#### DARNIOJI ARCHITEKTŪRA IR STATYBA

## The Inheritance of the Soviet Period: should It be Evaluated?

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Each historical period leaves its marks of evolution – towns, villages, churches, manors, parks and other objects, which reflect social, economical, political, cultural, esthetical, architectural environment of that period. So there appear historically developed types of landscape of different periods – "prior-valak", "valak", "individual farm", "collective farm" and nowadays landscape which is under development. These all landscapes form a part of cultural heritage of the country. "Prior-valak", "valak", "individual farm" landscape types are already researched in certain scale, but the "landscape of collective farms", its character, influence to the identity of the country, to the experience of urban planning of settlements and environmental management are not researched and evaluated sufficiently. It can be said, that during the Soviet period a number of expansion and reconstruction projects of towns and rural settlements were created. In addition, several new towns and smaller settlements were established. Within this period, the urban planning works formed a new country's accommodation system, as well as changed the landscape. Nowadays, most of the previously realized urban structures in many cases are being transformed, re-planned, their overall image is being changed. Facing such urban restructuring there is a need to evaluate current legacy: to evaluate its advantages, disadvantages, what could be appropriate to be transformed as well as what should be saved as planning heritage of the residential areas. This article aims to draw attention to the towns and rural settlements, which were formed during the Soviet period, as spatial structures of that time, that create an important and distinctive urban part of the country's heritage.

**Keywords:** the Soviet period, settlement, spatial structure, urban heritage, territorial planning.

## 1. Introduction

Each historical period leaves its marks of evolution – architectural, urban, landscape, cultural and other legacy, which in certain scale reflects political, economical and social transformations of that period. So there appear historically developed types of landscape of different periods - "priorvalak", "valak", "individual farm", "collective farm" and nowadays landscape which is under development. These all landscapes form a part of cultural heritage of the country. "Prior-valak", "valak", "individual farms" landscape types are already researched and described in certain scale, but the landscape of collective farms, its components, town and rural settlements planning, building, urban and architectural legacy are not researched and evaluated sufficiently. So there appears a necessity to look wider, research and evaluate architectural, urban and landscape legacy of that period, especially because it is an experience of the professional urban planning of the country.

By carrying out the foreign policy of the Soviet government, large urban conversions formed a new housing system. New towns were developed as well as existing expanded. In addition, rural settlement system was reorganized fundamentally. These architectural and urban solutions gave a new dimension for the spatial structure of towns and villages.

Nowadays, settlements and their spaces, which were created during the Soviet period, are changing more or less under the influence of new urban trends. Some parts of towns spaces are reconstructed or restructured. Therefore, in order to save the country's residential construction experience, as well as maintain the historic urban diversity, it is important to evaluate planning and design work of the residential areas, which was carried out during the 50-year period.

Because urban planning projects of settlements that were created at that time are not properly evaluated yet often are described as the result of an ideological program as well as the solutions that unified country's towns, etc. But what their social, functional and urban significance was at that time and is now, it is not fully revealed.

I. Butkevičius (1980), V. Rupas and S. Vaitekūnas (1980) carried out analysis of the Soviet projects and newly

developed areas. Towns planning projects of that time are evaluated by A. Miškinis (1989, 1991), K. Šešelgis (1996), J. Vanagas (2003), J. Bučas (, 2001). The design experience of the Soviet period settlements is touched and discussed by L. Nekrošius (2006, 2007) and V. Petrulis (2012).

This paper aims to review the projects and experience of urban and rural settlements which were planned during the Soviet period, as the urban heritage of that period.

### 2. The historic evolution of settlements of the country

As it was mentioned, the development of settlements, their historic evolution, the formation of landscape structure are predetermined by political, economic, social, technological and other conditions of that time.

During the historical evolution there appeared different types of rural landscape in country. After the land reform in 1557 there was created the landscape of compact and regular villages and big agrarian fields with narrow agrarian parcels - valaks. It had changed the "prior valak" landscape structure which was characterized by random and scattered settlements and agrarian parcels. After the land reform in 1922 there was created individual farm housing structure that was dispersed in agrarian fields. After collectivisation in the Soviet period there appeared the system of compact villages and big agrarian fields.

