Deliverable WP 2:

JOINT REPORT ON THE FIELDWORK AND ANALYSIS CONDUCTED DURING THE STUDY VISIT IN KAUNAS (REPUBLIC OF LITHUANIA).

1. Practical information regarding the study visit

Dates of the study visit: November 5–7, 2023

Participants:
Ivan Murin (CZ), Lenka Jakoubková Budilová (CZ), Andrew Jennings (GB), Andrew Lind (GB), Aušra Mlinkauskienė (LT), Kęstutis Zaleckis (LT), Ingrida Povilaitienė (LT), Marius Ivaškevičius (LT), Gintarė Stankevičiūtė (LT), Algimantas Grigas (LT), Jurga Vitkuvienė (LT), Ramūnas Navickas (LT).

Plan of the visit:
The first study visit meeting was organised in the Czech Republic where all members of the research team met each other in person for the first time from the beginning of the project. The second study visit was organised in Kaunas on November 5-7th, 2023. Participants from the Czech Republic and the Shetland came to Kaunas on the 5th of November. The programme started on Monday, i.e., 6th of November, with a joint meeting of the research team (venue: Kaunas University of Technology (KTU), Faculty of Civil Engineering and Architecture, Lithuania) and a discussion of the research plans and intended research outcomes. After the discussion and lunch break, the participants had a guided tour, organised by a guide from Kaunas Algimantas Grigas. The main aim of the tour in the city centre of Kaunas (New Town and Old Town of Kaunas) was to visit the research area, which has been included in the UNESCO World Heritage list in 2023. This site is protected for its interwar Modernism buildings. The excursion took more than 2 hours and heritage buildings of different functions and different valuable properties were presented to the project participant. The second day of the visit (7th of November) was organised in the Faculty of Civil Engineering and Architecture. The day was dedicated to the workshop where project stakeholders participated as well. Participants were from different fields: heritage specialists, community members of Kaunas Centre, architecture students, and project partners. The workshop was organized using the Challenge Based Learning (CBL) methodology. The workshop aimed to crystallize problems of society, identify the causes of those problems, and propose scenarios which could mitigate those problems. Detailed results of the workshop will be presented in the chapter "Discussion". In the afternoon, the discussion between project partners was organised to discuss the further research steps, publications and upcoming study visit at the Shetland, UK.

Plan of the presentations (November 6-7):

1) A welcome greeting from the project coordinator from Charles University in Prague (Ivan Murin);
2) Introduction of the HerInDep project study visit in KTU, Kaunas (Aušra Mlinkauskienė);
3) Monitoring intelligibility: changes of Kaunas interwar modernism buildings, KTU (Kęstutis Zaleckis);
4) Living on the Edge: Heritage, Identity and Community, Shetland (Andrew Jennings, Andrew Lind);

5) Depopulation and Culture Vitality of Local Population, Charles University of Prague (Ivan Murin, Lenka Jakoubková Budilová);
6) Introduction of the workshop. Valuable elements of the territory, KTU (Aušra Mlinkauskienė);
7) Overview of a survey of residents in the Centre neighbourhood, KTU (Ingrida Povilaitienė);
8) Demographic mapping, KTU (Marius Ivaškevičius);
9) Workshop via CBL methodology, KTU (Jurga Vitkuvienė);
10) Presentation of the workshop results (each workshop group separate);
11) Round table discussion on finding research links between different research areas, possibility of joint publications, discussion on the next study visit (Ivan Murin);
12) Informal socialization and discussion.

All presentations were in English.

Workshop with the local stakeholders and the public:

Place and time: Kaunas University of Technology, Faculty of Civil Engineering and Architecture, Monday, November 7, 2023. Workshop started at 9:00 am and finished at 1:00 pm.

Aim of the workshop: preservation of Kaunas' interwar architectural heritage by increasing the perception of local identity in the community. Structure of the workshop groups (max 4 groups): 1. 1-2 participants from HerInDep project (from Kaunas + partners from Czech Republic and Shetland, UK); 2. 1-2 participant from young researches (students); 3. 1 participant from Centras community; 4. 1 participant – expert of Heritage preservation.

Discussion was expected after the presentations and workshop. The questions for the discussions:

I. Demographic Dynamics:
- How does depopulation in heritage areas impact the overall demographic dynamics, including age distribution and population structure?
- What role does fertility rate play in contributing to depopulation trends in heritage areas?

II. Cultural Heritage Preservation:
- To what extent does depopulation pose a threat to the preservation of cultural heritage in specific regions, and how can we measure this impact scientifically?
- Are there scientific models or frameworks that can predict the potential loss or degradation of cultural heritage assets due to depopulation?

III. Environmental Impacts:
- How does depopulation affect the environmental sustainability of heritage areas, considering factors such as land use, resource consumption, and biodiversity?
- Can we assess the ecological consequences of abandoned or underutilized spaces in depopulated heritage areas?

IV. Urban Planning and Infrastructure:
- What are the scientific considerations in planning for sustainable urban development in depopulated heritage areas, with a focus on preserving historical structures and layouts?
- How does depopulation impact the maintenance and sustainability of infrastructure in heritage areas, and what are the scientific strategies for mitigating these effects?

V. Globalization and Connectivity:
- To what extent do globalization and increased connectivity contribute to or alleviate depopulation in heritage areas, and how can scientific analysis inform our understanding of these dynamics?

STUDY VISIT PROGRAMME

1st DAY – PARTICIPANTS´MEETING AND THE SEMINAR IN THE FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE, KTU

Organized by project partner:
Kaunas University of Technology, Kaunas, Republic of Lithuania

November 6, 2023

VENUE :
KAUNAS UNIVERSITY OF TECHNOLOGY
FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE, STUDENTU STR. 48, KAUNAS

Agenda

9:00 – 9:30 PARTICIPANTS REGISTRATION, KTU library, M3.
9:30 - 10:00 WELCOME SESSION.
10.00 - 12.00 - FIRST SESSION.
Presentations from all partners to discuss the results of ongoing research (research object, directions, methods, tools).

12:00 - 13:00 Time for lunch BREAK.

13:00 -16:00 VISIT TO THE STUDY AREA, guided tour.

16:00 – 18:00 VISIT TO KAUNAS OLD TOWN.

18:00 - SOCIAL DINNER
Local Food Experience
Conclusions of the 1st day study visit.

2nd DAY – WORKSHOP, PARTICIPANTS´ DISCUSSION
Organized by project partner:
Kaunas University of Technology, Kaunas, Republic of Lithuania

November 7, 2023
VENUE :
KAUNAS UNIVERSITY OF TECHNOLOGY
FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE, STUDENTU STR. 48, KAUNAS

Agenda

9:00 – 9:15 Meeting at the Faculty, KTU library, M7.
9:15 - 13:00 SECOND SESSION.

Workshop (via CBL method) with the Kaunas center community and associate partners to discuss the problems and future perspectives of the study area.

13:00 - 14:00 Time for lunch BREAK.

14:00 - 16:00 Round table discussion: sharing the depopulate phenomenon with local community actors; analysisng the depopulated community perception of the culture heritage (CH). Assessing the vitality of local community; exploiting the potential of research data and information to assess CH sustainability. Discussion on next study visit program.

16:00 – 17:00 Conclusions of the 2nd day study visit.

Photos of the tour, Kaunas, 2023-11-06

Fig.1

Fig.2

Fig.3

Fig.4

Fig.5

Fig.6

Fig.7

Fig.8

Fig.9

Fig.10

Fig.1-2 – KTU Student campus, Studentų str., Kaunas; Fig.3-9 – Kaunas New Town; Fig.10 - House of Artists, former Vatican Nunciature

General information on the participation to the Study Visit in the Republic of Lithuania

REACHING KAUNAS AND THE MEETING VENUE

5-7 November 2023

Address:

Faculty of Civil Engineering and Architecture, Studentų str. 48 – M3, M7 (library), 51367 Kaunas, Lithuania

Where we are:

Faculty of Civil Engineering and Architecture is in Kaunas University of Technology student campus, near Azuolynas (Oak) Park, not far from Kaunas center (Fig. 11-13).

Fig. 11. Map of Lithuania.

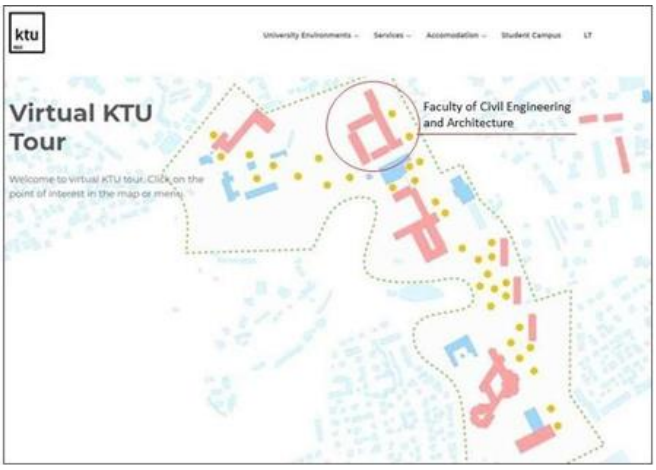


Fig. 12. Map of KTU student campus.

Fig. 13. Map of Kaunas Centre.

To have an idea of the KTU student campus:

Please look at: https://tour.ktu.edu/#EN (1)

From the Kaunas airport:

Taxi

KaunasAirportapprovedtaxirankcanbefoundjustinfrontofthearrivalsterminal.

Most popular routes and their rates:

- Kaunas Airport–Old Town (Townhall Square)–ca.20EUR*
- Kaunas Airport–Bus station–ca.19EUR*
- Kaunas Airport– Liberty Avenue (Laisvė save.)–ca.18EUR*

Bus

Route 29G takes you to Kaunas city centre, Bus, and Railway Station. A single ticket costs 1EUR and is valid until the final stop (Fig. 14).

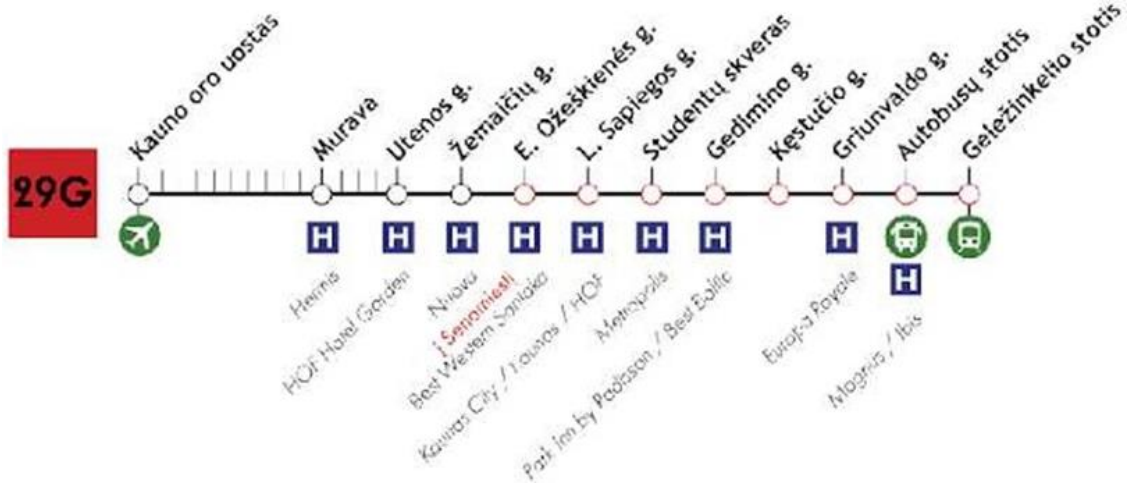


Fig. 14. The route of bus no 29G.

From the Vilnius airport:

There are 4 ways to get from Vilnius Airport (VNO) to Kaunas by bus, train, car or town car - https://www.rome2rio.com/map/Vilnius-Airport-VNO/Kaunas?source=adwords&gclid=CjwKCAjwtIaVBhBkEiwAsr7-c0zaILaHdThEOZlFibIUSgxHGO7FI3wpyEO0LvzmEpbfTebkxkCjbxoCfeYQAvD_BwE (2)

Accommodation in Kaunas:

There are several hotels located in the center of Kaunas and having easy access to the Faculty of Civil Engineering and Architecture:

- **Victoria hotel Kaunas** (use the bus **No3** from Vytautas av. to go to the faculty): https://hotelvictoria.lt/en/main/ (3)

- **Ibis Kaunas Centre** (use the bus **No3** from Vytautas av. to go to the Faculty): https://www.guestreservations.com/ibis-kaunas-centre/booking?gclid=CjwKCAjwkYGVBhArEiwA4sZLuAzaY5hjflPYR78Whq2tqYIQSm08vjIQGGL8mi2d-_gMP6ANiY5LFBRoC7e4QAvD_BwE (4)
- **Hotel Kaunas** (use the bus **No 37 or 40** from Donelaičio St. to go to the Faculty): http://www.kaunashotel.lt/lt (5)
- **Moxy Kaunas Center** (use the bus **No 37 or 40** from Donelaičio St. to go to the Faculty): https://www.marriott.com/en-us/hotels/kunox-moxy-kaunas-center/overview/?scid=bb1a189a-fec3-4d19-a255-54ba596febe2&y_source=1_MTQ3ODExOTctNzE1LWxvY2F0aW9uLndlYnNpdGU%3D (6)
- As well Airbnb possibility: https://www.airbnb.com/kaunas-county-lithuania/stays (7)

Recommended restaurants:

Fish restaurant: **Senis ir jūra**: Pilies str. 1, Kaunas
Wild meat restaurant: **Medžiotojų užeiga**: Rotušės sq.10, Kaunas

Lithuanian food restaurant: **Restoranas Bernelių Smuklė**: K. Donelaičio str. 11, Kaunas

