

The cultural and historical heritage in the industrial areas of Pārlielupe

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Abstract. The character of the building of the modern industrial areas drastically varies from the development opportunities of the postwar 50-80s of the 20th century - not only in terms of the technological revolution, but also in the expression of the construction and design of the outdoor space. Today the production areas do not hide behind high concrete fences, yards are not crossed by concrete crane girders or load-bearing columns with heating mains, which in transit over many kilometers are transported to consumers. Through modernization of industrial production technologies, their areas visually are brought closer to the office and business zones where the forms of objects of the industrial environmental design come in with small pools, with an avant-garde of concrete-glass-metal forms, tree plantations with compositional subordination to the architecture of buildings. The expression of the form creation of the industrial outdoor space is affected by the driveway and the coverage areas of squares, the diversity of color and structure, the nature of recreational zones and fountains, simulating production processes which through form and material have been transferred to the outdoor space design, so creating a completely opposite understanding of the face of industrial areas, as it has been in the second half of the 20th century. Looking back on the building of the postwar production areas and their modernization, it is not necessary to have a dividing line between the historical and the contemporary avant-garde *high tech* of form creation. On the contrary, in searching the synthesis of forms and materials it is essential to get a continuation of the reconstructed industrial area through modern stylistic trends in architecture and industrial design of the outdoor space.

Keywords: history of architecture, cultural heritage, townscape, visual space.

Introduction

In industry, modern information technology enters with rapid strides, so raising the need to intensively raise the modernization of production. In free market conditions, it is difficult for Latvia's entrepreneurs to keep up such a pace, so many of the production sites that have still been strong 10-20 years ago, are now in bankruptcy. This brings along degradation of the visual quality of industrial areas, because by leaving the production housings due to climate and unfinished dismantling works, they quickly turn into slums, but preservation of the building volume, rebuilding or change of the functional meaning of the ownership require large investments. In turn, re-planning of the areas and the appearance of a new function mean to ascertain the cultural and historical values of the site and search for a synthesis of new forms, scale and the financially positive development of business. It is a complex task for the solution of which entrepreneurs, economists, lawyers and architects should work together. This is the most seriously attributable to the cultural and historic building areas where the architectural quality of the existing buildings, conservation opportunities of the old park trees, view lines or silhouette assessment, etc., should be taken into account.

The foregoing moves forward the aim of the research, which is associated with the assessment of interrelationship between the industrial areas and alongside existing cultural and historical heritage. The research is based on several assignments, based on several research directions:

- The 20th century; the industrial load of the 50s-90s and the effect of its servicing transport on the natural area;
- The assessment of the opportunities for conservation of the landscape space or re-cultivation;
- By taking into account the specific local economic development rates to forecast transformation the processes in the zones of the production sites and the progress of their building scale.
- Study the context of industrial areas and alongside cultural and historical heritage, upgrading or reconstructing production technologies (Fig. 1, 2).

Materials and Methods

With the changes in the political and economic situation of the country, the appearance of the urban constructed space is changing together with it, which is specifically attributable to the production zones, as the scales of their areas are impressive and the building height is visible on the city's skyline. The production provides financial contribution to the municipalities, and resolves the issues of network utilities, transportation and other matters of the infrastructure. The processes of building transformation of the city landscape space bring in adjustments, and it's a tough task to integrate the values of the cultural and historical heritage. This is true for the criteria of the buildings' architecturally functional and artistic, environmental protection and



Fig. 1. The old alley of the sugar factory that leads to the new coach factory

[Source: photo by A. Ziemeļniece, 2015]

the living space quality, etc. Through the ages, each of them changes the site's perception scale, proportion, silhouette and functional significance, thus creating a mosaic-type multi-angularity of the landscape space, harmony, or on the contrary – chaos [5].

