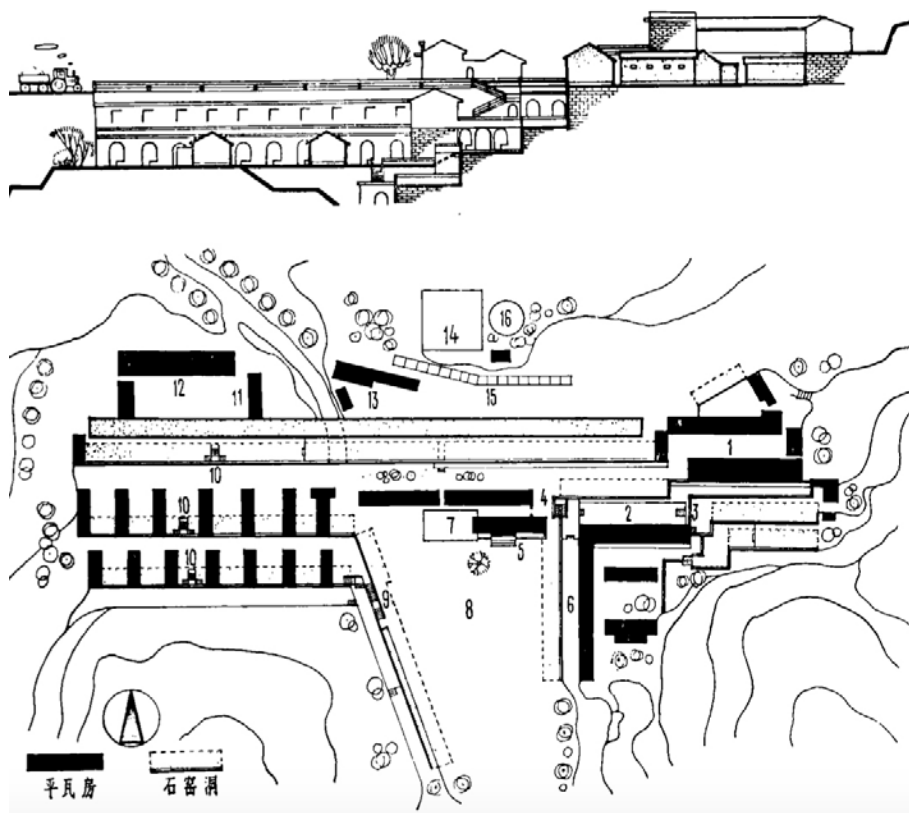
范村) following a praxis called ‘from point to surface’ (*yóu diǎn dào miàn* 由点到面). The expression describes the methodological process that let small administrative entities test innovative solutions in response to a common problem defined by the central government, which, in turn, spreads positively evaluated experiences as nationwide models (Heilmann 2008). This approach was outlined during the Maoist years and became a methodological attribute of the People’s Republic’s decision-making process, still widely applied nowadays. While policies have since been transformed and sometimes reversed over the years, the dynamic relationship between centralized authority and decentralised experimentation has always been a fixed feature that has enabled the application of this operational methodology (Chung 2016). In Mao’s period, the rural territory was administered by the decentralised direction of people’s communes and collectivised villages, that were totally independent in organising their irrigation (canalisation, reservoirs), production (land reclamation, terracing) and settlement distribution. To this local level, the centralised management acted directly overseeing large-scale infrastructural interventions and indirectly proposing general principles on territorial institutions.

The government’s guidelines, focused on agricultural production and new models of labour organisation, pursued scopes openly unrelated to settlement forms. However, these general principles still marked a profound transformation in the land use structure of villages and rural areas, and the effects of that change endure to the present.

During the 1950s, with the agrarian reform, the communist government established a system of seasonal mutual aid, later replaced by agricultural cooperatives. With the Second Five-Year Plan (1958-1962) and the beginning of the Great Leap Forward in agricultural productivity (1958), the then 740,000 cooperatives merged into some 26,000 people’s communes, involving more than 98 per cent of the country’s 122 million rural households (Knapp 1992). The people’s commune system, based on the collective ownership of land and means of production, was the structural agency of a state in search of a model to overcome the capitalist opposition between the city and the countryside. The system consisted of three different organizational levels, each in charge of activities and services at different scales. The production team counted about 10-50 households (a traditional hamlet dimension) and was the minimum working unit responsible for income redistribution. The brigade consisted of several teams of workers, grouped about 100-200 households (the size of a traditional village), and was in charge of organizing the fields and the factory work. The people’s commune had on average 20-30 brigades (5,000 households) and managed the local construction and infrastructure sector (Strong 1964; Unger 2015). The first interventions that the Party promoted mainly involved hydraulic works of water management and land reclamation. Only later, the reorganization of labour and, in general, the new model of associated life involved spatial standards and settlement layouts, defining new prototypes of housing and industrial centres. From 1956, with the initiative ‘Building a New Socialist Countryside’ (*shèhuì zhǔyì de xīn nóngcūn* 社会主义的新农村), the construction of services was encouraged: public toilets, modern breeding farms, kindergartens, schools, elderly centres. Large dining halls for up to 500 people, dormitories, meeting halls or theatres and exercise camps followed an increase in the military-style organisation. «Large in size and collective in nature» (*yī dà èr gōng* 一大二公) was the only principle defining the design of these facilities.

Fig. 5

Plan of the new village of Hou-zhuang built following the model of Dazhai (Jiànzhú Xuébào, April 1975).

**Fig. 6**

New village of Shangwang brigade (Jiànzhú Xuébào, April 1975).

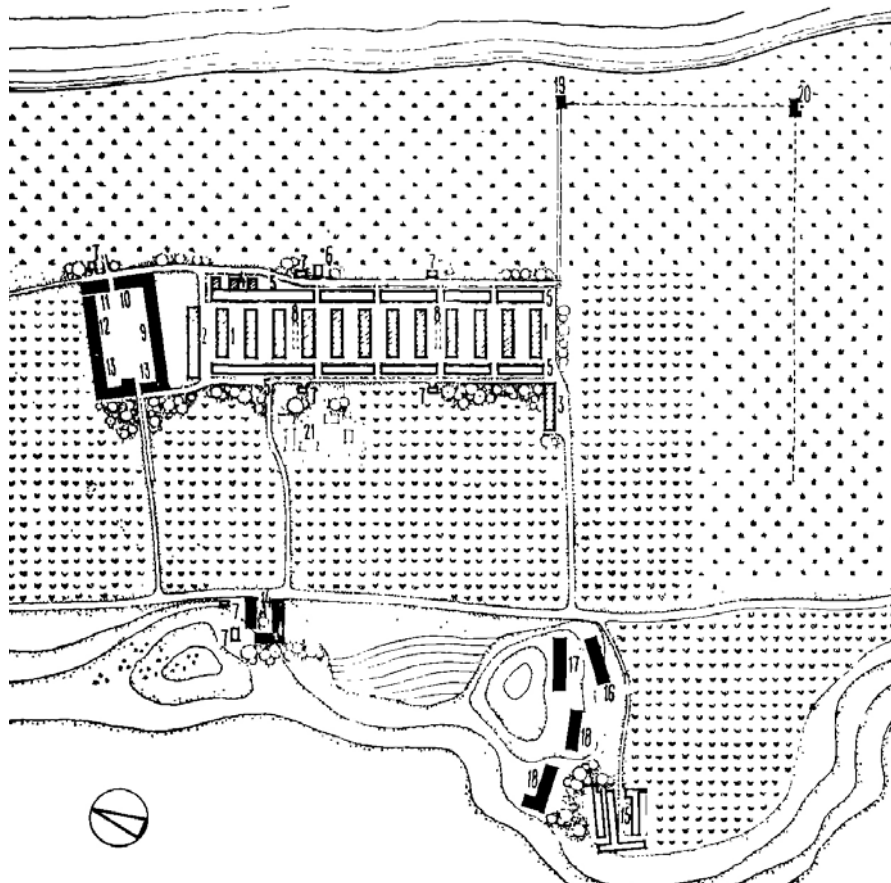




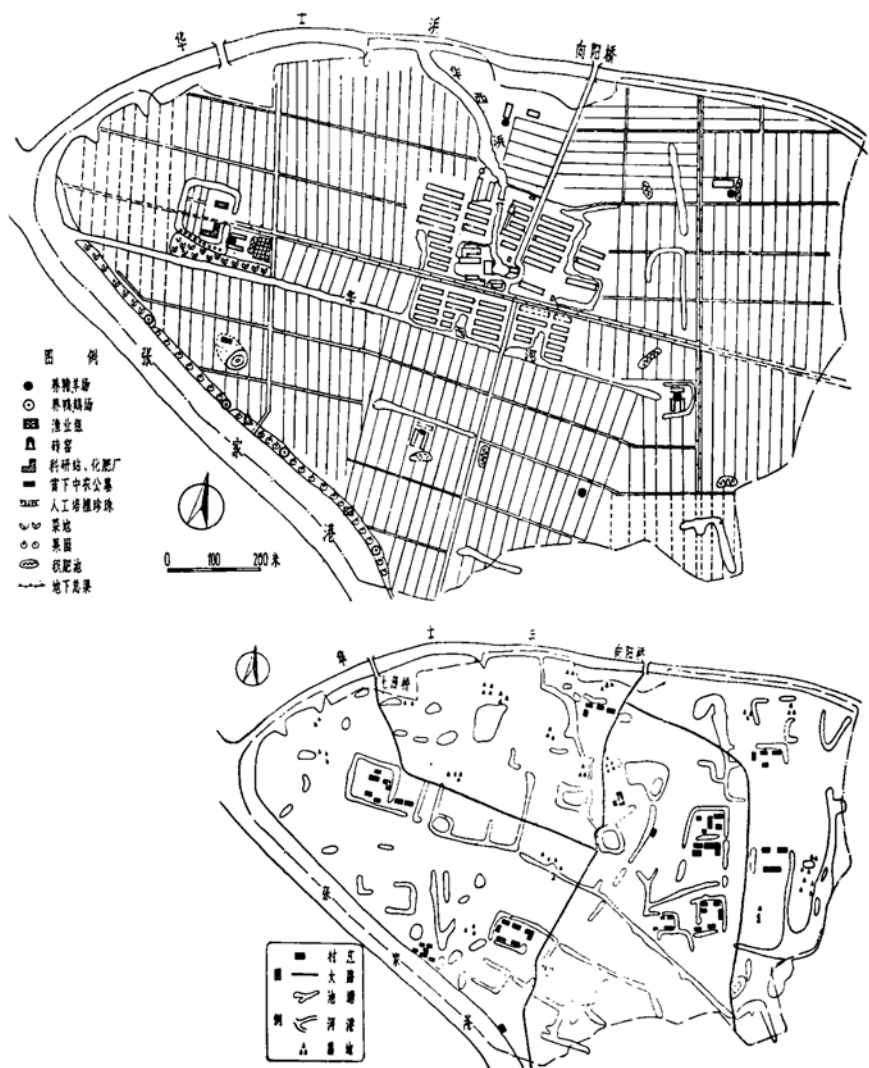
Fig. 7
Panoramic view of Baiyangyu
new village (Spazio e Società, 5
1979).

