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ACE | Architecture, City and Environment

<https://doi.org/10.5821/ace.20.59.13213>

The Neglected Impact of Topography on Late Baroque Churches: The CC Method in the Western Grand Duchy of Lithuania

Impacto olvidado de la topografía en las iglesias del barroco tardío: aplicación del método CC en el Gran Ducado de Lituania occidental

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Received: 2024-09-09 | Final version: 2025-03-08

Abstract

Keywords:
archetypes;
architectural
phenomenology;
combined contextuality
method; place

This article explores the architectural expressions of the Late Baroque, connecting them to the period's aspiration for contextual integration. It investigates how churches relate to their natural surroundings, a relationship that can only be understood by analysing buildings not merely as physical structures but through the lens of lived experience. The importance of such relationships is highlighted by Norberg-Schulz's theory. However, practical tools for analysing intangible yet perceptible aspects of contextuality remain limited. To address this gap, the study introduces a combined contextual method (CC method) that synthesises established approaches in architectural phenomenology. Applied to more than 40 churches of the former Grand Duchy of Lithuania, the method integrates fieldwork and firsthand observations to capture both visual and kinaesthetic experience. Two case studies – churches in Hrodna (present-day Belarus) and Włodawa (present-day Poland) – illustrate the research process. The findings reveal a correlation between architectural archetypes and the character of place, particularly in the recurring vertical and horizontal orientations observed both in the buildings and in the landscape. While grounded in empirical research, the article also considers theoretical motivations for this relationship. The study's novelty lies in applying phenomenological methods to 18th-century architecture and in examining how local topographical experience influenced Late Baroque forms.

E-ISSN: 1886-9751

Resumen

Palabras clave:
arquetipos; fenomenología
arquitectónica; método
contextual combinado;
lugar

Este artículo explora las expresiones arquitectónicas del barroco tardío, relacionándolas con la aspiración de integración contextual de la época. Investiga cómo las iglesias se relacionan con su entorno natural, una relación que solo puede entenderse si se analizan los edificios no solo como estructuras físicas, sino también a través del prisma de la experiencia vivida. La importancia de estas relaciones queda patente en la teoría de Norberg-Schulz. Sin embargo, las herramientas prácticas para analizar aspectos intangibles pero perceptibles de la contextualidad siguen siendo limitadas. Para abordar esta laguna, el estudio introduce un método contextual combinado (método CC) que sintetiza enfoques establecidos en la fenomenología arquitectónica. Aplicado a más de 40 iglesias del antiguo Gran Ducado de Lituania, el método integra el trabajo de campo y las observaciones de primera mano para captar tanto la experiencia visual como la cinestésica. Dos estudios de caso – las iglesias de Hrodna (actual Belarús) y Włodawa (actual Polonia) – ilustran el proceso de investigación. Los resultados revelan una correlación entre los arquetipos arquitectónicos y el carácter del lugar, en particular en las orientaciones verticales y horizontales recurrentes que se observan tanto en los edificios como en el paisaje. Aunque se basa en la investigación empírica, el artículo también considera las motivaciones teóricas de esta relación. La novedad del estudio radica en la aplicación de métodos fenomenológicos a la arquitectura del siglo XVIII y en el examen de cómo la experiencia topográfica local influyó en el barroco tardío.



Citation: Biliūnas, K. (2025). The neglected impact of topography on Late Baroque churches: The CC method in the western Grand Duchy of Lithuania. *ACE: Architecture, City and Environment*, 20(59), 13213. <https://doi.org/10.5821/ace.20.59.13213>

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1. Introduction

In the 18th century, the territory now comprising Belarus, Lithuania, and parts of Poland, Latvia, Russia, and Ukraine was encompassed by the Grand Duchy of Lithuania¹ (hereafter abbreviated as GDL). At that time, approximately 80 per cent of the country's population lived in rural areas, meaning the landscape remained largely non-urbanised, as was the case across much of Europe (Kiaupa, 2012; Tosco, 2009). The transition from wooden to masonry architecture, alongside the expansion of the parish network, led to the construction of numerous new Catholic (and, in the eastern part, Greek Catholic) churches. Around 150 new brick churches were built in the mid-18th century, with approximately 73 per cent located in villages, boroughs, and smaller towns² Their surrounding environment remained strongly shaped by the natural landscape.

While studies have explored Baroque urban planning and its environmental integration (Debenedetti, 2005; Denti & Scalický, 2001; Jellicoe & Jellicoe, 1995), the relationship between churches and their natural surroundings remains largely unexamined. Theoretically, such a connection is plausible, as European culture until the late 18th century maintained a qualitative perception of place that shaped contextual understanding (Merrill, 2022; Pérez-Gómez, 2016). Noted by the French philosopher Gilles Deleuze (1993), the engagement of Baroque architecture with its surroundings illustrates the pronounced regionalist tendencies of 18th-century architecture (Pla et al., 2025). Moreover, Late Baroque art and architecture exhibit a distinct affinity with nature (Bailey, 2017; Park, 1992; Schönberger & Soehner, 1960), reflecting both the early modern philosophical and scientific interest in the natural world and a reaction against the increasingly mechanised and quantified worldview (D'Angelo, 2005). In Baroque architecture, forms once considered mathematically inexpressible, such as ellipses and other curves, were reinterpreted as fundamental to God's created world and became integral to architectural design, reflecting newly discovered laws of nature (Hersey, 2000).