For the research, the area of Pārlielupe, along the right bank of the river Lielupe in a 500 m wide belt and 5 km up the river Lielupe from the railway bridge, is used across the administrative area of two local governments - Jelgava city and Ozolnieki municipality. Several production zones are located there, which still continue their operation and areas that are neglected or dismantling of equipment and building volumes has begun. For the research results, peculiarities of the natural area, ground elevation marks, forest plots, clay quarries, the servicing transport load, the existing utilities are taken into account. Using historical archival materials, the descriptive method and photo fixations, an opportunity is obtained for a detailed study of areas of the industrial heritage. Through gathering information and basing on the literature review, the genesis processes are described in the landscape space around the production sites. Those that are built in the middle of the 20th century, today are increasingly approaching the threshold of historical value. In Pārlielupe, this is attributable to the sugar factory, the construction materials and the minivan production sites (RAF bus construction museum, technologies of the wood panel plant, sugar factory museum). Even at the beginning of the 21st century the backyard areas of the factories were "adorned" by metal stacks, concrete crane girders, telfers and separate sheds for stacks of raw materials. The surface heating mains, especially brightly recorded it in the landscape, placed in housing shells and based on concrete columns they were installed from the sugar factory to the high-rise residential neighborhoods of Pārlielupe [4].

The city's population was amazingly surprised by the decision of the factory shareholders to dismantle the sugar factory, and instead to initiate the assembly of a new modern factory [6]. Of course, it is possible to discuss here about the scale of the new construction



Fig. 2. The old tree plantation opposite the former office building of the factory

[Source: photo by A. Ziemeļniece, 2015]

volume, but its correct position in parallel with the existing rail track does not hide the valuable view lines of the urban landscape. The place name "Cukurfabrika" of the dismantled plant brings up memories of the boom of the first free country, for the second time regained Latvia and the opportunities of the free market development. In assessing the global experience, in the dismantling of the old sugar factory, several errors were made. In the discussions, the architects' offer to keep individual parts of the factory - the chimney (reducing the height to the historic one), the brick architecture of separate exterior walls of the factory, and synthesizing them in the new buildings of the coach factory as elements of the interior or outdoor space design were not heard. There was a lack of carefully considering as an opportunity to exhibit some old technological flow lines, which had the value of a museum, etc. [7]. A dialogue between professionals, financial management, and real property managers plays a crucial role in the viability of the historical memory of the urban space. The new trends of architecture and synthesis of modern technologies in the cultural environment promote the public awareness and tolerance to historical values. The reconstruction project of the gypsum factory in Ķīpsala should be mentioned as a positive example.

The transformation processes of industrial areas fall into several categories in the landscape space of the urban construction:

- the cultural and historical building and its function (the development of the production beginnings in Pārlielupe around the rail switching junction) is maintained;
- the historic building and its functional significance (the former sugar factory) have gone, with the appearance of a new one instead of it;
- transformation of the green areas into the industrial zone (production space of building materials in Pārlielupe);
- changes in the natural area and re-planning of the cultural and historical space (Āne Manor);
- the opportunities for expansion of the green recreational areas.

Results and discussion

After the agrarian land reform in 1922 the land of Straumes Manor in Pārlielupe 200 m away from the railway bridge was set aside for the construction of a sugar factory (1925). Its successful development was based on the best location of the transport hub point, which was formed by a rail actuator, beetroot delivery with barges and a road for horse sleds along the bank of the river Lielupe. Opposite the sugar factory, steam locomotive repair workshops were built, where planning of the building consisted of a construction volume semicircular in its form (Fig. 3) that compositionally well harmonized with the wooden residential buildings line located away for the railway employees (Fig. 4, 5, 6, 7). Next to them, the water tower that provided centralized water supply.

Both the sugar factory and the locomotive depot for the area of the prewar Pārlielupe were a strong industrial growth point, which was accompanied by a dense rail network with switching. In turn, the area with the depot and wooden dwellings and outbuildings (90s of the 19th century), the linden alley, the old street and the impressive water tower create a bright landscape space of the industrial heritage of Pārlielupe. The consequent protective zone around the above mentioned building along Prohorova street allows to easily perceive the scale of the old production zone and the silhouette in long view lines.

