

The Sensory Turn in Baroque Architecture: An Experience Strategy in the Counter-Reformation Period and Its Contemporary Implications

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Abstract. In this article, Baroque architecture is reimagined not as an ornamental style but as an intentional instrument of the senses constructed in pursuit of the propaganda objectives of the Counter-Reformation and absolutist regime. It argues that Baroque was an instrumental amalgamation of spatial, dramaturgical, and intermedial forms exquisitely orchestrated to provoke felt devotion and signify time-power. Exemplars, from the Baroque spectacle of Bernini's theatres in Rome to the Neo-palladian geometry of Borromini's churches, highlight in architecture a rhetoric of experience designed to support theological dogma and the opulence of the ruling monarch, and their obsolescence following the onset of Enlightenment rationalism is situated neither as a singular endpoint but as a shifting of its foundational mechanisms. This final section shows how to situate this analytic sensory turn within a historically informed debate between the contemporary moment, where the post-digital Neo-Baroque draws upon the Baroque to destabilize form, and deconstructivism's own crisis in form that acknowledges it has no longer found form as solid material elsewhere. Finally, it concludes that architecture, with its sensationalism (and through its connection with belief), remains capable of deeply-ethically charged moves as an always already politically salient way to make people believe.

Keywords: Baroque Architecture, Sensory Turn, Counter-Reformation, Spatial Narrative, Critical Legacy

1. Introduction

The initial understanding of architecture often begins with childhood drawings: squares represent houses, triangles form roofs, and rectangles are arranged for doors and Windows. This universal language of several children's images reveals the original human understanding of architecture as a "shelter" and "container of form". Yet, this initial understanding, while foundational, scarcely hints at the medium's full capacity to evoke narrative and irrational experience. When does our perception of architecture transcend these basic geometries to embrace its more affective and immersive power? This question lies at the heart of the Baroque architectural revolution. Just as Frank Gehry's Lou Ruvo Center for Brain Health symbolizes neural chaos with its distorted, turbulent forms, Baroque

architecture of the Counter-Reformation period consciously rejected Renaissance purity to become a powerful medium of sensory and emotional engagement. Far more than a mere stylistic flourish or an excess of decoration, it was a profound cultural strategy, meticulously engineered to achieve religious and political ends through multi-sensory experiences, dynamic spatial organization, and targeted emotional persuasion [1]. Thus, reexamining this tradition not only clarifies a pivotal historical moment but also unlocks rich inspirations for contemporary architectural practice, challenging us to consider how buildings can move beyond form to shape feeling and belief.

2. Historical causes: dual influences of religion and monarchical power

The Baroque style emerged in seventeenth-century Europe during the Counter-Reformation and the age of absolutist monarchy. It is characterized by its emphasis on drama, movement, and sensory impact, integrating architecture, sculpture, and painting into an immersive whole by means of curved forms, strong contrasts of light and shadow, elaborate ornamentation, and illusionistic techniques. Through its lavish and dynamic expression, it aimed to convey the emotional power of faith and the majesty of temporal authority.

The development of Baroque architecture was jointly shaped by multiple changes in the fields of religion, politics, philosophy and science. The conflict between the Reformation and the Counter-Reformation directly influenced the function and form of Baroque architecture. Protestant criticism of religious imagery and decoration led the Catholic Church, particularly through the Council of Trent (1545–1563), to affirm the value of the visual arts in religious instruction and the reinforcement of belief. Although the council itself did not issue detailed building regulations, its "spirit" —solemnity, austerity, clarity, and realism—was subsequently translated into canonical guidelines that shaped architectural practice [2]. As a result, Baroque churches thus became a material weapon of the Counter-Reformation, not only for rituals but also as a medium of inspiration and persuasion, reinforcing faith identity through immersive bodily experiences [3].