The break with the Soviet Union in the early 1960s changed territorial policies and urban-rural relations were reformulated according to a strategy of industrial decentralisation and regional autonomy that were described with the Maoist principle: «ruralise the city and urbanise the countryside» (Kao 1963). Beginning in 1963, a year before the start of the Dazhai reconstruction, the annual meeting of the Architectural Society of China warned about the need to consolidate farmland. The principle aimed to improve production efficiency and minimise the consumption of arable land by providing for the demolition and amalgamation of scattered hamlets and villages and the configuration of new settlements that were as compact as possible. The practice, which became a cornerstone of Chinese rural planning, helped shift the focus from agriculture to spatial organisation and settlements. Then, progressively, more and more villages abandoned their original settings in favor of a typically urban layout. The new rural complexes were composed of regular arrays of buildings facing south, set on compact, geometric, often symmetrical or axial layouts, quite similar to the "new workers villages" (*gōngrén xīncūn* 工人新村), the workers' quarters built in the city. Throughout the country, building sizes and types thus recurred with little variation; in rural areas only the materials changed according to region. While in the city the projects that architects drew up included materials such as reinforced concrete or prefabricated elements, in the countryside, the self-sufficiency principle prompted the use of local techniques (rammed earth, adobe, or kiln-dried bricks for walls and load-bearing walls or wooden frames to support the roof). No architect designed the new shape of Dazhai nor the other collectivised villages, and we don't know if educated youth with an architectural background participated in the brigade works with planning tasks. However, at that time, the architect's professional role mainly was seen as a technician at the service of the people who was required to draw up plans and designs previously discussed and defined collectively. New rural settlements were built with the resources from agricultural work, distributing labour-power, expenses, and materials within the brigade. Thus, the modernity of new villages found its expression in the unitary structure of the settlement, collectively defined by its inhabitants, overcoming family clans and rural world's jealousies. Settlements displayed the Maoist vanguard in the compact 'urban' layout, in the regular geometric patterns that rectify terrain roughness, and in the rational juxtaposition of the functional programme that unfolded as precisely as an assembly line. Then, beyond the settlement layout, opened up the new landscape shaped by the people, set to defy the adversities of nature.

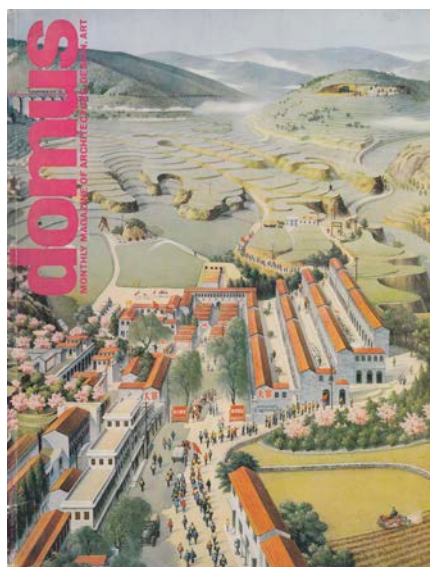
The design of new structures and rural settlements rapidly circulated through publications. Since 1954, the official journal of the Architectural Society of China, the *Jiànzhú Xuébào* (建筑学报 – Journal of Architecture) devoted many pages to rural modernisation projects: state farms and breeding farms in the late 1950s, rural housings, dormitories, and dining halls in the early 1960s, and finally, rural settlements, new villages, and brigades during the 1970s. In addition to this contribution, many model experiences were widely conveyed by propaganda publications with photos, drawings, and planning schemes and distributed outside the professional context, both in China and abroad. The Chinese Communist Party has always been very watchful to its international image (De Giorgi 2018) and the Foreign Languages Press in Beijing edited in English a large number of publications regarding peoples' communes.

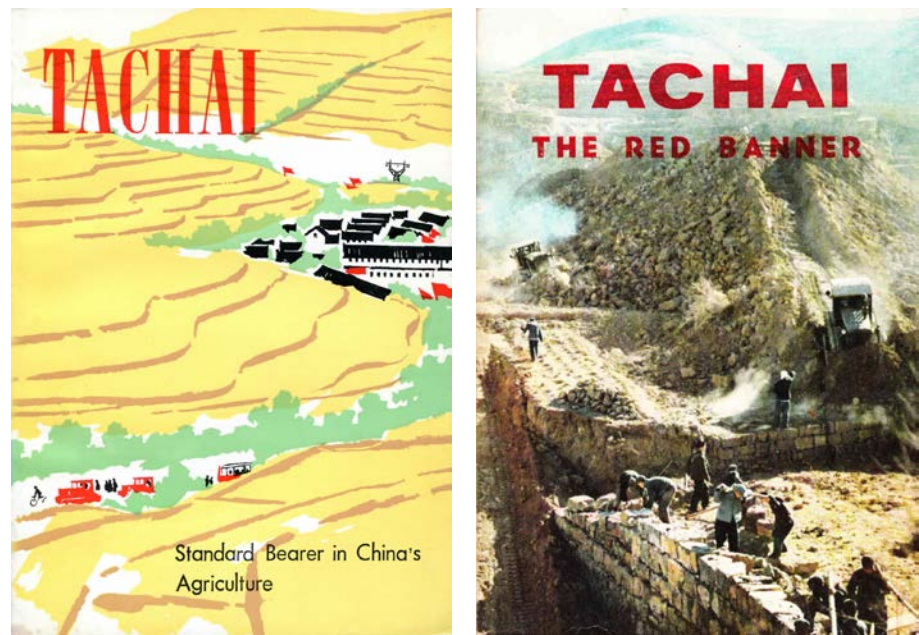
Fig. 8

Planning scheme of Huaxi brigade and 1963 existing situation (Jiànzhú Xuébào, March 1975).

**Fig. 9**

An original illustration of Dazhai on the cover of Domus 590, January 1979.





Figg. 10-11

Propaganda publications on the Dazhai experience: Tachai, Standard Bearer in China's Agriculture, 1972; Tachai, the Red Banner, 1977, Foreign Language Press, Pechino.

New village plans with precise functional notes were often included on the front pages of brochures, reports, surveys, and books, a detail that emphasise how settlement layout symbolically set, within the specific architectural-urban context, a series of spaces and social functions directly related to the structural choices and needs of the new nation.

After 1979, with Mao's death and the beginning of the economic reform, the country got ready for dramatic changes, once again. The rural administrative structure reverted to pre-1958 patterns, people's communes were replaced by administrative municipalities, and the agricultural system was turned into the household responsibility system based on domestic production (1983). Yet, many mechanisms, devices, principles, and even words today bear traces of the profound transformation that Mao years impressed in the countryside. This legacy is even more evident since when, in the 2000s, the party has focused again on rural issues after decades of urban economic growth. Therefore, the mechanism of model villages has begun to trigger virtuous emulative processes, and the Three Concentrations (*sān gè jízhōng* 三个集中) again have urged to merge scattered villages, concentrate rural factories, and unify field patchwork. Moreover, since 2006, fifty years after Mao's Building a New Socialist Countryside campaign, the slogan has echoed again in the programmes of local administrations, promising to rationalise their territories, widen roads and parking, improve services, lighting and greening public spaces, and building new compact rural communities where the aesthetics of modern suburban districts prevail once again.

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Filippo De Dominicis
**Catastrophe, migration, and modernity: Farm Security
 Administration settlements in Arizona and California**

Abstract

The paper offers a brief critical reading of the resettlement efforts undertaken by the Farm Security Administration in the aftermath of the disastrous sandstorms that struck the southern Great Plains of the United States. Looking at the evolution of planning strategies between design, planning and landscape, the essay questions the adaptability and ambiguity of modern architecture as a tool of community planning and, at the same time, of control, in the aftermath of one of the greatest catastrophes the U.S. rural world had ever experienced; and beyond clichés and appraisals expressed by the specialized press of those years.

Keywords

Farm Security Administration — Vernon DeMars — Dust Bowl

In *The Grapes of Wrath*, Steinbeck (1939) gives an exemplary account of the relationship between rural southerners in the United States and their land. A relationship that they had established through generations of labor and harvesting; and that in the span of a decade they would unwittingly compromise. Nature, and other men, would do the rest.

As a result of the disastrous phenomenon known as the Dust Bowl – a series of sandstorms that struck the Great Plains in the south of the United States in the mid-1930s, which culminated on the so-called Black Sunday, April 14, 1935 – more than two hundred and fifty thousand farmers from Oklahoma, Texas, and Kansas were deprived of their employment and forced to move westward.

In the years that preceded the catastrophe, those farmers had been dispossessed of their properties by the investment companies they had turned to in the early *Dirty Thirties* in order to withstand losses due to an incipient drought. This was the beginning of a short circuit of facts and events that would lead to disaster. The sharecropping regime imposed by the entry of lending institutions, combined with the need to increase the profit, led to a significant intensification of cultivation which resulted, in turn, into a substantial reduction in vegetation cover. As a consequence of poor farming practices, the most superficial layer of soils began to impoverish and loose cohesion, becoming pulverized. Weathering triggered by anthropogenic factors, then, was further reinforced by climatic events, with cyclonic phenomena following the period of drought that multiplied erosion processes. As winds strengthened, dust turned into sandstorms with increasing frequency, undermining the fragile ecological balance that governed the southern Great Plains (Lee and Gill 2015). The destruction wrought



Fig. 1

View of the field in Shafter, CA (from *Architectural Forum*, January 1941).

by the storms prompted land-owning institutions to evict farming families, paving the way to the ultimate mechanization of farming processes. The man on the tractor replaced all those households that had each taken care of their own piece of land, struggling against a hostile nature and building communities in spite of the distance that separated each house from the other. They were told to leave. The houses of those who resisted, light wooden shelters resting on the long undulations of the land, were destroyed or made uninhabitable. With no alternative, a large number of Americans were forced to do what they had always done: look westward and migrate in search of a frontier.