Italian food restaurant: **Casa Della pasta**: Laisvės av. (Liberty Avenue) 27, Kaunas

Places to visit:

Kaunas city (http://en.kaunas.lt/tourism (8))

Remarkable Places to See in Kaunas (https://www.tripadvisor.com/Attractions-g2699065-Activities-c47-Kaunas_County.html (9))

Kaunas Castle
(https://kaunomuziejus.lt/pilies_skyrius/?lang=en (10))

IX Fort Museum (https://www.9fortomuziejus.lt/?lang=en (11))
Christ's Resurrection Church (https://modernizmasateiciai.lt/en/paminkline-kristaus-prisikelimo-bazilika/ (12))
Be Active in Kaunas (https://visit.kaunas.lt/en/kaunastic/ (13))
Weather Forecast in Kaunas (http://www.meteo.lt/en/miestas?placeCode=Kaunas (14))

2. Characteristics of the cultural heritage research area in Kaunas

Brief historical overview of Kaunas architectural and urban formation:
Kaunas is first mentioned in 1361 in the chronicle of Vygandas Marburgietis describing the Crusaders' preparations to attack Kaunas castle (1362) (https://www.vle.lt/straipsnis/vygando-marburgiecio-kronika/ (15)). In 14th century, there were two settlements at the confluence of the Nemunas and the Neris rivers. The settlement near the present site of Kaunas Castle occupied a sparsely built-up area of 1 hectare until the 13th century, and after the construction of the castle in the 14th century it occupied an area of 1.5 hectares for some time, meeting the needs of the castle. Nearby on the river Nemunas, another settlement expanded rapidly in the 14th century (https://www.vle.lt/straipsnis/kauno-istorija/ (16)). In the late 16th and early 17th centuries, Kaunas experienced a great economic boom. During the wars of the Republic of the Two Nations with Russia and Sweden, Kaunas was occupied by Russian troops in 1655-61 and Swedish troops in 1655-09; in 1655, the city was burnt down and sacked; and in 1657, there was a plague epidemic. After the war, the suburbs continued to develop. In 1843, the city became the centre of Kaunas Governorate, with a much larger Russian Imperial garrison stationed there. In 1847, Emperor Nikolay I approved the Kaunas Development Plan. According to the plan, a new town was built to the east of the Old Town. A rectangular street network, three squares arranged in a chess-like pattern, and a wide main boulevard were created (Fig. 15-17).

Fig. 15. Plan of city Kaunas, 1847. (https://kvr.kpd.lt/#/static-heritage-search (17))

Fig. 16. Plan of city Kaunas, 1863.

The city was further expanded according to a plan approved by Emperor Alexander II in 1871. In 1879 Kaunas was granted the status of a frontier military fortress of the first class of the Russian Empire (Kaunas Fortress), and the construction of the fortress took place between 1882 and 1914. It influenced the development of the city - in 1887, rules were adopted which limited the height of buildings and their construction in certain places, and new constructions had to be approved by the fortress commandant.

Fig. 17. Nikolay Prospekt (late 19th century; now Liberty Avenue) (https://kvr.kpd.lt/#/static-heritage-search (17))

In 1887, the city's streets began to be paved with stones. In 1891-92, a horse-drawn tramway, the "konke", was built from the Town Hall to the railway station. The neo-Byzantine-style St. Michael the Archangel Cathedral (architect K. Limarenko, now St. Michael the Archangel Church) built in 1895 (Fig. 18-20).

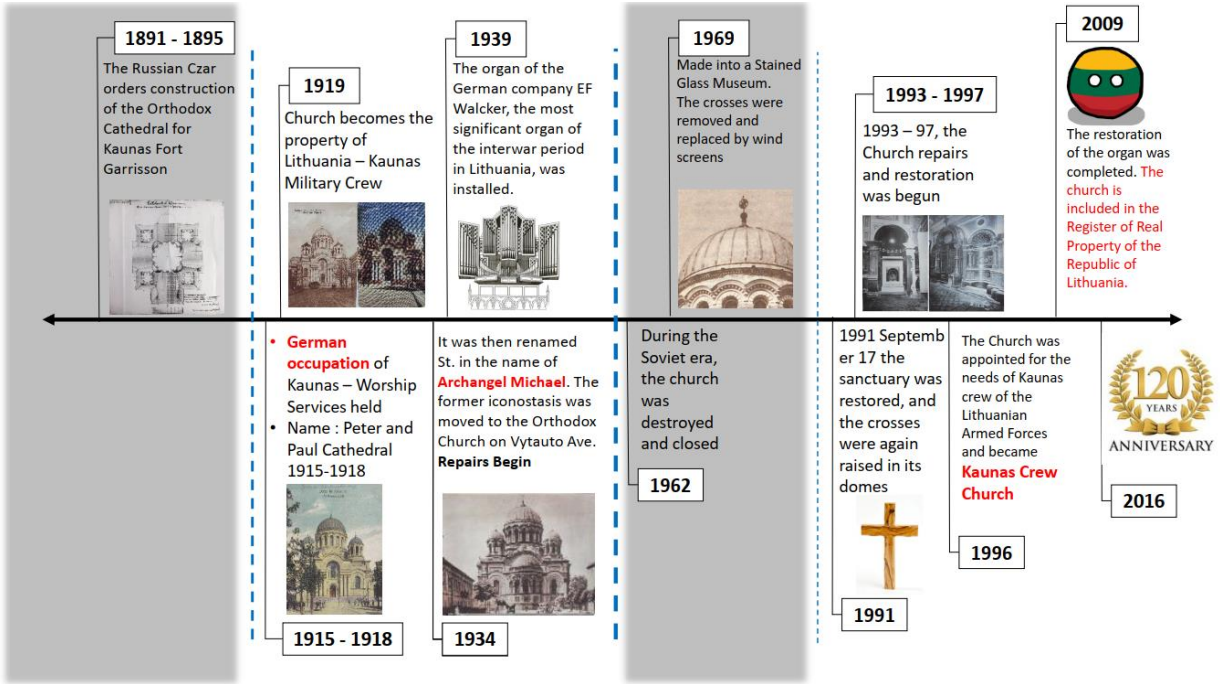


Fig. 18. Timeline of the architectural formation of the St. Michael the Archangel Church (Cultural Heritage, student E. Čeplinskaitė).

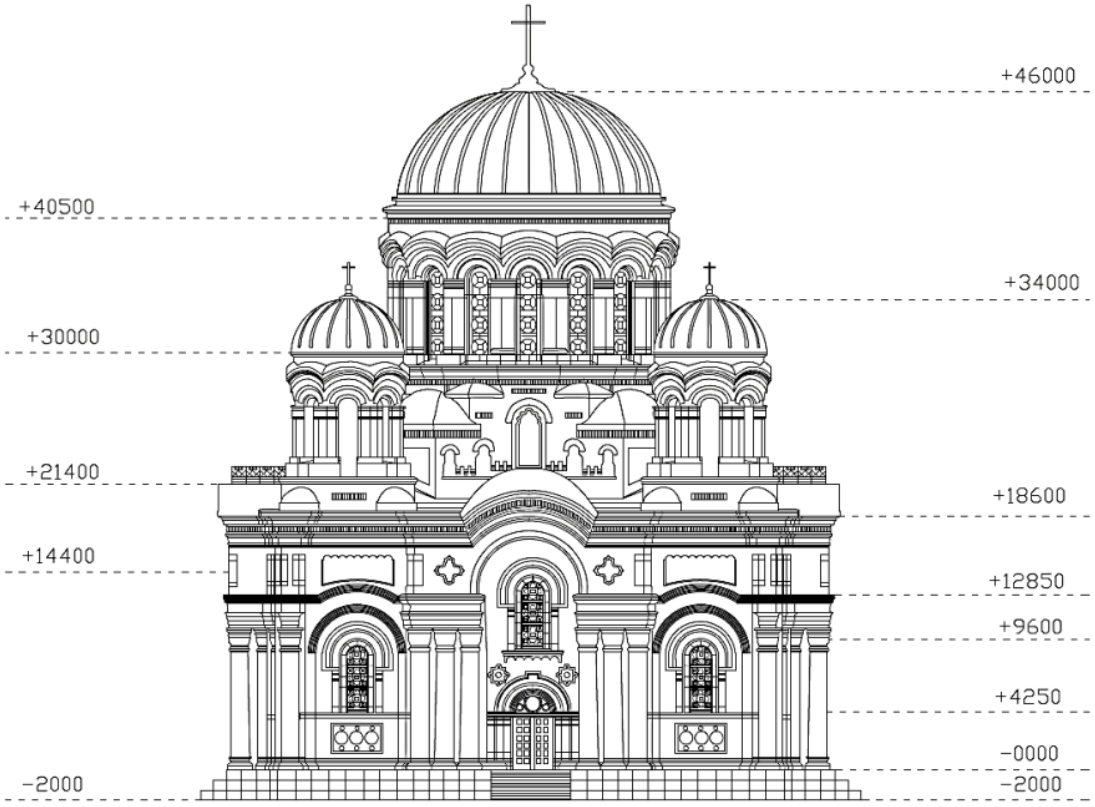


Fig. 19. Main Facade of the St. Michael the Archangel Church (Protection of Cultural Heritage, student K. Karishma).

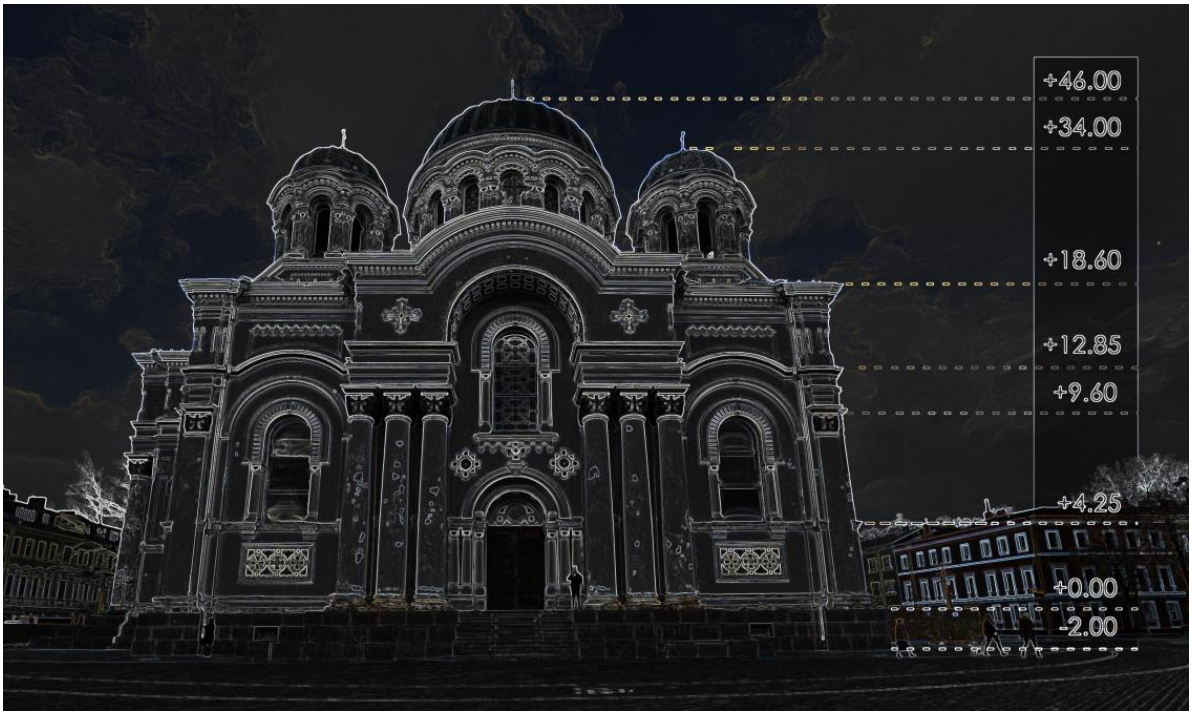


Fig. 20. Main view to the St. Michael the Archangel Church from the Laisvės (Liberty) avenue (Protection of Cultural Heritage, student K. Karishma).

In 1891 the City Theatre was built (architect U. Golinevičius, now Kaunas State Music Theatre). The theatre's heyday began when Kaunas became the capital of the state. At that time the theatre became a state theatre. In 1922-1925 and 1930 it was enlarged and improved according to the designs of V. Dubeneckis and V. Landsbergis-Žemkalnis. At the end of the 19th century, the commercial character of Laisvės (Liberty) Avenue became apparent. Not only banks and shops, but also hotels, restaurants, cafés, and cinemas were located on the street. The popular A. Perkauskas confectionery operated in the house No. 82 (1890, architect N. Andrejevas). The Versalis Hotel and Restaurant (No 88; 1897, architect N. Andrejevas) replaced the former Shambr-garni; the Metropolis (No 86; 1899, architect N. Andrejevas) was famous for its luxurious furnishings, good cuisine, and Italian orchestra. Between the wars, the Hofmekler salon music ensemble played here, and the restaurant was popular with the upper classes and the bohemians (https://kvr.kpd.lt/#/static-heritage-search (17)).

In 1918-40 Kaunas was the largest industrial centre in Lithuania. The food, furniture, printing and especially textile industries (Drobė, Liteksas, Kaunas fabrics) expanded, while the metalworking industry declined. At the beginning of 1940 there were 412 enterprises and workshops. The largest banks in Lithuania operated in Kaunas. In 1919, a permanent Kaunas radio station began operating (in 1926 Lithuanian radio broadcasts began). Buses started running in 1924, water supply was installed in 1929, funiculars were built in Žaliakalnis in 1931 and Aleksotas in 1935. In the 1940s, many modern architectural buildings were built. New districts of K. Donelaičio, Kęstučio, V. Putvinskis, Maironis and other streets of the central part of Kaunas, and Žaliakalnis were formed (https://www.vle.lt/straipsnis/kauno-istorija/ (16)).