The rise of the absolute monarchy provided another crucial driving force for the development of Baroque architecture. Secular buildings such as the Palace of Versailles, through their grand scale and complex symbolic systems, demonstrated the infinite extension of the monarch's power. This political expression, along with the sacred pursuit of religious architecture, formed two aspects of Baroque culture. Its development process was closely linked to key events [4]. Yet, beyond historical analysis, one must critically confront the ambiguous legacy of such architectural propaganda. The magnificent palaces and churches of the Baroque era, while breathtaking achievements of artistic and engineering skill, functioned equally as instruments of mental control and ideological dominance. This duality mirrors concerning patterns in our own time—from nationalist memorials to corporate megastructures—where architecture continues to serve power. We must therefore question not only how buildings move us, but in whose interest they operate.

The birth of the Baroque style, with 1580 as a key turning point, profoundly reflected the social crisis and ideological transformation in Europe at that time. In Italy, religious conflicts and social unrest gave rise to a reevaluation of the rationalism of the Renaissance [5]. Artists such as Caravaggio and Carracci broke the rigid conventions of Mannerism through their use of strong chiaroscuro and realistic techniques [6]. The Jesuit mother church of Rome, Il Gesù (1580), became a model of early Baroque architecture. Its virtual space design and immersive altar layout directly responded to the Council of Trent's demand for the intensification of religious experience [7]. At this point, architecture began to integrate sculpture and painting, forming an overall sensory narrative, marking the beginning of the "rebellious" nature that emerged from the crisis of the Baroque.

Building on these stylistic devices, Baroque architecture entered its heyday in the seventeenth century, and its dissemination across Europe was closely intertwined with contemporary political upheavals. Although the Thirty Years' War (1618-1648) led to a halt in construction activities in northern Germany, it indirectly promoted a revival of styles in Catholic regions [1]. After the signing of the Treaty of Westphalia following the war, the southern part of Germany and the Bohemian region used Baroque architecture as a tool to rebuild their identities. For instance, the Wallenstein Palace in Prague [8]. In Spain, the Baroque style was combined with the Catholic colonial policy. Church altarpieces emphasized the veneration of the Eucharist through golden reliefs and dynamic curves, while colonial architecture incorporated local symbols, giving rise to a "hybrid Baroque" style [9]. France, through the Hall of Mirrors and the garden design of the Palace of Versailles, pushed the Baroque style to the peak of power symbolism, embodying the "Sun King's" ambition to control nature and order [10].

3. Core strategy: dynamic, light and shadow, and sensory control

What can resonate with people is not only the complexity of the Baroque spatial form. What continues to resonate with me is not merely the formal complexity of Baroque spaces, but their deliberate and intelligent manipulation of light and movement. Studying art history, domes served as structural counterpoints to rectangular apses and sources of illumination. But the Baroque treatment of light transcends functional or symbolic duty—it becomes a narrative and emotional medium. Light seeping from the oculus of a dome does not simply illuminate; it dramatizes, sanctifies, and guides the gaze upward, enhancing the sense of spiritual ascent. This is not accidental poetry but calculated experiential design. It is this strategic synthesis of structural logic and affective power that makes Baroque architecture a foundational reference for my own design interests in deconstructivism—a movement that similarly seeks to disrupt static form and engage the body in dynamic, perceptual flux. What continues to resonate is not merely the formal complexity of Baroque spaces, but their deliberate and intelligent manipulation of light, movement and perceptual scale. The Gallery of Mirrors at the Palace of Versailles offers a secular example corresponding to the sacred installations on the church dome: seventeen mirror niches and seventeen arched Windows correspond to each other, projecting the garden, the sky and human figures into the interior together, instantly doubling the volume of 73 meters on the mirror axis. The mirrors wipe out the end wall, the axis keeps stretching, and the visitor feels like walking into a never-ending tunnel of gold and sky. The east-west central axis of the palace transforms the scenery into a progressive sequence of perspectives, stretching the gallery visually. The sunlight is reflected by the gilded grey sculpture and the crystal chandelier. The space shaped by the light symbolizes boundless power. In religious buildings, a beam of light falling from the dome is not merely for illumination; It also transforms the necessary spatial structure into narrative emotions. Whether it is the mirror proliferation in the Palace of Versailles or the guided radiance in the dome, Baroque practice has demonstrated a meticulously calculated experiential design - a strategic synthesis of logic and emotion, which later also drove deconstructionism's subversion of static forms, allowing the body to immerse itself in dynamic perception.