In the 50s of the 20th century, space was given for the construction of the building materials factory in the historic Langervalde pleasure garden zone (Fig. 9). In terms of the building scale, the huge plant area, surrounded by reinforced concrete fence panels, brought heaviness next to the dense mansion building with gardens near the river Lielupe [8]. The mansion blocks were fenced between the new production, rail tracks and the river Lielupe (Fig. 10). Assessing interruption of operation of the production site of building materials, a research has been carried out on the expansion of the historical area of the park of Langervalde, partly locating it in the area of the former factory, thus obtaining a wedged green plantation up to the river Lielupe [9].

Along with stopping the operation of the sugar factory and the building materials factory, quantity of waste water in Pārlielupe has been reduced, which for years was one of the issues of a conflict. The former production sites of building materials, stacks, warehouses, concrete beams and columns are still readable in the silhouette of Pārlielupe and waiting for the dismantling or reconstruction.

Already in the second half of the 19th century, the area of Langervalde Mežaparks next to the former production site of building materials (Fig. 9) Pārlielupe is listed as a favorite walking or recreational place for the inhabitants of Jelgava.



Fig. 3. The steam locomotive depot and residential buildings
[Source: construction by author's, 2015]



Fig. 4. Residential buildings for railwaymen
with a linden alley [Source: photo by A. Ziemeļniece, 2015]



Fig 5. A steam locomotive repair workshop
[Source: photo by A. Ziemeļniece, 2015]



Fig. 6. The wooden heritage - a residential building for
railwaymen (90s of the 19th century)
[Source: photo by A. Ziemeļniece, 2015]



Fig. 7. An outhouse, closing the residential yard (90s of the 19th century) [Source: photo by A. Ziemeļniece, 2015]



Fig. 8. A water tower beside the wooden building (20s of the 20th century) [Source: photo by A. Ziemeļniece, 2015]

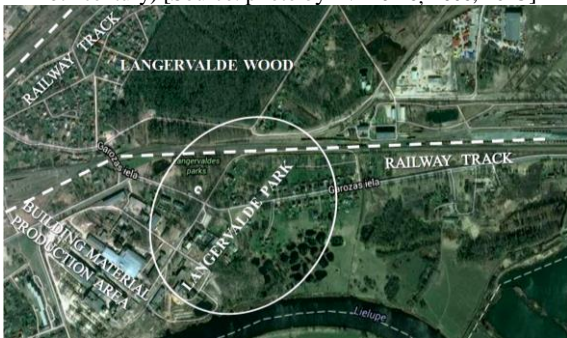


Fig. 9. Location of the production site of building materials between the river and the park of Langervalde [Source: construction by author's, 2015]



Fig. 10. Mansion blocks between the rail tracks and the factory area [Source: construction by author's, 2015]



Fig. 11. A fragment of Langervalde Park opposite the former production site of building materials [Source: photo by A. Ziemeļniece, 2015]



Fig. 12. Regular tree plantations in the southwestern part of the park [Source: photo by A. Ziemeļniece, 2015]



Fig. 13. A road bed splits the scenic area of Mežaparks [Source: photo by A. Ziemeļniece, 2015]



Fig. 14. The road network of Āne Manor and the clay mines [Source: construction by author's, 2015]



Fig. 15. The area of the brick production site at the end of the historical alley [Source: photo by A. Ziemeļniece, 2015]



Fig. 16. The old earth road between Āne Manor and Tetele Manor [Source: construction by author's, 2015]



Fig. 17. A view line from the production site to the manor alley [Source: photo by A. Ziemeļniece, 2015]



Fig. 18. The crossroads of the manor alleys [Source: photo by A. Ziemeļniece, 2015]



Fig. 19. The manor alley in the direction of Riga [Source: photo by A. Ziemeļniece, 2015]



Fig. 20. Clay quarries. The trees of the old park of the manor in the background [Source: photo by A. Ziemeļniece, 2015]

With the development of industry, the southwestern part of the park has been cut out, only individual groups and lines of trees have survived along Garozas street and Krustpils railway, which mark directions of the walking tracks towards the river Lielupe (Fig. 11, 12). The middle of the park consists of a picturesque pine forest, which has been gradually taken over by stands of deciduous trees and bushes. A wide paved road is built between Garozas street and the rails for the production needs, which in addition has broken down the landscape space of Mežaparks (Fig. 13). If the former production site of building materials obtains the nature of an industrial park, then it is possible to extend the green areas up to the river Lielupe.

