

Visual Semiotics in Architectural Competitions: VELUX Award Case Study

Grzegorz Schnotale

grzegorz.schnotale@pk.edu.pl |  <https://orcid.org/0000-0002-3183-8258>

Faculty of Architecture,
Cracow University of Technology

Scientific Editor: Mateusz Gyurkovich,
Cracow University of Technology

Technical Editor: Dorota Sapek,
Cracow University of Technology Press

Typesetting: Anna Pawlik,
Cracow University of Technology Press

Received: February 23, 2026

Accepted: April 30, 2026

Copyright: © 2026 Schnotale. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Data Availability Statement: All relevant data are within the paper and its Supporting Information files.

Competing interests: The authors have declared that no competing interests exist.

Citation: Schnotale, G. (2026). Visual Semiotics in Architectural Competitions: VELUX Award Case Study. *Technical Transactions*, e2026013. <https://doi.org/10.37705/TechTrans/e2026013>

Abstract

The article explores visual semiotics in architectural competitions through VELUX Award case study, analyzing signifier-signified dynamics in daylight-focused designs. It draws on Saussurean concepts to decode how presentation boards communicate conceptual depth beyond technical form. Visuals function as semiotic systems where technical and atmospheric elements evoke profound conceptual meanings in daylight-focused designs. The analysis highlights that effective signifier-signified approaches enhance intentional and multidimensional architectural communication. Visual semiotics in architectural competitions is described through analysis of 11 editions of the International VELUX Award for Students of Architecture (2004–2024).

Keywords: visual semiotics, architectural competitions, VELUX Award

1. Introduction

Creating visual representations of architectural ideas in competitions is a multifaceted challenge, shaped by the unique aspects of each architect's design process. In-depth analysis facilitates the visual presentation of design concepts and enables to deliberate influence audience perception (Abboud Armaly, 2024). A detailed examination encompasses the visual semantics of competition projects awarded by the VELUX Award from 2004 to 2024. The visual message, beyond formal aspects articulated through technical and perceptual aspects, also possess the sphere of the sign. The meaning encoded in images is explored through an analysis of the spectrum of interpretation of design idea representations, framed by the relationship between the signifier (the perceptible form, visual element) and the signified (the mental concept, idea) (De Saussure, 1959). A detailed examination of competition boards and post-competition protocols serves as a valuable source of insight into effective methods for presenting architectural projects, particularly regarding the quality and tools of communication (Davison & Freestone, 2023). The design process has a multi-threaded specificity and is conducted in terms of the individual assumptions of particular architects. Illustrations in an architectural competition constitute a graphical reflection of this decision-making process (Al-Mamoori, 2019). The selection of visualization methods is closely linked to the specificity and character of a given project, as well as the form of the decision-making process.

1.1. Image as Sign: Architectural Competition Rhetoric

Plato's philosophy was already based on the duality of being: matter and idea. The immaterial world existing beyond reality is the starting point for Plato's idealistic views (Tatarkiewicz, 1983). The term "idea" itself, derived from Greek, denotes a certain entity not directly represented, somehow immaterial. In Plato's writings, this term most often refers to the intelligible nature of things, that is, the nonphysical essences of things toward which our minds are drawn. Umberto Eco describes how architecture is able to create messages. A building could be decode through spatial, visual and cultural experiences (Eco, 1980). Eco argument that every detail of building forms a message and core function always comes with extra cultural connotations (Eco, 1986). Symbolism shifts with context, ideology, materials and textures (Mika, Yifan, 2025). Thus the visual message possesses the sphere of the sign. Peirce's triadic model of the sign, comprising the representamen (the sign itself as a phenomenon), the object (what it represents), and the interpretant (the understanding it generates) (Baldy, 2007). Mieczysław Wallis considers the meaning encoded in images while seeking a definition of the sign as: "I call a sign, or a semantic object, a physical object shaped by a certain creator in order to evoke in a certain recipient, through its properties, a specific thought about an object other than itself" (Wallis, 1983). These statements also serve as a starting point for Krzysztof Koszewski's reflections on the function of architectural images as signs (Koszewski, 2019). The relationship between the image and the object being recreated is linked to the concept of the iconic sign. According to this concept, appearance is primarily an image resulting from the perception of a given object. A basic engineering record, consisting of architectural drawings: projections, sections, and elevations, constitutes the medium of communication in the process of implementing a given work. However, in contemporary culture, architects operate within the context of the ubiquity of images. They are conveyed as a carrier of information and can create the illusion of participation in a given space. Maria Misiągiewicz writes about the image-idea relationship: "1. A drawing mediates between the idea/imagination and reality, along the path: idea-drawing-implementation. 2. The drawn design

is the primary form of perceptual concretization. 3. The design record should form the basis for decisions regarding the appropriateness of implementation” (Misiągiewicz, 2003).

A visual representation of an idea provides the basis for implementation decisions, thus the type of architectural representation directly impacts the actual architectural space being shaped. This is particularly important in visual representations created in architectural competitions. Contemporary architects are driven by numerous motivations to participate in architectural competitions. It is also a very important element of development for students and an exercise in visual imaging.