The decline of the Baroque style in the 18th century revealed a fundamental shift in historical dynamics. The rationalism advocated by the Enlightenment directly challenged the religious and monarchical authority on which the Baroque relied. The criticism of excessive decoration and the archaeological discoveries of Pompeii jointly contributed to the rise of Neoclassicism [11]. At the same time, they also emphasized a return to the simplicity and restraint of the classical style [12]. In Spain, the late Baroque style persisted until the end of the 18th century, but its spirit had given way

to reflections on death and decay [13]. In Germany, Neoclassical architecture, such as the Brandenburg Gate in Berlin, completely supplanted the dynamic language of Baroque [14]. This transformation is not only an aesthetic change but also a historical inevitability brought about by the crisis of absolutism and the rise of scientific rationality.

The transformation in the fields of philosophy and science also provided an ideological foundation for Baroque architecture. Meanwhile, the rise of mysticism and affective theology promoted a re-understanding of religious experience, emphasizing spiritual elevation through sensory participation. These historical factors combined to make Baroque architecture a complex cultural expression that integrates reason and sensibility, tradition and innovation [15].

Based on the historical context, Baroque architecture developed a unique visual language and spatial strategy, with its core features prominently reflected in the distinctive handling of dynamics, light and shadow, and perception. The case of St. Peter's Basilica fully demonstrates the spatial rhetoric of Baroque architecture. The dome designed by Michelangelo not only achieved a technical breakthrough but also, through its scale and form, created an upward dynamic, becoming a symbol of spiritual elevation [16]. In engineering, the dome is a double-layer structure and uses a herringbone bricklaying method to reduce reliance on temporary support structures [17]. Light seeps in from the high dome and moves within over time, intensifying the drama and sacred atmosphere of religious ceremonies [15]. In terms of materials, the building aims for durability, using heavy and long-lasting materials such as concrete and marble to convey a sense of permanence. Bernini's designed canopy further highlights the comprehensive nature of Baroque art, integrating architecture, sculpture and light and shadow into a unified narrative experience. This design strategy aims to evoke the emotional engagement of visitors, enabling them to complete a journey of faith through physical and visual movement. Unlike the Renaissance's pursuit of stability, harmony and clear proportion, the Baroque created a dynamic and uncertain spatial experience through curvilinear forms, oval planes and complex geometric relationships.

In this regard, Francesco Borromini was the most innovative representative. His works, such as the Church of San Carlo alle Quattro Fontane (1634-1667) and the Church of Sant'Ivo alla Sapienza, embody the experimental nature of the Baroque style. The core of his design philosophy lies in complex geometry, using the intersections of various shapes like circles, triangles, and ellipses to create a sense of dynamic and fluid space [18]. This architectural innovation was paralleled by a dramatic synthesis of media in painting. Andrea Pozzo's fresco, *The Entrance of Saint Ignatius into Paradise*, creates an illusion of an open, receding vault filled with ascending figures. The painting actively deconstructs the ceiling surface, extending the architecture into an infinite celestial realm. By strategically integrating with three-dimensional stucco work and gilding, and by being calculated for a single viewpoint, the composition immerses the worshipper in a perfected illusion, blurring all boundaries between the real and the depicted.

4. Contemporary echo: from deconstructionism to digital revival

This Baroque interplay of geometry, light, and movement establishes a direct lineage to contemporary deconstructivism. Some architectural design works also adopt the same principle: challenging rigid forms, using multiple perspectives, and creating Spaces that unfold over time like emotional narratives. The Baroque fascination with complex geometry—the collision of circles, ovals, and concave-convex rhythms—prefigures the non-Euclidean explorations of digital design today. Yet, where Baroque dynamism served God and the crown, deconstructivism often serves a more critical and liberating agenda: to disrupt, to question, and to open meaning rather than fix it. This is not mere formal mimicry but a conceptual inheritance—one that balances rational structure

with expressive freedom, much as the Baroque did, but without subservience to doctrinal or imperial power.