In the Soviet period the presumptions for a new kind of urban territories appeared after the Soviet system has taken hold of in the country in 1945 (during the Soviet period of 1940–1941, larger urban developments have not taken place) by announced state ownership of the land, introduced planned economy, a fast-developing industry, and reorganized agriculture. The inherited land structure of individual farms of the interwar period became unacceptable for the developed collective farm-based agriculture. New agrarian redevelopment, land reclamation etc. plans were prepared in order to change former agrarian system based on small individual farms.

By overall evaluation of the urban and rural settlement reorganization, it is important to distinguish one of the most important works in formation of residential areas -Lithuanian district planning scheme - Lithuanian unified accommodation concept was prepared in 1964 (author K. Šešelgis). It provided a perspective of growth and distribution of the industry, towns and all types of the settlements in the area (Постоновление...1964; Šešelgis and Miliūkštis... 1974). With the help of this concept, systematic development of industrial towns, regional and district centers was started. This concept has created a planned and systematic layout of the towns, industry and rural settlements. Urban system development within the whole country, industrial housing, and new district planning methods have changed the landscape of the former towns and as well as have created new social and engineering infrastructure.

Some new towns and settlements, built at that period, could be identified as significant urban works. These objects had an important meaning for the changes of landscape.

New settlements have been developed near newly built industrial areas. At the beginning of the period new

workers' settlements, such as: Karpėnai near a cement factory (now Naujoji Akmenė, architect K. Šešelgis, 1948), Grigiškės near a paper factory, Baltoji Vokė near a peatbog (Šalčininkai district, in 1950), Tyruliai near a peat-bog (Radviliškis district, 1953) were established (Miškinis... 1991, Petrulis... 2012).

In 1975, according to the St. Petersburg (formerly Leningrad) planners project (architect V. Akutin), new Visaginas settlement (formerly Sniečkus) (since 1976 towntype settlement) was established near the nuclear power plant (Miškinis... 1991, Petrulis... 2012).

During this period a number of settlements, near which industry was established, has increased (Didžiasalis, Pakiršinys, Noriūnai, Pelėdnagiai, Šventupė, Gelgaudiškis, etc.)

In general during the Soviet period the State Building Committee approved more than 180 town and town-type settlement general and detailed plans (Sūdžius... 2009). Out of them establishment of the new towns can be distinguished (Elektrėnai, Visaginas). Planning of a big empty territory actually was a fairly difficult task, at the same time it was needed to solve all the necessary residential, work and leisure questions. New urbanized territories changed the landscape of the area.

In rural areas with preparation of the conversion of agriculture, central and subsidiary farm settlements' layout and their infrastructure projects were prepared. The deployment schemes of the main objects were prepared, general and detailed plans of these settlements were approved. Soviet rural villages were started to be created in 1947. In 1948, based upon new economy, 1000–6000 ha collective farms were formed (Butkevičius...1980; Šešelgis... 1964). Farms were developed in larger arrays of farmland, by doing reclamation works and by force moving the farmsteads to the new settlements.

While evaluating settlements' development in the Soviet period in technological and territorial planning aspect, it can be distinguished into two phases, that have appeared in different periods: the first one is more elemental, determined by political factors, and realized at the beginning of the period (before 1960), the second one is based on more technologic-economic and social factors and was realized later (in 1960–1990).

First phase of the landscape formation included the fragmented, random formation of collective farms, as well as fragmented development of new settlements. Due to the hasty establishment of collective farms, they have been developed without taking into account a number of factors: a promising places in respect of land use, their optimal number in a farm unit. Collective farms often had too many settlements. Due to the hasty establishment of these settlements, most of them were often surrounded by barren earth or due to the frequent changes of the farmland borders, they appeared at the edge of a farm agrarian territory. Buildings in settlements usually were built from white silicate bricks. In the middle of the fields and without greenery they looked very bleak.