What took place in the second half of the 1930s between the Great Plains and California is one of the most incredible stories of resettlement that modernity has ever experienced. It is a story that stems from a series of catastrophic events largely due to anthropogenic causes and that plunges its roots in the complete absence of the urban element. The great migration following the Dust Bowl, in fact, originates in the desolated lands of the South and ends in the fertile areas of California's Central Valley. In this perspective, this story is inherently linked to the rural environment and its temporality. Not coincidentally, the seasonality and the consequent rotation of workers will be two of the key aspects informing the entire resettlement project. But this story is also eminently modern. As claimed by Vernon DeMars (1992), the villages built to rehouse migrants materialized the dream of a large-scale modern housing project, an endeavor that the United States had not yet known at that time (Bauer 1933). Because of its unprecedented size, the effort of Vernon DeMars, Garrett Eckbo and Fran Violich – just to mention the best known of the designers involved in the operations – was meant to fill this gap, combining the typical features of the American debate with the principles of the new architecture already affirmed by Le Corbusier, and paving the way for those global reflections on community planning that would characterize much of the postwar discourse¹.

In 1937 the issue of southern migrants was taken over by a new federal agency within the Department of Agriculture, the Farm Security Administration (FSA). The establishment of the FSA put an end to the multitude

Fig. 2

View of residential blocks in Chandler, AZ, 1939 (Library of Congress).



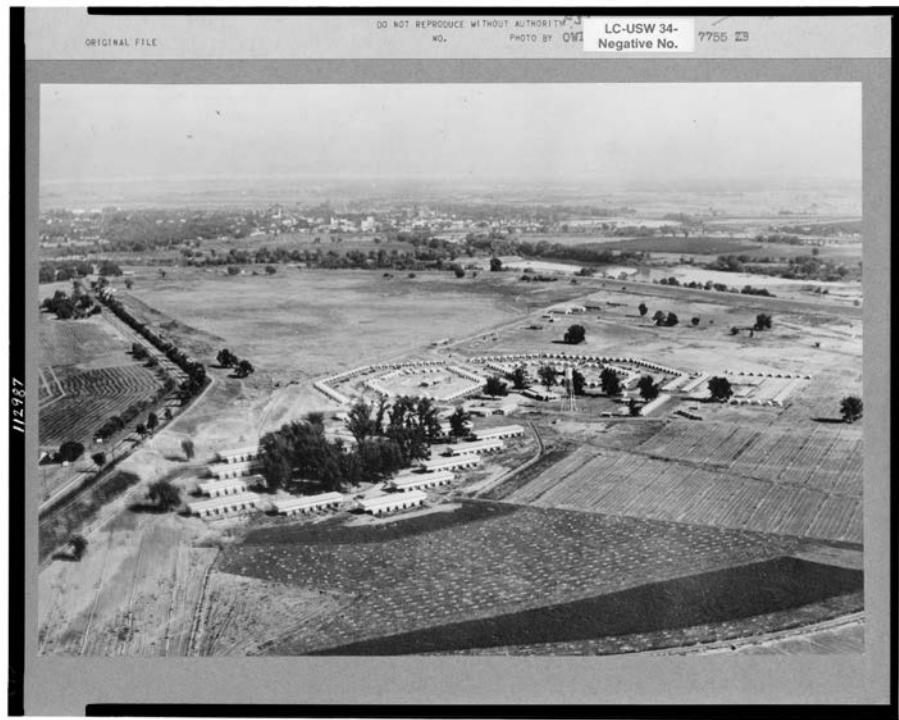
of sporadic initiatives that had characterized the previous three years. At the same time, it resulted in the full acknowledgement of a national and hitherto essentially invisible housing demand. A demand that the FSA's predecessor, the Division of Subsistence Homesteads of the Resettlement Administration, had begun to seize (Ghirardo 1989) and then reveal through a very detailed photographic record produced by the group of Roy Stryker, Arthur Rothstein and Dorothea Lange². The FSA's direction was clear from the outset - although some initial, understandable wavering. For resettlement operations, the agency allocated a dedicated program. Its first goal, in terms of time, had been to provide material assistance by setting up a light infrastructural support where each family could arrange a first shelter. At the same time, however, it appeared increasingly urgent to put in place some basic organizational conditions to reestablish the times and ways of community life (Ghirardo 1989). This secondary objective – which raised in response to the increasing forms of spontaneous aggregation and upheaval enacted by rural migrants – will indelibly mark the evolution of the FSA's operations, orienting its settlement policies toward a model which owed to both the early transit camps and the greenbelts of the East Coast. A decisive contribution to the development of this strategy will come from the young members of the so-called IX Region, the FSA's design department based in San Francisco: amongst them, Vernon DeMars, Fran Violich and Garrett Eckbo, three recently graduated practitioners who were taking the first steps in the public sector. The group had been asked to provide an immediate solution for a problem whose contours were still rather blurred. What was certain about the people arriving from Oklahoma, Arkansas and neighboring states was that they had been deprived of their land and any means of livelihood necessary to survive. Thrown out the door by mechanization, they were nothing but an invisible mass coming west in search of a second life. They had brought with them all stuffs had failed to sell aboard old crates they had turned into their home for months. Awaiting them was not stability, or an acre of land, but an uncertain future as salaried harvester exposed to the logic of the capital and the unpredictability of seasonal rotation. For this reason, at least initially, their means of transportation would continue to serve as a dwelling. Though eradicated from the soil where they were born and though deprived of the utopia of broadacre, the migrants from the Great Plains will succeed in surviving thanks to the same factor that had ousted them from society, that is mech-

**Fig. 3**

The location and typology of Farm Security Administration settlements in California (Series I, subseries 1, Documentary Files (1914-1939), Box 1.1/10, file "VIII E3, Labor, 1937-1942", USDA History Collection, Special Collections, National Agricultural Library. Accessed August 19, 2022, <https://www.nal.usda.gov/exhibits/speccoll/items/show/1101>).

Fig. 4

Aerial view of Yuba City, CA, taken between 1935 and 1942 (Library of Congress).



anization. In other words, they survived thanks to the availability of a *gizmo*, an outboard device that made a space habitable (Banham 1965a). In the case of the labor migrants, the situation was so dramatic that the *gizmo* itself would serve as home, in accordance with the trend Reyner Banham (1965b) will elect as an emblem of the rise of the American modernity. In this sense, the story of the labor migrants is fully inscribed in that of the American modernity, and would be treated as such in the early design explorations of the IX Region.

The group's early initiatives were characterized by different, somehow episodic solutions, as if to test the nature of a terrain whose actual consistency was substantially unknown. Nonetheless, dissimilar as they might appear, these attempts all shared a common understanding: all of them, in fact, had to provide answers in line with places, people and the activities they would be doing, in the shortest time possible. Such typically modern requirements urged the group to act likewise and develop projects according to few but intrinsically rational tenets: the adoption of a functional layout, the respect for climatic data and the concern for production. These three points were put in place consistently and, most importantly, thanks to the systematic interaction of design, planning and landscape competences. At a first look, this was the real innovative element. DeMars (1992) himself dwelt upon that at length, identifying all the key steps in the story during an extraordinary account of those years.

Following a chronological sequence, the first step refers to the design of a cooperative center in Chandler, Arizona, and involves the building scale. In Chandler, one of the FSA's earliest interventions, the group devised a solution with permanent dwellings. The goal was to build a true arena for cooperative actions, with places for public discussions, some multistorey units and a portion of farmland for each family. Such a layout was not even comparable to the first project DeMars had worked on, the Weedpatch transit camp near Arvin, California. Weedpatch is the place described by Steinbeck (1939) in *The Grapes of Wrath*. It consisted in a framework of a few essential services that allowed each family to park its vehicle and set

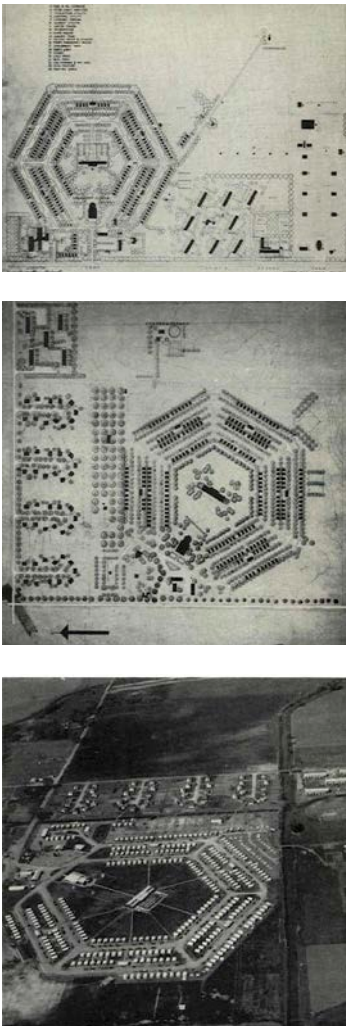


Fig. 5 a-b-c

Floor plans and views of settlements on hexagonal matrix: Eleven Mile Corner, AZ, and Tulare, CA (from Pencil Points, November 1941)

