

SEMIOTICS OF SIGNS IN CONTEMPORARY GLASS FACADES APPLICATION OF APPLIED LINGUISTICS

Alina LIPOWICZ-BUDZYŃSKA

University of Technology and Life Sciences in Bydgoszcz, Faculty of Civil, Architecture and Environmental Engineering, Department of Architecture and Town Planning; a.lipowicz-budzynska@pbs.edu.pl,
ORCID: 0000-0002-5428-0082

Purpose: The paper investigates the semiotic dimension of contemporary glass facades and defines their visual language through the perspective of applied linguistics. It aims to identify and classify the main graphic and linguistic elements — lettering graphics—used in glass architecture, and to analyze their communicative, cultural, and symbolic functions within real social and cultural environments.

Design/methodology/approach: The study applies a qualitative, interdisciplinary approach combining semiotics and applied linguistics. Case studies include public, educational, and cultural buildings featuring printed or coated glass facades. The research uses comparative semiotic analysis and interpretative visual analysis to examine how typographic and composition of construct spatial narratives and visual metaphors.

Findings: The results reveal that glass facades act as complex communicative systems integrating language, image, and material. lettering graphics - dominant visual elements—direct perception and convey meaning beyond aesthetic or functional purposes. The visual language of architecture operates analogously to verbal language through rhythm, metaphor, and structure, creating spatial discourse and identity.

Research limitations/implications: The research is limited to selected case studies in Europe and North America. Future studies should include diverse typologies and quantitative perception analysis to better understand user interpretation and cognitive response to visual communication in architecture.

Practical implications: The findings support architects and designers in integrating semiotic and linguistic principles into façade design. Understanding the communicative role of visual elements enhances clarity, identity, and narrative coherence in public architecture.

Social implications: The research demonstrates how glass facades contribute to social communication, cultural identity, and educational value. By embedding symbolic and linguistic signs, buildings can promote inclusivity and intercultural dialogue in the urban landscape.

Originality/value: The paper introduces a novel interdisciplinary framework applying applied linguistics to architectural semiotics. It expands the concept of language to the visual-spatial domain, offering a new perspective on architecture as a real communicative and cultural medium.

Keywords: glass façade semiotics; applied linguistics; visual language; architectural communication; cultural identity.

Category of the paper: Research paper.

1. Introduction

Contemporary architecture constitutes a complex system of visual communication (Barthes, 1977) in which meanings are constructed through spatial forms, materials, light, and image. Glass façades—owing to their transmissive and reflective properties—have evolved from structural components into communicative media and instruments for shaping the visual identity of places and institutions. In the context of rapid technological and cultural transformations, architecture begins to function as a language with its own grammar of forms, symbols, and meanings that the viewer can read and interpret.

This phenomenon becomes particularly significant in public spaces, where façades not only influence users through their function and form but also communicate—employing visual codes (Lipowicz-Budzyńska, 2021), textual elements, colours, and symbols embedded in their surfaces. Contemporary architectural projects increasingly use glass surfaces as visual interfaces that merge aesthetic, social, and technological messages. Graphics, text, and symbols applied to glass acquire the status of signs that direct the viewer's attention, construct spatial narratives, and shape perceptual experience (Wright, 2017).

This article seeks to define and describe the visual language of glass façades from the perspective of applied linguistics and semiotics. A linguistic approach enables the façade to be treated as a cultural text—a communicative structure in which signs, codes and organisational rules shape the message. Applied linguistics, which examines linguistic mechanisms in practical social contexts, provides a basis for interpreting contemporary architecture as a form of visual discourse. In this perspective, architecture not only reflects cultural processes but actively participates in them, becoming an integral component of public communication.

2. Methods

The aim of the study is to identify and analyse the elements that constitute the visual language of contemporary glass façades, with particular emphasis on their communicative and cultural functions. The objectives of the research are to:

- categorise letter-based graphics based on semiotic and linguistic analysis,
- develop their classification according to form and modes of visual impact,
- determine their role in shaping the visual language of architecture and in the process of spatial perception,
- demonstrate the relationships between visual signs and the social, educational, and cultural contexts in which they operate.

The research adopts a qualitative approach based on case-study methodology and semiotic analysis. A triangulation of methods was applied, including:

- visual analysis (structure, composition, and relationships between image and architecture),
- content and meaning analysis (interpreting the role of signs within social and cultural contexts),
- comparative analysis (identifying shared communicative strategies across different objects).

