



CASTELLA MARIS BALTICI 6

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Front cover: Castle of Trakai

Photos by Albinas Kuncevičius

Back cover: Royal palace in an Upper castle.

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On September 18–22, 2001 the Symposium Castella Maris Baltici VI was held in Lithuania. This is already the 6th symposium for the researchers of the medieval castles. The first symposium was held in Turku, Finland in 1991, the second – in Nyköping, Sweden in 1993, the third - in Malbork, Poland in 1995, the fourth - in Estonia in 1997, and the fifth – in Denmark in 1999.

The topic of the conference held in Lithuania was “Contacts and Genetically Dwellings in the Castle Buildings”. Over 40 scientists participated in the conference from Denmark, Belarus, Finland, Sweden, Switzerland, Germany, Russia, Great Britain, Poland, Latvia, Estonia, and Lithuania. In the conference there were not only reports presented but also the most famous castles of Lithuania visited in Vilnius, Trakai, Kernavė, Kaunas and Klaipėda.

The time of this conference coincided with the European Heritage Days “Defensive Fortifications in Lithuania”.

This conference was organised by the Public Institution Academy of Cultural Heritage established by Vilnius University, Vilnius Academy of Arts, Vilnius Gediminas Technical University, Ministry of Culture of the Republic of Lithuania and Department of Cultural Heritage Protection. The Symposium Castella Maris Baltici VI was sponsored by the Department of Cultural Heritage Protection.

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Dr. Albinas Kuncevičius

Napaleonas Kitkauskas

THE PRIMEVAL RELIEF OF THE LOWER CASTLE OF VILNIUS AND THE EARLIEST BUILDING

Die ursprüngliche Topographie beim königlichen Palast der Unteren Burg von Vilnius und die frühzeitigen Bauten

In den Jahren 1987–2002 wurden bei Ausgrabungen die Fundamente und die Reste der Keller des ehemaligen königlichen Palastes der Unteren Burg entdeckt. Die Forschungen erlauben es, die ursprüngliche Topographie am königlichen Palast festzustellen sowie die Abfolge der in der Unteren Burg durchgeführten Umgestaltungen und Rekonstruktionen. Der westliche Fuß des Gediminasberges hatte die Form eines sich nach Westen hingestreckten Vorsprungs. Der Vorsprung war 3,0–7,5 Meter hoch, von Süden, Westen und Norden vom alten Flußbett von Vilnius umgeben. Das alte Bett der Vilnia lag viel näher zum Vorsprung, wenn wir das mit der Stelle des in den Plänen des 18. Jahrhunderts dargestellten linken Flußarmes vergleichen.

Während der Untersuchung wurden im oberen Teil des Vorsprungs frühe Mauerbauten oder ihre Fragmente entdeckt. Alle diese Bauten sind aus Ziegeln, die "wendisch" verbunden sind. Nach vorläufigen Angaben könnten die-

se Bauten in der zweite Hälfte des 13. Jahrhunderts errichtet worden sein.

Mauerbauten mit der "wendischen" Ziegelverbindung wurden auch auf den niedrigsten Stellen des ursprünglichen Geländes entdeckt (die Reste M22, M23, M26, M25). Zweifellos wurden die oben genannten Bauwerke erst gebaut, als das alte Vilniabett verschüttet und dadurch das Areal der Unteren Burg erweitert worden war. Wir sind der Meinung, daß das alte Vilniabett von dem Vorsprung am westlichen Fuße des Gediminasberges weiter verschoben wurde, am Ende des 13. Jahrhunderts oder am Anfang des 14. Jahrhunderts.

Die Form des Vorsprungs war ausschlaggebend für die Anordnung der früheren Mauerbauten und den späteren, schon im Renaissancestil errichteten Gebäude des königlichen Palastes, auch für die Konfiguration des inneren Hofes.

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In Vilnius, at the confluence of the rivers Neris and the Vilnia there have been three castles – the Upper and the Curved castles stood on high hills, the Lower one stood in the lowland, at the foot of the hill of the Upper castle. The Curved castle was burnt down in 1390. The buildings of the Lower castle were pulled down in the first half of the 19th century. Only ruins of the Upper castle have remained.

The process of the formation of the Vilnius castles, of the evolution of buildings is still not fully revealed. The remnants of the palace of the Grand Dukes of Lithuania and the remnants in the environment of the palace at the foot of the Upper castle (Gediminas Hill) are still in the process being explored.

At present the surface of the ground at the western and southern foot of the Upper castle (Gediminas Hill) is almost equal; only a small slope is lowering towards south-west. The difference of elevations is between the altitudes of H abs. 95.20 m and H abs. 93.50.