This article approaches the relationship between architecture and natural forms from a different perspective, focusing on the site-specific influence of the landscape. Although rare, some indications of such a connection exist. A significant yet underexplored observation regarding Bavarian churches from the same period suggests that they are inherently linked with and 'belong to' their specific landscape (Harries, 1983). This research, extending beyond the physical boundaries of buildings, draws inspiration from the Norwegian scholar Christian Norberg-Schulz, who advocated for analysing architecture in relation to its surroundings (Norberg-Schulz, 1974, 1980). His approach, combining phenomenological theories of architecture and place, provides a conceptual framework for understanding this interaction. However, Norberg-Schulz's ideas were not fully incorporated into later studies of architectural history, possibly due to the lack of concrete methodological tools. To address this gap, this article introduces a method based on his theory. The aim of the study is to contextualise Late Baroque churches by examining the influence of place on architectural design. As part of a broader research project, this paper prioritises empirical analysis over an extensive discussion of theoretical issues. The study area covers the western part of the GDL, spanning several historical voivodeships and 43 church sites. The landscape of this region is generally characterised by gentle and relatively smooth topography. Comparing it to mountainous areas risks overlooking its nuanced character, particularly in relation to the distinct forms of church buildings in the smooth Lithuanian terrain. To address this, a specially adapted phenomenological approach is employed, enabling an analysis of subtle spatial relationships. The article begins by outlining the approach and methodology, followed by a description of the study process and two contrasting case analyses. The findings are then discussed in detail, culminating in the study's conclusions.

2. The phenomenological approach

Architectural phenomenologists with a strong focus on architectural history identify the mid-18th century as the last pre-modern era in which architecture was still understood to possess inherent meaning (Pérez-Gómez, 1983; Veselý, 2004). According to these scholars, meaning implies that architecture functioned as a form of representation – serving as a reflection, expression, symbol, or metaphor. Representation refers to a binary structure, consisting of an invisible, represented element and a physically expressed, representing element – the building itself. The represented element can, in a sense, be conceptualised as a 'soul'. When studying pre-modern architecture, acknowledging this layer of meaning is essential.

¹ From 1569 to 1795, the GDL was part of the Polish-Lithuanian Commonwealth.

² These figures are based on the author's systematised material, referring to newly built masonry churches from 1730 to 1785, with settlement classifications following Kiaupa (2012, pp. 179–181).

Adopting a dualistic conception of architecture can provide a framework through which philosophical questions can be addressed and the appearance and spatial organization of buildings can be more thoroughly explained. The meaning embedded in architecture is not immediately perceptible but is revealed through connotations and symbolism, engaging both visual and sensory experience (Kidder, 2011). A Czech-born architectural historian Dalibor Veselý, for instance, described historical buildings as spaces of communication, suggesting that the researcher's role is to decipher the architectural language and uncover its programme, purpose, and overarching meaning (Veselý, 2004).

The concept of meaning can be divided into two components: concrete meaning, or signification, and emotion, or sensory experience – ideally, both operating in unison. Pre-modern architecture did not adhere to a singular system of meaning, nor do phenomenologists provide a uniform definition of what ‘meaning’ entails in this context. However, an analysis of specific examples suggests that the dualistic conception of architecture – in a way analogous to the human composition of body and soul – offers a holistic approach for its study. This perspective enables us to search for a theoretical framework that explains physical expression. While such an approach has long been established in the study of visual arts, particularly in iconology, it remains underexplored in architectural studies (Veselý, 2004).

The German-American philosopher Karsten Harries argues that, in later periods, architecture aspired to become ‘absolute’, gradually shedding its symbolic dimension and disengaging from its environment, thereby losing contextuality (Harries, 1980). This argument suggests an intrinsic connection between a building's perception and its relationship with its surroundings. For example, the 19th-century conception of architecture as a decorated functional object implies that the building's environment, in theoretical terms, became largely irrelevant. By contrast, during the Baroque period, broader contextual factors – including ideological, philosophical, human experiential, and physical environmental considerations – were profoundly integral to understanding any work of art, including architecture.

2.1. The combined contextuality method

Having been employed for half a century, the phenomenological approach to architecture, urbanism, and landscape remains widely used and influential today (Marinovic, 2021). However, it has rarely been directly applied to the study of Baroque architecture. This is even though some of the most prominent architectural phenomenologists – such as the already mentioned Norberg-Schulz, Harries, and Veselý – are also significant scholars of Late Baroque architecture. This gap can be attributed to the fact that phenomenological theory and methodology were primarily developed to address the challenges of contemporary architecture. Consequently, in the work of these scholars, the analysis of historical architecture served as a foundation for theoretical exploration rather than the primary focus of study.

Table 1. Flowchart of the CC method as adapted for the study

Fundamentals of character	Elements of character	Archetype	Theme of archetype	Motif of archetype	
Earth	Topography	Floor	Support	Churchyard	
				Approach area	
			Breadth	Immediate environment	
		Height		Surroundings	
			Wall	Building position	
		Depth		Absolute height	
			Heaven	Presbytery orientation	
	Roof			Dome	Perceived height
		Gable roof			Horizontality / verticality
	Roof		Gable roof	Convexity / concavity	
Roof		Gable roof		Skeleton system (order)	
	Roof		Gable roof	Scale	
Roof		Gable roof		Volumetric composition	
	Roof		Gable roof	Spherical / deformed	
Roof		Gable roof		Directional	
	Roof		Gable roof	Hip / shed roof	
Defining the character of a place		Identifying the dominant archetypes of a building			
The results are compared to evaluate the potential influence of the place on the architecture					

Source: Author's own elaboration based on Norberg-Schulz (1980), Schaap (2011), and Thiis-Evensen (1987).