The literature on architectural semiotics and visual language reveals strong connections between sign theory, spatial communication, and the cognitive processes involved in image perception. The analysis is grounded in classical concepts of visual semiotics developed by U. Eco (Eco, 1976, 1986), R. Barthes (Barthes, 1977) and M. Krampen (Krampen, 1976), who describe architecture as a system of meanings functioning analogously to natural language, based on relationships between signs, form, and cultural context. These authors emphasise that reading space requires interpretative competence, and that architecture may be approached as a cultural text.

A significant contribution to understanding how meaning is generated in space is offered by cognitive linguistics, particularly the theory of conceptual metaphor developed by G. Lakoff and M. Johnson (Lakoff, Johnson, 1980) and further elaborated by M. Johnson (Johnson, 1987). Their work demonstrates that metaphor is not merely a rhetorical device but a fundamental mechanism for organising experience and thought, which directly informs the interpretation of architectural forms and typographic structures in visual space.

In the field of architectural communication, important perspectives are provided by the work of C. Jencks (Jencks, 1986; Jencks, Kropf, 1997), who examines the relationship between architectural form, symbolic systems, and visual narrative, as well as by studies conducted by M. Wigginton (Wigginton, 1996) and S. Laube (Laube, 2016), which focus on the specificity of glass as a medium of visual communication in contemporary architecture. These authors highlight that the transparency, reflectivity, and layered nature of glass enable the creation of complex visual messages based on the interplay of text, image, and spatial structure.

The findings will make it possible to determine how the visual elements of contemporary building façades contribute to the formation of spatial narratives, support processes of spatial identification, and influence the perception of architecture from social and cultural perspectives.

The research material comprises ten buildings in which façade graphics were executed using various graphic techniques on glass. In all cases, the dominant motif is letter-based graphic composition.

The scope of the study includes an analysis of selected examples of contemporary architecture in which façade graphics function as integral elements of visual and cultural communication. The analysed objects differ in purpose and geographical location, and include: Veenman Printer, Ede, the Netherlands; Metropole, Copenhagen, Denmark; POLIN Museum

of the History of Polish Jews, Warsaw, Poland; University Library in Cottbus, Germany; Parkland Hospital, Dallas, United States; Teacher's Union Conference Center, Oslo, Norway; Inholland University, Rotterdam, the Netherlands; SUVA Headquarters, Basel, Switzerland; Church of the Sacred Heart of Jesus, Munich, Germany; and Arup Fitzrovia, London, United Kingdom.

3. Result

3.1. Architecture as a System of Signs

The semiotics of architecture examines how elements of architectural form convey meaning (Sanders, 2008). In the case of glass façades, two fundamental levels of communication can be distinguished:

- the denotative level, referring to the function and physical structure of the building,
- the connotative level, linked to symbolic and cultural layers of interpretation.

In this context, typographic signs acquire particular significance. Letters—emphasised through graphic form and compositional arrangement (text, symbol, motif, graphic rhythm)—guide the viewer's perception and shape the reading of the architectural whole (Gibbons, 2019). They may function as visual dominants, points of reference, or metaphors within the architectural "sentence." Their role is analogous to that of emphasis in spoken language: they indicate which elements of the message are salient and how remaining components should be interpreted (Kress, van Leeuwen, 2006).

3.2. Semiotics and Applied Linguistics: A Shared Analytical Framework

Applied linguistics—understood broadly as the study of language functioning within social practice—can be effectively employed in the analysis of visual and spatial phenomena that use language in non-linear, pictorial, or symbolic forms. From this perspective, examining architecture through the tools of applied linguistics makes it possible to interpret the glass façade as a cultural message whose reception requires a form of "linguistic competence" within the visual domain.

Contemporary research on the visibility of language indicates that the process of interpreting visual messages operates analogously to the reading of written text: the viewer identifies signs, decodes their arrangement, and seeks meaning based on context. In architecture, this code is constructed through elements such as letters, symbols, colours, and compositional rhythms. Their configurations create a language in which meaning emerges from relationships between individual components.

The combination of semiotics and applied linguistics therefore enables architecture to be described as a form of intersemiotic communication—one that integrates image, text, and space within a unified message (Mitchell, 1994). In glass façades, this mode of communication becomes particularly pronounced, as the material itself encourages the interpenetration of layers: the physical interior, the reflected surroundings, and the applied graphic image.

3.3. The Significance of Metaphor and Symbol

A key element of the visual language of façades is metaphor—a means of conveying indirect meanings through images and visual forms (Lipowicz-Budzyńska, 2023b). In architecture, as in language, metaphor enables the expression of abstract ideas through concrete shapes. The use of a tree motif in hospital graphics, a pattern of letters in a library, or a symbolic word in a museum represents a form of visual metaphor that links functional content with emotional resonance.