2. Methodology

For this study, eleven editions of the VELUX Award competition were analyzed. The competition takes place every two years and focuses on solutions related to lighting in architecture. The International VELUX Award serves as an exemplary case study for visual semiotics because it centers on light as a universal signifier, shifting the focus from technical construction to narrative and metaphysical meaning. It functions as a perfect framework for analyzing the rhetorical power and persuasive strategies of contemporary architectural imagery. The International VELUX Award was chosen as a case study because this competition provides a valuable collection of data on visual communication in architecture. The competition has clear and transparent rules recognized by numerous architectural organizations, has been held for many years, and attracts numerous participants from around the world. The competition jury also always includes competent experts. The data collected from the analyzed competitions included: the competition’s conceptual program, the competition’s formal requirements, the competition winner, winning submission visuals, project descriptions, post-competition reports, and jury opinions. Relationship analysis between signifiers and signifieds included the form, composition, and visual semantic of the winning competition boards. As a conceptual competition, the VELUX Award gives a wide range of possibilities for interpretation of the competition submission (Shamseddini, 2023). The thematic scope allows for a multitude of interpretation possibilities. The main theme is the broadly understood role of natural light in architecture. The task is to analyze possible solutions enabling access to daylight in the future at any scale of architectural or urban development. Due to the limited formal requirements and the multitude of interpretational possibilities of the competition theme, the analysis of competition submissions is an interesting research area for demonstrating the spatial imagination of architecture students from around the world. The choice of the International VELUX Award as the primary case study is dictated primarily by the fact that the IVA operates on a material that is exceptionally appealing to semiotics: light. Because light is inherently immaterial and abstract, its representation on the competition boards requires designers to develop a sophisticated system of signs and visual metaphors, making this competition an excellent laboratory for examining the rhetoric of imagery. It allows to understand the deeper, universal mechanisms of visual communication that govern contemporary architectural competitions in general, serving as a lens that focuses on the most important trends in today’s visual representation of architecture. It is an extremely difficult task to capture the attention of the competition jury from among the numerous submitted works. After operationalizing the research problem, detailed research was conducted using a comparative method, and the observed regularities were captured in average statistics, illustrating the research objectives. Selected examples of competition entries form the basis for systematizing and describing the relationship between the architectural competition objectives and the

formal methods of their presentation. The competition jury's interpretations and the descriptions of the entries provide an opportunity for a semantic comparison of the ideas contained in the architectural images.

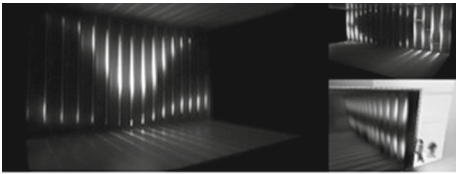
2.1. Research framework for visual semiotics in architecture

In visual semiotics, the distinction between signifier and signified, pioneered by Ferdinand de Saussure, proves essential for decoding architectural representations in competitions (De Saussure, 1959), where visual forms (signifiers) evoke conceptual meanings (signifieds) (Moriarty, 2004). In architectural contests, boards and renderings serve as signifiers: their lines, masses, and textures materialize abstract ideas like sustainability or urban harmony as signified concepts (Chandler, 2022). Renders, diagrams, and physical models are pivotal on architectural boards for conveying design intent, where visual semiotics demands multi-layered strategies (Gandelsonas, 1999). Photorealistic renders mostly dominate boards, capturing daylight's dynamic qualities like shadow play, spectral shifts, and temporal immersion, evoking emotional resonance and contextual authenticity. They transform abstract light concepts into perceptual reality, essential for jury empathy in VELUX's social and experimental ethos. Analytical diagrams (sections, light paths, other studies) provide denotative clarity, mapping solar trajectories, reflection systems, and luminance distribution. On boards, they underpin renders with technical rigor. The semiotics of light, materiality, and spatial representation forms a critical nexus in daylight-centric architectural competition of VELUX Award, where light transcends its physical properties to function as a multifaceted sign. In Saussurean terms, light acts as a signifier through its perceptible manifestations, diffraction patterns, luminous gradients, or refracted spectra captured in renders (Schielke, 2019). Evoking signified concepts such as transcendence, social empathy, or ecological resilience, as evolved across VELUX editions.

3. Visual Semiotics in Velux Award Submissions

Launched in 2004 as a biennial contest by VELUX Group in collaboration with International Union of Architects (UIA) and acknowledged by many educational organizations: European Association for Architectural Education (EAAE), Association of Collegiate Schools of Architecture (ACSA), and Architectural Research Centres Consortium (ARCC). The International VELUX Award has grown into architecture's premier student platform for daylight innovation, amassing over 6,500 submissions from 800 schools across 130 countries by 2024. Its "Light of Tomorrow" motto underscores experimental freedom, evolving from poetic sunlight explorations to addressing global challenges like sustainability and social equity, influencing contemporary practice through visionary pedagogy and industry-academia bridges (Hawkes, 2019). The International VELUX Award jury consists of a world-class panel of visionary architects and industry leaders who evaluate how students from across the globe interpret the "Light of Tomorrow". These experts focus on finding innovative, sustainable, and poetic ways to use daylight as a fundamental source of health and well-being in our built environment. Rather than just looking for technical proficiency, the jury rewards bold, experimental ideas that challenge conventional architectural thinking and offer creative solutions and interpretation of semantic concepts (Table 1).