Phenomenological methods typically concentrate either on the analysis of individual buildings or on the study of places in isolation. This article introduces a combined approach that integrates multiple methods, reflecting the two central components: architecture and place. Here, the concept of place is understood phenomenologically – not merely as a visual scene (landscape) but as an experiential entity that includes the observer and the engagement with the environment (Malpas, 2018). In phenomenology, place is not simply a physical location but a mode of human interaction with space; it cannot exist without human presence. The characteristics of a place are revealed through bodily, emotional, and cognitive experience. Within the context of this study, place refers to the way the natural landscape surrounding a church is perceived and revealed through lived experience. To transform this subjective experience into scientific data, this article introduces a phenomenological method referred to as the *combined contextuality method* (CC method), detailed in a separate publication (Biliūnas, 2023).

The architectural analysis is based on the method of archetypes (Thiis-Evensen, 1987), valued for its ability to articulate subconscious and difficult-to-define architectural experiences in a comprehensible manner (Seamon, 2017). The analysis of place employs the place character model method (Norberg-Schulz, 1980; Schaap, 2011), complemented by the experimental method of walking (Schultz, 2016). Compared to a formal analysis, phenomenology is sometimes regarded as ‘subjective’; however, phenomenological experience is neither entirely objective nor subjective. Its goal is to move beyond empirical observation to uncover the essence of a phenomenon (Stewart & Mickunas, 1990). Accordingly, phenomenological inquiry seeks to uncover a universal human experience, independent of cultural or symbolic contexts, focusing on how it is rooted in fundamental bodily relationships such as high and low, left and right, near and far, and so on (Tilley, 1994).

The structure and application of the method are illustrated in the flowchart (Table 1). The term ‘contextuality’ refers to the aesthetic and psychological relationship between a building and its natural environment, as revealed through experience. This is a qualitative approach that requires a holistic methodology. Consequently, the method involves a parallel analysis of place character and architectural archetypes. The results are then compared to identify shared elements or patterns that may indicate contextual integration.

This approach is particularly well-suited to Late Baroque, an architectural language characterized by a diversity of volumes, forms, articulation, and modes of expression. Moreover, it is designed to create impact and evoke emotional responses. The phenomenological approach provides a structured means to analyse these experiences and identify recurring patterns. The CC method allows for an in-depth examination of a building’s architectural expression while also situating it within the specific characteristics of its natural surroundings.

3. The process of the study

A total of 43 churches in the western GDL were analysed, spanning the historical voivodeships of Samogitia, Trakai, and Livonia³, as well as parts of the Vilnius and Brest voivodeships. The selection of this study area was guided by factors such as accessibility and the availability of a sufficient number of cases for analysis. The study includes all masonry churches built within this territory between approximately 1730 and 1785, corresponding to the Late Baroque period in the region, except for a few poorly documented examples.

The CC method was implemented in three phases: expedition, analysis, and data systematisation. During the expedition phase, a walking methodology was employed to observe the immediate surroundings of the churchyard, the wider environment, and the overall character of the natural landscape, with particular emphasis on topography. Direct on-site analysis served as the primary source of this study, supplemented by the examination of iconographic material, geographical context, historical transformations, and assessments of the authenticity of the building’s structure. It is important to note that the phenomenological experience of place cannot be fully captured in photographs, as these exclude kinaesthetic engagement and three-dimensional spatial orientation. Consequently, some of the photographs presented in this article serve not as sources of analysis but rather as illustrations of the study’s findings.

The identification of a place character model is based on the local topography. As the most stable element of the landscape and the least altered over time, land relief was given particular attention. During the expeditions, three levels of place experience were recorded: micro, medium, and macro.

³ The Livonian Voivodeship, although not directly part of the GDL, was a shared possession of the Commonwealth.

The micro level encompasses the terrain and slope of the churchyard, along with the area in front of the church. The medium level considers variations in topography in all directions from the church, as well as the visual connection to nearby bodies of water. The macro level pertains to the wider environment, its characteristic topography, and the changes perceived when approaching the church. A supplementary source of information on the natural environment is physical-geographical descriptions of the study areas. Contemporary iconographic sources are virtually non-existent; therefore, the principal primary sources include late 18th- and 19th-century church visitations and the 1784 topographical descriptions of the Vilnius Diocese, compiled for a map.

Although water bodies are less stable than land relief, they generally do not undergo transformations significant enough to hinder an analysis of their influence on local character. Vegetation, by contrast, is the least stable landscape element and is therefore considered only as a supplementary factor. For instance, historical records indicate that at the time of Kazokiškės Church's construction, the area was described as having large forests of various kinds of trees (Jogėla, 2001). This aligns with the present-day appearance of the site, as the settlement remains surrounded by forests on all sides, reinforcing the interpretation of the wooded landscape as a defining feature of the place. Additionally, the orientation of the church in relation to the cardinal directions was analysed, particularly its deviation from the east, which may suggest additional influences on its positioning, including natural features (Sassin Allen, 2016). However, as this aspect is beyond the scope of the present study, the article instead focuses on the most stable landscape feature directly related to the building – topography. The fundamental spatial properties of human perception – horizontality and verticality – emerged as the most universal and promising criteria for analysing the contextuality of churches.