Around 600–800 years ago the surface of the ground there was 2.0–7.5 m lower when compared with the surface today. The western foot of Gediminas Hill was of the cape form stretching towards the west. The cape reached the south-western corner of the cathedral and the belfry. The cape was 3–7.5 me-

ters high. The old river-bed of the Vilnia surrounded the cape from the south, west and north. This river-bed was called the left one because the river-bed of the Vilnia still existing even today between Gediminas Hill and the Curved castle was called the right one. The latter is thought to have been dug at the end of the 13th century or at the beginning of the 14th century. The place of the both branches of the Vilnia – the left and the right – at the beginning of the 18th century is rather precisely shown on the map of Vilnius made up by Johann Georg Maximilian von Fürstenhof approximately in 1725–1737. From the east the cape was protected by the Hill of the Upper Castle (Gediminas Hill).

The analysis of the geological, archaeological and architectural research made during the last few decades on the territory of the Lower Castle shows that the location of the left river-bed of the Vilnia as it is shown on Fürstenhof's map is not primary. The research data let us fix the lowest places of the relief, the places through which the initial, old Vilnia river was flowing. This river-bed was much closer towards the southern slope of the cape.

The investigations on the territory of the palace of the Grand Dukes of Lithuania and of the cultural layers reaching 6-8 meters depth made it possible to

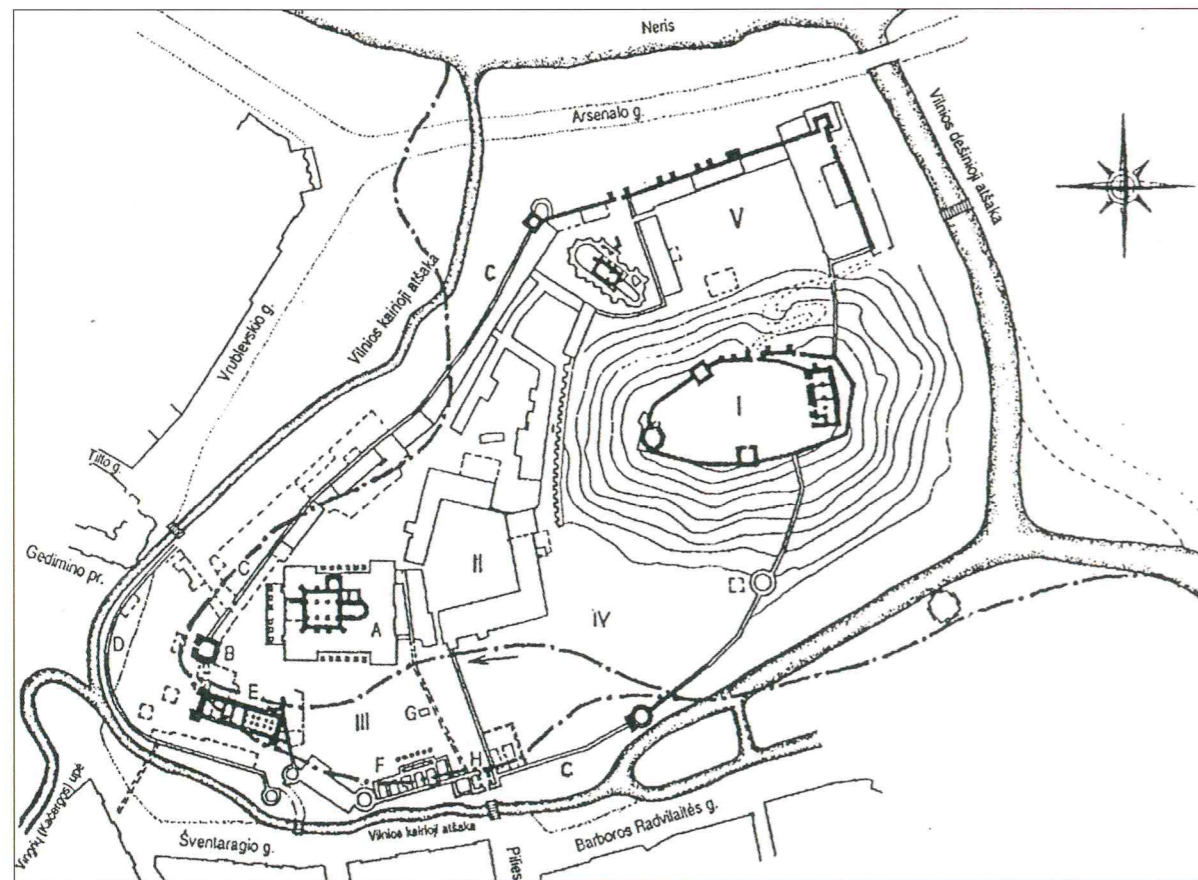


Fig. 1. The plan of the Lower and Upper Castles. The dotted and dashed line indicates the axis of the old Vilnia river-bed girdling the cape
A – Cathedral, B – Tower of the belfry, C – Defence wall, D – Additional wall of the castle, E – Vilnius bishop's old house, F – Lithuanian Head tribunal's house, G – Monument to Gediminas, a Great Duke of Lithuania, H – Gates of the Castle