up its tent nearby. In its essentiality, the solution proposed in Weedpatch – and later in Shafter – disclosed all the contradictions of the relationship between rural Americans and their dwelling. No matter how attached they were to the land and its elements – ditches, trees, relief – their home was always something akin to a lightweight shell ready to be moved across an open-air space, being the latter the true theater of the American epic. Steinbeck's *Toads* themselves had been the protagonists of a similar episode, when they stole half of a neighbor's abandoned abode, cutting it down and dragging it a couple of miles up and down the hills until they attached it to their own house. Over the years and due to technical advancements, this trend progressed to the point where the *gizmo*, the tool that activated the domestic space, also became the device that could move it. Poverty and the need to cope with it stressed this trend till the extreme: properly equipped, the vehicle could temporarily turn into a home³, and the settlement into a fabric of parking stalls (Banham 1965a, 1965b). At Chandler, the design team combined Weedpatch's achievements with a second and still partially unexplored theme⁴. In the Arizonian camp, in fact, the area dedicated to transit will be associated with cooperative services and multi-family residential blocks, the latter strongly characterized in terms of spatial distribution and construction. The introduction of additional dwelling types originated from the strong communitarian attitude of labor migrants. The acknowledgement of such a communitarian dimension represented a key step in the evolution of the FSA's strategies, which began to associate early relief operations with increasingly frequent community planning operations. In this perspective, therefore, it is not surprising that settlements in Chandler, Casa Grande or Glendale, AZ, all present the characteristics of a modern colony; a *siedlung* in which the evolution of the form making – that is the way of producing and designing architecture – parallels with a real ambition for social advancement: in other words, what Robert Tugwell had defined «a renewed alliance between farmer and worker» (Carlebach 1988). From the load-bearing framework in adobe to the distribution of rooms, from the presence of private gardens to the extreme attention to detail, everything speaks of a profound meditation around the economy and functionality of the solutions adopted, specific and at the same time adaptable to changing programs and circumstances, both in environmental and productive terms. But Chandler, however, also speaks of the attempt to provide more than a simple shelter. In the aftermath of the trip to Europe and the discovery of the architecture of Gropius and Le Corbusier, DeMars (1992) affirmed that he wanted to remake Chandler in San Joaquin, CA, adapting the solutions already developed in Arizona to the climate of the hot but fertile Californian valleys. By 1938, in fact, the heart of FSA's design activity had again shifted to California, the state where the agency would direct the most of its efforts. The plans for Tulane and Yuba City – already begun by Fran Violich before 1938 and completed on his return from Europe by DeMars – epitomized this ambition to adaptation, with the massive adobe buildings replaced by slender buildings raising on thin *pilotis*. On the contrary, much of the ingenious distribution and ventilation devices already designed for Arizona remained substantially unchanged, testifying to a rigorous yet flexible rationality, free of any linguistic preference. Neither the emergence of new buildings types nor the adaptive possibilities these buildings offered, however, fully answered the question of social evolution. Indeed, with the consolidation of instances of community planning, the role of the settlement layout grew to become the central

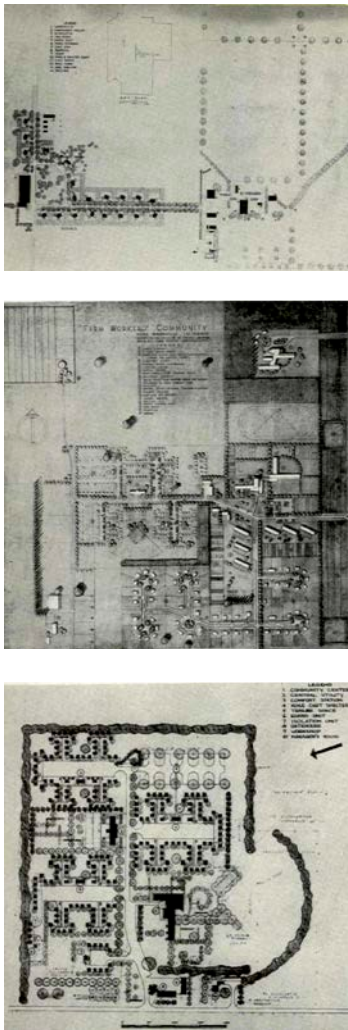


Fig. 6 a-b-c

Plans of settlements on orthogonal matrix: Mineral King, CA, Woodville, CA, and Harlingen, TX (from Pencil Points, November 1941).

element of the group's reasonings, not without contradictions.

After Chandler, almost all settlements were planned as twofold structures: one half was for permanent workers, housed in the residential blocks re-adapted from Chandler's model; the other half instead housed seasonal laborers, for whom architects foresaw first metal cabins provided by the Tennessee Coal and Iron Company, then small *garden cottages* designed at the first retrofit of the Weedpatch camp in 1938 (Hise 1995). While the residential blocks were arranged parallel to each other, oriented according to seasonal breezes, the units for seasonal workers were attested on either side of a double-loaded hexagonal strip. In the center of the hexagon stood the main services and the camp manager's house. Community buildings, large and flexible structures intended to accommodate the residents' assemblies alternately occupied the center or the side of the hexagon facing the area of multifamily dwellings. On the reasons for the hexagonal figure, De Mars (1992) expressed himself in rather simple terms: while the central plan was however preferable because of technical issues related to water supply and disposal, the hexagon had been chosen as an alternative to the circle because it was easier to trace on the ground⁵. Yet, the answer given by DeMars did not exhaust the reasons for a figure whose use was dictated first and foremost by social implications. The hexagon of Tulane and Yuba City, in fact, was nothing more than a surveillance device, a pan-optic structure enabling the director – or the assembly, when positioned in the center – a constant monitoring over the entire camp (Ghirardo 1989). The concentric structure, then, introduced an additional and increasingly layered system of relations. In fact, the greater the level of impermanence of the housing units – substantially corresponding to the different modes of access to the labor market – the greater their distance from the center of the settlement. Such a distance was to play a key role in the level of community integration of each resident (Hise 1995). In this sense, and despite the repeated accusations of corporatism that the authority would suffer (Carlbach 1988), the spatial order imposed by the FSA reflected all the ambiguities of a non-egalitarian idea of community, however depending upon the rationale of the labor market and light-years far from those aggregative forms that labor migrants had put in place both during their journey westward and during their previous life in the southern Great Plains (Steinbeck 1939).

The ultimate evolution in settlement design, with the abandonment of the hexagonal matrix and the extensive use of the European *zeilenbau*, represented a definitive and significant turn toward an urban-like structure. This evolution, however, was only seemingly alien to purposes of control. Firebaugh and Woodville were the first camps designed as small new towns. The double system of Tulane and Yuba City was replaced by a more varied orthogonal layout, with farmland, townhouses and garden cottages embedded into a plot of amenities that were planned to also attract nonresidents⁶. Landscape design, implemented by a young Garrett Eckbo, acted as a further and ultimate layer, overlaying the plots and defining those spaces that buildings, alone, were unable to characterize. On a par with the architecture, his proposals intercepted both functional aspects and issues related to the construction of the communitarian dimension (Treib and Imbert 1997; Metta 2021). With his selective planting operations, he not only offered protection from the sun and wind, but he also enclosed spaces and suggested visual continuities, mitigating that sense of impermanence and control

**Fig. 7**

View of metal shelters in Woodville, CA, 1942 (Library of Congress).

that any camp was bound to convey regardless of the relief they could bring⁷. In 1942, however, that attempt at mitigation turned into a definitive act of isolation, demonstrating the ambiguity of an operation that contemporary critics would always omit, and that not even the effort of talented designers such as DeMars and Eckbo had been able to dissolve⁸. Called to deal with the design of internment camps for Japanese prisoners, again on behalf of the FSA, DeMars and Eckbo would repropose the solutions already worked out for Firebaugh and Woodville, with a few variations (Treib and Imbert 1997; Horiuchi 2015; Pieris 2016). While it is safe to assume that they attempted to pursue a welcoming and diverse community model on such an occasion as well, it is equally necessary to ask, however, to what extent this same model really sought to establish those new democratic – egalitarian? – spaces to which architectural modernity had promised to give face, and on which it would invest so much in the early post-World War II development decades, this time on a global scale. Neither Talbot Hamlin (1941) – a renowned professor at Columbia and among the earliest disseminators of the FSA experience – nor the group of photo reporters led by Roy Stryker, whose intentions of public outcry had left the field to propaganda precisely during the establishment of the FSA (Carlebach 1988), would ever dwell on these questions. To reporters of the time, instead, the aporia of the FSA's attempt had seemed clear from the outset. Saved by the automobile – which had functioned as a traveling home, taking them all the way to California – the Toads recounted by Steinbeck would experience disintegration in the very aftermath of their arrival. In spite of the prospects for new communities offered by the FSA settlements, many of the labor migrants would remain alone; or they would return home, not before losing touch with even the closest relationships that had accompanied them there.

Notes

¹ Francis Violich (1911-2005) had graduated from Berkeley in 1934 and received his Master's degree in City Planning from Harvard and MIT in 1937. Immediately after graduation he had traveled to Europe and Yugoslavia. Vernon DeMars (1908-2005), a 1931 Berkeley graduate, had begun working with the federal agencies in 1934. After working for the National Housing Agency in 1943, he became a professor at MIT in 1947 and then, from 1953, at Berkeley's College of Environmental Design. Garret Eckbo (1910-2000) had graduated from Berkeley in 1935. In 1938 he received his master's degree from Harvard, and from the same year he would begin working for Norman Bel Geddes, author of the General Motors pavilion at the 1939 NY World Fair. Originally in charge of the group was Burton Cairns (1909-1939), who died prematurely in a car accident.

² The photo activity, launched by the Resettlement Administration under the leadership of Roy Stryker, was born with a twofold political objective: to raise awareness of the reforms launched by the New Deal and to reassure people that they would be successful.

³ Maybe, Al Toad's enthusiasm in discovering a fellow who was building a car house resulted precisely from this aspect.

⁴ Communitarian issues had already appeared in transit camps such as Weedpatch, but architects did not foresee any common buildings except for services.

⁵ According to DeMars, the first settlement on a hexagonal plan is the Wesley field in California, the last one still without a sewer system.

⁶ *Garden cottages* were single units consisting of a double room: an enclosed common area and an adjoining sleeping area, open to the veranda. Prior to "Pencil Points," drawings were published in an editorial published by "Architectural Forum" in January 1941.

⁷ Unlike colleagues Fran Violich and Vernon DeMars, Garrett Eckbo did not join the project team until 1939.

⁸ In addition to being published in "Pencil Points" and "Architectural Forum," both published in 1941, FSA's work was exhibited twice at MoMA. The first, on the occasion of the Wartime Housing exhibition, 1942, the second within Built in USA 1932-1944, in 1944. In both of these circumstances, many of the images published or exhibited, including aerial photographs, were from Dorothea Lange's reportage, specially commissioned by the FSA for propaganda purposes.

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Lamberto Amistadi
The Architecture of Gino Malacarne.
Two exhibitions and two books.

Edited by: *Francesco Lucchi, Cinzia Simioni, Alessandro Tognon*
 Title: *Gino Malacarne. Architetture*
 Language: *Italian*
 Publisher: *Il Poligrafo*
 Characteristics: *format 21x21 cm, 112 pages, paperback, colours*
 ISBN: *978-88-9387-223-2*
 Year: *2022*

Edited by: *Renato Capozzi, Camillo Orfeo, Federica Visconti*
 Title: *Gino Malacarne. Paesaggi urbani*
 Language: *Italian*
 Publisher: *Clean edizioni*
 Characteristics: *format 17x17 cm, 104 pages, paperback, colours*
 ISBN: *978-88-8497-863-9*
 Year: *2023*



If drawing be the language of architecture, then Gino Malacarne's architecture is unquestionably eloquent. The coloured perspectives, the axonometric projections and the models all give an account of an architecture in which figural expression has the last word on the typological system: his works of architecture all have a façade, a front that is quite distinct from what lies behind it, and through which they relate to the world (the “rediscovered works” risk their all and congregate on the urban scene, upheld by a mellow courage).