Separately, the dominant architectural archetypes of each building were identified. These archetypes are based on the three-element system outlined in Norberg-Schulz's *Between Heaven and Earth*⁴. This system comprises three fundamental components: the floor, the wall, and the roof, with the wall archetype being the most prominent. Correspondingly, Norberg-Schulz identifies three spatial elements that structure human experience: the forest ground (*skogbotnen*), the sky (*himmelen*), and the visible horizon (*synsrand*). As van Nes summarises, 'All kinds of places with their buildings have a ground or a floor, a ceiling, roof or sky, and walls, trees, hills or other artefacts shaping various types of optic array' (van Nes, 2008, p. 116). Building on this foundation, Thomas Thiis-Evensen developed a methodology that distils complex historical architectural structures into three fundamental elements – a simple yet universal set of archetypes that he refers to as the 'grammar of architecture'. Crucially, this method does not rely on symbolic or culturally specific meanings but instead operates at a universal experiential level. The three primary archetypes – floor, wall, and roof – are analysed through the qualitative concepts of movement, weight, and materiality. The analysis is conducted on two levels, encompassing broader architectural themes as well as individual motifs (Thiis-Evensen, 1987). Across both individual elements and their collective arrangement, verticality and horizontality consistently emerge as the most fundamental 'existential expressions', often complemented by curvature and other formal variations.

Each element was evaluated on a scale ranging from strongly horizontal (-2) to strongly vertical (+2). In a few cases where there was insufficient data to assess an element, a value of 0 was assigned. In the final stage, a comparative framework was established by juxtaposing the place characters with the dominant archetypes, presented as aggregated values. The most prominent features and their recurring combinations were documented, enabling a systematic exploration of contextual manifestations.

3.1. The analysis of place and architecture: Hrodna Church

To illustrate the research approach and demonstrate how the analysis of specific sites translates into meaningful results, two contrasting examples are presented, each with a concise assessment. The first case study examines the Discalced Carmelite Church in Hrodna⁵, historically located in the Trakai Voivodeship. Together with its adjoining friary, the church was built on the outskirts of what was then the second most significant city in the country, positioned between the main market square and the Nemunas River. Strategically situated, the church occupied a middle position on the slope between the riverbank and the Bernardine Church hill. For travellers arriving from the Nemunas crossing and heading towards the city centre, it was the first monumental brick sacred building encountered (Kvitnickaja, 1985). A summary of the detailed analysis is presented below.

⁴ *Mellom himmel og jord*, originally published in Norwegian in 1971, remains untranslated into other languages.

⁵ Place names are given according to their present-day affiliation with Lithuania, Poland, Latvia or Belarus.

Figure 1. Place of Hrodna Church



Left: Topographic plan (green – location of the Church, blue – Nemunas River). Source: etomesto.ru; right: General view (the Church is marked in green), photograph by Józef Czechowicz, 1876–1885.

According to physical-geographical zoning, Hrodna lies within the Hrodna (or Sokółka) Upland; however, the defining feature of the church's location is the river valley that cuts through the upland (Kazloŭskaja et al., 1992). The valley slopes gently downward towards the river but becomes steeper towards the outer edges. The church plot is situated at the midpoint of this slope, with an elevation drop of approximately 20 metres over a span of 180 metres to the south, and a rise of the same magnitude to the north towards the Bernardine Church hill (Figure 1). The friary plot itself is notably sloped as well. Applying the CC method, the churchyard is characterised by its contrasting topography, with the land rising in one direction and descending in the other. As a result, this aspect is assessed as neutral (0) on the horizontality-verticality scale. The area immediately in front of the church, aligned with its central axis, is relatively flat and therefore classified as horizontal (-1) within the study's evaluation framework. A key feature of the site is the church's positioning relative to the surrounding landforms and its perceived elevation. The steep slope immediately behind the church, which ascends towards the city's central area, establishes a negative spatial relationship. In other words, the church is positioned at the foot of a hill (-2), which affects the perceived height of the site. Despite its proximity to the riverbank, the visual experience of the space is constrained by the surrounding high embankments (-2). The absolute elevation of the church site ranges between 111 and 113 metres, a parameter that, within the broader study, is considered moderately low (-1). The surrounding landscape is characterised by undulating, hilly terrain, reinforcing a sense of verticality (+1). In terms of its position relative to the river, the site is assessed as neutral (0), as it is neither close enough to emphasise horizontality nor elevated significantly above it to enhance vertical contrast. Due to a lack of reliable historical data on vegetation from the study period, this aspect is excluded from the evaluation.