Symbol, in turn, operates as a semantic shorthand—its meaning does not arise from direct resemblance but from cultural convention. Consequently, understanding the symbolism of a façade requires familiarity with its social and historical context. It is precisely at this point that semiotics and applied linguistics intersect: both disciplines examine the processes by which meanings—linguistic as well as visual—are decoded within specific social environments.

In summary, the visual language of glass façades can be understood as a semiotic system in which form, content, and context collectively shape a cultural message. Analysing this phenomenon from the perspective of applied linguistics allows not only the identification of visual elements (letters, symbols, images, rhythms), but also an understanding of their function within broader processes of social communication. As a result, architecture becomes a space in which language—in its visual, spatial, and symbolic forms—finds concrete application within social and cultural settings.

3.4. Case Study Analysis: Visual Language and the Functions of Letter-Based Signs in Selected Glass Façades

The case study method forms the core of the research on the visual language of glass façade graphics. This approach enables the interpretation of both formal and semantic aspects while taking into account functional, cultural, and social contexts. Each of the presented buildings represents a distinct way of employing letter-based graphics within the façade.

Veenman Printer, Ede, the Netherlands (2002)

Image Construction and Composition:

Letters forming a fragment of K. Schippers' poem are arranged vertically across the façade (Veenman Drukkers, 2025). The letters operate as individual modules, generating a rhythmic typographic structure.

Semiotic Analysis:

The letter ceases to function solely as a carrier of linguistic content; it becomes a visual figure and a sign referring to the printing process. The façade operates as a visual poem that foregrounds the materiality of the written word.

Linguistic Analysis:

The decomposition of poetic lines into individual letters and their vertical arrangement disrupts the linear mode of reading. The text loses continuity and shifts from language to ornament, transforming the function of the linguistic sign.

Metropole, Copenhagen, Denmark (2010)**Image Construction and Composition:**

The façade forms monumental letters composed of a raster of small signs. From close proximity, the viewer perceives a microstructure; from a distance, large-scale, uniform symbols emerge.

Semiotic Analysis:

The typographic sign adopts the role of ornament and a symbol of urban energy. The shift in scale produces an effect of interference and flicker, transforming the façade into a dynamic screen.

Linguistic Analysis:

The letter loses its semantic function—its meaning derives not from textual content but from rhythm and repetition. Readability is reduced, and language is transformed into a purely visual structure.

POLIN Museum of the History of Polish Jews, Warsaw, Poland (2013)**Image Construction and Composition:**

The glass panels feature the repeated word “Po-lin” in two alphabets—Hebrew and Latin—forming a subtle ornamental pattern.

Semiotic Analysis:

The sign functions as a symbol of memory and refuge, deeply rooted in cultural and historical meaning. Through repetition, the word becomes a metaphorical texture.

Linguistic Analysis:

This is a bilingual message employing the interference of writing systems. The letters remain readable, and the meaning is grounded in the etymology and connotations of the word.

University Library, Cottbus, Germany (2004)**Image Construction and Composition:**

The façade is covered with overlapping alphabets from various language groups (Laube, Widrig, 2016), creating an abstract typographic texture.

Semiotic Analysis:

The resulting palimpsest alludes to linguistic diversity, knowledge, and academic culture. Letters operate as symbolic signs.

Linguistic Analysis:

Disrupted textual linearity, overlapping scripts, and the absence of a continuous sequence produce a non-linear message. Here, language functions through the presence of signs rather than through semantic content (Zender, 2014).

Parkland Hospital, Dallas, United States (2010)**Image Construction and Composition:**

The façade forms a complex botanical image built from the names of individuals involved in the creation of the hospital (Boyd, 2015). Letters of varying transparency create a multilayered, organic composition.

Semiotic Analysis:

Personal names serve as elements of a collective narrative—the façade functions as a symbolic “monument” to the institution’s contributors. The combination of botanical motifs and typography constructs a metaphor of growth, care, and continuity of life.

Linguistic Analysis:

Names operate as linguistic units but undergo decomposition and repetition, becoming visual material. The structure loses textual linearity and assumes the form of a typographic texture.

Teacher’s Union Conference Center, Oslo, Norway (2009)**Image Construction and Composition:**

The façade features a composition of letters arranged in a positive–negative system. The letters form a repetitive motif with a pronounced light–shadow structure.

Semiotic Analysis:

The typographic elements act as decorative identity markers, reinforcing the formal character of the institution. The contrast between forms creates a clear and assertive visual message.