Table 1. Key semantic concepts of light in architecture VELUX Award (2004–2024)

Semantic concept	Description	An example of a visual reference as a fragment of a competition board (source: https://www.daylightandarchitecture.com/segment/previous-winners/ , access: 11.04.2026)
Kinetics	Light is depicted in motion and blur to represent the dynamic relationship between time and space.	 “Light, revitalisation” Students: Du Dikang, Li le, Zhou Tujing, Ma Yao, Teacher: Zhang Xin, Zhou Ron
Metamorphosis	A complete structural or atmospheric change. Light is changing the dark, unfriendly space.	 „Bright roots” Students: Alejandro Satt, Teacher: Javier Del Rio
Rhythm	The repetitive placement of light openings to create a visual sequence. This is often used in corridors or colonnades.	 “Light as a tool to break the structure”, Students: Anna Zagorec, Maciej Kozłowski, Teacher: Jolanta Sroczyńska
Diffusion	Scattering of light rays in many directions. Softens shadows and reduces glare, creating a more even and uniform distribution of illumination.	 “Silo of the ambient light”, Students: Anniina Rautakoski, Teacher: Janne Järvinen
Tactility	Light is visualized as a soft, fibrous texture that encourages a haptic (touch-based) rather than just visual response.	 “24-Hour Daylight” Students: Adrian Paocarima Herrera, Teacher: Jean Wiid
Contrast	Bright, clean light is placed against dark, weathered textures to signify urban renewal.	 “Redistribution of light” Students: Kwang Hoon Lee, Hyuk Sung Kwon, Yu Min Park, Teacher: Se Jin Kim
Refraction	Light passes through liquid or ice, using visual distortion to signify the fragility of natural resources.	 “Under the Three Gorges Project” Students: Yawen Qiao, Teacher: Jun Wang

The evolution of the International VELUX Award reflects the diverse roles of architectural solutions, from purely aesthetic applications to an important tool in responding to global crises. During the initial phase, spanning 2004–2008, the paradigm of Poetic Materiality dominated, deeply rooted in phenomenology. Daylight was treated as an “immaterial building material” with the power to refine space and grant it a metaphysical dimension. Winning projects from this era focused on the spiritual experience of the individual, exploring how sunbeams could define room boundaries without physical walls or breathe life into dark, routine urban spaces like subway systems. Light was understood mainly as a medium that, through the manipulation of contrast and ephemerality, aimed to awaken a sense of wonder and unity with nature in the human observer.

In the subsequent period between 2010 and 2014, there was a distinct turn toward urban revitalization and social value. The narrative shifted from the metaphysical to sociological and historical ground. Daylight began to be perceived as a tool for “healing” the urban fabric, improving the quality of life in densely populated metropolises, and protecting cultural identity. Works from this time often addressed specific problems of local communities, or restoring the memory of forgotten locations. Students began to analyze how it can integrate neighbors, improve public health, and redefine neglected urban areas.

The most recent decade, leading up to the 2024 edition, marks the era of Environmental and Sensory Investigation. Today, designing with light has become a form of ecological activism and a response to climate challenges. Modern projects look beyond human needs to consider the well-being of other species, exemplified by filtering light spectra to protect biodiversity and seek innovative methods for resource harvesting. Simultaneously, an inclusive movement has developed where light is studied as a phenomenon felt not only through sight but also through touch and heat, opening architecture to the visually impaired. In this vision daylight is no longer just a “beautiful phenomenon” but an existential resource that must be equitably distributed and protected in the face of ongoing planetary degradation.

3.1. Key Signifier and Primary Signified

In 2016, VELUX decided to fundamentally reorganize the competition structure, moving away from a single overall grand prize to two equal categories, intended to allow for a more equitable and precise evaluation of projects of a very different nature. The first category, Daylight in Buildings, focuses on the practical application of natural light in architecture and specific methods for introducing it into interiors, while the second category, Daylight Investigations, is dedicated to theoretical and experimental projects that explore the physical properties of light, innovative material technologies, and advanced optical aspects. The clear division introduced in 2016 allowed the jury to better appreciate both the engineering precision in building design and the bold discovery in scientific research into the nature of light (Table 2).