In 1919-1940, Kaunas saw the emergence of a unique phenomenon that still distinguishes Lithuania in the context of Eastern Europe - the architecture of the interwar period. Most of the objects that represent it (including the buildings of the Central Post Office (architect F. Vizbaras), the Milk Centre (architect V. Landsbergis-Žemkalnis), the Palace of the Vytautas the Great Museum (architects V. Dubeneckis and K. Reisonas), etc.) were built in Kaunas' New Town (https://kvr.kpd.lt/#/static-heritage-search (17)).

At the beginning of the 20th century, Laisvės (Liberty) Avenue took on the characteristics of a main street. In 1919, with the outbreak of the struggle for independence, Kaunas became the capital of the country. In early 1919, the Council of State and the Cabinet of Ministers, as well as other institutions, were located here. Diplomatic missions of various countries were also established in Kaunas. Most of them were located on V. Putvinskis Street (USA, Sweden, France, Czechoslovakia, Hungary), others were located on Laisvės (Liberty) Avenue (Austria, Netherlands, Russia), Kęstučio Street (Latvia, Great Britain), K. In 1932, the Central Post House was opened (102 Laisvės (Liberty) av., architect - F. Vizbaras); on April 24, 1937, the new Kaunas Officers' Quarters was opened (A. Mickevičius str. 19, designed by V. Dubeneckis, S. Kudokas (1893-1988), K. Kriščiukaitis). In 1940, the last interwar cinema Romuva (No. 54, engineer N. A. Mačiulskis) opened in Laisvės (Liberty) Avenue - the only one cinema in Kaunas that did not change either its function or exterior (Fig. 21-22).

Valuable features of the study area:

Research area - Kaunas Center: Old and New Town areas. New Town is located to the east of the Old Town, in the city centre. The main street is Laisvės (Liberty) Avenue (1.5 km, starting at Vytautas Avenue and ending at the beginning of the Old Town).

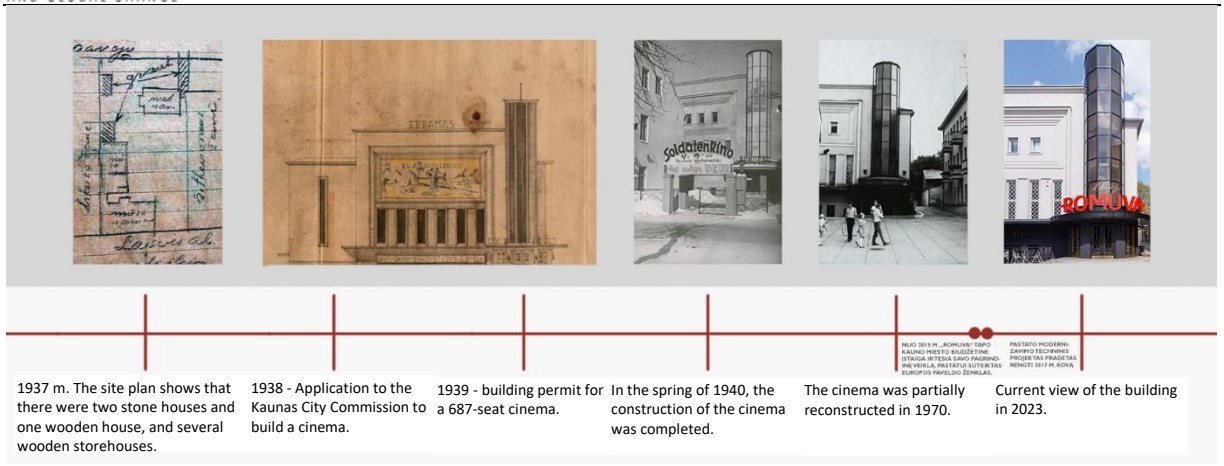


Fig. 21. Timeline of the architectural formation of the cinema Romuva (Cultural Heritage, student E. Čeplinskaitė).

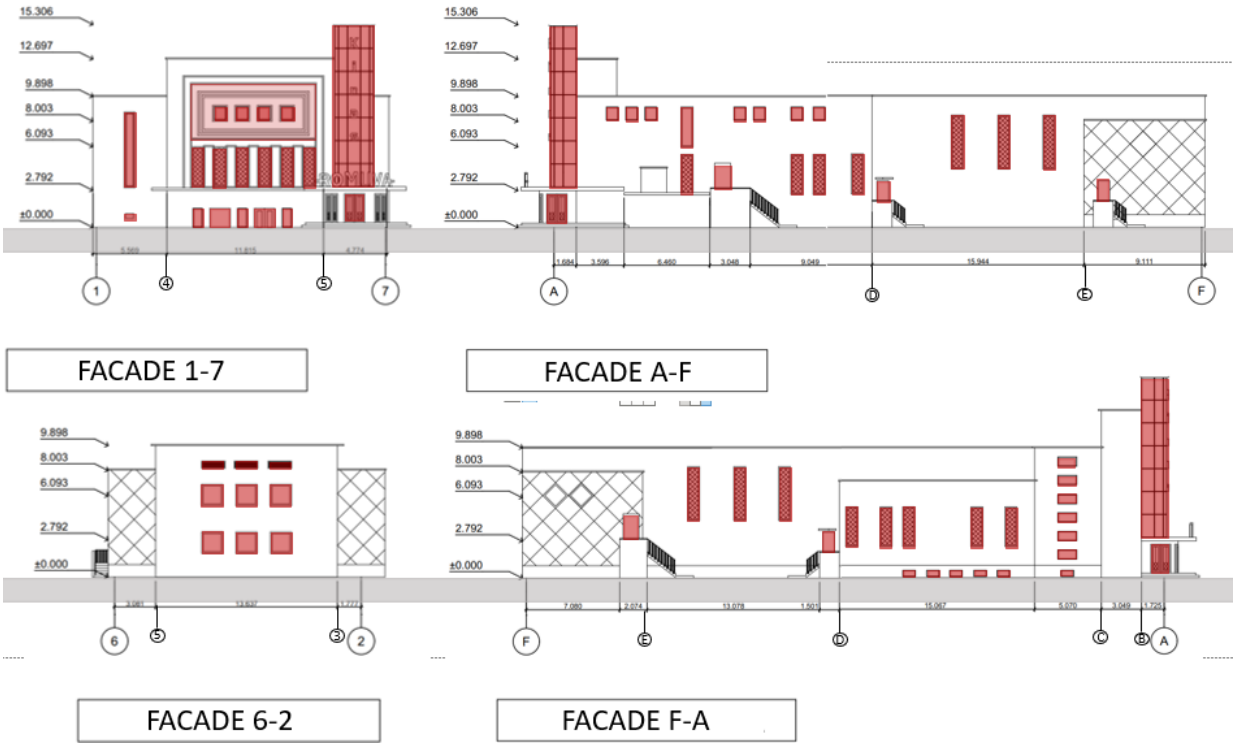


Fig. 22. Facades of the cinema Romuva, 2023 (Cultural Heritage, student E. Čeplinskaitė).

An assessment of the current state of heritage objects and sites will help to determine the physical condition, cultural value, and functional use of existing immovable cultural heritage objects.

Lithuanian register: full name of the protected territories: 1. The historical part of Kaunas, called the New Town, 2. Kaunas Old Town (Fig. 23). The type of valuable characteristics of the New Town: Architectural (rare significance determined); Engineering (typical significance determined); Historic (unique significance determined); Landscape; Urban (unique

significance determined); Greenery (determining significance is important). The type of valuable characteristics of the Old Town: Archaeological (determining significance); Architectural (determining significance is important); Historical (determining significance is important); Landscape; Urban (determining significance is unique); Greenery (determining significance is representative).

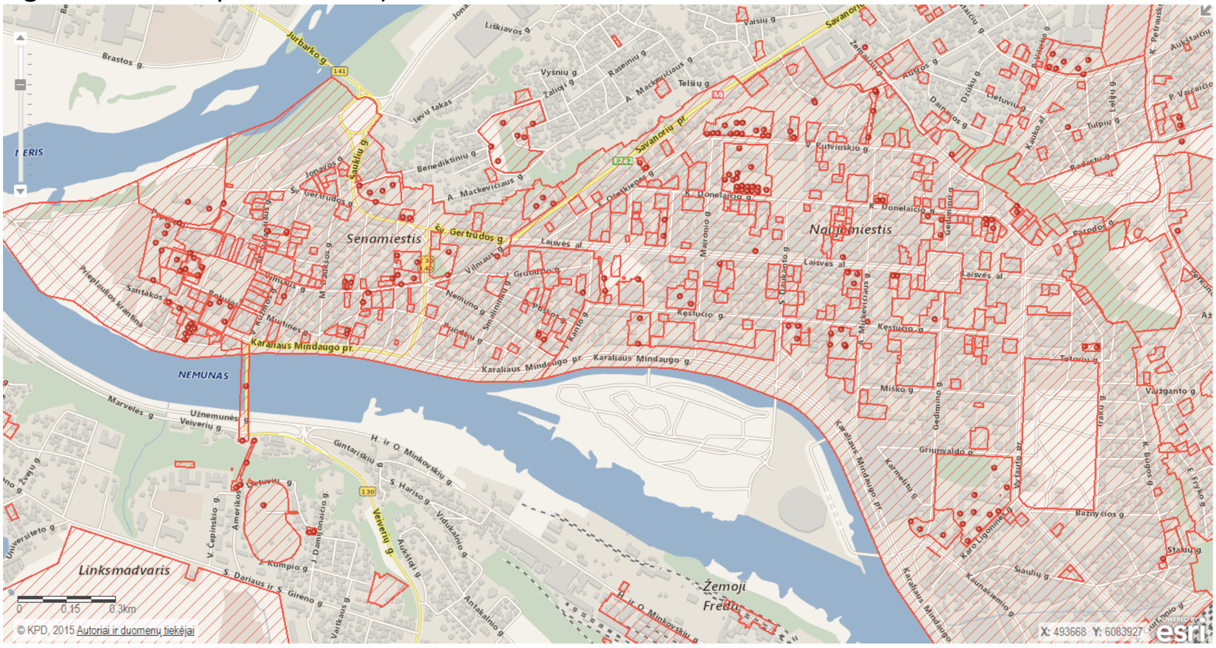


Fig. 23. The immovable cultural heritage of the central part of Kaunas city. (https://kvr.kpd.lt/#/static-heritage-search (17))

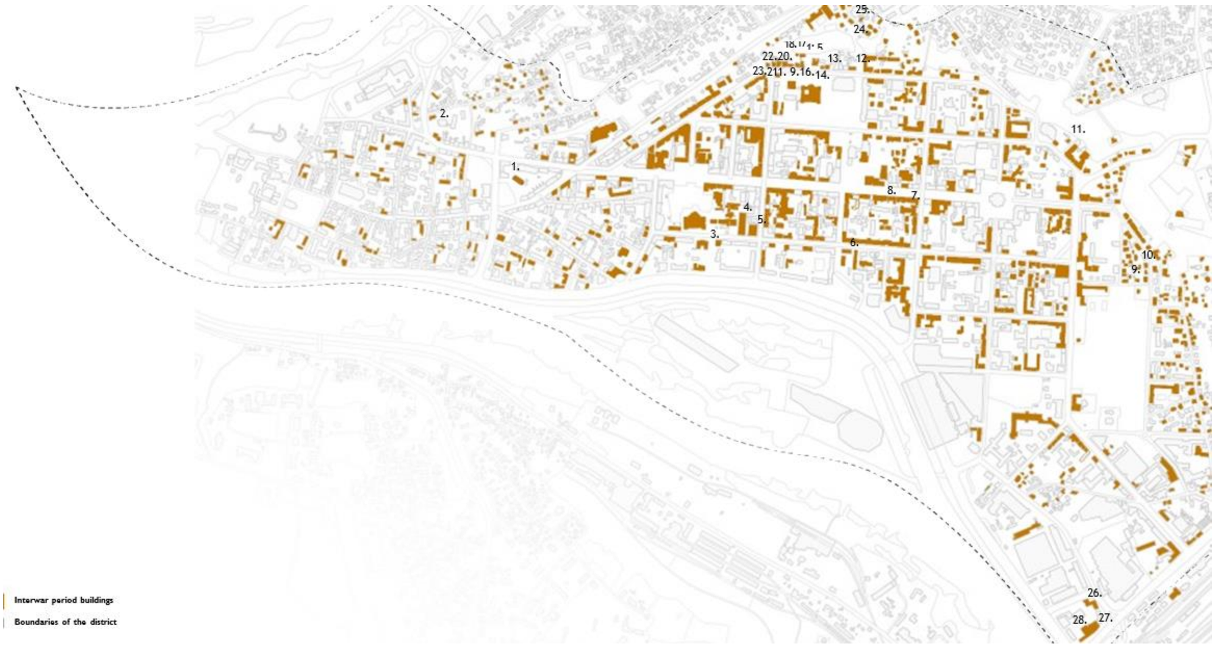


Fig. 24. The interwar period buildings of the central part of Kaunas city. (file:///C:/Users/ausmlin/Downloads/Territorial%20systems%20part%203-Mylana,%20Dyma,%20Alejandra.pdf (18))

Most of the interwar modernist buildings are in the territory of Kaunas New Town (Fig. 24). New Town itself was a concentration of more than 1500 buildings reflecting inter-war modernism, still standing today (Fig. 25-27). Over a period of twenty years (1919-1939), the city's territory expanded by seven times, and its population - eight times - from 18,000 to 154,000 inhabitants.