Terms for a more carefully planned settlement formation appeared in 1957 after preparing district planning

schemes (Ministru... 1957) and in 1960 issuing instructions for the territory selection, layout and construction of the rural settlements (Ministry... 1960). Based on these documents collective farms, Soviet and other farm areas, settlement production centers were deployed; central, subsidiary and associated settlements were distinguished (later, in 1973-1974 central, subsidiary and non developed settlement categories were approved) (Butkevičius... 1980). They were adjusted in 1966-1968 according to the Lithuanian district planning scheme. In general, the extent of landscape rearrangement is shown by the district planning process, where there are distinguished 2600 perspective and 1600 non perspective settlements (Bielinskis and Stanevičius 1966). These plans of the country had an influence for design and building extent of new towns and settlements. Town and settlement plans have been developed in specialized planning and design institutes (Agricultural Institute of Design, Design Institute of Collective Farms, etc.) by variety of skilled planners and architects.

# 3. Description of the settlements developed in the Soviet period

In the Soviet period the most important works of town and country settlements planning were the newly set up towns. By evaluating the content of the town projects prepared at that time, it is important to note the fulfillment of spatial structure and function within these towns: town centers were provided with service buildings, public spaces including squares, parks. Unified links between different functional areas - recreation and centers, residential and industry were formed. A clear distinction between the production area and recreation area was proposed. Built up area composition was assessed as well as overall town image. Newly planned settlements were built up with individual and multiflat buildings. The centers and recreation areas were formed in the settlements (Grigiškės (Fig. 1, Fig. 2, Fig. 3), Naujoji Akmenė, Baltoji Vokė). Subsequent Visaginas and Elektrenai towns were formed with quarter planning principles (In Elektrenai this planning method was used for the first time) (Miškinis... 1991). Multiflat buildings were arranged freely in the area.



Fig. 1. Grigiškės. Street with standard residential buildings of the Soviet period



Fig. 2. Grigiškės. School building (Mokyklos str.) was designed in order to close the street perspective



Fig. 3. Grigiškės settlement: at the centre and on the left fragments of 1952 planning can be seen, on the right – later period (source: www.maps.lt)

The natural conditions had quite an important role in the urban development and expansion. New towns were created next to valuable recreational areas (Visaginas next to Visaginas lake, Grigiškės next to the Vokė River, where pond with a park was formed, in Elektrėnai Elektrėnai lagoon was established). Natural conditions provided opportunities to plan exceptional urban structures and did not allow settlements to become similar in industrial conditions.

Based on the structure of the new developed as well as expanded towns of the Soviet period the system of transport, social institutions (schools, kindergartens) and recreational areas continue to function nowadays.

New settlements with their social, manufacturing centers were formed fundamentally in rural areas. On the basis of the planning structure it is possible to distinguish a linear and group plan type of the settlements (Rupas and Vaitekūnas... 1980). Perspective central and subsidiary settlements usually gained group plan. Linear plan usually remained with viable settlements that were undeveloped into a complex network of streets (mainly the former "valak" period (1557–1920) settlements and the new ones formed in the Soviet period on the basis of them).

Central settlements should be emphasized in urban and functional approach as more complex. The central settlements had a clearly distinguished public service centers, residential, industrial-utility and recreational zones.

Meanwhile, in the production centers mostly residential and economic areas were developed. Administrative, cultural, domestic buildings were built in the central settlements. The optimum content of public service institutions included: children's institutions, a secondary school, paramedic midwife-point club with fixed theater equipment, food and industrial goods shop, dining room, domestic plant, a hairdresser salon, a sauna, a post with a savings bank, the stadium (Šešelgis... 1964). As more notable in an urban approach such settlements as Skaistgiris, Ėriškiai, Labūnava, Dainava, Juknaičiai, Klausučiai and others, could be distinguished (Fig. 4 – Fig. 8).