Upstream the river Lielupe (area of Ozolnieki municipality) behind the recreation park of Langervalde (3 km), Āne Manor is located, which once belonged to the duchy and later to the governate that was burned down 100 years ago during World War I, when the Bergmont's army moved along the river Lielupe down to Jelgava. In turn, in the 60s-70s of the 20th century the brick plant rapidly developed in Pārlielupe, which was based on the use of natural resources. The huge clay mines were later re-cultivated as water bodies - in a ring-shaped arc surrounded the old park of Āne Manor, but in its eastern part an impressive brick factory was built (Fig. 14). When laborers from Russia were invited, a new village was built with barrack-type buildings, but in the 80s of the 20th century the village area was extended by 5- and 7- story panel residential buildings, thus bringing a strange scale and aesthetically poor architectural quality of the building in the landscape of the plain near the river Lielupe. The ambitious industrial scale, high-rise residential building and the emptied clay mines reduced the quality of the cultural landscape. For a random rider, without knowledge of the historical natural area of Pārlielupe and the exaggerated industrial load of the postwar years, it appears as a picturesque lake land of Zemgale (Fig. 20, 21).

In Āne Manor, the historical road has been preserved, with tree plantings in the direction of Riga (Fig. 19), forming a compositional axis of the manor up to the river Lielupe, which is similarly dealt with for the nearby located (2.5 km) Teteleminde Manor. A small fragment of the other linden alley has been preserved for the road direction from Iecava, creating a slanted connection to the main alley from the side of Riga (Fig. 15, 17, 18). It is likely that the same slanted road connection with a tree alley has been in the northwestern side, leading in the direction of Jelgava. The assumption on the location of the old road to the manor from the side of Iecava is confirmed by the study of the existing situation,



Fig. 22. The road from Tetelminde Manor to Āne Manor along the production site of building materials [Source: photo by A. Ziemeļniece, 2015]



Fig. 23. The view line to the former production site of building materials from Āne Manor [Source: photo by A. Ziemeļniece, 2015]

where the axis of Celtnieku street is sharply broken in the production building. In turn, the road continuation with the above mentioned linden alley is readable behind the production area. It is possible that at the crossroads of the manor road with the highway to Iecava, a roadside pub was located. The above mentioned brick plant is built transversely on the axis of the manor road, so interrupting the integrity and the compositional structure of the cultural and historical landscape. The historic road down along the river Lielupe in the direction of Jelgava led to Straumes Manor, where a ferry was located at the Sņķere pub with windmills.

The study of the maps of Dunsdorf shows that the old land roads went close to rivers so that travelers could not get lost. It also applies to the road bed right along the right bank of the river Lielupe between Tetelminde Manor and Āne Manor 2.5 km

in length (Fig. 16). In comparison with Āne Manor, Tetelminde Manor is located on a high sandy dune in the wrap of the river Lielupe with distant view lines, and it is not affected by exaggerated production areas of the postwar years scale. In turn, Āne Manor is located next to the floodplain meadows of the river Lielupe and it is threatened by bigger spring floods.

Comparing the former production site of building materials near Langervalde Park and the brick production site near Āne Manor, in terms of the compositional location their areas are very similar. The difference is only that the brick plant at Āne is built in the prevailing wind side, so carrying dust and noise to the adjacent workers' village.

Conclusions

In recent years, with the rapidly changing conditions of the free market in Latvia, the scope of transformation processes in production areas is increasing. When one production goes bankrupt, in its place comes a new one with its own technological scope, scale and intensity, bringing along another infrastructure, dismantling - assembly processes, area re-cultivation, etc. The municipalities, which have preemption property rights, have the opportunity to adjust the development concept and the detailed plan for specific areas. This is an important prerequisite, which plays an important role in the future improvement of the urban landscape space and the visual quality of the landscape space. This also applies to the young entrepreneurs and investors, contributing to the understanding of the context of the cultural landscape in the progress of the upcoming transformation processes, without losing or regaining back the historical heritage. One of the most important cornerstones of the preservation of the cultural landscape is a cross-border cooperation between local authorities, as their administrative boundaries do not need to be read in the landscape space.