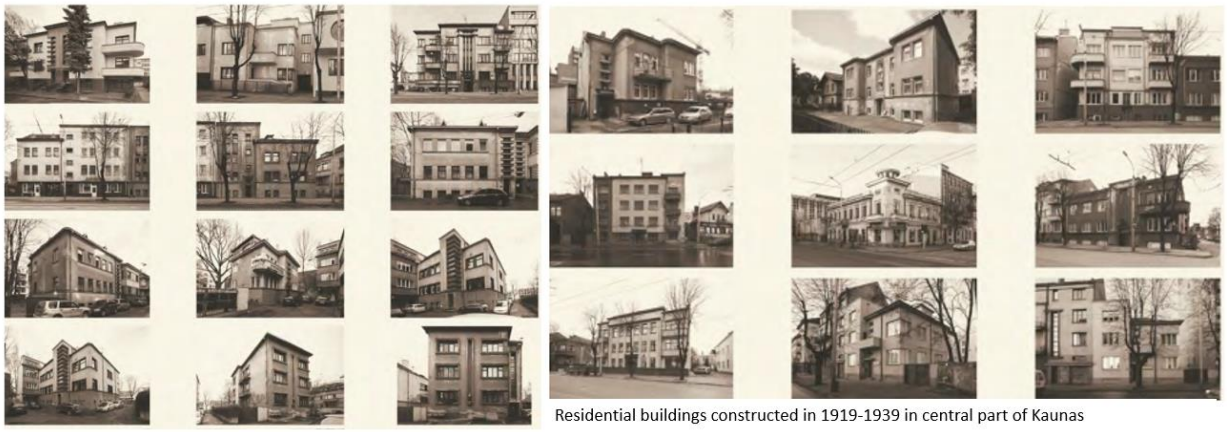


Fig. 25. Residential buildings constructed in 1919-1939 in central part of Kaunas city. (https://whc.unesco.org/en/list/1661/documents/ (19))

Fig. 26. Most important public buildings constructed in 1919-1939 in central part of Kaunas city. Comparison between interwar period and nowadays. (https://whc.unesco.org/en/list/1661/documents/ (19))

Fig. 27. Research Laboratory Building (currently the Chemistry Faculty of the Kaunas University of Technology) Radvilėnų pl. 19, architect Vytautas Landsbergis, engineer Anatolijus Rozenbliumas, 1933–1935.
(https://whc.unesco.org/en/list/1661/documents/ (19))

In 2023 Kaunas modernism buildings were nominated to the UNESCO World Heritage list as "Modernist Kaunas: Architecture of Optimism, 1919-1939" (Fig. 28-30). This property testifies to the rapid urbanization that transformed the provincial town of Kaunas into a modern city that became Lithuania's provisional capital between the First and Second World Wars (https://whc.unesco.org/en/list/1661/documents/ (19)).

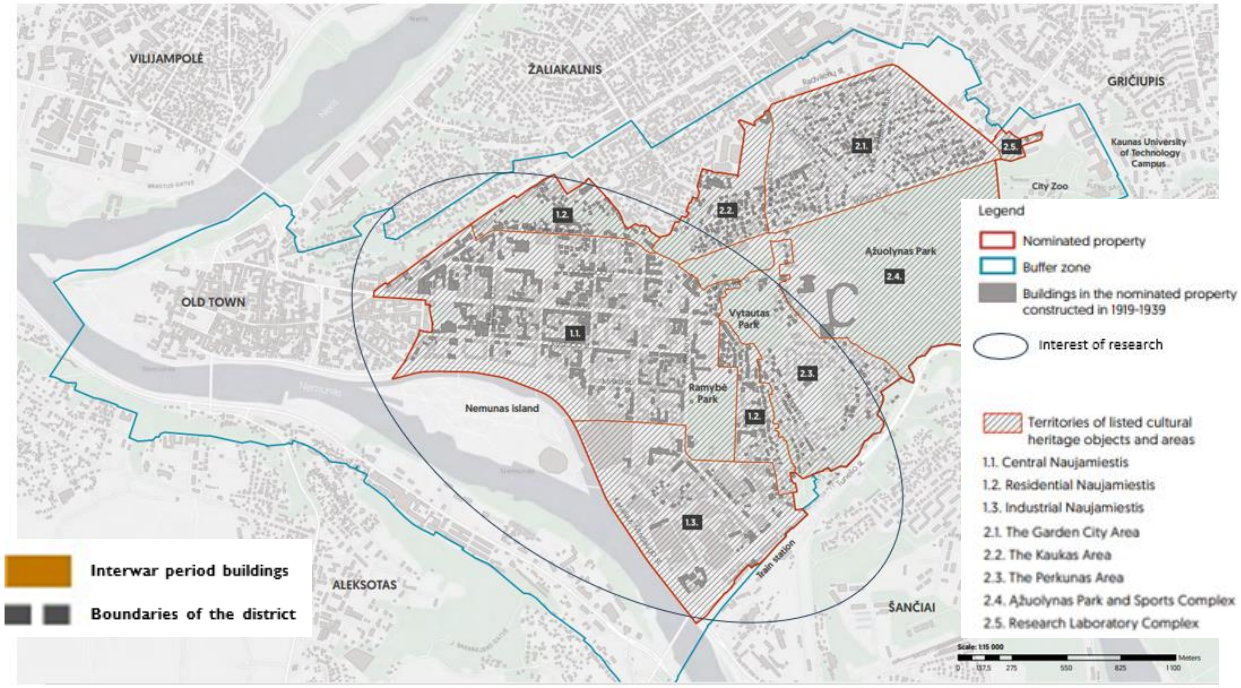


Fig. 28. Map of nominated property. (https://whc.unesco.org/en/list/1661/documents/ (19))

As underlined in the nomination report:
1. Many modern works fitted harmoniously into the existing structure of the city and at the same time encouraged new directions of development.
2. Architecture avoided the radicalism of avant-garde or totalitarian ideology that advocated erasing or rebuilding pre-existing conditions.
3. Architectural language combined traditional symmetry of volumes with modernist elements (file:///C:/Users/ausmlin/Downloads/1661-2426-Nomination%20Text-en%20(3).pdf (20)).

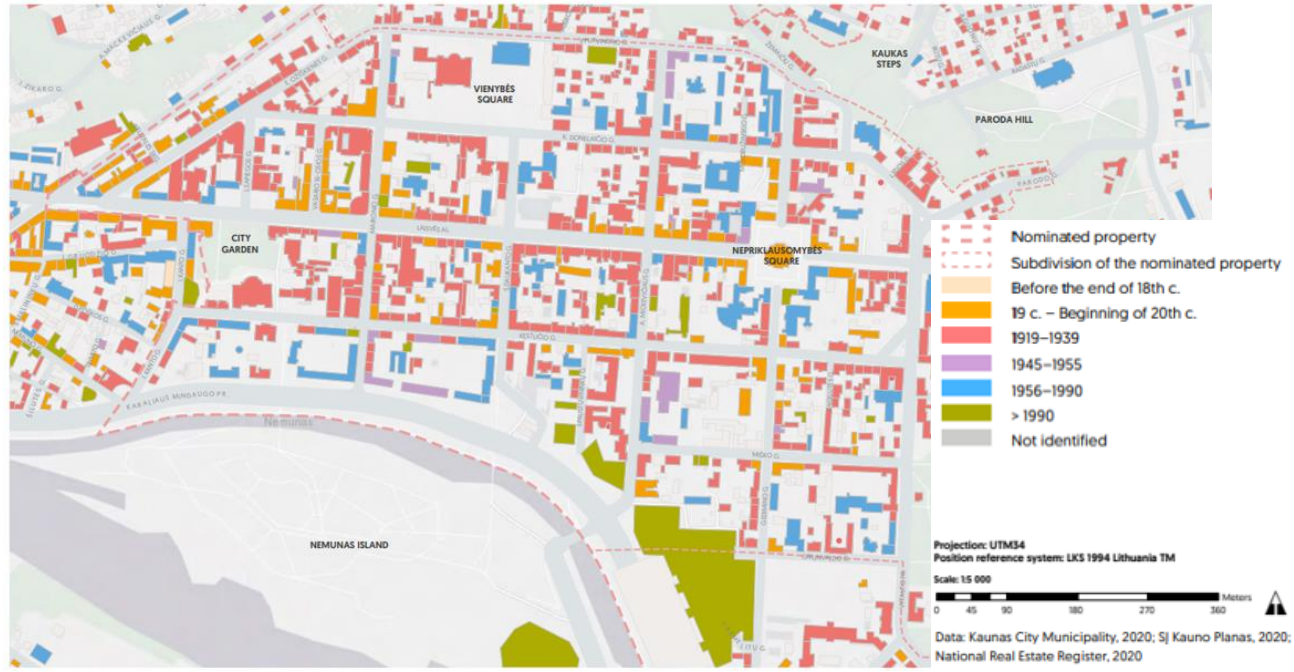


Fig. 29. Historical development of the New Town (Naujamiestis).
(https://whc.unesco.org/en/list/1661/documents/ (19))

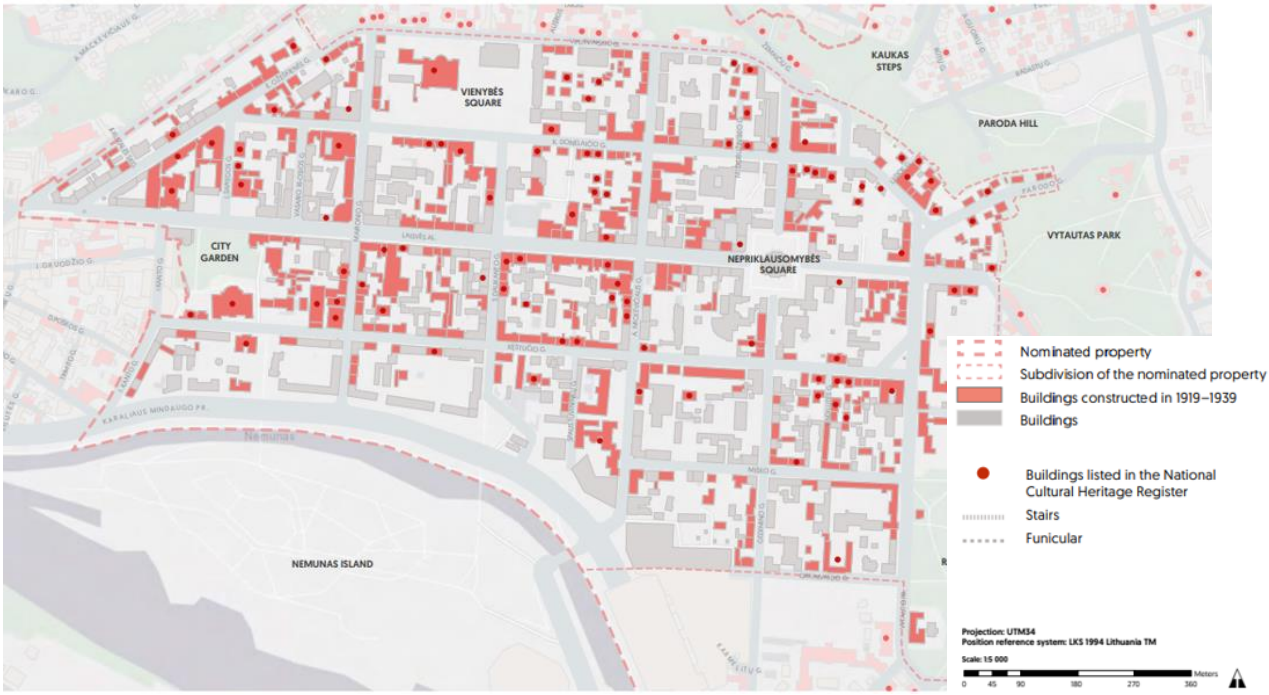


Fig. 30. Buildings constructed in 1919-1939.
(https://whc.unesco.org/en/list/1661/documents/ (19))

Most of the cultural heritage buildings built during the inter-war period are listed in the Lithuanian Register of Immovable Cultural Property and have been granted legal protection. Examples and information from the register are given below (Fig. 31-32).

Around 75% of these properties have identified individual values, which are defined by the distinctive characteristics of the buildings, such as the volume of the building, including height, roof shape and materiality; the architectural design and decorative elements of the facades; the layout of the floor plans and the location of the load-bearing walls; the artistic and technical elements of the interiors; the construction and the value of the built environment.

Fig. 31. Valuable properties of modernism building in Vytautas Avenue (workshop presentation).

Fig. 32. Valuable properties of Lietūkis modernism building (workshop presentation).

3. Premisses for monitoring Intelligibility changes of Kaunas Interwar Modernism Buildings

The presented research employs and expands concept of intelligibility of the elements of urban structure by defining it as defined by motivation, attention, prior knowledge, processing speed, emotional state, social and cultural contexts, etc. Idea is that intelligibility of cultural heritage object in urban structure can change depending on transformations of spatial structure and vary depending on group of people considered. The research aims to propose methodology and use it for monitoring of intelligibility changes of Kaunas interwar modernism heritage in selected area while comparing past, present and expected future situations in relation to depopulation of the area in relatively short period (2011-20223) as well (Fig. 33).

The presented research focussed on proposing and preliminary testing the initial model of intelligibility description. The model was constructed based on the idea that intelligibility of buildings depends on four aspects: **Attention** which could be related directly with spatial structure, possibility to see heritage objects, etc.; **Memory** which could be related to prior knowledge and a city image or mental city map in terms of K. Lynch (Lynch, 1960); **Slow movement**, which could be related to movement speed directly and, possibly, walkability, etc.

The model was constructed based on the mathematical graph theory because of the following reasons:

- Mathematical graph urban models are based on urban layout, see city as a network of objects/spaces and are used for simulation of human behavior in a city. Space Syntax is one of such models.
- Mathematical graph models are tested and validated based on empirical data in many situations. They allow to model movement of people, concentration of human activities, accessibility of places, etc.
- Simulative models do not only allow us to investigate present, past, and future situations, but enable us to analyze present situations with very high precision, achievement of which based on in situ investigations, would require enormous amount of time.