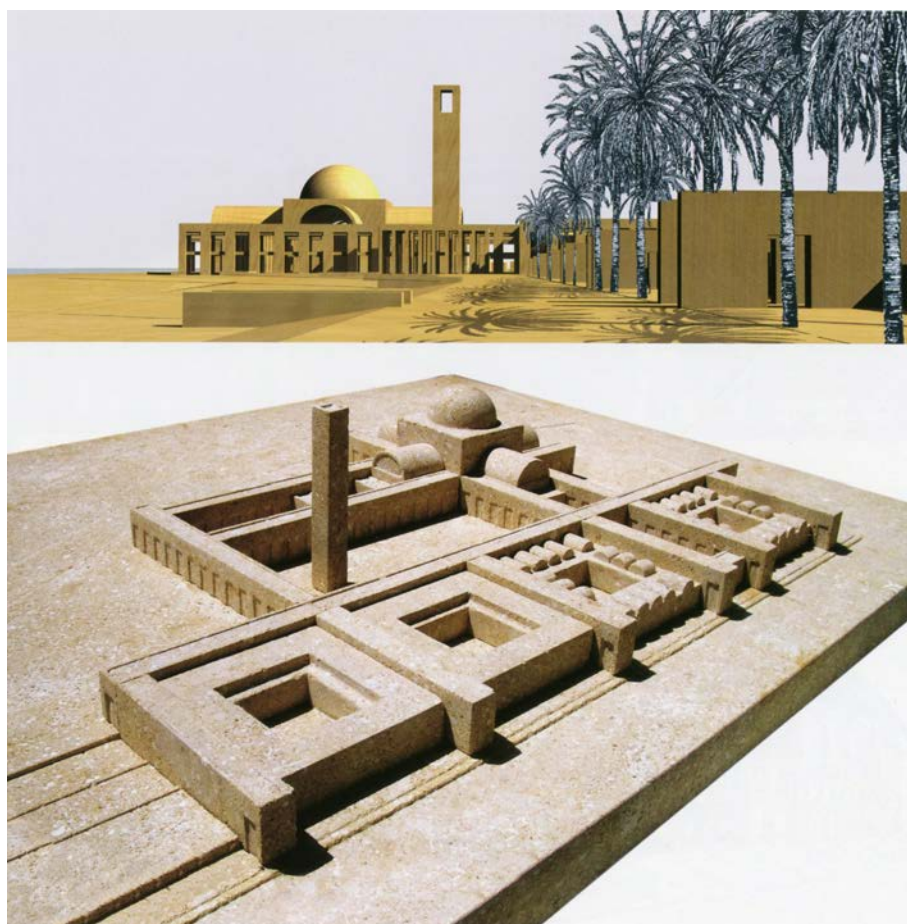
Thus, if on the one hand the technical ability surfaces, that knowhow which organically unites the imprint of the type with the appearance of a language, on the other this constructive and decorative energy manages to bring to life the allure of a particular feeling.

The type of atmosphere changed with time, circumstances, and perhaps also the designer's mood in this long series of works ranging from 1983 to 2021. My personal favourites are: the “Project for 24 social housing units in Spinea” (1987), thanks to that courtyard surrounded by balconies-loges from which it is easy to imagine the most disparate humanity gazing out expectantly or attending an event that we would all like to be a party; the “Project for the Werfthafen of Duisburg” (1991), where those four good men and true stand, well aligned along the taut arch of a plinth, on a narrow sliver of land right on the edge of the city. In Gino's nocturnal drawings, the tiered towers become guardians and the lady opens the window amazed by the glow of a twilight – or is it the first light of dawn? The third is the “Project for Punta Perotti in Bari” (2006), where the atmosphere is utterly exotic. We could talk about the methodical composition with which the spaces of the courts follow one another, but what really prevails is the

Fig. 1
Project for 24 social housing
units in Spinea (1987). The
Court.



Fig. 2
Project for Punta Perotti in Bari
(2006).



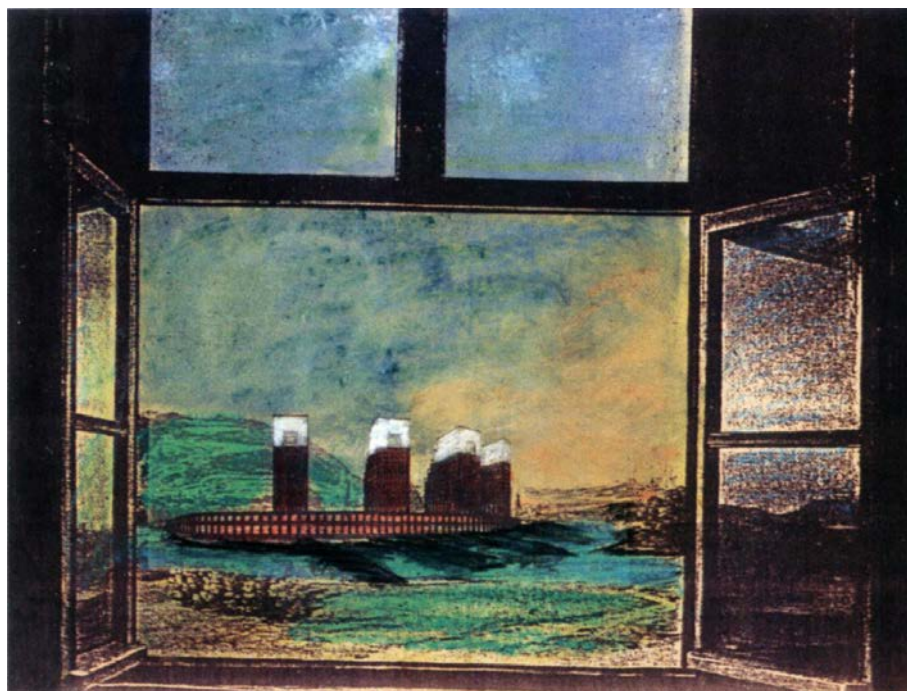


Fig. 3
Project for the Werthafen of Duisburg (1991).

charm of an atmosphere that reminds us of the coasts of the Mediterranean and beyond, along the merchant road of an ancient oriental city from whose flat horizon the dome of some sacred work of architecture suddenly arises.

Major urban projects such as the “Project for Berlin Königsstadt” (1995), the “Urban Redevelopment Project for the Artisan Village and Madonnina District in Modena” (2005), the “Project for Piazzale Stanga and Via Venezia in Padua” (2014) or the Project for the Port of Bari (2021) each deserve a chapter to themselves. For all of these, the assumption of a realism counts so that it becomes unrealistic to think of being able to rebuild entire parts of the city in question. The contradictions and formal aporias of the contemporary city are addressed in fragments, insufflating into the urban organism those works of architecture capable of reactivating internal relations and making the cityscape recognizable by establishing a hierarchy between the parts. These are figures whose operation takes place by proximity (as in the completion of large urban blocks) or “at a distance” (on the basis of the topological interrelations which the towers are able to weave with other monumental urban facts). In this way, in a happy synopsis, the continuity and organicity of the urban space are reconstructed, where the voids between the parts, the pieces, the fragments, or more simply, the works of architecture, are only necessary to restore to the Italian and European city that formal and expressive quality, so that – as Johann Herder claimed – citizenship can continue to be the very language of one’s own city.

The projects we have talked about and many more, the delightful colourful drawings, models, and architectural sketches by Gino Malacarne have been the subject of two exhibitions, one, conceived and promoted by the cultural association Di Architettura together with the Municipality of Padua, was held at the Palazzo della Gran Guardia between 17 and 30 September 2022, the other, entitled “Gino Malacarne. Paesaggi Urbani”, in the Ambulatory of the Library of Palazzo Gravina in Naples between 13 February and 5 March 2023.

Both were supplemented by a catalogue.

Author: *Paulo Mendes da Rocha*

Edited by: *Carlo Gandolfi*

Title: *La città per tutti*

Subtitle: *Scritti scelti*

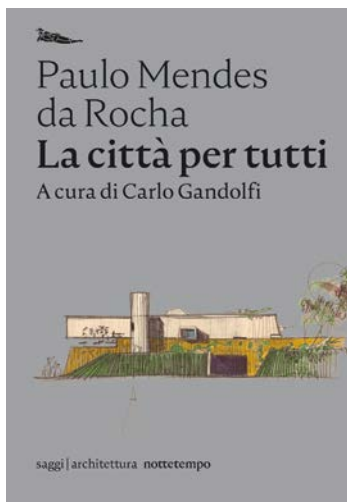
language: *Italian*

Publisher: *Nottetempo*

Characteristics: *16x22 cm, 112 pages, paperback, black and whites*

ISBN: *978-88-7452-900-1*

Year: *2021*



Reading *La città per tutti* – a selection of Paulo Mendes da Rocha's writings, edited and translated into Italian for the first time by Carlo Gandolfi¹ – feels like stepping into a sort of personal diary. Leafing through the pages, lingering on the short, incisive sentences illustrated by sketches drawn with the finest of strokes, allows the reader to share in the secrets of a sensitive, attentive and receptive architect, and to grasp essential information that appears not to be known. A collection of nine excerpts constitutes the structure of the volume, exemplifying a series of themes addressed by the architect's thought and work. Notes, speeches, personal reflections, which do not stem from a coherent theoretical-critical corpus, but rather from a declaration of poetics that mixes a certain spontaneity and briefness – typical of some great figures of Lusophone architecture – embedded with a profound wisdom that comes from the awareness that Mendes da Rocha embodied throughout his experience as an architect and teacher of the civic and social purpose with which the role of the architect is endowed.