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Kopsavilkums. Mainoties politiski ekonomiskai situācijai valstī, tai līdzīgi mainās pilsētībūvnieciskās telpas veidols, kas īpaši ir attiecināms uz ražošanas zonām, jo to teritoriju mērogi ir iespējami un pilsētas siluetā ir pamanāms to apbūves augstums un apbūves telpas struktūra. Ražošana dod finansiālu pienesumu pašvaldībai, un atrisina inženierkomunikāciju tīklu, transporta un citus infrastruktūras jautājumus. Apbūves transformācijas procesi pilsētas ainavtelpā ienes korekcijas, tā rodot pilsētplānošanā vairākus sarežģītus uzdevumus, kur galvenais no tiem - nepieļauj kultūrvēsturiskās apbūves vērtību izzušanu. Pētījuma rezultāti ir attiecināmi uz ēku arhitektoniski funkcionālajām un mākslinieciskajām, dabas aizsardzības un dzīves telpas kvalitātes kritērijiem utt. Laika ritumā katrā no tām maina vietas uztveres mērogu, proporciju, siluetu un funkcionālo nozīmi, tā veidojot ainavtelpas mozaīkveida daudzšķautnainību, harmoniju vai gluži pretēji - haosu.

Pētījumam izmantota Pārlielupes teritorija gar Lielupes labo krasto 500 m platā joslā un 5 km augšup pa Lielupi no dzelzceļa tilta, skarot divu pašvaldību - Jelgavas pilsētas un Ozolnieku novada administratīvo teritoriju. Te izvietojas vairākas ražošanas zonas, kuras joprojām turpina savu darbību, un teritorijas, kuras ir pamestas novārtā, vai ir aizsākusies iekārtu un būvapjomu demontāža. Pētījuma rezultātu iegūšanai ir ievērtētas esošās situācijas dabas pamatnes īpatnības, zemes augstuma atzīmes, meža nogabali, mālu karjeri, apkalpes transporta slodze un esošās inženierkomunikācijas. Izmantojot vēsturisko arhīvu materiālus, aprakstošo metodi un fotofiksācijas ir iegūta iespēja detalizētai izpētei industriālā mantojuma teritorijām. Apkopojot informāciju un pamatojoties uz literatūras apskatu, tiek raksturoti ainavtelpu transformācijas procesi ap ražotnēm. Tās, kuras būvētas 20. gs. vidū, šodien aizvien vairāk tuvojas vēsturiskās vērtības sliekšnim. Pārlielupē tas ir attiecināms uz cukurfabriku, būvmateriālu, mikroautobusu un ķieģeļu ražotnēm.

Pēdējos gados strauji mainoties brīvā tirgus apstākļiem Latvijā, pieaug ražošanas teritoriju transformācijas procesu apjoms. Bankrotējot vienai ražošanai, tās vietā ienāk jauna ar savu tehnoloģisko apjomu, mērogu un intensitāti, nesot līdzīgi citu infrastruktūru, demontāžas - montāžas procesus, teritoriju rekultivāciju utt. Tā kā pašvaldībām pieder īpašumu pirmpirkuma tiesības, tām ir dota iespēja koriģēt konkrēto teritoriju attīstības koncepciju un detālplānojumu. Tas ir svarīgs priekšnosacījums, kas ieņem nozīmīgu lomu tālākā pilsētības vai lauku ainavtelpas vizuālās kvalitātes paaugstināšanā. Minētā pētījuma rezultāti ir svarīgi jaunajiem uzņēmējiem un investoriem, veicinot izpratni par kultūrainavas vērtībām, tās saglabājot vai atgūstot atpakaļ. Viens no svarīgākajiem stūrakmeņiem kultūrainavas jēdziena apzināšanā ir pārrobežu sadarbība starp pašvaldībām. Pētījuma piemēri atspoguļo Lielupes labā krasta ainavtelpu, kurā ir nolasāms Jelgavas pilsētas un Ozolnieku novada vēsturiskais mantojums.