The architectural analysis examines the archetypes of the floor, wall, and roof. The Church of the Exaltation of the Holy Cross in Hrodna⁶ (architect unknown, 1738–1765) was a towerless basilica. Its main entrance was situated at street level without a perron, creating a motif of attachment (-1). The wall archetype, the most complex of the three, is assessed through distinct thematic elements. In the vertical tripartition of the main façade, a subtle breadth motif is apparent: the central section appears wider than the lateral sections, suggesting a slight emphasis on horizontality (-1). Meanwhile, the horizontal tripartition of the main façade is defined by the split motif. The lower tier exhibits an upward tendency, reinforced by the architectural order, but this is counterbalanced by the middle tier, which is markedly low and horizontal (-1). The side façades, in contrast, do not display a pronounced division. The depth theme is examined through the building's form, order system, and volumetric composition. The main façade, though slightly vertical, has proportions approaching a square, resulting in a neutral evaluation (0). The left façade, visible from the river, is distinctly horizontal, a characteristic feature of basilicas. This effect is further reinforced by a very low gallery, resembling an additional aisle (-2). The use of a minor rather than a giant order, along with the broad entablature on the main façade, accentuates horizontality (Figure 2). However, the absence of a solid plinth, the presence of doubled and paired pilasters, and a broken entablature introduce vertical elements, resulting in a neutral assessment (0). The entablature encircling the entire structure at the middle tier further enhances the horizontal emphasis of the remaining façades (-1).

⁶ The church was demolished in 1903, with basements and fragments of walls remaining.

In terms of scale and volumetric composition, the basilica’s overall form strongly reinforces horizontality (-2). This is evident in the towerless façade and the modest friary bell tower, which, being lower than the main façade, is oriented towards the friary’s courtyard. While the regulations of the Order of the Discalced Carmelites initially prohibited tall church towers, this restriction was no longer rigorously observed by the 18th century, as exemplified by the twin-towered church in Antalieptė (Račiūnaitė, 2003). The nave of Hrodna Church was covered by a high, continuous gable roof, reinforcing the building’s horizontal emphasis (-2). This dominant roofline significantly shaped the church’s presence within the surrounding panorama.

Figure 2. Hrodna Church. View from Mastavaja Street, circa 1900



Source: Central Scientific Library named after Yakub Kolas, National Academy of Sciences of Belarus.

Table 2. Analysis results of the Hrodna Church using the CC method

Character of a place	Topography	Churchyard	0	-1	Support	Archetypes of a church
		Approach area	-1	-1	Order of side façades	
		Building’s position	-2	-2	Form of side façades	
		Perceived height	-2	0	Height of side façades	
		Absolute height	-1	0	Order of main façade	
		Surroundings	+1	0	Form of main façade	
		Relation with water	0	-1	Height of main façade	
		Vegetation	No data	-1	Breadth of main façade	
				-2	Scale and volume	
				-2	Roof	

Source: Author’s own elaboration.

According to the CC method, a correlation emerges when comparing the local character of Hrodna Church with the dominant building archetypes (Table 2). This relationship becomes more evident when analysed within the context of a broader sample of churches.

3.2. The analysis of place and architecture: Włodawa Church

The second example, the Pauline Church of Włodawa in the Brest Voivodeship, shares several similarities with the first one. It is also a friary church located on the outskirts of the city, positioned along the bank of a similarly sized river, and designed as a basilica. Construction of both churches began around the same time. However, a more detailed analysis reveals notable differences. The church was built near the Bug River but not on the lower terrace. Instead, it stands at the highest point, marking the beginning of the valley depression (Figure 3). According to physical-geographical zoning, the site belongs to the Włodawa Upland mesoregion, where a moraine plateau meets the narrow, gorge-like Middle Bug Valley (Dobrowolski & Chabudziński, 2021).

Downhill, approximately 190 metres southeast of the church, flows the small Włodawka River, with the Bug River running parallel to it another 150 metres beyond. The church towers and dome were once visible from both rivers, though today the view is obstructed by trees. The church plot is situated at the upper part of the plateau, with the terrain behind the friary descending steeply in several terraces, amounting to a total drop of about 18 metres (Figure 3).

Figure 3. Place of Włodawa Church



Left: Topographic plan (green – location of the Church, blue – Włodawka and Bug rivers). Source: geoportal.gov.pl; right: General view (the Church is marked in green), postcard, circa 1915–1918.

According to the CC method, both the churchyard and the approach area are flat (0). The friary grounds, however, are gently terraced towards the river, offering views of the opposite bank of the Bug. Just outside the churchyard gate, a cobblestone street descends steeply, evoking a characteristic sense of high ground (+1). In the geographical context of the GDL, the site is situated at a relatively high absolute altitude of approximately 172 metres (+1). The surrounding landscape is largely composed of plains with gentle undulations (-1), apart from the rather steep valley slope. The church's position, set apart from the river yet rising prominently on the high bank, would have made it a striking feature for travellers navigating the river, creating a distinct vertical relationship with the water (+1). An 1825 map shows the church's nearby slope was unplanted, making the relief change visible. However, this source alone is insufficient for a definitive conclusion, so vegetation is not assessed.

Figure 4. Włodawa Church. View from Kościelna Street, 2022



Source: Photograph by the author.

Table 3. Analysis results of the Włodawa Church using the CC method

Character of a place	Topography	Churchyard	0	-1	Support	Archetypes of a church
		Approach area	0	+1	Order of side façades	
		Building's position	+1	+1	Form of side façades	
		Perceived height	+1	+1	Height of side façades	
		Absolute height	+1	+1	Order of main façade	
		Surroundings	-1	+1	Form of main façade	
		Relation with water	+1	+1	Height of main façade	
		Vegetation	No data	-1	Breadth of main façade	
				+1	Scale and volume	
				0	Roof	

Source: Author's own elaboration.