Based on literature and research review it was concluded that Attention could be modelled while using so called Visual Graph and analysis because it describes what people see in space.

Memory, if investigated through City Image concept, could be investigated based on various graphs which allow to model movement of people, e.g.: axial, segment, … graphs. Slow movement could be investigated through modelling of pedestrian movement and its concentration routes based on the above-mentioned graphs. The presented research focusses on Memory and Slow movement aspects.

Three widely used Space Syntax graph (visual axial, segment) were created and validated while using open data (density of the points of interest) for the investigated are of Kaunas. Despite the satisfying validation results of all three graphs, they were found not detailed enough to describe the potential intelligibility of single buildings. In a result, weighted graph constructed out of street network and buildings, weighted by 3D perimeter, was constructed. After initial validation and testing it was decided to use this graph for further investigation.

During the further modelling stage, the movement of people from all buildings to all other buildings were simulated and five types of graph centralities for each building were calculated: reach, gravity, betweenness, straightness and redundancy. Centralities were related to five elopements of a mental city image:

- Path to betweenness.
- Node – gravity.
- Landmark – straightness multiplied by height.
- Edge – closeness or redundancy.
- District – reach.

The exact values of centralities (normalized or not normalized) and calculation radiuses were selected based on prior validation of the model. In a result map with potential of all building in the investigated are to become an element of the city image was created. In addition, 17 heritage buildings of different situations, based on expert opinion were selected for further testing. In essence the testing revealed that mathematical modelling of the present situation corresponds to identified role of the selected heritage objects as the elements of the city Image with one anomaly detected. After further investigation it was discovered that the anomaly could be caused by errors in data processing.

At the end of the presented research stage, it could be concluded the following:

- The model addresses aspects of memory and movement of intelligibility.
- In essence building graphs reflect the potential of buildings to perform a specific role in the Mental City Image (MCI) quite well and could be used for monitoring purposes to identify and predict intelligibility changes of heritage objects.
- Detected anomaly in the model potentially reflects some mistakes in input data or could be avoided by higher benchmark of normalized values.
- The benchmark of numerical centrality values for MCI could be more precisely identified based on sociological survey.
- It is worth to investigate possibility of adding more entrances per building to the model.
- Intelligibility analysis should be expanded with visual graph analysis to address visual attention in urban spaces.
- Different types of city users could and should be reflected in the model by using specific origins (e.g., living houses, hotels) and destinations (everyday targets like shops, schools or more touristic destinations as museums, restaurants, etc.) of journeys.

The next tasks of the research:

- Further validation of the selected 17 heritage objects as the elements of the city image based on sociological survey.
- Construction of the model which theoretically should reflect different types of city users: local inhabitants and tourists. It could be achieved by creating a more precisely weighted graph.
- Testing model in the situation of 2011 and 2023 while incorporating available census data from those periods.

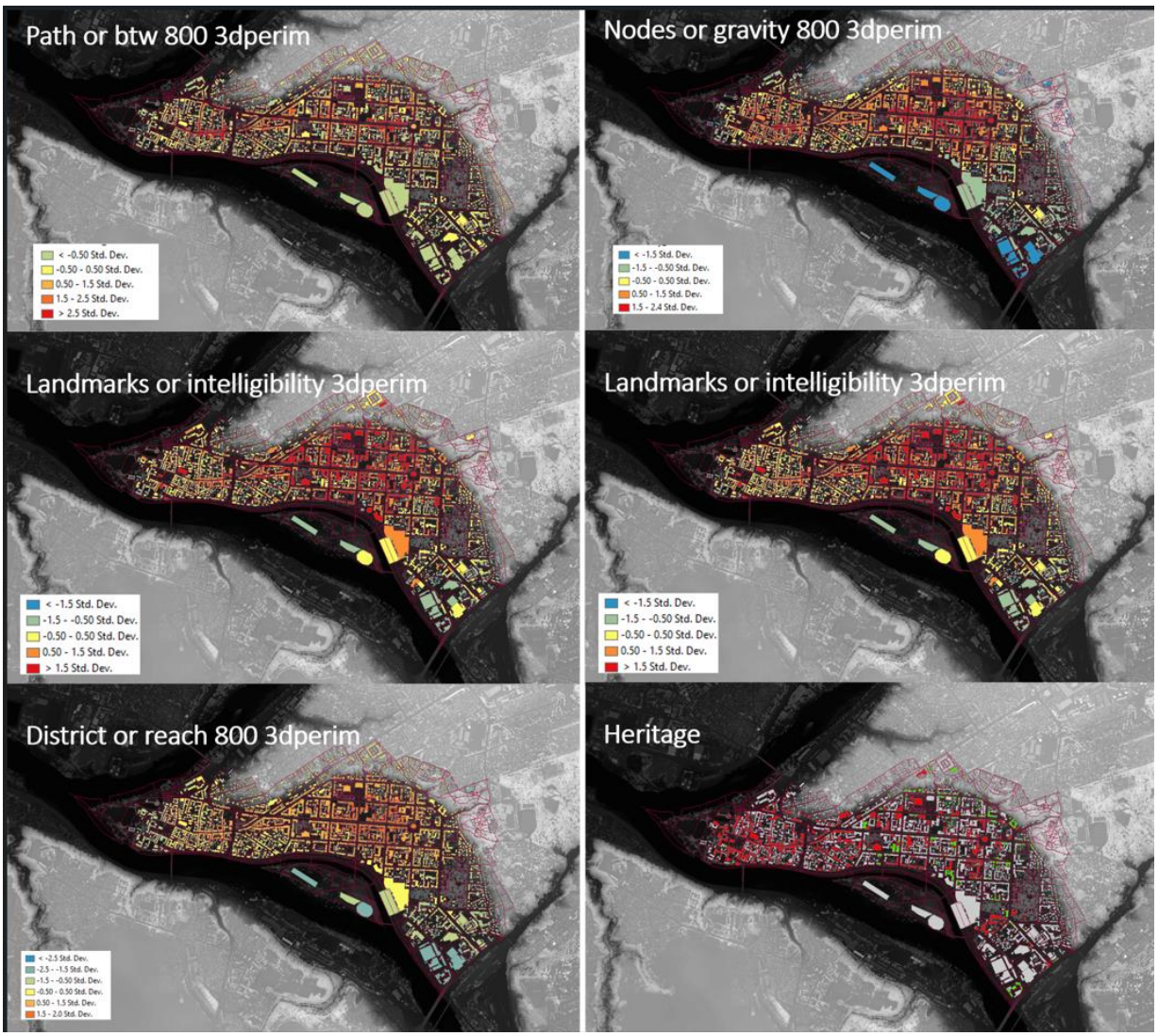


Fig. 33. Results of intelligibility modelling based on graph centrality calculations and structure of the mental city image by K. Lynch and location of heritage objects. Numerical values normalized while dividing from standard deviation. Bigger normalized values (red) show a higher probability of the building becoming an element of the city image. In the heritage map green color shows interwar modernism buildings, red color – other heritage objects.

4. Social factors for the heritage preservation and depopulation in the research area

In case of Lithuania is quite advantageous in perspective of data availability. Government body responsible of decadal population census named “statistics Lithuania”, openly and freely distributes various geolocated datasets, with demographic and economic indicators.

Moreover, two versions of population census are now available with ten overlapping statistics. This provides 10-dimensional perspective on demographic changes in last decade.

Fig. 34. Population changes in 10 years.

Allow Average decadal population change is negative, it possible to inspect several spots of population increase. Those spots could be particularly explained be adaptive reuse of old buildings and construction of new residential ones. Strongest depopulation spots are largely caused by conversion of residential buildings in to commercial.

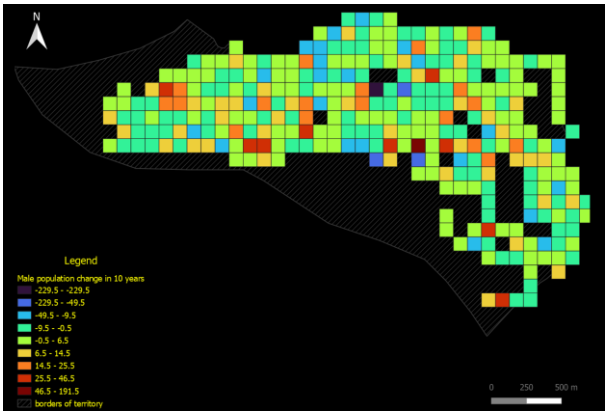


Fig. 35. Male changes in 10 years.

Fig. 36. Female changes in 10 years.

Comparing male and female change of decadal population maps we can spot only minor random spatial differences, although male depopulation is noticeably larger.

Fig. 37. 0-14 years old population changes in 10 years.

Despite the average depopulation, population of ages 0-14 are slightly increasing on the average. Spatial configuration of this age group is noticeably different than change of all population. This is very interesting phenomena which currently does not have a hypothesis, we hope to find an explanation for it during the research process of this project.

Fig. 38. 15-64 years old population changes in 10 years.

Next and last age group is too big to draw useful conclusions. Spatial trend is similar to population change of all ages. It would be more interesting to have more slices of different ages. This would allow to rise different hypotheses.

Fig. 39. The population with higher education changes in 10 years.

Fig. 40. The population with secondary education changes in 10 years.

Fig. 41. The population with basic education changes in 10 years.

Interestingly population of higher and basic education change is miniscule compared to change of population with secondary education. Data seems to show that most depopulations is in the population with secondary education, while populations with other education levels, mostly higher education remain stable.

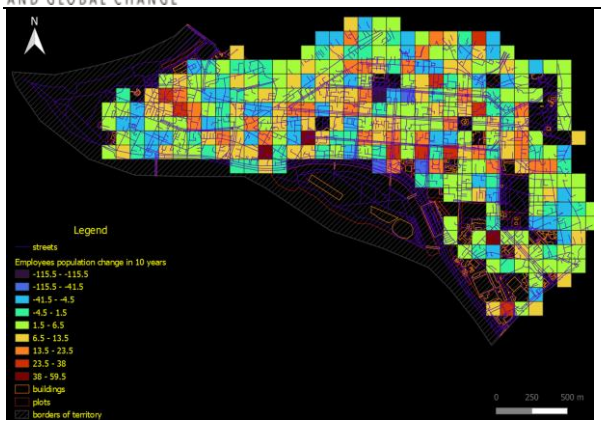


Fig. 42. Employees population changes in 10 years.

Fig. 43. The pensioner population changes in 10 years.

Average depopulation of employed population is negative as also pensioner population. The was another statistical variable with unemployed population, unfortunately it was not available in both time slices, therefore it was impossible to produce the map of it.

Fig. 44. Company Count.

Another interesting dataset provided by the "Statistics Lithuania" is locations of the companies. Unfortunately, there is no other useful variables in the metadata of this dataset. We would wish for number of employees, average salaries, and annual incomes, instead we have only types and names of establishments. Still counting numbers of establishments in the grids could be revealed as useful variable in the future of this research.

Fig. 45. Locations of Wi-Fi hot spots.

Census data requires employees work to acquire it has a strict methodology describing how to acquire it. Also, it touches on sensitive subjects which sometimes could be manipulated by interested parties. Although this is very hard to prove, additionally we do not have such aims, contrary we could also look at other types of datasets, which emerge spontaneously from activities of online social groups. One such dataset is wiggle, it is made by IT security enthusiasts, and freely available with some caveats. It consists of locations of wi-fi hotspots, which transmit their identification data publicly, consequently members of wiggle community record it using the dedicated app on their smartphones. Further from the location of the hotspot, it has numerous meta data variables related to IT security research, which are not useful for our research. Area of our interests consists of 35 thousand such

hotspots, which locations could indicate commercial establishments, social groups, or residential units.

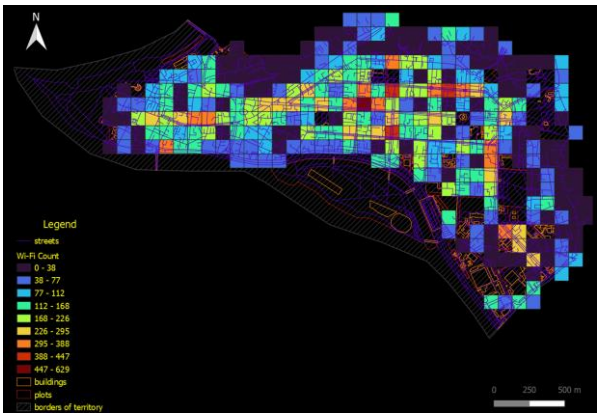


Fig. 46. Wi-Fi Count.

Counting such hotspots in the same grid as demographic data could be useful addition of unique statistical variables representing social status of the territory.

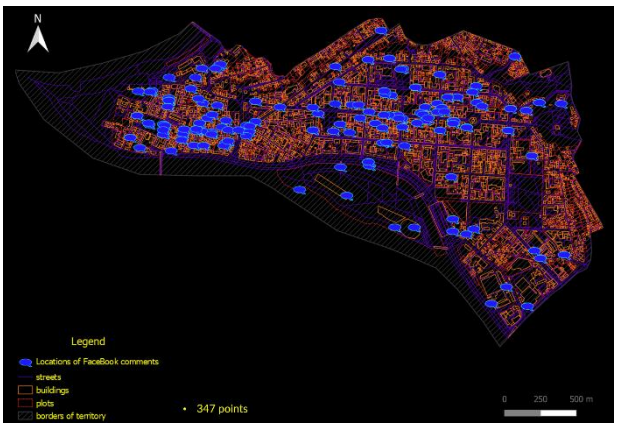


Fig. 47. Locations of Facebook comments.

Another dataset which emerges from activity of online groups is public comments in social network Facebook. Facebook is most popular online social networking platform in Lithuania. Using its Application Programming Interface (API) it is possible to get location information of social channels and consequently public comments on such channels.