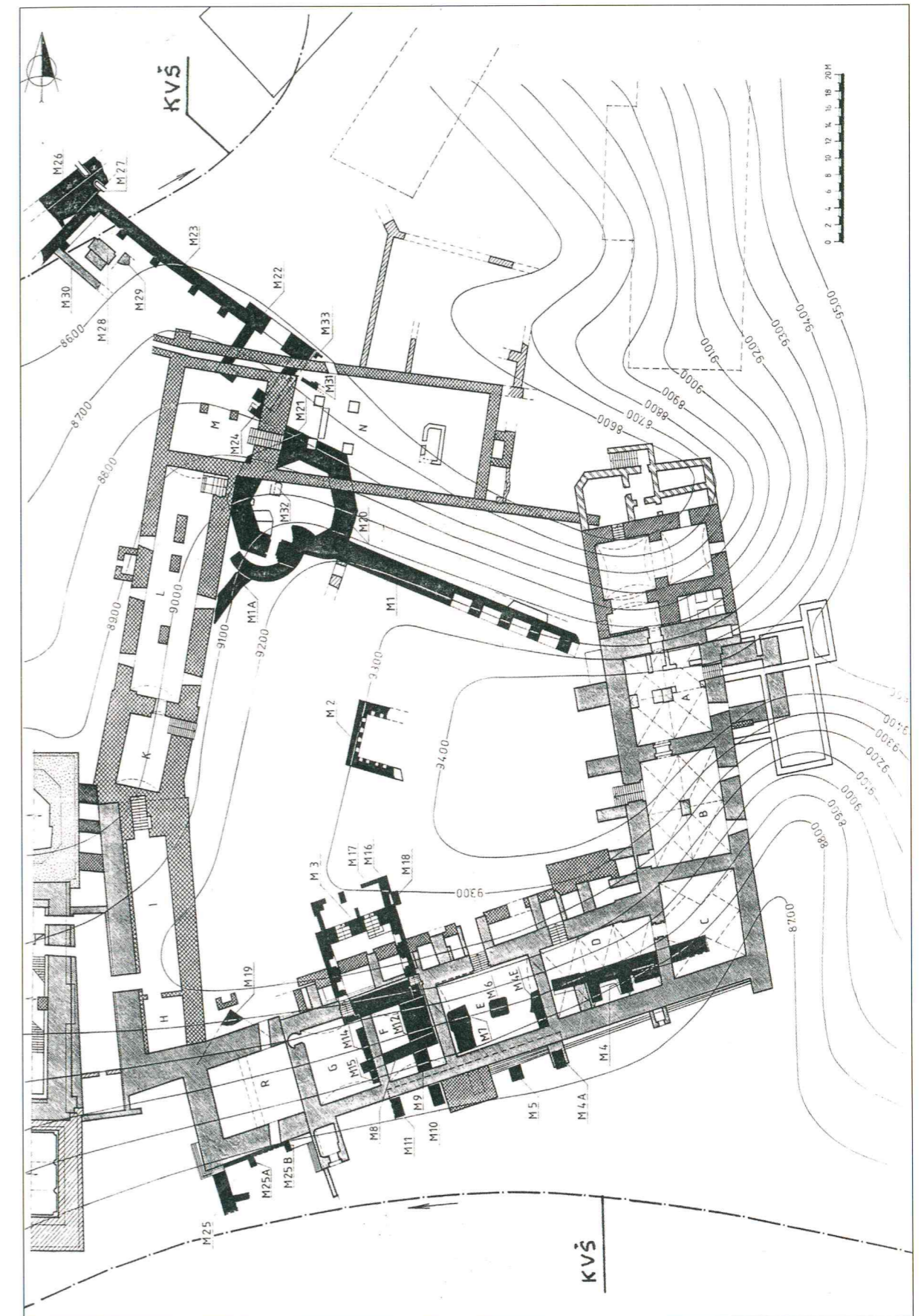


Fig. 2. The plan of the foundations of the Grand Dukes Palace and of the isohypses at the primeval relief at the western foot of Gediminas Hill. Index KVŠ indicates the axis of the old left bed of the Vilnia river.
I – Upper Castle, II – Grand Dukes Palace of the Lower Castle, III – Square of the cathedral in the Middle Ages, IV – Garden of the Grand Dukes Palace, V – Territory of the arsenal