The aesthetic principles and technological innovations of Baroque architecture still hold significant implications for contemporary architectural practice, while also facing new challenges and reflections. Baroque architecture centers on light and shadow, featuring sculptural richness and a dynamic sense of space. When modern architecture draws on the Baroque style's treatment of light and shadow, it mainly lies in the reinterpretation and integration of the core elements of the Baroque. For instance, some contemporary architects create rich light and shadow effects and spatial experiences through the reflection and transparency of glass and metal materials, demonstrating a profound understanding of light and shadow. However, modernist architecture tends to minimize decorative stimuli, emphasizing orderly geometric elements and minimalist expression, and stresses the rational use of natural light and functional lighting, in contrast to the dramatic play of light and shadow in Baroque style.

In contemporary architecture, the Neo-Baroque or Post-Digital Neo-Baroque style is gradually emerging, reflecting the instability and changes in society. This style emphasizes dynamic forms, complex geometries and sensory richness, and is closely related to the Baroque aesthetics of the 17th century [19]. For instance, through parametric design and digital manufacturing techniques, contemporary architects can create flowing curves and intricate decorations similar to those of the Baroque style, thereby reinterpreting the spirit of Baroque in a new era context.

The construction techniques of Baroque architecture, such as the method of building brick domes, still hold reference value in contemporary times. Modern research utilizes advanced technologies (such as scanning to BIM) to assess and analyze the construction techniques of historical domes, in order to better understand and inherit these traditional crafts. However, contemporary architecture is more diverse in material selection and technological application, such as the use of steel structures and glass curtain walls, which is significantly different from the Baroque period's reliance on stone and brickwork. Therefore, how to preserve and carry forward the spirit of Baroque architecture under modern technological conditions is an important challenge.

The challenge is not only technical, but also ethical and conceptual. We can—and must—reimagine Baroque structural genius (e.g., metamorphose the dome from divine icon to ventilation shaft or clerestory in underground buildings). Radically modernize the Baroque spirit: borrowing its multiplicity and sensory engagement, and abandoning its ostentatious surplus and authoritarian iconography.

In terms of the cultural strategy, the attempt to realize religious and political ambitions through senses and emotions and thrilling that in its expression, the Baroque architecture should have its application space in the present era. For example, in arts and museum buildings, if to make the visitors experience an immersive and emotional environment by designing a dynamic space layout and effects of artificial lighting, it has the appeal to be a modernized Baroque strategy. Nevertheless, due to the modern building's emphasis on function and sustainability rather than the Baroque one's emphasis on decoration and drama, when adopting the Baroque elements, it is desirable to properly balance the function, aesthetics, traditionality and innovativeness.

5. Conclusion

Baroque architecture, as an important phenomenon in the history of European culture, has a value far beyond its formal decorative and dramatic qualities. It is a profound cultural strategy that achieves multiple purposes of religion, politics and aesthetics through dynamic spaces, light and shadow treatment and material innovation. Contemporary architectural practice can still draw

inspiration from the Baroque tradition in terms of light and shadow treatment, spatial dynamics and technological innovation, but at the same time it needs to be innovated and adjusted in combination with modern technology and social needs.

In the future, with the development of digital technology and new materials, the principles and spirit of Baroque architecture are expected to be reinterpreted in new forms. For instance, through parametric design and smart materials, it is possible to create architectural spaces that are more dynamic and sensorially rich, thus continuing the Baroque legacy in a contemporary context. However, this also requires architects and researchers to have a deep understanding of the historical context and core features of the Baroque, avoiding simple formal imitation and focusing instead on the cultural logic and humanistic values behind it.

In conclusion, Baroque architecture is not merely a historical phenomenon but also a significant source that continuously influences contemporary architectural practice and cultural expression. It represents architecture's enduring capacity to operate on both functional and affective levels—to shelter, symbolize, move, and persuade. Its true legacy lies in this very multiplicity. Through in-depth research and creative transformation, we can better utilize this rich tradition to provide new directions and inspirations for the future development of architecture and culture—not by reviving its past, but by reimagining its potential for our time.

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