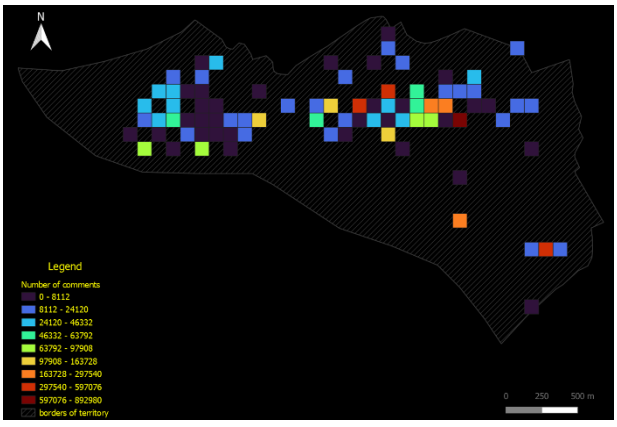


Fig. 48. Number of comments.

This dataset consists of 347 locations which int themselves hold millions of comments. Although only counting comments is interesting data variable because it shows online activity of social groups, nevertheless it is possible to take this data further by performing sentiment analysis on those comments.

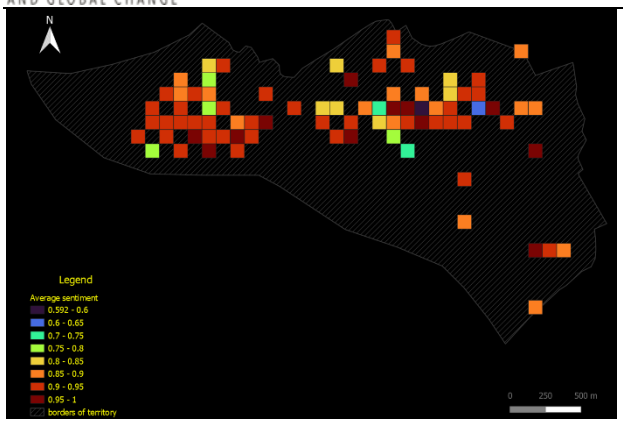
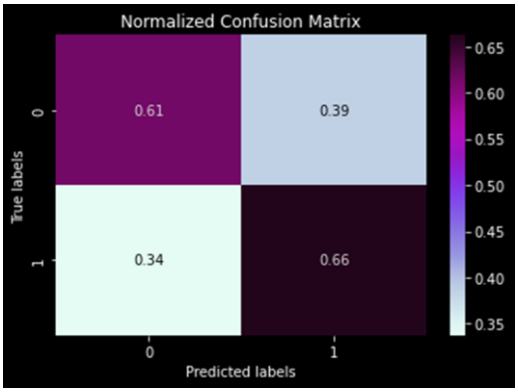


Fig. 49. Average sentiment.

Most comments are in Lithuanian language and even though there is created sentiment analysis model specially for Lithuanian language model, we could not get hold of it. Instead, we made our own by machine-translating English annotated data set.

(https://www.kaggle.com/datasets/kazanova/sentiment140 (21))
Auto translation was performed using multilingual word vectors. Part of the translations were reviewed manually and evaluated as surprisingly good. Word vector source is language model portal huggingface.co.
(https://huggingface.co/Helsinki-NLP/opus-mt-tc-big-en-lt)
Classification was performed using Fast Text classifier. It is N-gram embedding multinomial logistic regressor.



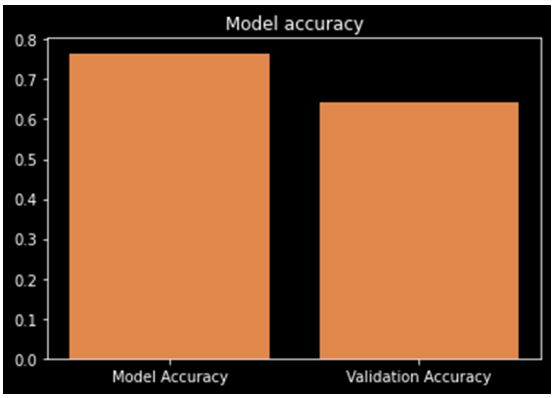


Fig. 50. Normalized confusion matrix.

Fig. 51. Model accuracy.

It achieved accuracy prediction mean of 88%, measured on 20% part of the validation dataset. Model accuracy was quite similar to validation accuracy, which could indicate that model was not overtrained.

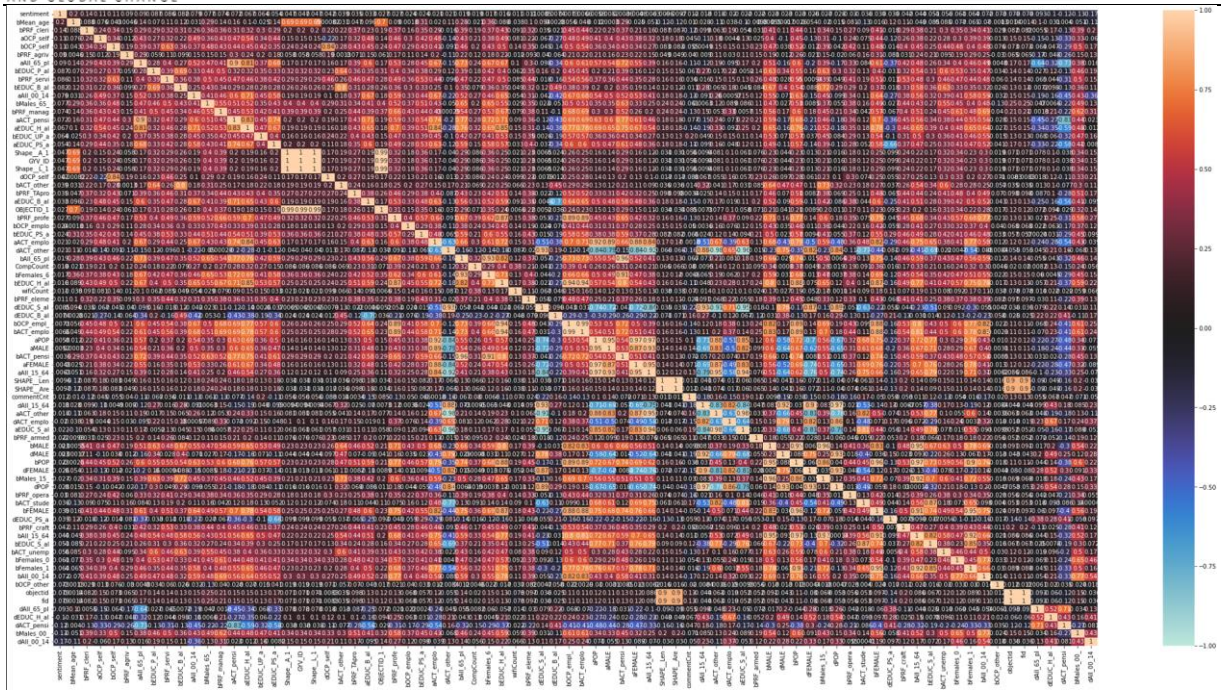


Fig. 52. Correlation matrix with all variables.

As primary inspection and exploratory data analysis, corelation matrix was calculated. For this test it was concerned on average sentiment in the grid, although we hope to make it with variables related to heritage, such as weighted distance table to heritage object, in the future.

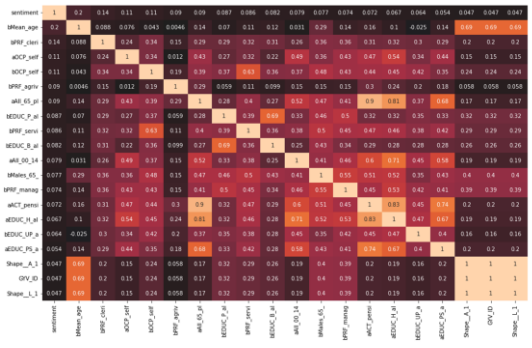


Fig. 53. Correlation matrix with most positive correlations.

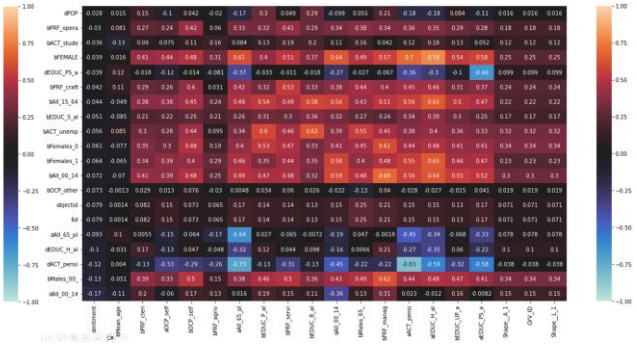


Fig. 54. Correlation matrix with most negative correlations.

Interestingly there were only some corelation with low statistical significance. The strongest one was with mean age of population of second census. Still, it is quite weak and most probably just random coincidence.

This is only initial exploration of data which was easiest to acquire. It is planned to acquire more datasets and also perform other types of modelling and simulation to construct a definite background of insights and conclusions.

5. Communities within the Research Area – Research Design on Residents' Sense of the Place

In this section, the methodology for the analysis of local community ties is introduced and the existing knowledge on the matter is briefly overviewed.
During the meeting, this framework of research design was presented to the partners and discussed.

"Residents' Sense of the Place in the Central Part of Kaunas City in Relation to Material Cultural Heritage"

When researching immovable heritage and its preservation possibilities, especially in territories facing depopulation, it is crucial to find out what the relationship of the local population with that heritage is. Whether there is some kind of attachment to the place and its valuable properties or oppositely, the sense of the place is negative, and the protection of immovable cultural heritage is understood as an unnecessary additional burden by the locals. Thus, the research is designed with **the aim** to assess the residents' sense of place in a specific area (i.e. the central part of Kaunas City *(see Map below, Fig. 53)* and to reveal the possible influences of the material cultural heritage objects located there.

Suggested research tasks:

- to clarify the **demographic and sociocultural characteristics** of the residents of the central part of Kaunas city;
- to explore the relationship of the residents from the central part of the Kaunas city with the **entire city**;
- to explore the relationship of the residents of the central part of the city of Kaunas with their **elderships**/neighbourhoods;
- to evaluate correlations of **sense of place** with **demographic and sociocultural characteristics**;
- to analyse how residents **perceive**, **react**, and what **semantic meanings they attribute** to heritage objects;
- to evaluate the **intentions and actions** of locals concerning various heritage objects.

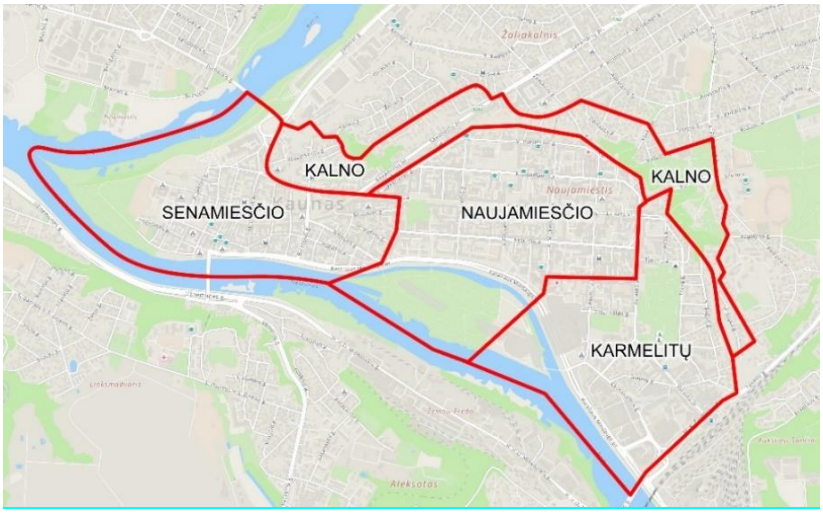


Fig. 55. Map of Central Part of Kaunas City, 2023.

Suggested research subjects:

- The survey would be focused on the target group - only residents of the central part of Kaunas City (Kaunas Center Eldership).
- Random sampling would be performed.
- The minimum number of subjects is planned to be at least 100 respondents, but if there is a need, the sample could be increased.

Proposed research methods:

- Analysis of relevant literature;
- Sociological survey, conducted online using the Google Forms tool, which complies with the General Data Protection Regulation - GDPR;
- Statistical and qualitative analysis of the obtained data.

Theoretical background for the research design

An initial overview of the relevant literature reveals that there are some indicators of socioeconomic data which could be used as predictors of a sense of the place. The most encountered are the following:

- ***Time of residence*** – the one living longer in a certain place also feels more attached to it (Brown et al., 2003; Hay, 1998; Lalli, 1992; Lewicka, 2010; Shamai & Ilatov, 2005).
- ***Place of birth*** –the people who were born in a particular place should also possess stronger positive feelings about it than the 'non-natives' (Hay, 1998; Relph, 1976; Tuan, 1977, etc.).
- ***Respondent's age*** – influences not only the sense of the place but also the scale of the place. In the early stages of life, the strongest attachment is to the smallest scale nearest territories (Mesch & Manor, 1998). As people are ageing, neighbourhoods – regain their importance (Schwirian & Schwirian, 1993).
- ***Respondent's gender*** – some studies indicate that gender does not affect the sense of the place significantly (Brown et al., 2003; Lewicka, 2005). Other researchers claim that women feel stronger place attachment (Hidalgo & Hernández, 2001; Mesch & Manor, 1998) and establish closer social relationships, mainly because of their social role (Tartaglia, 2006)
- ***Respondent's education and occupation*** –some researchers (e.g., Lewicka, 2005) claim that more educated people are geographically more mobile, thus, they feel less attached to a certain place. Other researchers (e.g., Mesch and Manor (1998)) oppositely believe that more educated people are even more proud of their neighbourhoods and are more attached to their dwelling places.