The key to understanding this volume is provided by the editor's concluding essay, *L'architetto che giocava con gli aquiloni* (*The Architect who played with dragons*), in which the recollection of personal encounters and the analysis of the master's thought come together in the human portrait of a *mythical figure* who is both distant and friendly, who, in those «sentences that often seem like aphorisms, almost notes, milestones to which one must always return», discovers evidence that can be compared to the «programmatic points of a manifesto»²: the relationship with nature, history and the city, personal experience, lived experience as the sum of the moments necessary for the formation of a design conscience, and again: living, technology, social justice and the development of a design conscience. The relationship with nature, with history and with the city, personal, lived experience as the totality of the necessary moments for the development of a design sensibility, and again dwelling, technology, social justice, the development of the territory, America. Vast themes – crucial for the architectural culture of the 20th century – elaborated with ease by means of a direct way of expression that comes from the curious and rigorous *way of to work*, consisting of repeated actions – building light paper models, drawing on the blackboard, talking while smoking a cigarette³ – that invite us to consider the project as an operation of great simplicity that punctu-

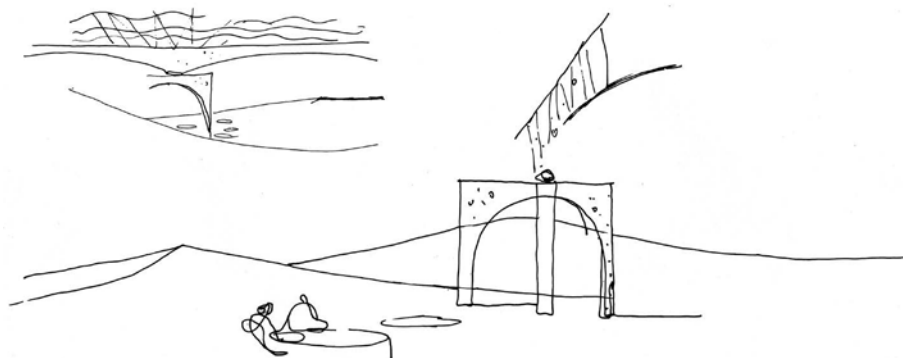


Fig. 1

Brazilian Pavilion for the Osaka Expo (1970). © Paulo Mendes da Rocha.

ates the flow of life.

Mendes da Rocha's life, however, was not as simple. Expelled from the Universidade de São Paulo in 1969 by decree of the military dictatorship, only to be readmitted a decade later, the most fertile period of his architectural production coincided almost entirely with his teaching. By the 1980s, Brazil had already defined its image to the world – superficially described as *minimalist brutalism*⁴ – but Mendes da Rocha's work, although associated with this process, was not the subject of research and publications until the mid-1990s⁵. Among the most recent ones, *La città per tutti*, represents a further step in the understanding of a figure who is particularly topical for his attention to the political dimension and social relevance of the architect's profession.

Among the many themes that emerge in the texts, *technique* plays a central role. For Mendes da Rocha, architecture is first and foremost a manifestation of a precise building awareness, a fundamental instrument of formal control and a guarantee of progress. «I have become accustomed to placing my trust in the transformative power of technology», he writes in *Genealogia dell'immaginazione*, «in the foresight and vision that, despite the misery of my country, design useful and desirable actions, that fulfil promises and hopes with a solemn productivity»⁶. It was in Brazil, Luigi Snozzi noted after one of his journeys, that «one found oneself in a world where the hope for a better future was not only the common hope of all, but the impulse behind every idea and every activity»⁷. A *cheerful industriousness* governs the correct management of the building practice, which translates into a rigorous elegance of form, generated by a clear and coherent relationship between structure and space, between economy of means and execution, a «nonchalance»⁸ as Gandolfi defined it in another of his writings, that can be found in buildings such as the Brazilian Pavilion in Osaka (1970) or the Museu Brasileiro da Escultura (1988) – that comes not so much from an imaginative intuition as from a «particular procedure for mobilising knowledge, that of architecture», an operative practice capable of shortening the distance between «reason and imagination»⁹. It is the «rigor da técnica que tudo fique em pé»¹⁰ – the ability of technology to allow things to stand – that underpins the design process, constitutes its reason and measures its consequences, and it is its application that manifests «man's ability to transform the space in aimed at which he lives, on the basis of a social interest and through an open vision the future»¹¹.

There is no separation between the space of the city and the space of architecture, which converge to form an idea of collective life, confident in

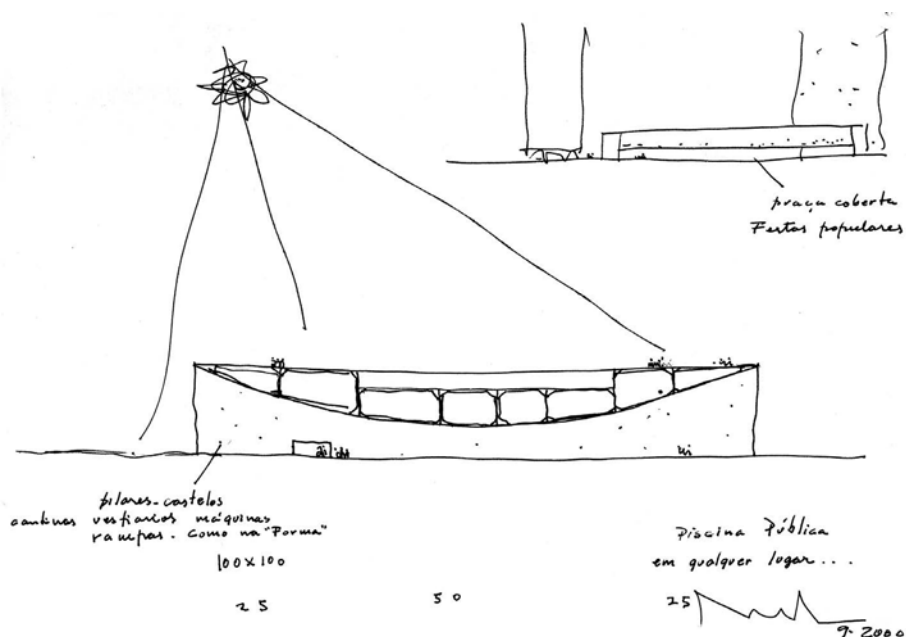
Fig. 2

Brazilian Museum of Sculpture
(1988). © Paulo Mendes da Rocha.



Fig. 3

Public Swimming Pool for
any Location (2000). © Paulo
Mendes da Rocha



the future. The quest for an inclusive and democratic social order, with the aim of disrupting the physical segregation imposed on the contemporary city by market economies, is a militant operation that takes shape in a series of open urban devices, developed in sections in the countless sketches, such as the Praça do Patriarca (1992) or the Museu dos Coches (2015), in which a recurring series of spatial mechanisms – passageways that cross on several levels, spatial transitions marked by the elements of construction – configure places that are available to accommodate possible manifestations of the *city for all*, imagined as «a kind of belvedere from which reality can be observed, understood above all as a projection into the future and a vision of a city that is an aspiration for all»¹².

For Mendes da Rocha, *space* is public by definition: the private (which «exists only in our minds»¹³) tends to dematerialise in the space of the city, defining a two-way permeability of people and atmospheres. This approach recurs not only in the large urban buildings he designs, but also in the dwellings - as in his House in Butantã (1960) - where living takes on a political value, assuming the conditions of the city. «However small the house may be as a city, it does not escape the *nomoi* that regulate collective space. Architecture is and remains everyone's business»¹⁴; a primordial and inherited characteristic of Mendes da Rocha's way of doing architec-

ture, by his own admission: «the notion of protection is absent in Brazilian architecture [...] you enter through one door and leave through another»¹⁵. It is worth asking, at a time when the idea that architecture can intervene in domains beyond its traditional disciplinary boundaries has established a firm hold, to what extent the architect should engage in a kind of militancy against a seemingly unbreakable system. «Long live the resistance!»¹⁶ is how Snozzi urged Mendes da Rocha to continue the fight for his ideas. Perhaps today, more than *resistance*, it is a question of rethinking an active commitment to a more humane architecture, based on «a practice of care and attention [...] flexible and in love with life»¹⁷, which can act as a panacea for the city's diseases¹⁸. Reading Mendes da Rocha's words in *La città per tutti* is an invitation for us to walk in that direction, joyfully.

Notes

¹ The editor's publications on Paulo Mendes da Rocha include: Gandolfi C. (2018) – *Matter of Space. Città e architettura in Paulo Mendes da Rocha*, Accademia University Press, Torino e Gandolfi C. (2023) – *Paulo Mendes da Rocha, infrastructural*, Ediciones Asimétricas, Madrid.

² Gandolfi C. (2021) «L'architetto che giocava con gli aquiloni». In P. Mendes da Rocha, *La città per tutti*, edit by C. Gandolfi. Nottetempo, Milano, 100.

³ See the documentary film *It's all a Plan / Tudo é projeto*, directed by Joana Mendes da Rocha, Patrícia Rubano, Brazil, 2017 (74'), presented at the Milan Triennale on 7 June 2022.

⁴ Gandolfi C., *Matter of Space*, cit., 234-245.

⁵ See Aa. Vv. (1996) – *Mendes da Rocha*. Gustavo Gili, Barcelona; Spiro A. (2002) – *Paulo Mendes da Rocha. Bauten und Projekte*. Niggli, Sulgen; Artigas R. (edit by) (2007), *Paulo Mendes da Rocha. Projects 1957-2007*. Rizzoli, New York; Pisani D. (2013), *Paulo Mendes da Rocha. Tutte le opere*. Electa, Milano.

⁶ Mendes da Rocha P., «Genealogia dell'immaginazione». In Op. cit., 13.

⁷ Snozzi L. (2002), «Long Live the Resistance!». In Spiro, op. cit., 9.

⁸ Gandolfi C., *Matter of Space*, cit., 234-245.

⁹ Mendes da Rocha P., op. cit., 15-16.

¹⁰ Dal Co F. (2006) – *Paulo Mendes da Rocha: Listen to and observe a master*. The Hyatt Foundation/The Pritzker Architecture Prize, New York.

¹¹ Mendes da Rocha P., op. cit., 17.

¹² Ivi, 74.

¹³ Gandolfi C., Ivi, 105.

¹⁴ Biraghi M. (2021) – *Questa è architettura*, Einaudi, Torino, 150.

¹⁵ Mendes da Rocha P. (2002). In Spiro, op. cit., 27.

¹⁶ Snozzi L. (2002). In Spiro, op. cit., 9.

¹⁷ Ingold T. (2021). *Corrispondenze*, Raffaello Cortina, Milano, 15.

¹⁸ Biraghi M., op. cit., 152.