Already in the inaugural edition of the competition in 2004, 258 teams from 27 countries participated. After the first edition in 2004 jury praised the students for their exceptional imagination, creativity, and impressive presentation skills. After the evaluation, the panelists expressed optimism regarding the future of architecture. Consequently, the semantic scope of meaning in architectural images held significant importance in assessing the competition entries. The ability to anticipate the spectrum of interpretations for an image demonstrates creativity and proficiency in foreseeing meanings within visual representations. Claes Heske Ekernäs of the Oslo School of Architecture and Design in Norway took first prize for his project “Light as Matter,” which the jury described as a delicate method showcasing lightness and joy. His concept, a museum dedicated to the renowned Korean artist Nam June Paik,

aims to blend art, architecture, and humanity seamlessly. “I have exploited the possibilities of making light and art work together. Physical walls have been replaced by immaterial walls of light, working as transmitters instead of borders, dividing the different rooms”, said Claes Heske Ekernäs about semantic of his project (Ekernäs, 2004).

Table 2. The evolution of the relationship between physical form (Signifier) and idea (Signified) in International VELUX Award-winning projects (2004–2024) (own elaboration)

Year	Winning Case Study	Key Signifier (Physical Form/Structure)	Primary Signified (Core Meaning/Concept)
2004	Light as Matter	Immaterial „light walls” and vertical streaks cutting dark voids.	Architecture as a metaphysical experience, light as a building material.
2006	A Museum of Photography	Precision apertures and „light traps” functioning as a camera lens.	Architecture as an optical instrument, light as the narrator of time.
2008	Embodied Ephemerality	Reflective mirror systems channeling light into subterranean subway spaces.	Breaking urban routine, the spiritualization of mundane transit.
2010	Constellation of Light	A modular „light-collecting” skin with perforated geometric patterns.	The democratization of daylight, light as a social connector in dense cities.
2012	Resonance, Memory	Hand-crafted physical models using optical fibers to diffuse light.	Sensorial architecture, the bridge between artificial and natural light.
2014	Light, Revitalization	Strategic light interventions in traditional Beijing hutongs.	Healing urban conditions, light as a tool for cultural heritage preservation.
2016	Redistribution of Light (Buildings) / Light for the Blind (Inv.)	(B) Prism-like reflectors. (I) Tactile light to heat conversion surfaces.	(B) Social equity in light access. (I) Sensory translation, light as a haptic experience.
2018	Light Forms Juggler (Buildings) / Road to Light (Inv.)	(B) Kinetic light-bending shapes. (I) Illuminated topographical paths.	(B) Playfulness of light. (I) Human safety and energy-neutral infrastructure.
2020	Solar Desalination Skylight (Buildings) / The Theatre of Light (Inv.)	(B) Salt-water filled ceiling diffusers. (I) Artificial light pollution.	(B) Resource synergy (light + water). (I) Problem of not experiencing the dark night sky.
2022	TIP: Time Interpreted Panoply (Buildings) / FLight (Inv.)	(B) Multi-layered glass „temporal” skins. (I) Device for widespread application.	(B) Sustainability, natural light, materiality (I) Safety and security.
2024	The Light Filter (Buildings) / Solar Sinter (Inv.)	(B) Spectral-filtered glass. (I) Fresnel lens-sintered ceramic adobe.	(B) Biodiversity (protecting fireflies). (I) Vernacular resilience, transforming light into structural heat.

The 2006 International VELUX Award’s top entry was “A Museum of Photography” by Danish student Louise Grønlund. This project delved into daylight’s effects through a pavilion that heightened awareness of light’s subtleties from the sky, sun, and reflections. Her work emphasizes how daylight makes individuals more aware of the spaces they inhabit by showcasing various nuances, such as the differences between direct sunlight, light from the sky, and reflected light. This is exemplified in her “Poetic Daylight” pavilion in Copenhagen, which was designed to make people conscious of how different light conditions affect their experience of a space. Beyond aesthetics, Grønlund views daylight as a fundamental component of the green transition and sustainable building. The award acted for her as a catalyst, transforming a student project into a lifelong academic and professional mission to integrate the poetic and sustainable qualities of light into the built environment. She encourages current students to remain curious about where such opportunities can lead (Grønlund, 2022).

The main prize in the 2008 edition of the International VELUX Award was won by the project entitled “Embodied Ephemerality” by Reilly O’Neil Hogan from the USA. The presentation board showcased an experimental approach to architecture, blending precise technical drawings and atmospheric visualizations, with the central focus on an innovative system for projecting daylight into deep underground structures. The author proposed a sophisticated technical solution using mirrors and reflectors that capture sunlight at the surface and channel it downward, transforming dark, mundane circulation spaces into unique, atmospheric environments. The jury praised the project’s striking clarity, highlighting the designer’s talent for manipulating light at

grand scales while maintaining professional graphic presentation quality. The project's semantics extended far beyond pure engineering, rooted in profound symbolic and psychological layers. Its core idea challenged urban routine, introducing daylight where it naturally doesn't exist. The design treated light not as an afterthought but as a powerful, ephemeral building material that animates architecture and imbues it with transcendent meaning. Its universal appeal underscored light and space's impact on everyday human experiences, regardless of time, place, or beliefs (Hogan, 2008).

In the phase 2010–2012, a phenomenological approach dominated, with perforated shells or optical fibers serving as the physical form. Their primary (signifying) meaning was the democratization of light and the sensory connection between the artificial and natural worlds. During this period, light was primarily perceived as a “metaphysical instrument” and a means of understanding form and time (Fig. 1).