specify the picture (the view) of the original relief in the section between the eastern wall of the cathedral and the Upper Castle (Gediminas Hill). During archaeological excavations the primeval ground surface was reached in many places here. Geological findings gave additional results. The map of the isohypses of the primeval relief of the territory of the Lower Castle was made up. At the western foot of the slope of Gediminas Hill the beginning of the cape is narrow; at the eastern wall of the eastern building of the palace, on the area of basement A, the width of the cape at the top is no more than 7 meters (scarcely 7 meters). 15 m westwards the surface of the cape at the level of the altitude of H abs. 94.00 m widens up to 18 meters. Still further westwards the top of the cape little by little gets lower, at the eastern wall of the western building of the Dukes' palace it lowers even by three meters. The top of the crest of the cape at the south-western part of the courtyard of the palace stretches under the central part of the Archicathedral.

The lowering of both side slopes – the southern and the northern – is more distinct. The angles of the incline of the southern and northern slopes amount to 20°–22°.

One can see the cape lowering westwards widened gradually. The shape of the cape determined the arrangement of the earliest buildings being built there and of the later buildings of the Renaissance Dukes' palace as well as the configuration of the inner courtyard of the Renaissance palace. Because of these peculiarities of the relief the building site of the Dukes' palace was of trapezium shape.

Let us draw a conditionally longitudinal axis along the cape. 50–60 m westwards from it there is the lowest spot of the primeval relief: H abs. 87.00 m. It is the axis of the left branch of the primeval river-bed of the Vilnia. The southeastern corner of the Renaissance Dukes' palace moved away from the axis of the latter bed by about 26–29 m but the south-western corner moved off only about 7–10 m.

The old river-bed of the Vilnia surrounding the western end of the cape almost at the belfry of the cathedral and passing the Valavičius' Chapel of the cathedral made the bend towards north-east, and obeying the relief of that time it got closer to the foot of the north-eastern slope of the cape, approached to the erosive ravine (=cave) of Gediminas Hill. There were only about 50 meters to the old river-bed of the Vilnia from the north-eastern corner of the sacristy of the cathedral. The lowest surfaces of the primeval ground reaching the altitude H abs. 86.00 m were found located under the south-western part of the new arsenal. From here the old river-bed of the Vilnia turned to the north and fell into the Neris.

The ground water level inside the basements excavated on the territory of the Grand Dukes' palace is found today at the altitude of H abs. 90.70–91.10 m. In fact, the level of the ground water coincides with the altitudes of the floor extant in the Dukes' palace.

What was the ground water level on the territory of the Dukes' palace around 600–800 years ago? It is unlikely that the floor of the basements of the Dukes' palace could have been laid at the ground water level.

The remnants of the board floor of wooden buildings found in the environment of the palace helped to answer this question:

- the remnants of the pavement of wooden building eastwards from the south-eastern corner of basement C of the Dukes' palace. Here the top of the split board floor is at the altitudes of H abs. 89.18–89.37 m;

- split board road pavement outside basement C. The altitude of the top of the boards of this road are at H abs. 89.07–89.35 m;

- remnants of even ten wooden pavements were found in the canal (trench) dug westwards from R room of the palace (between R room and St. Casimier's Chapel). The constructions of the lower pavements lie at the altitudes of H abs. 88.00–89.50 m;

- remnants inside the courtyard of the palace at the western wall of the eastern building. Board pavement of a wooden building was found here at the altitudes of H abs. 90.40–90.50 m.

We could give more examples where remnants of wooden floor were found in the layers lying 1.5–2.0 m below the ground water level at present.

Wooden pavements and other wood constructions in the environment of which fragments of lime mortar and of brick crumbs were found are dated back to the 13th to 14th centuries. So one can undoubtedly maintain that in the 13th–14th centuries the ground water in the environment of the western cape at the foot of Gediminas Hill was below the altitude of H abs. 89.00 meters.

At present in summer the average level of the water of the Neris river flowing nearby is at the altitude of H abs. 86.50 m.

Masonry buildings on the top of the cape and on its southern slope

The earliest masonry structures or their extant fragments on the top of the cape are the following: M1, M1a, a round (cylindrical) tower and tower M20. They are curtain walls and towers having bordered the buildings which were on the top of the cape from the northern part of the territory of the Lower Castle; they were built on the site at the northern and western edge of the cape, on the top of the northern and western slope of the cape.