Claudia Cavallo
An architectural lesson by Franco Purini

Edited by: *Roberta Albiero*

Title: *L'invenzione di un linguaggio. Franco Purini e il tema dell'origine 1964-1976*

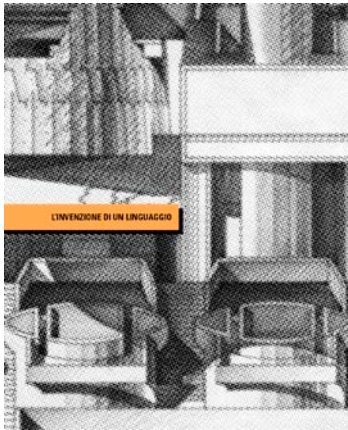
Language: *italian*

Publisher: *LetteraVentidue, Siracusa*

Characteristic: *20x24 cm, 216 pages, paperback, colour reproductions*

ISBN: *978-88-6242-498-1*

Year: *2021*



In schools of architecture focused on scientific processes and methods, the foundational and generative issues of form are rarely discussed. As if it were possible to teach architecture without mentioning language, grammar, syntax, and even less poetics, and thereby omitting the subjects that distinguish architecture from the building trade and make it an art. In this context, the questioning of the reasons and methods that characterise the problem of architectural composition at its root is a counter-trend operation that finds a dense and personal response in Franco Purini's work, strongly oriented towards the transmissibility of making architecture. Investigating the "how" as well as the "why", delving into the mysterious fields of invention with the instruments of reason, is a necessary choice in order to make the compositional process transmissible.

With this aim in mind, the volume *L'invenzione di un linguaggio. Franco Purini e il tema dell'origine 1964-1976* edited by Roberta Albiero focuses on the architect's language and its genesis.

The book collects and develops the testimonies of the homonymous exhibition staged at the Iuav headquarters in Tolentini in 2019, to celebrate the donation of the Purini Thermes archive to the Iuav Archivio Progetti.

Exhibiting the impressive drawings of a very young Franco Purini – included in the time span between the elaboration of his theoretical manifesto and the first edition of *Luogo e Progetto*¹ –, this was the curatorial choice made by Roberta Albiero and Laura Thermes, with Teresa Ianni. It is in the 60s-70s drawings, traced in china or sometimes brightly coloured, that «the ideas and themes on which he would work incessantly in the following years began to emerge»².

The 'origins' that the book deals with, however, are at least two. The origin is, firstly, the education of the architect, understood in a broad sense. In the lecture *Verso un linguaggio*, held at the Iuav in 2019, Purini himself narrates the itineraries and crucial encounters of his own formation, maintaining in the text the dialogical and exhortative character with which he addresses the students, tracing the "known" masters, from Maurizio Sacripanti to Ludovico Quaroni, the ideally chosen masters, such as Giuseppe Terragni and Louis Kahn, and the participatory belonging to a historical moment with specific figurative and cultural coordinates, from Donald Judd to Noam Chomsky.

classificazione, per sezioni, di situazioni spaziali

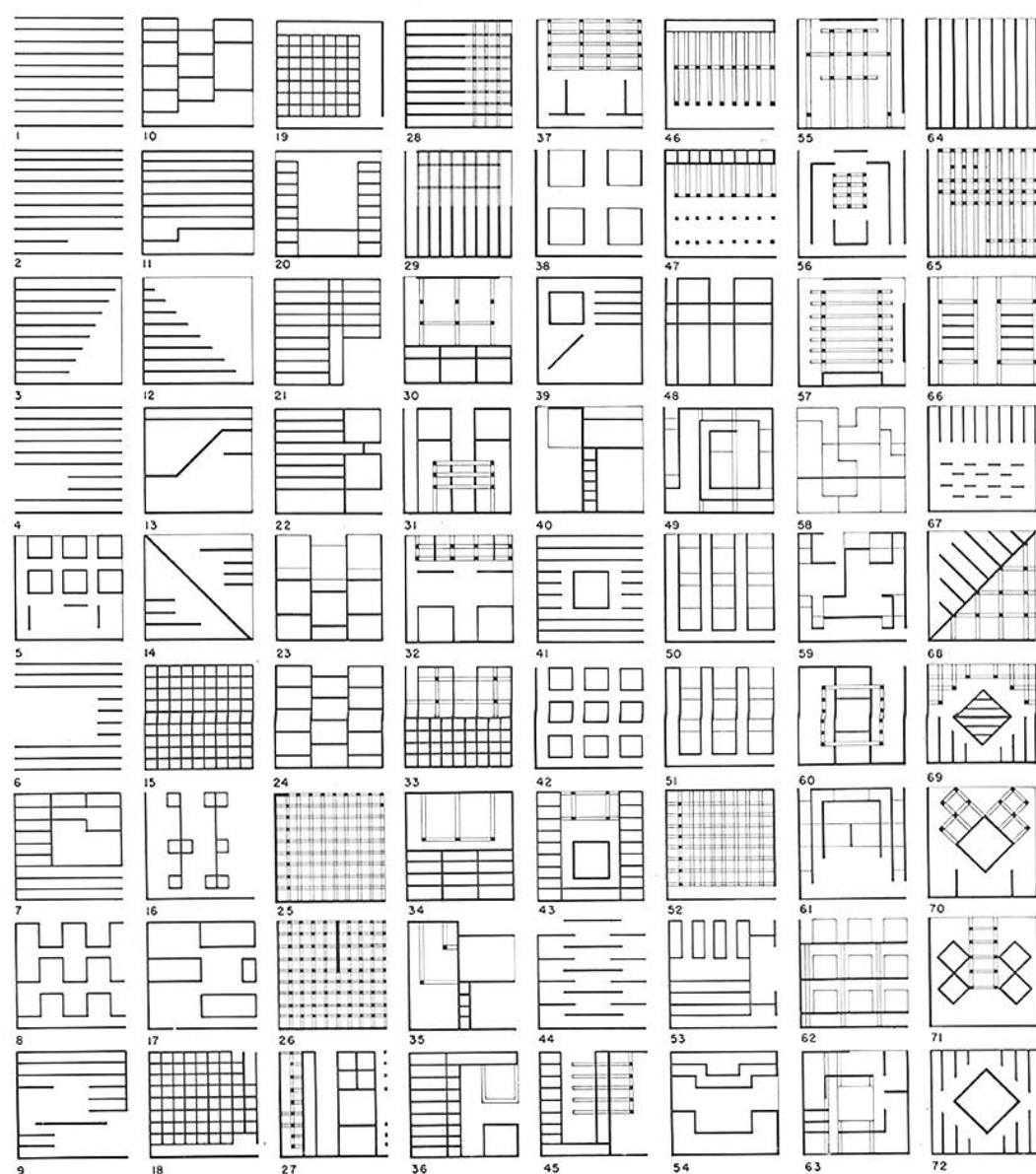


Fig. 1

F. Purini, Classificazione per sezioni di situazioni spaziali, Una ipotesi di architettura, 1966-68.

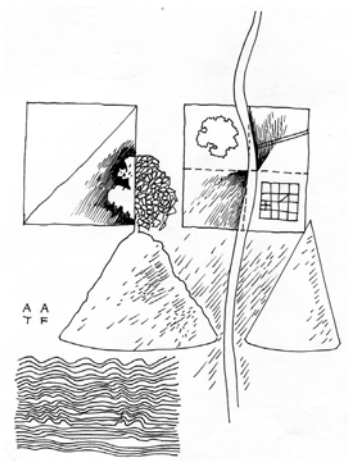


Fig. 2
F. Purini, *Gli strumenti del mestiere*, 1970-79.

He also draws on the experiences of the places he has lived, because the «*abitare primario* - the childhood home, the street in which it stood, the neighbourhood of which it was a part, the landscape that surrounded it - are the key that allows us, even when we are grown up, to know not only the city in which we grew up as an analogue of it, but also every other city»³. At the same time, the book treats origins as a metaphorical place of maximum concentration of energy «to be grasped and represented»⁴. Indeed, Purini argues that it is necessary to refine one's vision of the world and to «speak architecture in a language that is entirely our own», whose founding ideas «come when we are young, between the ages of twenty and thirty to be precise»⁵.

In the structure of the volume, the essays introduce us the world of an important and «controversial»⁶ architect, as Laura Thermes remarks, and then leave the way to the dense unfolding of drawings. Labyrinthine cities with shady cavities are opened up before us, whose grammar is revealed to us by the notation exercises, according to that quest for the “grado zero” that Tafuri already spoke of in 1968⁷.

The drawings are ordered by affinity, breaking down the chronological order, to illuminate formal discourses and figurative themes that karstically re-emerge, or re-present themselves, as a continuation of one project in another, up to the point of suggesting the existence of a single great project. The progressive rarefying of words into drawings, cadenced by short texts by Franco Purini that capture the key concepts of his theoretical world, produces the interesting feeling that the exhibition continues in the book and leads us inside the creative “magma” that inhabits the architect's mind and hand. A climax that culminates in the final section, with the poetic drawings of the “archetypes”, both intimate and universal, where we meet a house, a street, the stars, the great book, some fragments of landscape, and we feel as if we can grasp the scenario of the genesis of this language, among the «extraordinary remains of the Roman aqueducts that, leaving the mythical Campagna Romana, were about to enter the city»⁸.

Notes

1 The time span suggests the inextricable relationship that exists between Franco Purini's construction of language and his theoretical meditation and, with the critical distance of almost fifty years, allows us to reflect on the architect's formative experience.

2 Albiero R. (2021) – “L'arte della ragione ovvero la ragione dell'arte. L'architettura didattica di Franco Purini”. In: Albiero R. (edit by), *L'invenzione di un linguaggio. Franco Purini e il tema dell'origine 1964-1976*, LetteraVentidue, Siracusa, p. 11.

3 Purini F. (2021) – “Verso un linguaggio”. In: Albiero R. (edit by), *L'invenzione di un linguaggio...op. cit.*, p. 39.

4 Purini F. (2022) – *Discorso sull'architettura : cinque itinerari nell'arte del costruire*, Marsilio, Venezia, p. 24.

5 *Ivi*, p. 37.

6 Thermes L. (2021) – “Un architetto controverso”. In: Albiero R. (edit by), *L'invenzione di un linguaggio...op. cit.*, p. 21.

7 Tafuri M. (1968) – “Programma di fondazione grammaticale del linguaggio architettonico”, Palatino, 2, Now in: *Franco Purini: le opere, gli scritti, la critica*, Electa, Milano 2000, p. 239.