Fig. 4. General view of Juknaičiai (source: www.lkas.lt). The free planning and built fabric of the settlement connect with greenery forming continuous view of the park. Settlement is included in the List of Cultural Heritage

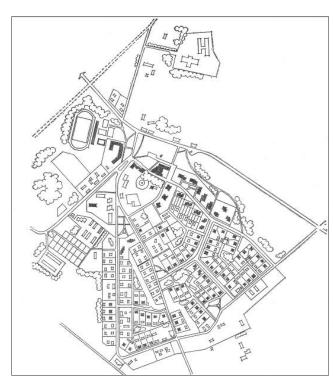


Fig. 5. Juknaičiai plan scheme (Butkevičius... 1980). Clearly planned zones – center with public buildings (at the top), individual housing (in the central part) and multiflat housing (near the center)

New streets and neighborhoods in the settlements were formed by taking into account the old network of streets, as well as natural conditions. In these settlements greenery was planned freely, building layout is formed by using a variety of compositions. Most of the settlements continued the ethnographic traditions of rural building (Барзджюкас... 1981).

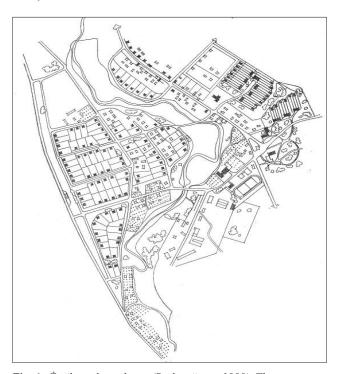


Fig. 6. Ėriškiai plan scheme (Butkevičius... 1980). The main zones of the settlement: center near the water body (on the right), block housing (near the center), individual housing (in the central part) industrial zone (at the bottom)



Fig. 7. Ėriškiai centre. Commercial building "Gojus"

New public centers were established in these new or older settlements that did not have them (Borisovičius... 1979). Public centers with plazas and squares have created clear spatial composition. In this way, small towns and rural settlements received new communication and cultural events centers (Fig. 4–Fig. 8). The existing old structure of the street network was extended as well as existing town centers expanded (Fig. 9–Fig. 10).



Fig. 8. In Ériškiai a water pond provided a recreational zone and revitalized the settlement

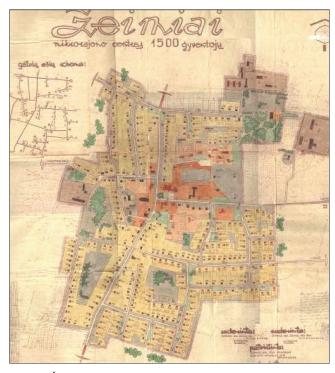


Fig. 9. Žeimiai town general plan of 1974 (Agricultural Institute of Design, Kaunas). Based on the historic structure of the town the new central part with public buildings, living zone with green spaces, and industrial zone in the north east side were developed



Fig. 10. The general view of Baisogala town, which was expanded During the Soviet period (photograph by P. Kaščionis, 2000). The old structure of the town was complemented with new public buildings in the center (club house, buildings for administration), new quarters for individual housing (on the left), new areas for multiflat buildings (in farther direction)

There were designed systems of green structure in settlements. Parks and squares were main components of settlement centers and recreational zones. The industrial zone used to be separated with green areas (Fig. 11, Fig. 12).



Fig. 11. Towns' centre of Rumšiškės, established during the Soviet period, retail building is visible in the center



Fig. 12. Rumšiškės general plan of 1974 (Agricultural Institute of Design, Kaunas). The main zones planned in the settlement: center with main public buildings and park (in the central part), living zone (around the center), industrial zone (on the left), recreational zone (at the bottom)

Within settlement's composition street space stands out. The main streets are distinguished with street greenery, which is formed both with groups and with alleys. Despite settlements being built up with standard buildings, they gained interesting visual appeal with this arrangement of the surroundings.

# 4. Urban significance of the towns and rural settlements of the Soviet period

Generally in the Soviet period country landscape was a lot affected by establishment and development of new rural settlements. Rural settlements concentrated in the compact structure, clearly dominating within the agrarian landscape and became uniformly understood. Experimental construction of multiflat buildings was carried out in some of them, which had fundamentally changed the traditional rural life-style and often landscapes.

While the rural settlements developed, the agricultural technology had changed. Nowadays these rural settlements are functioning and compared to now developed similar built-up areas in some cases function even better.

