

# Renovation of Wooden Buildings in Riga

Antra Viļuma, *Riga Technical University, Riga, Latvia*

**Abstract** – The wooden architecture of the 19th century is mentioned in the UNESCO World Heritage description of Riga among the criteria that makes the Capital city of Outstanding Universal Value. So far, 3 500 wooden buildings in the city have survived. This paper summarizes information on the renovation of four wooden buildings. The aim of this paper is to give a closer overview on the impact of ownership, funding source and location in the city of the building on the process of renovation and architectural change. The internationally approved renovation principles in the renovation of wooden buildings in Riga are not often taken into account.

**Keywords** – Architecture, renovation, restoration, Riga, timber, wood.

## INTRODUCTION

The wooden architecture of Riga has an old and long history [1]. Wooden architecture of the 19th century is mentioned in the UNESCO World Heritage description of Riga as one of the criteria that makes it of Outstanding Universal Value [2]. About a century ago, there were around 12 000 wooden buildings in the city [9] and more than 3 500 have survived to this day [3], [4]. The wooden buildings that have survived have different function and are located in all areas of the city. In the historic centre of Riga wooden architecture is better protected by the Law on Preservation and Protection of the Historic Centre of Riga [5] than in other parts of the city. A lot of wooden buildings in the city are in bad technical condition because they have not been well maintained during the second part of the 20th century. In the last decades, more and more wooden buildings in Riga have been renovated. The renovation process improves the conditions of the building and in some cases enhances the quality of architecture as well. Internationally approved principles in the Venice Charter (Article 9) state that an old building should be preserved as long as possible, but the new part of the building has to be different from the old one, so it can be easily recognized [6]. In Riga, there are different kinds of initiatives of the owners in renovation of wooden buildings [7]. Some buildings were restored carefully to save the typical wooden architecture, others were renovated and got new function, but there were also buildings that were replaced by a completely new structure and architecture.

The renovation of buildings mainly depends on the owner's understanding of architecture, experience and financial possibilities. Wooden buildings in Riga, most often, are not big and profitable. The agreement on the renovation of a building is difficult if it has several owners. And it is a typical situation with the most of wooden apartment buildings. In some cases, the technical condition of buildings may be so bad that the renovation is even impossible. A careful and accurate investigation must be done in all cases of restoration and renovation. The renovation of historic

buildings and maintaining the city's reputation is an important "economic and ecological imperative" [8], it is also a way of making the city unique and comfortable for living [9]. However, if the cultural and historical value of the building cannot be preserved, the complete investigation of the building is compulsory. It should be performed [10] to retain historical information.

This paper examines four case studies of the renovation of wooden buildings. The aim of the paper is to obtain the detailed data on the impact of ownership, financing and location in the city on the renovation process and the changes of the architecture of building.

The research methods include a visual assessment and functional analysis of the renovated building's architecture, the renovation process compliance with the Venice Charter principles has been studied as well. The study includes the assessment of the architecture of renovated buildings in comparison with the initial project and the historical development of architecture. The research methods include interviews with the owners, architects, renovation consultants and experts involved in the renovation process.

The wooden buildings chosen for this research were primarily built as residential buildings, but their function changed during time (Table I). Two of the buildings are located in the historic centre of Riga, one in Pārdaugava, and one in Vidzemes priekšpilsēta (city district). Three buildings have private owners and one is owned by the municipality. The sources of financing have been different as well. Two buildings have been restored using private financing, one building – municipal funds, and one – European Regional Development Fund.