In a 2014 project on Beijing's hutongs, light was used as a tool to bring a positive change in urban conditions and protect cultural heritage (Fig. 2).

A turning point came in 2016, when the competition was divided into two categories: “Light in Buildings” and “Daylight Investigations.” Since then, the signifier-signified relationship also changed. Proposed solutions increasingly encompassed many aspects beyond the physical form of architecture (Fig. 3). For example, touch surfaces for the blind and prismatic reflectors emerged, emphasizing the importance of social equality in access to light and sensory inclusivity.

2018 brought designs in which kinetic forms and luminous paths (signifiers) signified human safety and energy neutrality of infrastructure, which aligns with the demand for architects to answer questions posed by society (Fig. 4).

In recent years (2020–2024), it can be observed a shift in the signified toward environmental safety, nature and biodiversity. Projects such as solar-desalination skylights (2020) (Fig. 5), specialized constructions and light filters (2024) (Fig. 6) demonstrate that hybrid technological systems are becoming physical forms, with their overarching importance being the synergy of resources, the protection of biodiversity, and the fight against climate change.

Daylight in these visions is no longer only an atmospheric element, but a witness to environmental change and a foundation for humanity's survival. This evolution shows that the slogan “Light of Tomorrow” is no longer just an aesthetic of the future, but has become a call for ethical responsibility for the planet and the coexistence of species.

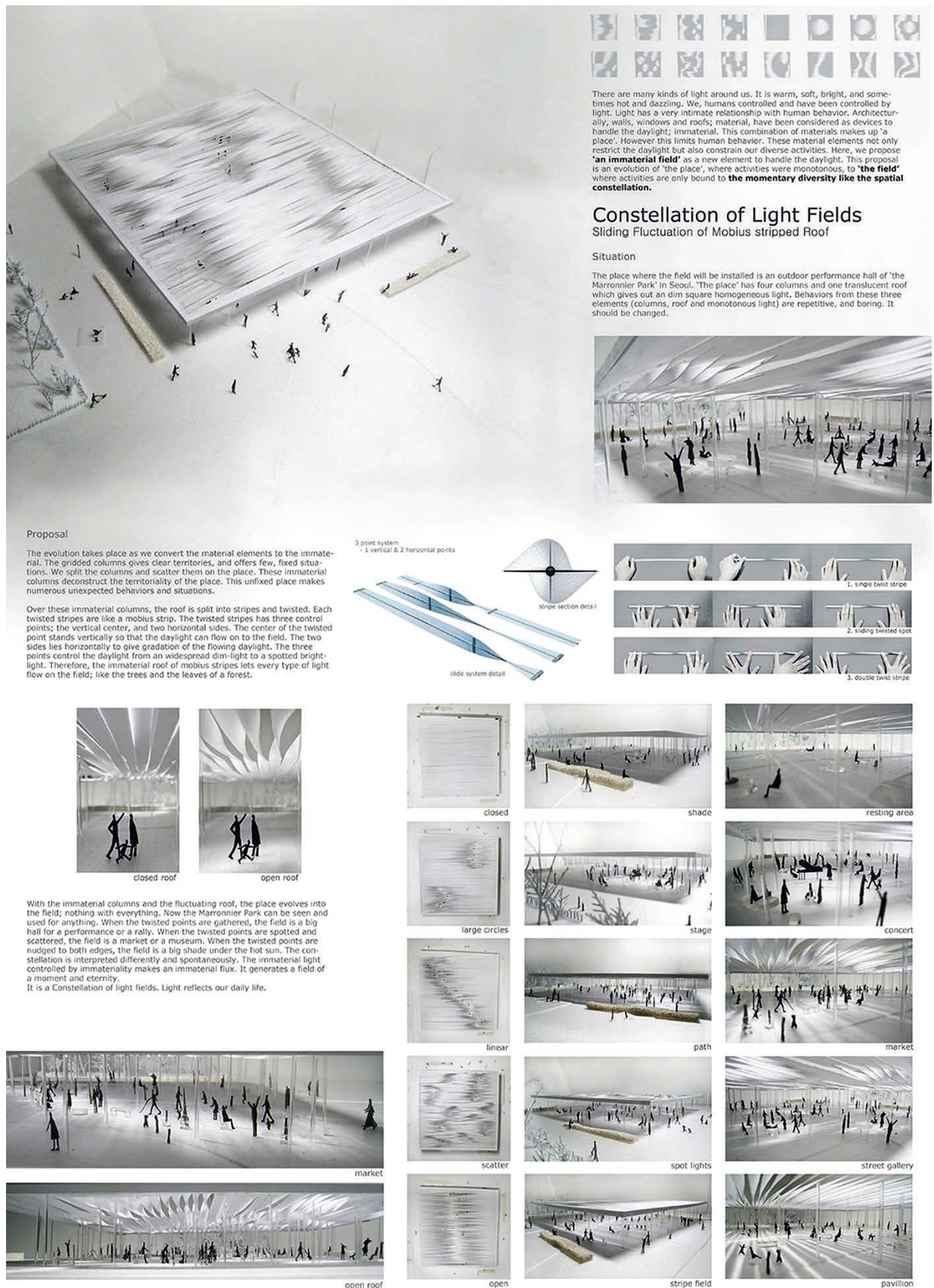


Fig. 1. "Constellation of Light Field", 1st prize VELUX Award 2010, students: Young-Gook Park, Kim Dea Hyun, Choi Jin Kyu, Kim Won, teacher: Jolanta Sroczyńska (source: <https://www.daylightandarchitecture.com/project/2010-constellation-of-light-field/>, access: 11.04.2026)