The St Louis Church in Włodawa (architect Paolo Antonio Fontana, 1741–1752) is a two-towered, modified basilica (Zadrozny, 1985). The church floor is level with the churchyard, indicating that the theme of support is defined by an attachment motif (-1). In evaluating the vertical tripartition of the main façade, a subtly pronounced breadth motif is observed (-1). The side façades contain vertical divisions, yet no dominant directional emphasis is apparent (0). Regarding the horizontal tripartition of the main façade, the rising motif is predominant, though slightly counterbalanced by the stocky and rather heavy-looking tops of the towers (+1). The building represents a hybrid between a basilica and a central-volume church. As a result, instead of the horizontal aisle walls typically found on the side façades of a basilica, vertically oriented chapels dominate (+1).

In terms of depth, the main façade, with its two moderately high towers, exhibits a vertical form (+1) (Figure 4). The side façades are similarly composed of vertically oriented elements (+1). The verticality of both the main and side façades is further reinforced using the giant order (+1). The overall volume of the building is compact and unified, with a strong vertical emphasis apparent across all four façades (+1). The roof, composed of multiple segments, lacks uniformity and horizontality, while the nave is crowned by an octagonal dome that competes visually with the stout tower helmets (0). In conclusion, both the dominant architectural archetypes of the Włodawa Church and the character of its setting are defined by a pronounced vertical orientation (Table 3).

4. Horizontal and vertical relations between places and churches

In the entire GDL, the elevation range of Late Baroque churches exceeded 200 metres, spanning from lowlands to highlands. While absolute elevation often influences the perception of height, this impression is also shaped by the visibility of the surrounding landscape, the sense of openness, and the overall experience of occupying an elevated position. The relative elevation, in turn, defines the church's relationship with surrounding landforms. Equally significant is the undulating nature of the terrain, which contributes to an overall impression of vertical movement across the landscape. This vertical character is most pronounced when the factors of visibility, spatial experience, and elevation interact.

From a theoretical perspective, the importance of horizontality and verticality can be understood through the corporeal nature of spatial perception. The Swiss medievalist Paul Zumthor argues that the human body serves as a fundamental measure in perceiving space, attributing meaning to it.

The contrast between a man standing upright and one stumbling in suffering, he suggests, reflects a primordial, archetypal distinction between the vertical and the horizontal – symbolising the tension between the divine and the chthonic (Zumthor, 1995). Similarly, Harries associates horizontality and verticality primarily with kinaesthetic and spatial experience (Harries, 1997). While these interpretations do not exhaust the potential meanings of these spatial principles, they underscore their often-overlooked role in shaping environmental perception.

Unlike horizontality, verticality in the landscape should not be understood purely in a graphical sense. In regions without steep cliffs or high mountains, verticality, or a vertical orientation of the landscape, manifests through the height variations and undulating forms of the terrain. It must be perceived not only visually but also kinaesthetically and spatially: the act of ascending to a higher point involves overcoming gravity, and since antiquity, vertical position has been associated with proximity to the sky (Zanzi, 2012). The verticality of mountains was emphasised in pre-Christian tradition (Eliade, 1959; Scully, 1962). Although their symbolic significance persisted in Christianity, mountains themselves were no longer considered sacred.

Figure 6. Chart representation of study results



Source: Author's own elaboration. Churches arranged according to the character of the place, from the most vertical (on the left) to the most horizontal (on the right). For locations without columns, the directionality value is 0. Place names are followed by Latin abbreviations for religious orders.

Of the elements of place character identified by Norberg-Schulz, topography is the most universal and relevant across all cases. There are geographical, architectural, and historical reasons for this. Topography forms the foundation of any landscape, typically determining its overall character, with other elements being subordinate to it. From an architectural perspective, a building is inevitably linked to, and influenced by, the land relief – both physically and in terms of the place's character, which is rooted in topography. Historically, topography is the least altered element, except for artificial landforms, which, even when present, do not fundamentally alter the dominant character of the site (e.g., the smoothed terrain of a churchyard). Moreover, topography plays a central role in architectural analysis as it can be directly or analogically compared to architectural forms. Other natural elements, such as water and vegetation, serve to complement or accentuate the landscape, enhancing its character. As such, they receive comparatively less attention in the analysis.

The relationship between the dominant characteristics of the place and the architecture of the Late Baroque churches is illustrated in the summary chart (Figure 6). It is based on the dominant terrain features of 43 case studies, with places arranged from the most 'vertical' (left) to the most 'horizontal' (right) according to the aggregated character value. This evaluation, conducted by summarising the dominant traits of each case (see Tables 2 and 3), shows that each one is unique. For instance, a church with a pronounced vertical character may be situated in a place where verticality is not particularly dominant, and vice versa. Nonetheless, the relatively large number of cases studied allows for the identification of a correlation between the architectural character of the churches – ranging from vertical to horizontal – and the corresponding character of the places. Notably, some churches that lack a strong connection to the natural landscape, as is visible in the chart, are either unfinished or only partially preserved. For example, Telšiai, despite its exceptionally vertical location, was intended to have a double-towered façade, which remains incomplete. Other similar cases include the churches of Šumskas, Krāslava, and a few others.