### A. "Jāņa sēta" Shop Building

This wooden building is located at Elizabetes iela 83/85 k. 2. It is a typical single-story house with a five windows mezzanine (Fig. 1) built in the 19th century according to the pattern façade design. The use of pattern facade drawing projects was compulsory in Riga between 1810 and 1840. The year of commissioning of the building in the National Real Estate Cadastre information system is 1889. The first document in the archive of Riga City Building Construction Directorate about this building is dated 1888, when an additional entrance (Fig. 2) to the building was constructed. In 1912, an additional door and a shop-window were made on the right wing of the facade [11]. In 1924, a project was worked out for the transformation of the building into a shop, including the shop-window extension on the ground floor [11]. In later decades, the building housed publisher JSC "Izdevējs". In 1939, the ownership went to "Rota" and the publisher continued the "printing and book binding works" [11]. During later decades, the building was used for different functions (Fig. 3). At the be-

TABLE I.  
MAIN DATA OF RENOVATED BUILDINGS [AUTHOR OF THE ARTICLE]

Address of object	Built	Function	Renovation	The new function
Elizabetes iela 83/85 K2	19th Ce	Dwelling house	1996, 2006	Office and shop
Ģertrūdes iela 18	19th Ce	Dwelling house	2007	School dormitory
Kalnciema iela 33 K2 New address Melnsila 10B	1895	Outbuilding	2015	Office
	1930	Apartment building		



Fig. 1. The building at Elizabetes iela 83/85 [Photo: www.karsuveikals.lv].



Fig. 2. The drawing from the first document about building [11].



Fig. 3. The building was used for different functions [Photo: J.Krastiņš].



Fig. 4. The building after renovation [Photo: A.Viļuma, 2018].

ginning of the 1990s, one part of the building was a shop, but another part on the ground floor was used for different functions and the shop-windows were partly reduced.

After the renovation executed in the early nineties [12] the building regained the original size windows having been in pattern façade [13]. In 1994, the right wing of the building was the “Jāņa Sēta” Publishing House shop. Aivars Beldavs, co-owner of the shop, remembered that a handicraft and music shop was opened very soon after the map shop. Only later

the whole building was occupied by the Publishing House “Jāņa Sēta” office, and the map shop took the entire ground floor.

In 1995, the renovation project by Andris Vītols and Normunds Broks included removing of the extensions, retaining the horizontal board coating in the façade and fenestration. It was planned to build a new classical style entrance to the shop. The renovation of the building of 1996 was perceived contradictory. During this renovation, the building “got a false” portico shaped in a classical style that is not typical of similar buildings in the city [14].



Fig. 5. The building at Ģertrūdes iela 18 [Photo: A.Viļuma, 2016].

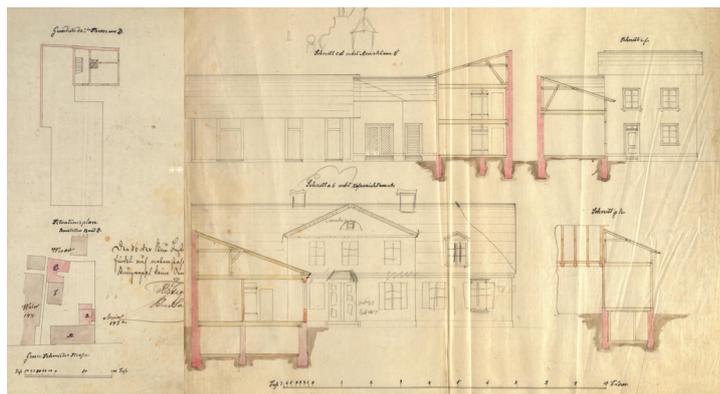


Fig. 6. The archive documents from 1867 [17].

Architect Andris Vītols, author of the renovation project, admitted that the renovation process was gradual, but cannot be used as a sample for the renovation of other buildings. In 1996, many project solutions had been modified, improved or supplemented according to the instructions of the map shop “Jāņa Sēta” owner and contractor of the renovation Aivars Zvirbulis. During the construction process, consultations were held with restoration experts and structural engineers. However, the technical project information is not consistent with the actual situation, noted architect A. Vītols.

The next technical project of the building renovation was prepared in 2008 by “Exterio”, Ltd. (architects Ieva Pakalniņa and Gita Reine) [15]. In the Planning and architectural assignment of the project the building was defined as “a two-storey wooden manor-type dwelling house”. The typology of the manor house does not correspond to a particular example. According to this project an interior was rebuilt and the stairs at the left side of the building were reduced.