The study should also take into account and evaluate such factors as ***respondents' field of work/professional activity***, ***average monthly incomes***, ***size of the household***, ***nationality***, ***religious beliefs*** as well as the ***homeownership*** and the way of acquiring it. As these might also have a significant influence on the local's perception of place.

The relationship between the place and its users might be manifold: it can be emotional (feelings), contextual (meanings) or physical (things and their properties); it stretches from very subjective to the objective (to the extent that the perceived world can be considered

objective). Yet, this research would focus only on that **emotional part** – analysing people's feelings towards place. For that, the Sense of the Place concept is chosen. **Sense of the Place** is a concept addressing subjective aspects of place-based identity and thus, covering people's feelings (negative, neutral, positive) towards a place *(see Concept below, Fig. 54)*.

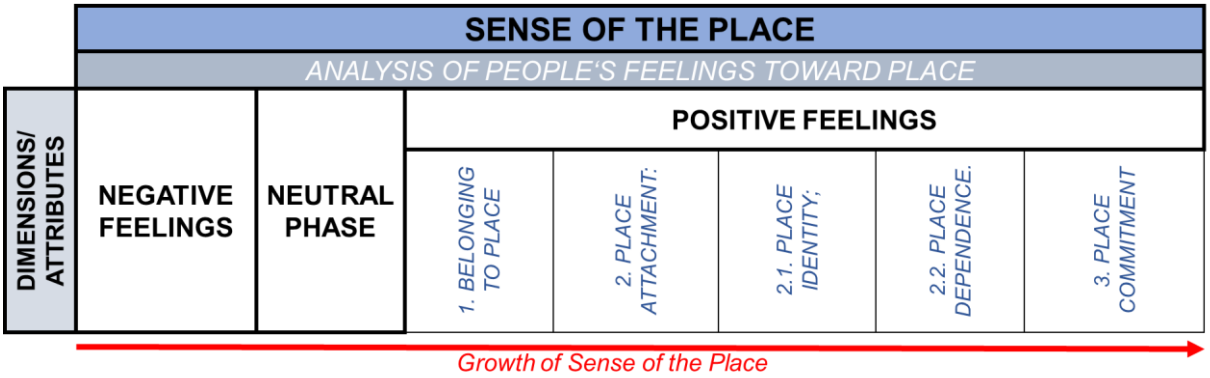


Fig. 56. Concept of Sense of the Place (Povilaitienė, 2021).

According to the analysed literature, several levels of Sense of the Place can be defined as dimensions or attributes. For this particular research the Scale of Sense of the Place is constructed based on scales suggested by Axford and Hockings (2005) and Shamai (1991) *(See Scale below, Table 1)*.

Table 1. Scale of Sense of the Place (based on Axford & Hockings, 2005; Shamai, 1991).

Scale	Item	Explanation
7	I am ready to give up even some of my privileges if necessary for the good of this place	sacrifice and commitment
6	I could give my strength and resources to the place	involvement and active participation
5	I identify with the goals, lifestyle, and values of the eldership community	loyalty and dedication
4	I am emotionally attached to this place	emotional attachment, special place
3	I always feel that I belong to this place	sense of community, belonging
2	I do not feel that I am local	knowledge of place, situation, but no attachment
1	I feel nothing for this place	neutral state, no feelings
0	I don't want to live here	negative feelings
I cannot evaluate		
Other…		

Existing knowledge on the residents' sense of the place in research area

Similar research on the residents' Sense of the Place, just for the bigger area (i. e. the entire Kaunas city) was carried out 5 years ago (Povilaitienė & Kamičaitytė-Virbašienė, 2017). As the area was bigger the insights were also more general, but it is still providing some understanding on the residents' feeling toward specific places. It reveals that residents of central part of Kaunas not only possessed more positive and stronger feelings towards their own neighbourhood, but also towards the entire Kaunas city *(see two Maps below, Fig. 55).*

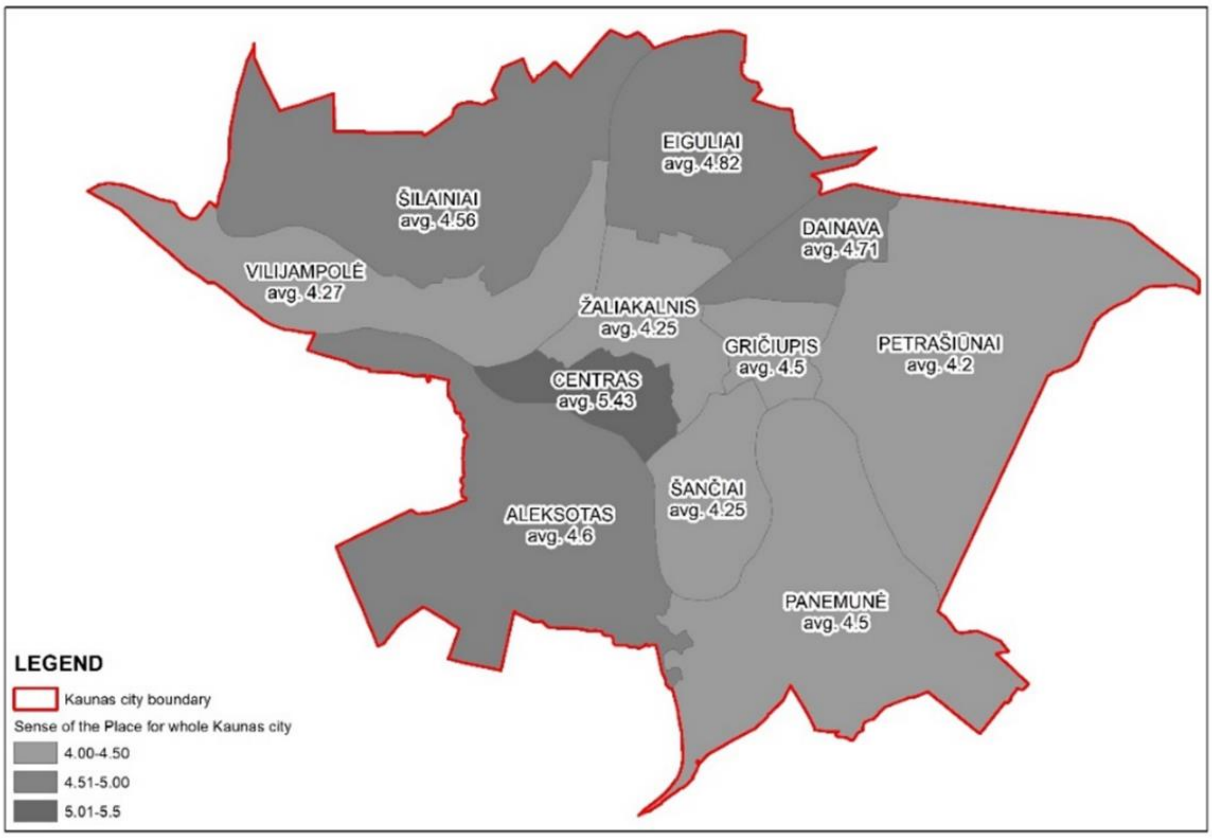


Fig. 57. Map Reflecting the Residents' Sense of the Place for the Entire Kaunas City (Povilaitienė & Kamičaitytė-Virbašienė, 2017).

Looking at the residents' responses on the most important elements of the physical environment in the central part of Kaunas city, the open spaces (plazas, squares, pedestrian avenues, etc), green spaces (parks, city forests, green squares, etc.) and commercial bodies (shops, shopping malls, markets, etc.) are the most significant ones. Even though, residents feel strong sense of the place in Kaunas, they also notice several negative aspects of the place, such as higher levels of noise and pollution, lack of parking spaces, lack of communities (apathetic residents and neighbours), neglected public spaces, some places are unlit and unsafe, abandoned buildings spoil the aesthetic image, homeless people in the streets (Fig. 56).

Despite enlisted negativities, Centras neighbourhood was ranked second in the most preferred neighbourhoods list giving up the first place only for the Žaliakalnis eldership. It revealed the general life satisfaction of the residents. The most common reasons respondents

mentioned were culture, city life, bustle, centre of events, heart of the city, action, entertainment, well-maintained physical environment, architecture, history, distinctiveness, genius loci, cosiness, bohemian, greenery, rivers, pleasant residents, plenty of various institutions, functionality.

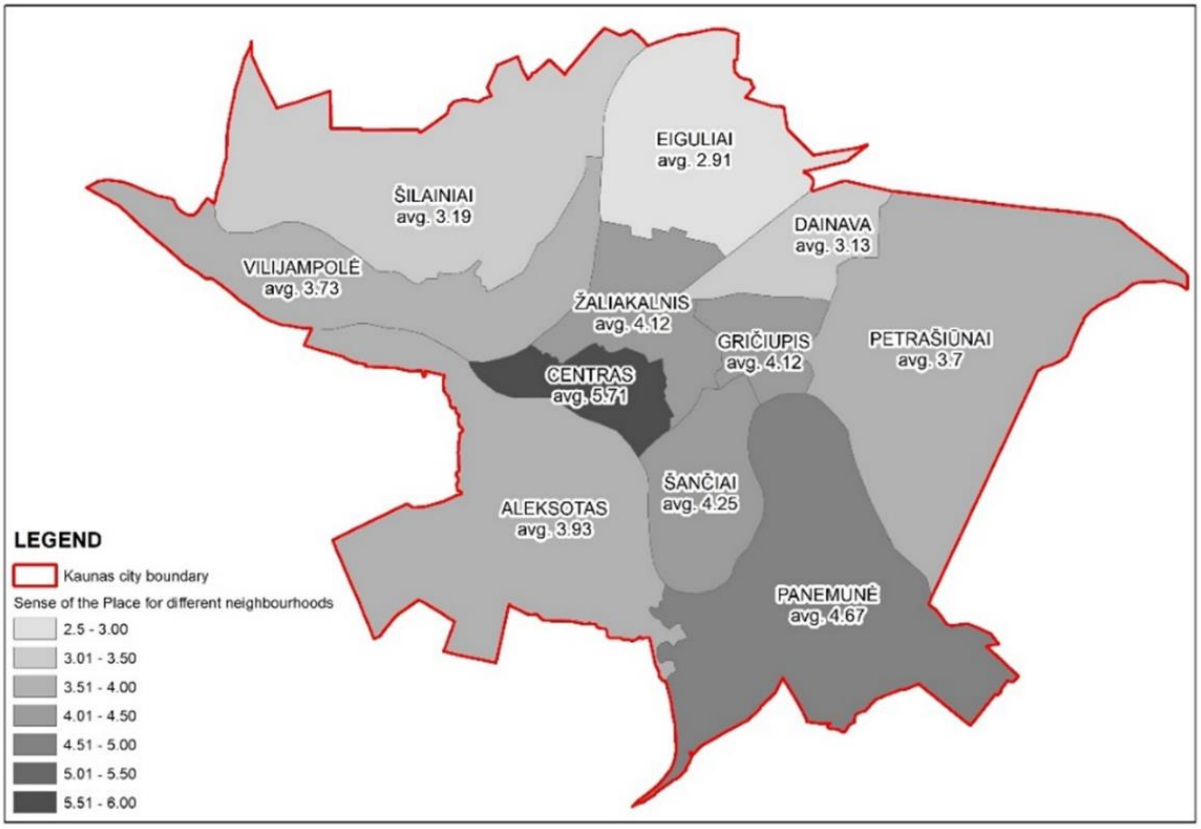


Fig. 58. Map Reflecting the Residents' Sense of the Place for the Different Neighbourhoods (Povilaitienė & Kamičaitytė-Virbašienė, 2017)

Residence sense of the place and Immovable Heritage

As it was mentioned before, it is not enough just to evaluate residents's sense of place, it is also necessary to analyse how residents perceive, react, and what semantic meanings they attribute to heritage objects as well as to reveal the intentions and actions of locals concerning various heritage objects**.** Therefore, the survey should included and address such question as:

- **emotions** rising when knowing that respondent's residential place is/could be heritage;
- existing respondents' knowledge about heritage and ability to recognise the heritage of different periods;
- intentions and willingness to contribute to heritage preservation.

To sum up, the research initiative focusing on residents' sense of place in Kaunas City's central part, particularly in relation to immovable cultural heritage, was presented here. The proposed methodology involved demographic analyses, a structured survey, and theoretical underpinnings. The research tasks emphasized understanding residents' emotional

connections, exploring relationships with the city, neighbourhoods, and assessing demographic correlations. The porposed research would extend its scope to residents' perceptions of immovable heritage, addressing emotions, knowledge, and intentions towards heritage preservation. This study would to provide valuable insights into the complex interplay between residents, their sense of place, and cultural heritage preservation amid demographic changes.

6. Workshop results

The workshop took place during the study visit on 7 November 2023 at Kaunas University of Technology. The workshop brought together people interested in various fields, who, under the moderation of the workshop, Jurga Vitkuvienė, presented group proposals for the actualization and the perception of the cultural heritage in Kaunas city. The summary data of the workshop are presented in the table below (Table 2).

Workshop challenge: How to preserve Kaunas Interwar architectural heritage by increasing the perception of local identity in the community? *Stakeholders*: Participant from Kaunas Centre community, young researcher, expert of heritage protection, HerInDep project specialist. *Number of participants*: 22.

Table 2. Systematised workshop results.