4.2.A thorough explanation and discussion of the results

Traditionally, churches were constructed in relatively elevated locations for both technical and symbolic reasons, as previously discussed. Consequently, cases where churches were built in predominantly horizontal landscapes are particularly significant for understanding the interplay between these two directionalities. Charting all the sites on a spectrum from 'vertical' to 'horizontal' reveals the extent to which architectural expression is influenced by the character of the location. There are two main categories of places of horizontal character: plains, and areas associated with negative landforms. The plain landscape is characteristic of the lowlands of the Central Lithuanian Plain, while another extensive plain region is Polesia, where the plain-like character extends to the churches of the Brest district. The second category of 'horizontal' places includes valleys, slopes, and similar terrains, where the defining feature is not so much the overall topography but rather the position of the site in relation to adjacent elevated landforms.

The churches of Aglona, Antalieptė, Panevėžiukas, Kalvarija, and, to some extent, Veisiejai were constructed in such low-lying areas, either within valleys or near hills. In these locations, the experience of lowland is more pronounced than in the plains, further intensified by the sense of proximity to a body of water.

In architecture, the most pronounced horizontal expression is found in transeptless basilicas, where the side façades are dominated by the walls of the aisles. The structure itself conveys an image of stability and horizontal extension (Figure 7). Among the basilicas examined in this study, 11 out of 14 were built in horizontal landscapes⁷. The fact that church architecture responds to the character of the landscape does not imply that the building's function is irrelevant, nor does the designation of a church as a basilica suggest that this choice was determined solely by function. Both interpretations represent extremes. The findings of this study suggest that, during the Late Baroque period, different architectural qualities, such as functionality, symbolism, contextuality, and others, were not mutually exclusive but rather merged into a harmonious whole. By drawing attention to what we might describe as, to some extent, a neglected characteristic of Baroque architecture – its ability to establish a relationship with the environment – other qualities remain equally indisputable.

The horizontal character of the architecture is also influenced by the breadth motif in the main façade. The façades of most Baroque churches are divided vertically into three (or occasionally five) sections. The predominance of the central section over the outer parts creates a sense of expansion, aligning with the method of archetypes, an integral element of the CC method. In this regard, among the churches built in lowland areas, the Virbalis Dominican and the Lešna Pauline Church (1730–1752) are particularly notable. Horizontality on the main façade is further accentuated when a minor order system is employed, whereby the lower part of the façade is divided into two horizontal tiers.

The minor order is characteristic of many churches built in low-lying areas. Less frequently, 'sinking' or 'split' motifs that express horizontality appear on the main façades. These are found only in a few instances, such as the church in Hrodna (as previously discussed), the Aglona Dominican Church (1768–1780), and the church in Krinčinas (1777–1781). It is also noteworthy that, throughout this study, the two-towered façade type predominates. However, in horizontal places, this type occurs one-fifth less frequently than in vertical ones, with towerless façades being more common.

Notably, the churches of Brest are characterised by low façades and modest towers, situated on and around the flat island at the confluence of the Mukhavets and Bug rivers. This distinct urban character is already evident in the 1657 panorama, which portrays a city still largely pre-Baroque (engraved by Erik Jönsson Dahlbergh), particularly when compared to engravings by Tomasz Makowski of Vilnius or Hrodna from 1600–1604, characterised by the verticality of towers.

Figure 7. Side façades of churches in places with a horizontal character



From top left: Lešna (1730–1752), Panevėžiukas (1747), Veisiejai (1762–1768), Pabiržė (1766–1772), Aglona (1768–1780), Krinčinas (1777–1781). Source: Photographs by the author, taken in 2022–2024, except for Pabiržė (circa 1920, Biržai Region Museum Sėla) and Krinčinas (2013, photograph by Gintaras Uogelė).

⁷ To this number, the Virbalis Dominican Church (built before 1778) should probably be added, though further research is required to confirm its original structure prior to the 1903 reconstruction.

Places characterized by dominant verticality are diverse. In summary, the greatest influence on the verticality of a given location is exerted by the medium level. From a phenomenological perspective, place is understood as that which exists between the human and the landscape (Casey, 1993). In this study, the character of a place is primarily defined by how the site connects with the surrounding landscape. Both the macro level, referring to the general character of the land surface, relatively uniform within the geographical area of the GDL, and the micro level, referring to the typically flat churchyard, have a lesser impact on the overall character. By contrast, the medium level, encompassing the immediate surroundings of the churchyard, more frequently determines the overall character. The most significant elements at this level are the positioning of the building in relation to landforms and the impression of height. The sense of height can be understood as a profound experience of place, shaped both by the kinaesthetic experience of ascent and by the visibility of the distant environment. The hilly or undulating nature of the terrain is also crucial, ultimately shaping the perception of vertical movement within the land relief. The principle of verticality is most pronounced when all three levels, or at least two, are engaged.

Vertical orientation manifests in various ways within architectural archetypes. The most characteristic buildings are those with two-towered façades and either a aisleless or hall structure (Figure 8). Such structures tend to have considerably more vertical side façades than basilicas. Often, the side façades are articulated with pilasters of the giant order. Survey data indicate that 10 of the 11 aisleless churches in the study sample were constructed in locations characterised by verticality. In addition to aisleless and hall churches, cruciform churches also stand out. Although transepts do not provide significant functional advantages, they substantially alter a building's appearance and character. This is exemplified by the large, massive basilicas of Rózanystok Dominican (1759–1783) and Vialikaja Bierastavica (1741–1759), both built on elevated terrain. In these cases, the transepts impart a predominantly vertical orientation to the otherwise horizontally dominant volume, thereby integrating the structures into their natural context.