After all renovations and transformations the building has kept its initial shape of pattern facade from the street side. It is the only wooden building facing Elizabetes iela [16] in this particular block of the city. Over time it had been supplemented with new details, had changed the function and several times the colour of the facade as well. During last decades, the building was in a good technical condition and appearance (Fig. 4), but it was not renovated according international principles. In 2017, the existing building was completely dismantled and now it is in the reconstruction process by “Jaunromāns un Ābele” project.

### *B. Dormitory Building of Riga 1st Special Elementary Boarding School*

Another sample of wooden building renovation in the historic centre of Riga is the municipality-property at Ģertrūdes iela 18. This wooden building is a typical single-storey house with three windows in the mezzanine (Fig. 5) built in the 19th century according to a pattern facade drawing.

The archive documents [17, 2] from 1867 are the first information about the building (Fig. 6). At that time, obviously, it was the only building on a plot. In 1899, the four-storey masonry

building of an educational establishment located in the depth of the land plot was approved. The wooden building was initially a dwelling house. Starting from the 20th century, the function of the building was a workshop. From 1947, the Riga 1st Special Elementary Boarding School occupied both wooden and masonry building [18]. At the end of the 20th century, the wooden building was a dormitory of the school. The school premises were in the four-storey masonry building. At that time, both buildings were in poor technical conditions.

In 2002, a design competition [18] took place for the renovation of both buildings of the Riga 1st Special Elementary Boarding School. The architects office “Birojs A” won the competition. The architects of renovation were Vita Rauhvargere and Anita Pabrukle [19]. The investigation of building was carried out in 2003 by “Komunālprojekts”. It was defined that the above-ground walls of the building are timber frame filled with horizontal planks and double board external coating with a total thickness of the walls 21–25 cm. It was recommended to replace worn-out and damaged load-bearing and structural elements during the building renovation works [19].

The renovation project [20] was worked out in 2003 and it included the removal of some unnecessary partition walls and the improving of the sanitary facilities. The renovation and construction works started only in 2006 using the municipal financing. In the beginning of the renovation process the actual structure of the wooden building was discovered. According to the investigation material it was a timber frame with board cladding. In fact, the building walls were log structure. Thereby it was an opportunity for architects to specify the appearance, proportions and shape of timber details provided in the renovation project. The authentic dark green painting as well as different imprints of building parts were found after the removal of facade cladding board. The facade project contained the pediments above the windows, but they were not implemented. The shutters were carefully restored and all fittings reconstructed. Now the shutters are used daily. The new facade finishing included the insulation as well. The historical street entrance that is not in daily use was carefully renovated. The historical stairs in the centre of the building were restored and a new elevator was built next to them [20] to



Fig. 7. The building at Melnsila iela 10 B [Photo: A.Viļuma, 2016].

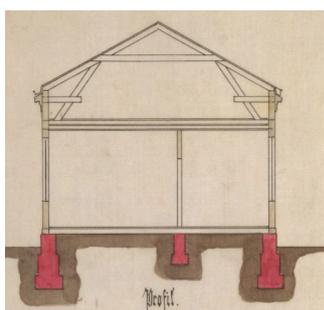


Fig. 8. The outbuilding faced Melnsila iela in 1895 [21].

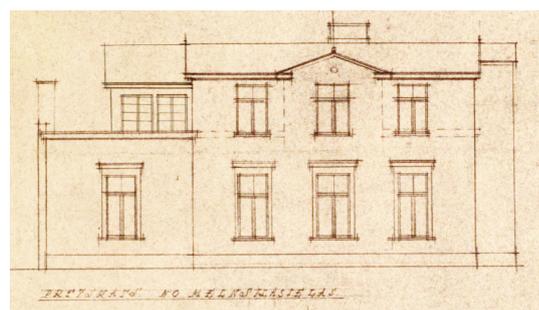


Fig. 9. The extension of building in 1939 [21].

provide an accessibility for the handicapped. The courtyard wing of the wooden building was replaced with a glass gallery connecting both school buildings. The ornamental murals on the log walls in interior were discovered during the renovation works. A lot of splendid decors were revealed in the first floor premises. All the paintings were preserved under the wall coverings.