8 Purini F. (2021) – “Verso un linguaggio”. *Op. cit.*, p. 39.

Andrea Valvason
The other half of the sky: female architecture

Author: *Carmen Espegel*
 Translated by: *Bruno Melotto*
 Title: *Donne architetto nel Movimento Moderno*
 Language: *Italian*
 Publisher: *Christian Marinotti*
 Serie: *Il pensiero dell'architettura* (edit by Orsina Simona Pierini)
 Characteristics: *15x21 cm, 224 pages, paperback, black and white*
 ISBN: *978-88-8273-183-0*
 Year: *2021*



Carmen Espegel's book *Donne architetto nel Movimento Moderno* immediately makes it clear, starting from the cover image, what the bursting character of this work is, in which the author tackles a topic of great complexity – until now perhaps insufficiently investigated – as that of the role of women architects in modern architecture, which finds its roots in the period of the «crazy 1920s», as the author defines them. The title in the original language *Heroínas del espacio* clarifies, without the need for further addition, the meaning of this first statement.

The goal of this research, «partly archaeological», is clarified from the outset: to investigate the existing contradiction between the idea of «diaphanous, transparent, dynamic and modern architecture» and «the human being's need for habitability, intimacy and spirituality», which emerges as a substantial issue within the theoretical research and design verifications of the Modern Movement, which women architects of the 1920s and 1930s mainly questioned.

The work is presented as a theoretical and critical research, as well as a monographic exploration of the various leading figures of this historical period, fitting rightfully within the series *Il pensiero dell'architettura*, edited by Christian Marinotti and curated by Orsina Simona Pierini, which has published important writings by Italian and international architects over the years.

The book is structured according to two macro sections, which are in turn divided into gradually more specific chapters and subchapters: a first part *Donna e società* dedicated to a critical investigation on the evolution of the figure of women from a sociological point of view and their role within architectural and urban development; a second part *Quattro cronistorie* dedicated to an in-depth study of four «exceptional pioneers» selected «on the basis of personal criteria due to certain affinities and attunements», as the author states.

The first part, which serves as the basis of study to answer the question of the search for habitability in modern architecture that women architects carried out in the early 20th century, develops from the investigation of the «primordial idea of home, the woman-builder, the human habitat, inherited archetypes, and everyday life in the private sphere». Carmen Espegel immediately identifies the theme around which architectural research focused



Fig. 1
Eileen Gray with Jean Badovici,
E. 1027, view from the sea, 1929.
National Museum of Ireland.

during the 1920s and 1930s, the theme of *living*, a subject that the author masters excellently as can be seen by scrolling through her numerous publications, of which it is certainly useful to mention the most recent *Textos críticos* and *Amaneceres domésticos*, where one can find extensive treatment of these themes.

This first section turns out to be very important to understand the scope of this work and provides a broader approach than just the architectural sphere to frame the topic more comprehensively. In fact, the author adopts a syncretic method of inquiry, moving through different disciplines such as anthropology, sociology, psychology, philosophy and art, without renouncing a political look at the different issues.

The reflections originate from a view of the *home*, which is attributed a «uterine character» from a formal-spatial point of view, as archetypal architecture of women, defining a general analysis of the human habitat from an anthropological perspective.

There is no shortage of experiments done with a group of students from the School of Architecture in Madrid, in which typological analyses of ancient settlement patterns are carried out to arrive at the conclusion that there is a correspondence between matrilineal dwelling patterns and modern dwelling patterns. These are followed by further typological studies that demonstrate the centrality of women to the spatial evolution of domestic environments throughout history, from prehistoric times to the early decades of the Twentieth Century.

With the advent of the new century, the *home* thus represents the primary place for the development of modern man's life, a place that, especially following the tragic events of World War I, requires its redefinition within a broader reorganisation of the social and moral value system of the post-war period. The house thus constitutes the ideological reflection of the individual who inhabits it, whose spatial organisation and signification represents the mirror-image of his own intellectual commitment.

By examining the second section of the book, one can understand what substantial contribution the women architects of the Modern Movement brought to the redefinition of living space, both on the theoretical and operational levels.

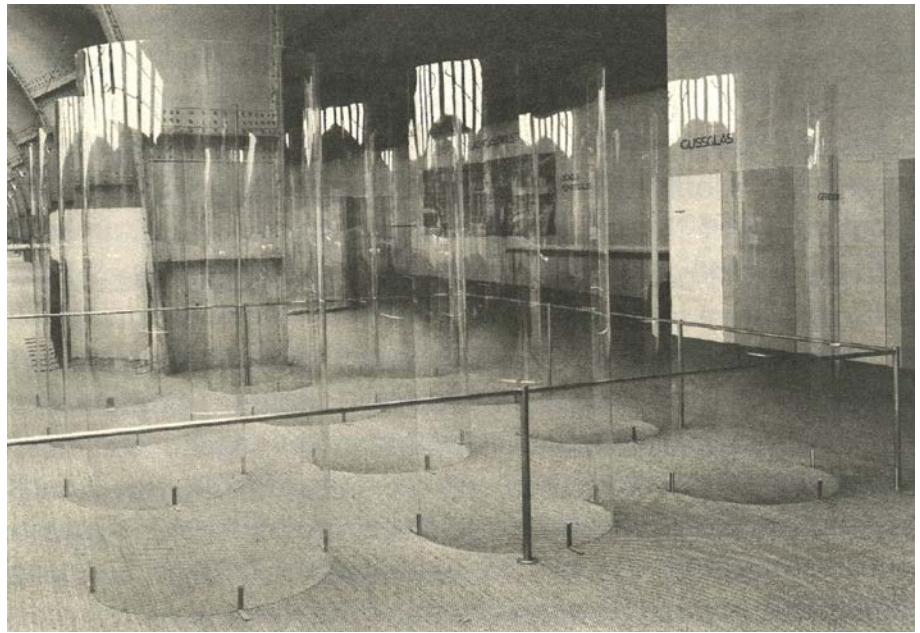


Fig. 2

Lilly Reich with Mies van der Rohe, "German People-German Labor" exhibition, 1934. MoMA Archives.

Four figures are analysed: Eileen Gray, Lilly Reich, Margarete Schütte-Lihotzky, and Charlotte Perriand; figures who, while having personal histories with different facets, show several common aspects.

These pioneering women, along with other female colleagues who are simply mentioned here, tiptoed into the artistic and architectural scene of the 1920s maintaining very close relationships with various masters of the Modern Movement and, through an understandably cautious initial approach, managed to courageously express their work, always through choices guided by strong ethical principles, redeeming the figure of women from a social, intellectual and professional point of view.

Eileen Gray, a woman of Irish descent with a strongly independent character, was an artist and architect closely associated with the Parisian environment and especially with the figures of Jean Badovici, architect and architecture critic, founder of the magazine *L'Architecture Vivante*, and Le Corbusier. About his work, it is important to recall villas *E. 1027* and *Tempe à Pailla*, in which the innovative character of his work emerges, always supported by a strong ideological construct whereby Gray considers the "hard laws of modern mechanicism" as a necessary transition, even if excessively theoretical, intellectualist and cold. She advocates a return to emotion, *pathos*, feelings and emotionality in architecture, but purified through knowledge; she declares herself opposed to simplicity and crude simplification; she suggests adding to the rationalist formulas of the Modern Movement, in order to enrich them, *life*, that which is vital (spirit and heart), "by making the real penetrate abstraction", rejecting the rigid dogmatism of the main current of the Modern Movement».

Berlin-born Lilly Reich devoted her career mainly to interior design and especially to exhibition architecture, a field in which her contribution was also very important for future developments. His active participation in the *Werkbund* and collaboration with the *Bauhaus* are well known. Her figure has always been linked to that of Mies van der Rohe, a master of great importance for her professional and intellectual education from whom Lilly Reich would nevertheless always try to maintain her own independent dimension. Among her major works, particularly the exhibitions, it is useful to recall *Dalla Fibra al Tessuto*, *Sala del Vetro*, *Caffè di seta e veluto*, and *Popolo tedesco, lavoro tedesco*, achievements in which it can be seen that



Fig. 3
Margarete Schütte-Lihotzky,
Frankfurter Küche, 1926. Foto di
Hermann Collischonn. Collec-
tion and Archive, University of
Applied Arts Vienna.

«Lilly Reich elevated exhibition design to an art form and transformed the discipline by dramatically showcasing the essential elements of an exhibition, making materials and content the main theme of the exhibition project in itself».

Margarete Schütte-Lihotzky, a woman architect originally from Vienna, had a career marked primarily by a deep social and political commitment that she placed at the basis of her work. Formed under the guidance of Tessenow and Hoffmann, she collaborated in the early 1920s with Adolf Loos, but very important was her collaboration with Ernst May on the design of the *Neue Frankfurt*, as a member of the *Hochbauamt* (Department of Construction), within which she designed the famous *Frankfurter Küche*, a revolution in the kitchen concept, seen as the core and generating pole of domestic space: «Her work was closely related to the idea of Modernity, to the great social reforms and the aspiration for a new socio-economic order. She devoted his professional practice and theoretical investigation to the design of houses for the less fortunate social classes».

Charlotte Perriand, a Parisian, her name is closely linked to that of Le Corbusier and Pierre Jeanneret, with whom she collaborated for many years, during which she always defended her professional autonomy and had the opportunity to measure herself against architectural design at different scales, from that of furnishings to that of the city. She became recognised for a pronounced design talent, especially for furnishings, and an unconditional faith in the emerging mechanistic society that she rejected everything of a traditional nature, including materials. These positions would be revised in his more mature years, beginning in the late 1930s but especially in the post-World War II years, a period when, partly through the consolidation of his collaboration with Jean Prouvé, all previous investigations into architecture, prefabrication, standardization, industrialisation and materials converged in his work. About his works, the *Bar sous le toit*, the interiors of the *Pavillon Suisse*, the prototype kitchen for the *Unité d'Habitation*, and the *Les Arcs* mountain complex, as well as numerous furnishings are of great importance: «Perriand believed that we had been overtaken by the evolution of the machine and that architectural questions were often posed “in terms of form and not in terms of necessity”. Her interiors reflect, using the words with which Hegel describes Dutch painting, the “Sunday of life”. His works reveal to us “the spectacle of all that exists in man, in the human spirit and character”. Through them we can learn to know the moral nature of man».

Carmen Espejel's book, far from any kind of rhetoric easily spent today, takes the form of an important research work with a high scholarly contribution in the field of architecture: «today, we insist, turning our gaze towards the achievements of certain women of the past is not a past-tense nostalgia, nor a form of radical claimant feminism, but a real historical necessity to search for other models that serve to give more dignity to the entire human race».