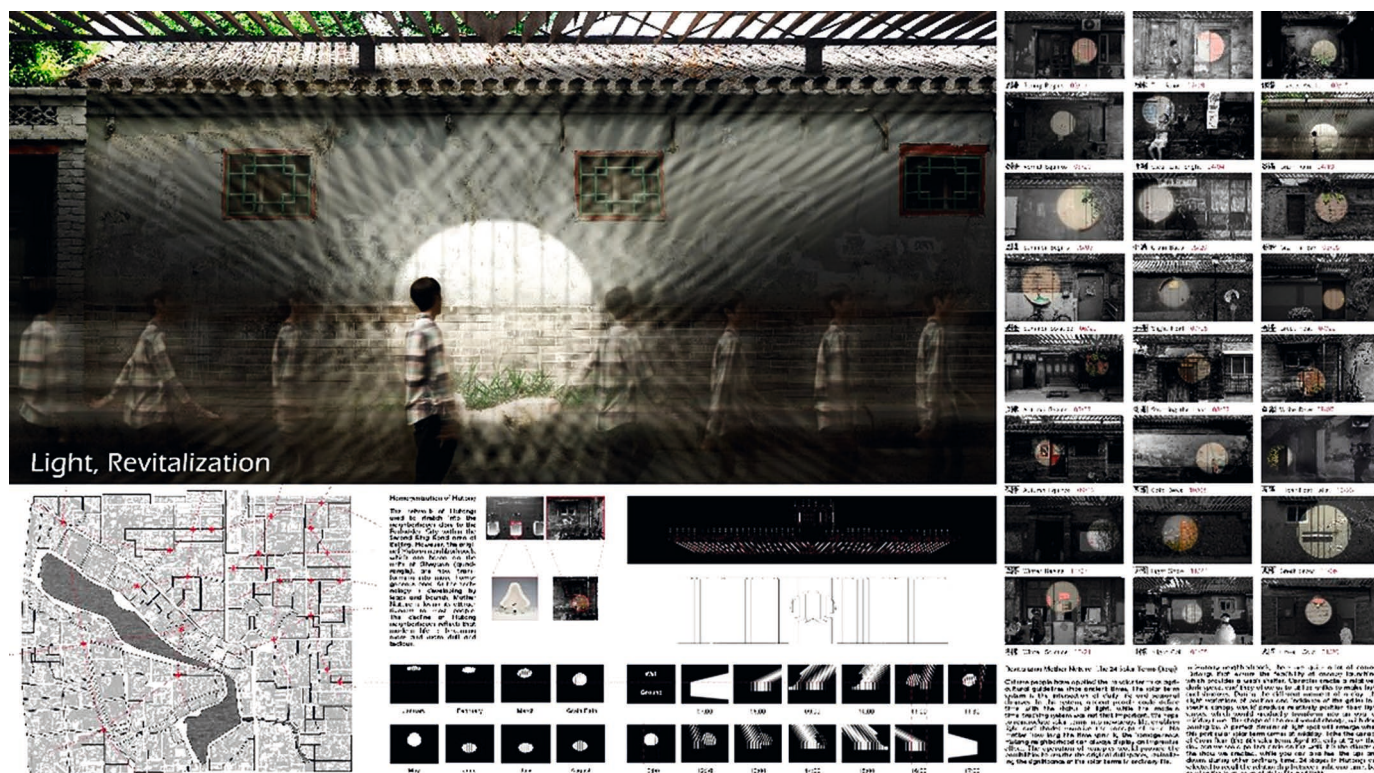
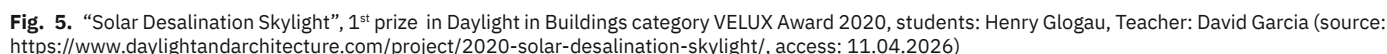
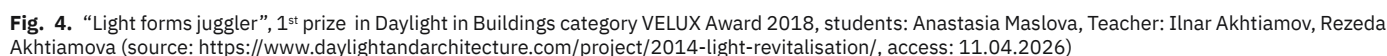


Fig. 2. "Light, Revitalization", 1st prize VELUX Award 2014, students: Du Dikang, Li le, Zhou Tujing, Ma Yao, Teacher: Zhang Xin, Zhou Ron (source: <https://www.daylightandarchitecture.com/project/2014-light-revitalisation/>, access: 11.04.2026)