Ten years after, the new finishing of the wooden house facing Ģertrūdes iela looks still as quite new. The same concerns all timber detail of the facade finishing. Therefore, it is a rare sample of wooden buildings constructed to the pattern facade drawings of early 19th century.

### C. The Office Building

One more renovation is realized in Pārdaugava. A two-story wooden building at Kalnciema street 33 K 2 (Fig. 7) with a new address – Melnsila iela 10 B – was originally built as single-storey outbuilding for a nearby standing apartment house facing Kalnciema iela.

The first building on this plot was built in 1890 as a two-story building containing two apartments. Some years later the building was extended as a four apartment building by enlarging the building shape and got an additional building in the yard as well. This case presents an analysis of the additional building (Fig. 8) for technical function and household needs [21, 2–4]. The outbuilding that faced Melnsila iela was built in 1895 by architect Heinrich Karl Scheel's Project. In 1896, an extension of the building with one window was built [21, 15]. Subsequently the outbuilding was used as a workshop, leather lure workshop, and Emma, Konstancija & Erna Damberg's "Leather Factory".

In 1930, the outbuilding was rebuilt into a two-story residential building by Arturs Krūmiņš' project. During the rebuilding process there were verandas attached to the first and the second floor. In the new two-story wooden building there were three apartments [21, 64–65]. After this rebuilding, until the end of the 20th century, the building was used as an apartment building. In 1939, one more extension (Fig. 9) of the building (arch. A. Krūmiņš) was realized [21, 77–80]. In early 2000, the building was purchased by the owners of the Kalnciems quarter to add it to the complex. After the purchase of the building it was not used for many years.

In the beginning of the 21st century, the building was investigated. In the investigation documents, it was mentioned that the facade of the building and the total volume of the building do not correspond to the last project. The eaves of the original one-storey building were only partially preserved on the yard side of the building. The windows were partially original and the sashes were from the late 19th century and the twenties and thirties of the 20th century. The facade cladding had been changed several times, but the façade style corresponds to eclectic.

In 2003, the renovation project was worked out by Dace Kokiņa. There was a plan to place in the renovated building a workshops for craftsmen on the ground floor and office premises on the second floor [22]. The renovation project of the building provided the dismantling of the wall on the second floor to expand the space, but the renovation work was not started due to lack of financing.

In 2014, the renovation of the building started with the support of the EU funding. During the renovation process the planks of the second floor veranda were uncovered and three windows on the northern side of the room were found. The window in the middle was the window with opening sash. In the inventory documents only two windows were shown. The new windows of the second floor were made according to the new exposed model. The dismantling of the first floor window frames opened two of the oldest windows. Accordingly, it had been taken as a prototype of old windows on the first floor. The entrance doors had been enhanced by installing glass instead of the top door board and changing the colour of the door to dark gray. The colour of the window shutter was changed to dark gray as well.

The renovation works were carried out in accordance with traditional craft methods, maintaining the existing volume of the building and focusing on the facade and interior arrangement. The sample of the Melnsila iela building is unique because during renovation of the building many details of the building were saved [23]. Before the renovation the building was green, now it is bright orange. All facade protrusions were painted white and give a special view so that the windows on the second floor blend with the roof cavity. It was not intended as a design of the façade in the project.