Figure 8. Side façades of churches in places with a vertical character



From top left: Włodawa (1741–1752), Vialikaja Bierastavica (1741–1759), Rózanystok (1759–1783), Pasiene (circa 1761), Stakliškės (1765–1776), Kurtuvėnai (1781–1799). Source: Photographs by the author, taken in 2021–2022, except for Bierastavica (before 1939, Institute of Art of the Polish Academy of Sciences) and Kurtuvėnai (1994, photograph by Jonas Kaučikas).

The most pronounced vertical expression, however, is typically found on the main façade. Verticality is frequently expressed through vertical forms, the rising motif, and the giant order. As defined by Thiis-Evensen, the rising motif refers to the horizontal division of the façade into three or more sections (Thiis-Evensen, 1987). This arrangement creates an impression of ascent, with a high bottom tier followed by a lower tier above, and so forth. This motif is particularly evident in the Late Baroque towers of the GDL. The extent and consistency of its use correspond to the degree of verticality assigned in the summary table. Another significant indicator of vertical orientation, as revealed in this study, is the character of the order system. In cases where verticality is most strongly emphasized, the façade composition revolves around the giant order, highlighting the tall pedestals of the pilasters. At the same time, the entablature is either fragmented, leaving only intermittent sections, or omitted entirely, thereby visually linking the horizontally separated tiers. The horizontal and vertical features discussed are the most significant expressions, though the study covered a broader range of elements.

One of the key factors shaping a building's character and influencing the expression of its façades is the structure of its volume. In historiography, this choice is often tied to specific cultural influences. The basilica form is mainly linked to the Il Gesù model, while rarer central structures (e.g., Włodawa) reflect Italian or Central European influences (Kowalczyk, 1996). The hall church, on the other hand, draws from the structural model of German Gothic (Baranowski, 1983). Additionally, certain features can be traced to the Byzantine tradition in the eastern GDL (Habrus', 2011). By the 18th century, however, various influences had become increasingly interwoven. Architectural expression had grown so diverse that tracing influences consistently became a challenging task. This variety is characteristic of the Late Baroque period in both Lithuania and Central Europe (Baranowski, 2011). Based on the findings of this study, it can be suggested that the choice of church structure have also been influenced by other factors related to the specific local context. While acknowledging the impact of function and foreign traditions, this study deliberately focused on the experience of place. The findings broaden the understanding of the underlying motifs that contribute to the diversity of Late Baroque architecture, which should not necessarily be interpreted in a straightforward cause-and-effect manner. However, the presence of tangible patterns and the recognisable structuring of architectural forms suggest that the architectural expression of these churches is closely tied to the dominant characteristics of their surroundings, particularly the topography.

5. Conclusions

The study on masonry churches of the final phase of the Baroque sought to combine a qualitative approach with a sufficiently large sample size to ensure reliable results. Therefore, more important than the contextual characteristics of individual churches is the overarching trend revealed, which indicates a significant dependence on the vertical and horizontal directionality of the place character. Other corresponding features were also observed during the research process, but a more comprehensive analysis is needed to fully summarise them.

The contextual features are evident in the architecture of most, though not all, of the churches studied. These features are particularly prominent in the friary churches, possibly linked to the generally higher artistic quality of buildings associated with religious orders. However, due to the non-representative distribution of the various orders in the study sample, the main distinction emerges between friary and parish churches. These are generally less expressive, appearing somewhat less oriented toward experience and, therefore, less contextual.

The study assessed churches holistically. Through the analysis of archetypes as representative members, the phenomenological approach provided access to a layer of meaning that is otherwise difficult to grasp. Here this layer could be defined as a building's intension to integrate into the natural context. While some attempts have been made within this study to outline potential reasons or motives behind this aspiration, a more comprehensive theoretical investigation remains necessary. One potential theoretical perspective is to consider the pre-Enlightenment relationship with the environment as a 'cosmophany,' meaning that, before conceptualizing the natural environment as a landscape, humans perceived their creative acts as an extension of nature itself (Berque, 2013). This idea is especially relevant to the GDL, where a traditional worldview – arguably a continuation of the Long Middle Ages – persisted longer than in much of Western Europe. Additionally, during this period, early modern philosophy, which placed unprecedented emphasis on the study of nature, was gaining prominence. Thus, the study enables the further development of various theoretical, philosophical, and possibly religious perspectives on the importance of place in architecture.

By examining a case from a region on the periphery of the Late Baroque, this study highlights the largely unexplored contextuality of churches, offering a new perspective that challenges traditional understandings of 18th century architecture. Like other Baroque art forms, architecture is best considered in context, as its essence often seeks to connect, integrate, and merge. Since the complex language of Baroque architecture remains underexplored, employing unconventional methods and broadening the scope of study offer significant potential for deepening our understanding of this period.

6. Acknowledgements

This article presents findings from the author's doctoral research (2021–2025) at the Faculty of Architecture, Vilnius Gediminas Technical University, conducted under the guidance of Professor Almantas Liudas Samalavičius, whose invaluable support is gratefully acknowledged.

7. Authorship

The author declares that there is no conflict of interest.

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