Stakeholders involved in the workshop	The role of stakeholder	Real-life examples experience and successful participation in heritage protection	Aspects identified by community representatives	Ideas for developing the site (all stakeholders)
1. Participant from Kaunas Centre community. 2. Young researcher. 3. Expert of heritage protection. 4. HerInDep project specialist. 5. Moderator.	1.To identify the problems faced by communities, if possible, giving both positive and negative examples. 2. To find out how the new generation perceives heritage protection and what they see as the prospects for the use of heritage sites. 3. Hearing the concerns of communities, explaining what the legal requirements are and trying to find compromises. 4. Listen to community members and the problems they face and hold a discussion. 5. Moderate workshop.	I. Modestas (community representative), he grew up in another neighborhood, moved to Kaunas. He spoke about the problems faced by residents who want to live in the city Centre and what kind of attitude is being created by real estate developers.	1. There are not enough public spaces for activity and children's playgrounds, green spaces.	1. Reducing car use, expanding pedestrian space. 2. More events and communication between residents. 3. Increase children's friendly territories.
			2. Developers are unwilling to develop new buildings due to the safeguard regimes.	More flats for young families.
			3. In terms of tourism, Kaunas is well balanced, and lot of changes done in past 17 years.	Encourage sustainable tourism.
			4. Growing number of short-term rents, what has a negative impact on community strength.	1. Less flats for tourism (limitation, control) 2. The rule, that one can rent up to 50% of your flat (Amsterdam example).
		II. Marius (community representative), he grew up in another neighborhood, moved to Kaunas. Marius likes the cityscape and the picture of the Kaunas. He spoke about the building he lives and neighbors.	1. The reconstruction might destroy the spirit of the place.	1. Residents have to be interested in participating and defending their interests.
			2. Members, who are involved in the preservation of heritage: residents, business, municipality, professionals.	2. Municipality should be transparent and respond to the community's needs. 3. Business have to take into account residents. 4.Professionals have to share their knowledge.
			3. Opportunities for the experiences and sharing of them increases the local community and culture – local social capital.	1. Different bottom-up initiatives. 2. Creation of new meanings. 3. Transmitting the knowledge.

		III. Indrė (community representative), she lives in a XIX century building and feels proud. Everything around is within walking distance, for her interwar architecture feels cozy.	1. Kaunas don't seem exceptional; some buildings need renovation. There is enough attention, but not enough quality.	1. More attention and respect to heritage buildings.
			2. Lack of community identity in the center.	1. Create community group "Kaunas appreciation society".
			3. It is not clear what is preservation in this particular case.	1. Selection process, identification of the criteria. 2. Providing information to residents.
		IV. Ramūnas (head of Kaunas communities association), he lives in another district of Kaunas, but has an opinion about the heritage in Kaunas. He talked about the problems of Kaunas communities in general and how proactive members of some communities are taking steps to preserve and exhibit cultural heritage objects. The community of Aleksotas in Kaunas has taken the initiative to revitalize the territory of the cultural heritage site and the Marvelė River valley.	1. Disconnection between community and municipality. The municipality does not make space available for community events and agrees to take existing space from the communities.	1. The issue is being addressed at management level.
			2. No united community in Kaunas city Centre.	1. Finding common interests among community members, finding meeting places.
			3. Community members take the initiative to clean up abandoned heritage sites.	1. Encourage community initiatives and promote good practices.

Photos of the workshop:

Fig. 59

Fig. 60.

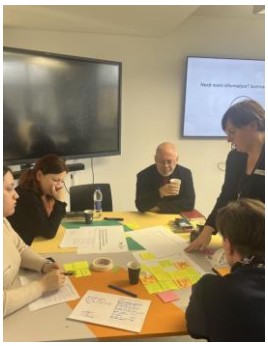


Fig. 61.

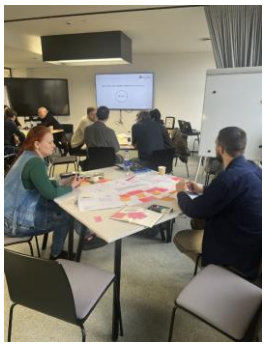


Fig. 62.

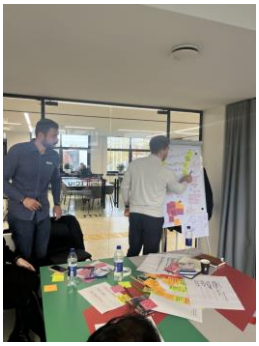


Fig. 63.

Fig. 64.

Fig. 65.

Fig. 66.

Fig. 59-64. Work in groups; Fig. 65-66. Workshop results.

7. Discussion of the means of safeguarding the local cultural heritage

Based on the results of the workshop and the results of already conducted studies and after reviewing the ideas of the stakeholders we are generating some ideas for further research on immovable cultural heritage preservation.

7.1. Analysis of the relationship between communities and the protection of cultural heritage objects

For the protection and use of local cultural heritage, it is important to know the attitude of the local community towards the values and the interest of the responsible institutions to involve the public in the heritage conservation process, starting from the initial steps. The first step is to complete the inventory database, involving members of the community to submit their proposals for the inclusion of heritage sites in the inventory data list.

The second step is the participation of the community members and the owners of the heritage objects in the identification of the valuable properties of the heritage objects and their inclusion in the Register of Immovable Cultural Heritage List of the Republic of Lithuania.

Another very important step is to understand the responsibilities of the public in carrying out renovation projects on heritage objects, while maintaining respect for the heritage values and not damaging their valuable properties. In this case, community members and heritage owners are involved in the phases of heritage studies, project coordination and monitoring, which is not fully implemented at present.

In this case, the focus should be on answering the questions:
- Which historic objects are local communities interested in preserving?
- How does the change of cultural heritage affect the preservation of its authenticity?
- What rights and obligations do owners of heritage properties have in relation to the management of heritage properties (including preparatory phases)?

7.2. Research on the intelligibility of Kaunas interwar buildings.

The research was conducted based on the idea that the intelligibility of buildings depends on four aspects: *Attention*, which can be directly related to the spatial structure, the possibility to see heritage objects, etc.; *Memory*, which can be related to previous knowledge and the image of the city or the mental map of the city according to Lynch (Lynch, 1960); *Slow movement*, which can be directly related to the speed of movement and, possibly, the possibility of walking etc.

The results of the initial study were presented in the form of intelligibility modelling, based on graph centrality calculations and the structure of Lynch's mental image of the city and the positioning of heritage sites. Numerical values are normalised by dividing by the standard deviation. Higher normalised values indicate a higher probability that the building will become

an element of the urban image. On the heritage map, interwar modernist buildings are marked in green and other heritage objects in red.

In this case, the following research should focus on:
- Further validation of the 17 selected heritage sites as elements of the city's image based on a sociological survey.
- Developing a model that reflects the different types of users of the city: locals and tourists. This could be achieved by creating a more accurate weighted graph.
- Testing the model in the 2011 and 2023 situation, incorporating available census data for these periods.

7.3. Social factors and demographic change linked to heritage preservation.

In the presence of social factors and demographic changes, attention is paid to the population change in the studied territory by comparing the research data of different periods.

The average population change over the decade is negative, several areas of population growth can be seen. The largest areas of population decline are mainly due to the conversion of residential buildings to commercial ones.

Further, research was conducted in relation to changes in the population according to age groups, education, etc. The data is taken from different online databases.

7.4. Residents' perception of cultural heritage objects and sense of place.

When studying immovable heritage and the possibilities of its preservation, it is very important to find out what is the relationship of the local population with the cultural heritage in their neighbourhoods. Is there some kind of attachment to the place and its valuable properties, or on the contrary, the feeling of the place is negative, and the protection of real cultural heritage is understood by the local population as an unnecessary additional burden. The research that has already been carried out was prepared to assess the residents' sense of place in a specific area and to reveal the possible influence of material cultural heritage objects on the residents.

In the future, a population survey will be conducted to determine the heritage objects in the central part of Kaunas from the perspective of the population. The sociological survey will be conducted using online survey platforms.

7.5. Stakeholder cooperation.

Stakeholders must work together to protect cultural heritage values. This is important when it comes to joint projects and other activities between authorities, heritage professionals and urban communities to protect valuable urban buildings. In the case of Kaunas, the city municipality should help to residents, give them opportunities to participate in the processes of city identity formation and heritage protection.

8. **Reflection on the study visit from the project partners (Czech Republic, Shetland),** 2 p.

9. **External project evaluation (Community association of the Kaunas),** 2 p.

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Internet links

1. KTU student campus: https://tour.ktu.edu/#EN

2. Travel map: https://www.rome2rio.com/map/Vilnius-Airport-VNO/Kaunas?source=adwords&gclid=CjwKCAjwtIaVBhBkEiwAsr7-c0zaILaHdThEOZlFibIUSgxHGO7FI3wpyEO0LvzmEpbfTebkxkCjbxoCfeYQAvD_BwE

3. Hotel Victoria: https://hotelvictoria.lt/en/main/

4. Hotel Ibis: https://www.guestreservations.com/ibis-kaunas-centre/booking?gclid=CjwKCAjwkYGVBhArEiwA4sZLuAzaY5hjflPYR78Whq2tqYlQSm08vjlQGGL8mi2d-qMP6ANiY5LFBRoC7e4QAvD_BwE

5. Kaunas hotel: http://www.kaunashotel.lt/lt

6.Hotel Moxy: https://www.marriott.com/en-us/hotels/kunox-moxy-kaunas-center/overview/?scid=bb1a189a-fec3-4d19-a255-54ba596febe2&y_source=1_MTQ3ODExOTctNzE1LWxvY2F0aW9uLndlYnNpdGU%3D

7. Airbnb: https://www.airbnb.com/kaunas-county-lithuania/stays

8. Kaunas tourism information: http://en.kaunas.lt/tourism

9. Activities in Kaunas: https://www.tripadvisor.com/Attractions-g2699065-Activities-c47-Kaunas_County.html

10. Kaunas mueseum: https://kaunomuziejus.lt/pilies_skyrius/?lang=en

11. IX fort museum: https://www.9fortomuziejus.lt/?lang=en

12. Modernism for the future: https://modernizmasateiciai.lt/en/paminkline-kristaus-prisikelimo-bazilika/

13. Visit Kaunas: https://visit.kaunas.lt/en/kaunastic/

14. Meteo: http://www.meteo.lt/en/miestas?placeCode=Kaunas

15. Chronicles of Vygandas Marburgietis: https://www.vle.lt/straipsnis/vygando-marburgiecio-kronika/

16. History of Kaunas: https://www.vle.lt/straipsnis/kauno-istorija/

17. Register of immovable cultural heritage: https://kvr.kpd.lt/#/static-heritage-search

18. Moodle study course Territorial systems: file:///C:/Users/ausmlin/Downloads/Territorial%20systems%20part%203-Mylana,%20Dyma,%20Alejandra.pdf

19. UNESCO heritage list: https://whc.unesco.org/en/list/1661/documents/

20. Moodle study course Cultural heritage: file:///C:/Users/ausmlin/Downloads/1661-2426-Nomination%20Text-en%20(3).pdf
21. Kaggle: https://www.kaggle.com/datasets/kazanova/sentiment140

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Reflection on the study visit in Kaunas, Lithuania, from the project partners Charles University, Czech Republic

The second of three HerInDep case study site visits took place on 5-7 November 2023 in Kaunas, Lithuania. The visit brought together members from each of the three participating institutions: Charles University, Kaunas University of Technology and the University of the Highlands and Islands. The program started on Monday, November 6, with a joint meeting of all the research team at the Faculty of Civil Engineering and Architecture, Kaunas University of Technology. We presented our research progress and discussed common issues regarding cultural heritage. In the afternoon we participated in a guided tour through the Kaunas city centre. We had a fantastic guide, Algimantas Grigas, who has shown us the main sites of the interwar Modernism architecture in Kaunas (inscribed at the UNESCO heritage list in 2023) and explained a lot about the history and social context of the local architecture. The second day of the visit was dedicated to workshop that brought together not only researchers, but also community members of the Kaunas Center, students of architecture, and project partners. The leader of the workshop, Jurga Vitkuvienė, used a Challenge Based Learning (CBL) methodology, aimed at answering the question, how to support the local identity and the attachment of local people towards their neighbourhood and cultural heritage. The final part of the study visit was used to discuss the planned publications, mainly the International Journal of Heritage Studies special issue planned for 2024, and the possibilities of the further cooperation. Team members also discussed the upcoming site visit in Shetland (January/February 2024).

Discussion themes and questions

- What is cultural heritage? What do the locals consider their cultural heritage? Is there perspective different from others?
- What methodologies use in the research on cultural heritage in various areas?
- Attachment of the locals towards their cultural heritage.
- How does depopulation in some areas threaten the preservation of cultural heritage?
- Attituded of the locals vs. visitors towards cultural heritage. How to benefit from tourism so that it does not threaten the sustainability of local communities? How to prevent gentrification of some areas?

Main contributions of the study visit in Kaunas, Lithuania

From the viewpoint of the Charles University team members, who participated in the Kaunas site visit in November 2023 (Ivan Murin, Lenka Jaoubkova Budilova), the main important results of the visit are:

- We appreciated other ways of work in a different discipline, and mainly the use of technology (architecture modelling, use of drones to help preservation and modelling of buildings).

- It was interesting to follow the methodology of Kaunas architecture team, which is very different from ethnography method used by anthropologists. In this regard, the site visit was very useful – to see how to do things differently, and possibly to learn from it.

- The workshop was very interesting and useful. For us it was an introduction of a new method of leading a seminar/workshop, and we will learn from it and possibly introduce it into our own teaching.

- We have learnt not only from methodologies used by our Lithuanian colleagues, but also from their theoretical concepts, like, for example, the "sense of place" concept used in the sociological survey and discussed in the study visit report.

- The guided tour gave us an idea about the site researched by our Lithuanian colleagues, and reminded us of the difference of the context we work in.

- The site visit brought together all team members and gave them space for discussion, not only at official meetings, but also at informal occasions, like dinner, walks in the city, etc.

- We get to know more Lithuanian team members, and PhD. (and also undergraduate) students, involved in KTU activities.

- We were able to discuss the progress of research in individual teams and plan the joint publications.

Thanks to Kaunas team to perfect organization of the site visit and fruitful meetings and discussions!

Lenka Jakoubková Budilová, Ivan Murin