Fig. 3. "Redistribution of light", 1st prize in Daylight in Buildings category VELUX Award 2016, students: Kwang Hoon Lee, Hyuk Sung Kwon, Yu Min Park, Teacher: Se Jin Kim (source: <https://www.daylightandarchitecture.com/project/2014-light-revitalisation/>, access: 11.04.2026)



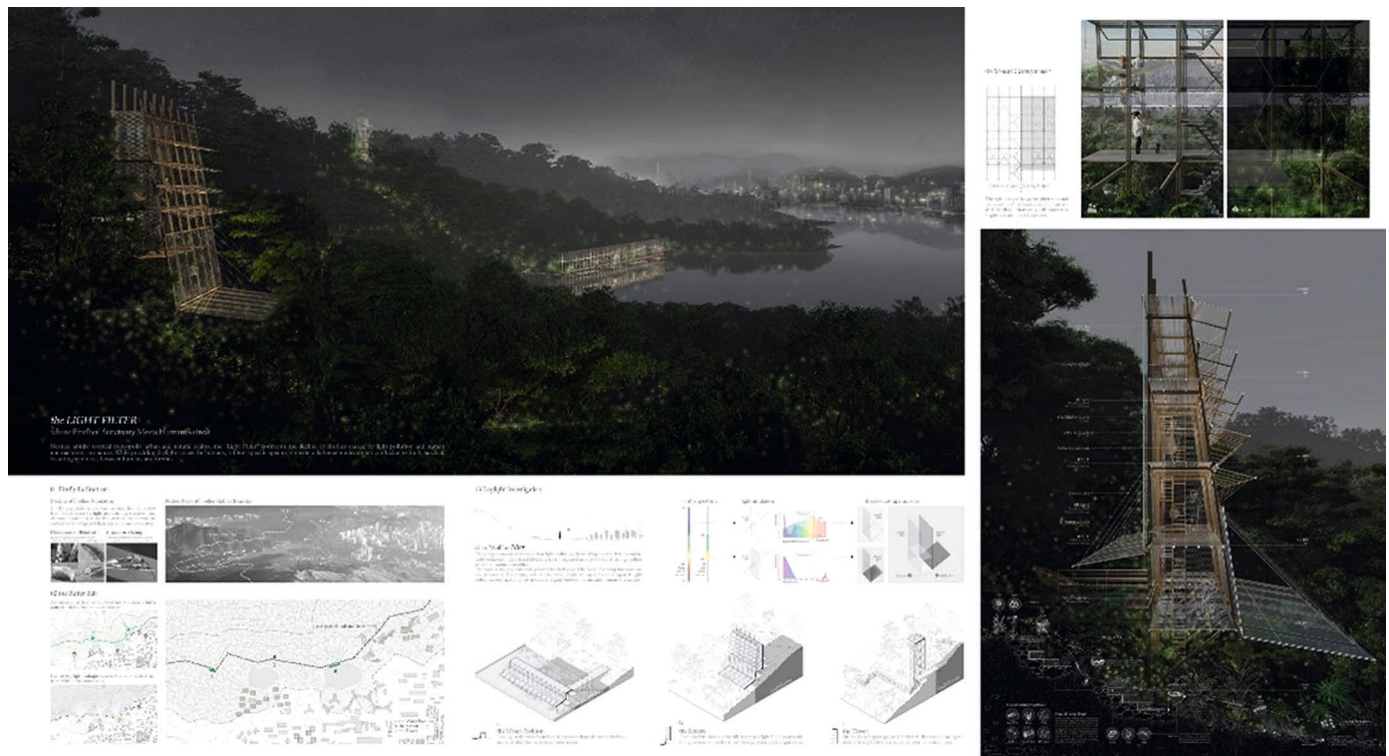


Fig. 6. “The light filter”, 1st prize in Daylight in Buildings category VELUX Award 2024, students: Wan Zilin, Poon Gin Yong, Zang Jiayou, Teacher: Li Xiaodong (source: <https://www.daylightandarchitecture.com/project/2024-the-light-filter/>, access: 11.04.2026)

4. Conclusion

The visual semiotics of the VELUX Award competition boards has multi-threaded research possibilities. This analysis implicitly points to wider research contributions. For architectural education, it underscores visual semiotics as a pedagogical tool for teaching abstract conceptualization. An examination of the key juxtapositions of Key Signifier (Physical Form/Structure) and Primary Signified (Core Meaning/Concept) (Table 3) relationships in the context of projects related to the role of light in architecture demonstrates the extraordinary possibilities of creating abstract meaning for architectural images. In the early years of the award (2004–2008), the “Key Signifiers” were primarily tectonic elements, walls, slits, and mirror systems, where light was visually manipulated through solidification and translocation. A prime example is the 2004 winner, “Light as Matter,” which rendered light with sharp, structural edges, effectively treating it as a physical element. During this period, the “Primary Signified” remained deeply metaphysical, viewing light as a poetic substance meant to elevate the human spirit and transform mundane reality into a spiritual experience, as seen in the 2008 project “*Embodied Ephemerality*”, where sunlight channeled into the subway aimed to grant a divine dimension to daily commutes. As the competition entered its second decade (2010–2018), the focus transitioned toward social agency and urban utility. The “Key Signifiers” evolved into active technological systems, such as modular skins, fiber optics, and prisms, shifting the “Visual Semantics” from static projection to diffusion and kinetics. In the 2010 project “Constellation of Light,” light was no longer a singular beam but a scattered, modular system representing the democratization of solar access in dense forms. This era redefined the “Primary Signified” by placing the community at the center, for instance, the 2014 project “Light, Revitalization” used strategic light inserts to

the fabric of historic Beijing hutongs, restoring a sense of dignity and seasonal connection to the residents.