In the center of the cape buildings M2 and M3 stood. Building M3 had a half-basement 0.7 m deep while the basement of buildings M2 was about 1.5–

1.7 m deep. Both buildings – M1 and M3 – had over ground, or elevated, parts some inner rooms of which were vaulted. In their ruins, in fragments of the fallen plaster the marks of polychromic decorative painting have been found.

During the research of 1987–2000 the following remnants of the earliest masonry were found in the southern slope of the cape or at the foot of the cape: M4, M4a, M5, M6, M7, M8, M9, M10, M11, M12, M13, M14, M15, M19. Remnants M4a, M5, M10, M11, M13 and M15 were nearest to the Vilnia river-bed. At the time these structures had been built the surface of the ground nearby was at the level of the altitudes of H abs. 88.90–89.00. So the water level in the old river-bed of the Vilnia which was nearby must have been at least 1 m lower, that is approximately at the altitude of H abs. 88.00 m.

The surfaces of the walls of the over-ground parts of all above-mentioned structures were made of brick bond which was the Flemish. The ratio of the length to the width of the sides of bricks is equal or less than 2 ($l:b < 2$).

During the research the earliest masonry structures were found in the lowest places of primeval relief. Some of them were built at the foot of the north-western slope of the cape close to the old river-bed of the Vilnia or just on the place of that bed. Here in 1995–1999 remnants of gate tower M22 and of the enclosing defence wall M23 were excavated. Besides here wall M26 and masonry M27 were dug up. All these structures should be related to the earliest masonry building when the Flemish (or the so-called Baltic) bond of brick was still in use. The ratio of the length of brick sides (edges) to the width of the bricks of these relicts is more than 2, i.e. $l:b < 2$. Such are evident facts when bricks changing their proportions the Flemish bond brick still remains.

An important question is when really the old bed of the Vilnia was moved to that place which is shown on Fürstenhof's map of 1737. When were the defence walls of the great enclosure of the Lower Castle which were fixed in iconography built at the new river-bed? The length of the walls of this grand enclosure is over 1 kilometer. The greatest part of them lie also under the ground because their over ground part was pulled down in the 18th century; at the beginning of the 19th century. In separate places the remnants of the walls having defence towers have already been studied in the field and measured.

It is important to indicate that the brick bond in the masonry wall of the great enclosure of the Lower Castle (marked on Fürstenhof's map of 1739) was still Flemish, however, almost everywhere the ratio of brick sides is $l:b > 2$ that is characteristic to bricks of the Gothic period.

Having the field research data we come to the conclusion that the old river-bed of the Vilnia was moved off from the western cape at the foot of Gediminas Hill further at the time when at the end of the 13th century or at the beginning of the 14th century the territory of the Lower Castle was being remade and the right branch of the Vilnia between Gediminas Hill and the Curved Castle hill was excavated. Only then the old Vilnia river-bed became unnecessary and in its place inner wall M23 on the territory of the Lower Castle, wall M26, gate M22 and wall M25 with abutments were being built.

One should note that when giving another location to the waters of the existing river-beds in the Vilnia delta, widening the territory of the Lower Castle considerations of defence were taken into account first of all. It was necessary to girdle from all sides the territory of about 13.5 ha with water, to put up defence walls near the water. It is likely that only when the left river-bed of the Vilnia was excavated the territory of the arsenal was included into the new enclosure of masonry defence walls. At that time there were built the eastern wall and the northern defence wall with a massive north-eastern corner tower of the great enclosure of the Lower Castle. The Eastern gate which led from the Lower Castle to the Curved one was equipped at this tower. The defence walls might have been built at the juncture of the 13th and 14th centuries, partly in the beginning of the 14th century.

Conclusion

In the 13th–14th centuries intensive life took place at the foot of the Upper Castle (Gediminas Hill). Wooden and masonry buildings were built, curtain defence walls were put up. The territory of the Lower Castle was formed anew by moving the river-bed of the Vilnia further off the western foot of the slope of the cape. Works on such a grand scale requiring great means could be executed only by the Grand Duke in his residence. Research data concerning the evolution of Vilnius Lower Castle presented in our report let us maintain with great probability that in the middle or in the second half of the 13th century Vilnius was the capital of Lithuania. Vilnius is the only place on the territory of Lithuania where early masonry building on such a great scale has been found. Sometimes Kernavė (there are some mounds there) is considered to have been the first capital of the Grand Dukes' of Lithuania, however, up to now no traces of masonry buildings dating from the 13th–14th centuries were found there.