Now the Centre for Wooden Architecture (*Koka arhitektūras centrs*) is located in the building. It is open for residents of Latvia

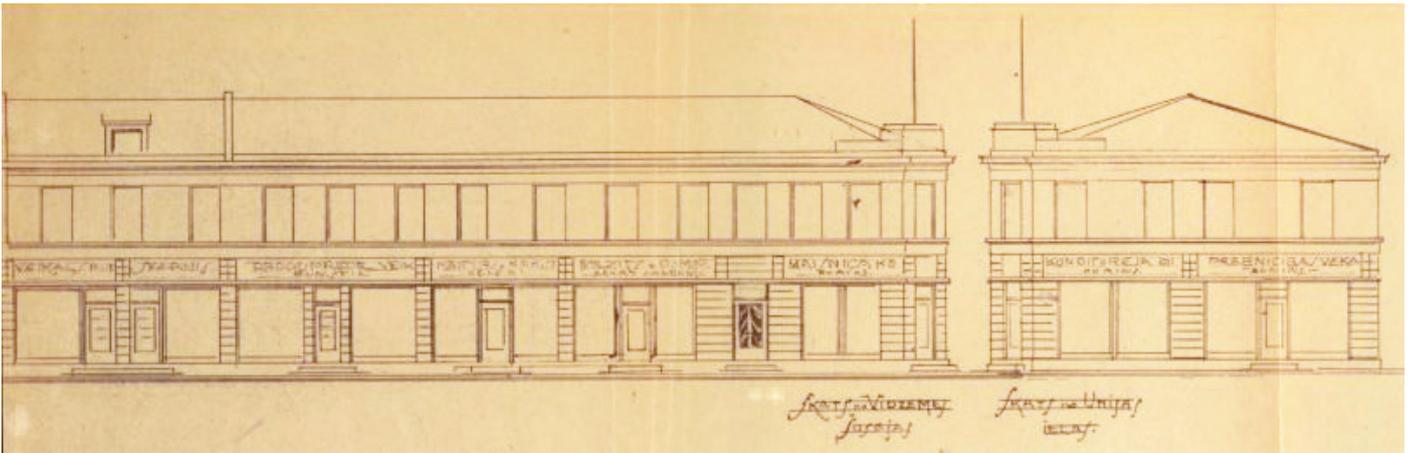


Fig. 10. The drawing from the first document, Brīvības iela 216 [25].



Fig. 11. The building before the renovation [Photo: I. Kalvele, 2013]



Fig. 12. The building at Brīvības iela 216 [Photo: A.Viļuma, 2016].

and foreign tourists and promotes the wooden architecture of Pārdaugava and Riga [24]. People can attend practical workshops and lectures and have excursions. The renovation works of the building were realised with co-funding from the European Regional Development Fund.

#### D. Shop Building

A larger-scale renovation was realized at Brīvības iela 216. It is a two-story wooden building facing Brīvības and Ūnijas iela. It is located outside the central part of the city or the railway circle of Riga. In 1900, it was built as an apartment building (Fig. 10). The author of the project is not documented. The first document concerning the history of the building [25] dates back to 1912. It is a project of transformation of the ground floor into shops [25, 2–3]. In the renovation project new large shop windows in the façade were proposed as well.

In 1927, the tanner and the sausage shop were in the ground floor of the building. In 1932, one more transformation of the wooden building was made. From 1933, different problems were identified regarding the building's conditions.

It was found that there was a damage of the upper and lower sides of the walls and indicated that ceiling joints are in bad condition [25, 11]. A whole section of different problems concerning the building were stated in the documents [25, 35–62]. Several shops, including a meat shop, continued to operate in the building until the end of the 20th century. Some renovations of the building took place starting from 1993. Meanwhile, some arbitrary construction activities took place as well.

The latest renovation project was worked out in 2011 [26]. It was necessary that the renovation of the building (Fig. 11) meets contemporary needs of a shop and cafe. The project of architect Ilze Kalvele proposed several improvements of the layout solution and modest changes in the façade. At the time only minor traces of timber structure elements were retained.

An idea of the wooden house image came up later. The owner of the property commissioned a façade project for the house to Juris Paegle and Dace Paegle. New elements of the façade (water drains, lighting, etc.) have been developed during the design process. All façade components were pre-fabricated.