The International VELUX Award for Students of Architecture prioritizes projects that go beyond basic technical solutions, treating daylight as a core “material” capable of transforming buildings and enhancing human well-being. Central to the competition is light’s role as a metaphysical tool and expressive medium, enabling designers to delve into deep connections between spatial form and temporal dynamics. A key aspect of the award emphasizes entries addressing global issues and societal needs through light, rewarding strong social awareness and innovations. This extends to planetary stewardship, promoting coexistence with nature and using human creativity, empathy, and care to nowadays challenges. The competition offers unparalleled liberty for bold ideas, free from real-world limits like costs or timelines, fostering exploration of daylight’s phenomenological essence, its ambient qualities and capacity for immersive, sensory spaces. Top submissions blend this perceptual depth with precise technical insight and clear presentation, sparking a worldwide dialogue on light that bridges diverse perspectives. The award promotes hope and positivity, viewing light as a symbol of well-being and resilience in the face of global threats, encouraging students to embody transformation and bring youthful optimism and innovative and brilliant ideas to the future of architecture.

References

- Abboud Armaly, O. (2024). Visualizing voices: Exploring the use of architectural visualization to present complex qualitative findings. *The Qualitative Report*, 29(3), 671–686.
- Al-Mamoori, H. (2019). The Role Of Competitions In Architectural Design And Creativity. *Advancements in Civil Engineering and Architecture*, 2.
- Baldy, A. (2007). Przyczynek do Ch. S. Peirce’a koncepcji znaku. *Studia Philosophiae Christianae*, 43(2), 119–131.
- Chandler, D. (2022). *Semiotics: the basics*. Routledge.
- Davison, G., & Freestone, R. (2023). Architectural design competitions: the effects of competition format on design processes and outcomes. *The Journal of Architecture*, 28(5), 825–846.
- De Saussure, F. (1959). *Course in general linguistics*. New York: Philosophical Library.
- Eco, U. (1980). Function and Sign: The Semiotics of Architecture. In G. Broadbent, R. Bunt, C. Jencks (Eds.), *Signs, Symbols, and Architecture*. Chichester: Wiley, 1–16.
- Eco, U. (1986). Function and Sign: The Semiotics of Architecture. In N. Leach (Ed.), *Rethinking Architecture: A Reader in Cultural Theory*. London: Routledge, 51–58.
- Ekernäs C.H. (2004). International VELUX Award 2004 for Students of Architecture: Winners Announced in Paris Today. Retrieved from: <https://press.velux.com/international-velux-award-2004-for-students-of-architecturewinners-announced-in-paris-today/> (access: 1.02.2026).
- Gandelsonas, M. (1999). *X-urbanism: Architecture and the American City*. New York: Princeton architectural press.
- Grønlund, L. (2022). The Appearances of Daylight—an educational method for studying daylight. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1099, No. 1, p. 012021). Copenhagen: IOP Publishing.
- Hawkes, D. (2019). *The environmental imagination: technics and poetics of the architectural environment*. Taylor & Francis.
- Hogan, R.O. (2008). International VELUX Award 2008 – Winners Announced Today. <https://press.velux.com/international-velux-award-2008-winners-announced-today/> (access: 1.02.2026).

- Koszewski K. (2019). *Obrazy Architektury*, Warszawa: Oficyna Wydawnicza Politechniki Warszawskiej.
- Misiągiewicz M. (2003). *O prezentacji idei architektonicznej*. Kraków: Wydawnictwo Politechniki Krakowskiej.
- Mika, P., Yifan, J. (2025). Symbolism in contemporary architecture, with facades made of precast concrete elements. *Technical Transactions*, e2025012. <https://doi.org/10.37705/TechTrans/e2025012>
- Moriarty, S. (2004). Visual semiotics theory. *Handbook of visual communication*. Routledge, 249-264.
- Schielke, T. (2019). The language of lighting: applying semiotics in the evaluation of lighting design. *Leukos*, 15(2-3), 227-248.
- Shamseddini, A. (2023). *The International VELUX Award 2022 for Students of Architecture*. Doctoral dissertation, Politecnico di Torino.
- Tatarkiewicz W. (1983). *Historia filozofii*, t. 1. Warszawa: Państwowe Wydawnictwo Naukowe.
- Wallis, M. (1983). *Sztuki i znaki: pisma semiotyczne*, Warszawa: Państwowy Instytut Wydawniczy, 7.