Considerable changes by the agrarian development were made to the spatial structure of the traditional towns. Some major changes or decisions may be regarded as the old town center arrangement or reconstruction. By developing new social, administrative and cultural service institutions new centers were formed. In some towns, large public objects were constructed in the former market squares and distinctly changed former spaces; sometimes they obstructed the view of existing churches. However, in the other towns, they were integrated in a general built up area, without destroying spatial structures.

From a professional point of view it could be said that in the majority of urban and rural settlements living environment was formed in accordance to the sustainable environment planning principles, for example formation of cultural content corresponding to urban centers, public spaces, greenery. Larger urban development deficiencies were revealed in cases of the development of industrial zones, when industrial zones were created next to the water streams, in front of valuable panoramas of settlements. Such solutions were done regardless of the sight of settlements and regardless of recreational values of waterfronts. This was usually caused by economic-technological factors.

The urban and rural planning and design was strictly regulated by the design standards and regulations. They were presented with calculated indicators and requirements for residential area's spatial and functional structures. These standards specified the necessary minimum indicators of social infrastructure, installation of recreational green spaces. It is important to note that rural settlements were additionally regulated by rural settlements management rules issued in 1970 (Ministru... 1967, Ministru... 1970, Lietuvos... 1970). They had assessed the value of the old village areas when creating new settlements. In addition, they indicate that settlements and industrial building complexes could be built only on one side of the road, as well indicating that the settlements and industrial centers could not be established in the territories with lacking spaces, between several rail lines and roads, etc.

Nowadays the further development of the spatial structure of the settlements often lacks design rules. New development often does not take into account former planned spaces of the centers (Fig. 13). External development underestimate urban silhouette of the towns and settlements.

It is very important to assess the objects that were created during the Soviet period by determining their value, characteristics, both from cultural and landscape points of view. Currently prepared general plans of the towns are often not able to provide the primary visual preservation within inner spaces and their panoramas. From the historical point of view they represent separate urban characters,

defining economic activity in a separate period of time. As settlements formed in "valak" period, individual farms formed in interwar period, the Soviet countryside elements show the main character of historical changes of the country's landscape. The preservation of these landscape elements should be one of the most important challenges to the country's cultural heritage institutions.

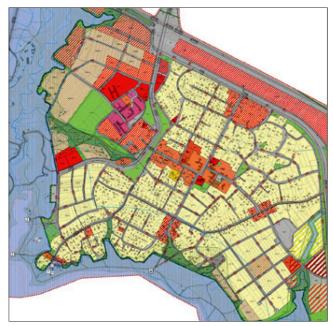


Fig. 13. Rumšiškės master plan of 2013 (project, Kaunas University of Technology). The continuation of urban development of Rumsiskės town maintaining the formation of the center, living zone. New zones for commercial use appear. Unfortunately, due to private ownership of the land most of the public and open spaces, planned at the Soviet period, could not be preserved

## 5. Conclusions

- 1. During the Soviet period the development of industry and agriculture formed a major new urban and rural residential area system. Next to landscape examples of "prior-valak" period, "valak" period, and interwar period, the landscape structure of the Soviet period was created. It reflected large spaces and compact settlements structure. New towns and rural settlements can be distinguished as the most prominent example of landscape, formed at that period of time. Central settlements, as having more complex arrangement approach, as well as more completion in function, could be distinguished out of all rural settlements.
- 2. Urban and rural settlements' spatial structure can be distinguished depending on the nature of the buildings. Workers' settlements at first were planned in blocks, later towns were planned according to the principle of urban quarters. Village settlements at the beginning were planned spontaneously, at a later period standardized. After the preparation of district planning scheme and their arrangement rules settlements were planned in a more targeted and creative way, according to all living, working and leisure environment quality requirements. The new urban structures were developed considering the natural conditions, local traditions in building design, forming inner green public spaces, creating public-administrative centers.

3. Towns and rural settlements created in the Soviet period represent the significant share in the country's urban development. The urban legacy of this period is notable in country's landscape historical evolution. The evaluation of rural and urban heritage of the Soviet period should be one of the tasks of the state in order to preserve valuable rural area planning examples.

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