The result is a high-quality wooden façade (Fig. 12) in principles of eclecticism with concerted details, rhythm and colour [27]. According to architect J. Paegle the façade is intended as decoration of the monumental establishment of all surrounding area. It has a number of innovative details, for example water drains are hidden behind the façade finish. In general, the façade creates a majestic impression, matched to customer preferences. This is not a case of renovation according to international renovation principles, but this city block returned one more wooden building.

### CONCLUSION

Summarizing the information on the renovation of four buildings, it should be concluded that internationally approved renovation principles are not often taken into account in the renovation of wooden buildings in Riga. Every case is different, but in general the renovation is a complex and complicated process that requires professional consultations from different areas. The more consultations the architects could have before the design process, the better will be the renovation project and process.

If the building is located in the historic centre of the city or is marked as a historical heritage, the investigation of building is mandatory and the renovation of the building has to be coordinated with specialists and experts who provide professional advice as well. Assistance and advice would be required also from the owners of buildings who themselves wish to renovate their wooden property. An important aspect is the period of time between an investigation of the building, preparation of the design project, and initiation of renovation may take several years. This may complicate the renovation process as the building may deteriorate over time. Therefore, before carrying out the renovation process, additional technical investigation or an inspection of the building would be required.

After the renovation of the building, all information that is documented before, during and after the renovation works must be retained, so that it can be used both for future maintenance of the building and for the planning of the other building renovation as well.

Better result of renovation is possible if there is only one owner of property. Access to municipal or EU funding creates an opportunity to renovate wooden buildings according to internationally approved principles. This is because the process of renovation is under control of several institutions. But public financing makes it difficult to change project details during renovation process.

### REFERENCES

1. **Krastiņš, J., Strautmanis, I., Dripe, J.** *Latvijas arhitektūra no senatnes līdz mūsdienām*. Rīga: Baltika, 1998. 312 lpp. ISBN 9984-9178-3-5
2. Historic centre of Riga [online]. *World Heritage List* [cited 10.11.2016]. <http://whc.unesco.org/en/list/852>
3. **Blūms, P.** Rīgas priekšpilsētu attīstība. *Koka Rīga*. Rīga: Neputns, 2001. 28.–51. lpp.
4. **Gaile, Z.** Koka ēku kolekcija Rīgā. *Arhitektūra un dizains* [tiešsaiste, skatīts 10.12.2015]. <http://www.letonika.lv/groups/default.aspx?title=LKK%20resurs/80>

5. Pasaules mantojuma vietas retrospektīvais īpašas nozīmes un universālās vērtības pamatojums. *Rīgas vēsturiskais centrs. Latvija. 1997* [tiešsaiste, skatīts 10.11.2016]. [http://www.mantojums.lv/\\_riect\\_text/docs/Riga\\_OUV\\_LV\\_final.pdf](http://www.mantojums.lv/_riect_text/docs/Riga_OUV_LV_final.pdf)
6. International Charter for the Conservation and Restoration of Monuments and Sites (*The Venice Charter*) 1964 [online, cited 10.12.2015]. [http://www.icomos.org/charters/venice\\_e.pdf](http://www.icomos.org/charters/venice_e.pdf)
7. **Valķere, A.** Koka arhitektūra atdzimst pamazām. *Būvzinātnis*, 2015, Nr. 47, 48.–57. lpp. (pieejams arī <http://www.abc.lv/raksts/koka-arhitektura-atdzimst-pamazam>).
8. **Schittich, Ch. (Ed.).** *In Detail : Building in Existing : Fabric. Refurbishment. Extensions. New Design*. München: Institut für Internationale Architektur-Dokumentation GmbH & Co. KG; Basel, Boston, Berlin: Birkhäuser, 2003. 176 p. ISBN13: 9783764311209
9. **Blūms, P.** *Rīgas koka arhitektūra* [DVD : īsfilma]. Rīga: Rīgas pilsētas arhitekta birojs, 2006 (pieejams arī [http://www.arhitekts.riga.lv/index.php?option=com\\_content&view=article&id=33:rigas-koka-arhitektura&catid=15&Itemid=5](http://www.arhitekts.riga.lv/index.php?option=com_content&view=article&id=33:rigas-koka-arhitektura&catid=15&Itemid=5)).
10. **Mintaurs, M.** Materiālās kultūras mantojuma praktiskā saglabāšana: pasaules pieredze un Latvijas realitāte. *Latvijas materiālās kultūras mantojuma saglabāšanas problēmas: rakstu krājums*. (sastādītājs un zinātniskais redaktors A. Gavriļins) Rīga: LU Akadēmiskais apgāds, 2008. 7.–28. lpp.
11. Latvijas Valsts Vēstures arhīvs (LVVA). 2761. fonds, 3. apraksts, 3586. lieta.
12. Rīgas Būvvaldes arhīvs (RBA), 52716. lieta.
13. **Zvirbulis, A.** Vienīgā muiža Berga Bazārā. *Latvijas Arhitektūra*, 1998, decembris, Nr. 20, 32.–33. lpp.
14. **Krastiņš, J.** *Rīgas arhitektūras stili*. Rīga: Jumava, 2005. 240 lpp.
15. Rīgas Būvvaldes arhīvs, RBA, 94877. lieta.
16. **Blūms, P.** Berga bazārs Koka māja. *Latvijas Arhitektūra*, 1998, decembris (Nr. 20), 34.–35. lpp.
17. LVVA, 2762. fonds, 3. apraksts, 2436. lieta.
18. Rīgas 1. speciālā internātpamatskolas vēsture [tiešsaiste]. *Rīgas 1. speciālā internātpamatskola* [skatīts 10.12.2016]. <http://www.r1sips.edu.lv/vesture>
19. RBA, 84005. lieta.
20. **Lūse, A.** Skola gadsimta garumā. *Latvijas Arhitektūra*, 2008, Nr. 6 (80), 24.–27. lpp.
21. LVVA, 2761. fonds, 3. apraksts, 7901. lieta.
22. RBA, 91504. lieta.
23. **Karlštrēma, I.** Kalnciema kvartāla būvvēsture. *Latvijas Arhitektūra*, 2016/2017, Nr. 128, 48.–49. lpp.
24. Topošajā Koka arhitektūras centrā aktīvi noris ēkas renovācijas darbi [tiešsaiste]. *Dienas Bizness* [skatīts 10.12.2016]. <http://www.db.lv/ipsamus/toposaja-koka-arhitekturas-centra-aktivi-noris-ekas-renovācijas-darbi-434265>
25. LVVA, 2761. fonds, 3. apraksts, 13142. lieta.
26. RBA, 112763. lieta, 451652. lieta, 64608. lieta, 122735. lieta.
27. **Lejnieks, J.** Fasādes. *Latvijas Arhitektūra*, 2013/2014. decembris/janvāris, Nr. 110 (6), 26.–29. lpp.



**Antra Viļuma**, Mg. Arch. graduated from the Faculty of Architecture of RTU in 1992. In 2003, she received the degree of Master of Communication from the University of Latvia. She has worked in construction industry, public relations and marketing, and has written for the several media. Since 2012, she has been engaged in projects on wooden architecture, participated in scientific conferences on wooden construction, has been a guest editor of the special issue on wooden architecture of the magazine “Latvijas Arhitektūra”, and a member of the jury of annual competition “The Award of Riga Architecture 2016”. She has been a coordinator of international projects with the Riga Energy Agency and City Development Department.

### CONTACT DATA

**Antra Viļuma**  
Address: 6 Kipsalas Str., Riga, LV-1048, Latvia,  
Phone: +371 29464411  
E-mail: [antra.viluma@rtu.lv](mailto:antra.viluma@rtu.lv)