Linguistic Analysis:

The letters are detached from communicative linguistic function—they do not form words but compose a purely visual arrangement. This constitutes an example of “de-linguistification”, where the letter is used as a graphic unit.

Inholland University, Rotterdam, the Netherlands (2008)**Image Construction and Composition:**

The façade is covered with a dual-layer screen print depicting elongated graphic signs, simplified mathematical and chemical patterns, forming a dense typographic–symbolic grid.

Semiotic Analysis:

The superimposition of abstract sign systems creates a visual metaphor of science—structures of knowledge, analysis, and logic. The façade operates as a symbol of an academic metacode.

Linguistic Analysis:

These signs do not form a linguistic text but constitute an alternative system of notation—a quasi-alphabet. This is an example of transforming symbolic (mathematical) systems into a spatial communicative form.

SUVA, Basel, Switzerland (1993)**Image Construction and Composition:**

The façade repeats three word sequences that create an ordered, rhythmic typographic surface. The letters share a uniform colour, forming a repetitive texture.

Semiotic Analysis:

Repetition functions as an ornament of meanings—the verbal sequences construct the institution's identity, suggesting stability, regularity, and transparency of operation.

Linguistic Analysis:

Linguistic repetition occurs—linguistic devices (repetition, parallelism) are used as tools of visual composition. The text is intelligible but operates more through rhythm than semantic content.

Church of the Sacred Heart of Jesus, Munich, Germany (2000)**Image Construction and Composition:**

The composition of a cross (Mages, 2013) is constructed from letters resembling cuneiform script, incorporating the motif of a nail. The graphic forms a transcription of a passage from the Passion of St. John (18-20) (Herz Jesu, 2024).

Semiotic Analysis:

The façade becomes a symbolic sign of the Passion of Christ. Colour and light build a theological narrative in which form conveys spiritual meaning.

Linguistic Analysis:

The interior inscription employs stylised script that simultaneously fulfills ornamental and textual functions. The biblical quotation loses linear readability, forming a multilayered symbolic message.

Arup Fitzrovia, London, United Kingdom (2008)**Image Construction and Composition:**

The façade consists of repeated symbols that reference a simplified numerical code (The code 16, 2024), accompanied by coloured bands emphasising rhythm.

Semiotic Analysis:

The sign serves as a component of visual identity, referencing the company's history and engineering tradition. The code possesses symbolic and narrative character.


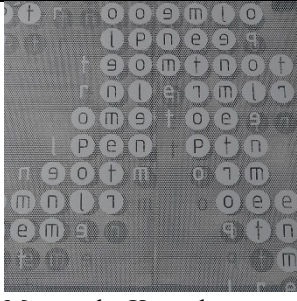
Linguistic Analysis:

The signs constitute a coded system resembling a numerical alphabet. This is a transformation of the language of engineering into a visual language—abstract yet ordered.

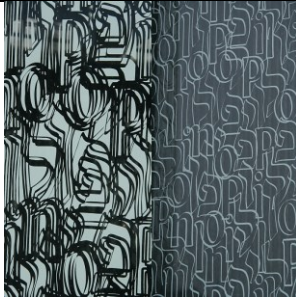



When analyzing the text of the lettering graphics in terms of typographic procedures, the following were distinguished:

- typographic figuration (the construction of figurative images from letters),
- atomisation of text into elementary signs (breaking text down to individual letters),
- letter-based ornamentation / typographic texture (creating graphic compositions from typographic forms),
- typographic superposition / layering of letter graphics (overlying different forms of letters),
- semantic–visual texture (a texture composed of letter-based graphic structures),
- semiotic encoding of the message (text functioning as a cipher, with concealed layers of meaning).

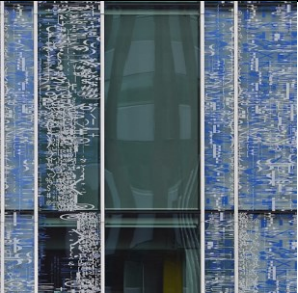


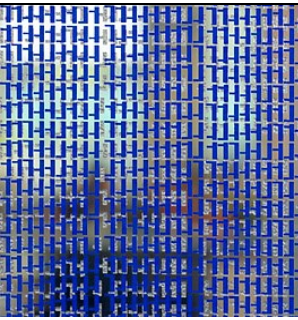
Table 1.
Semiotic and visual analysis of selected glass facades

No.	Object	Form and composition, sign	Sign system / architectural association	Semiotic and linguistic analysis
1	 <p>Veenman Printer, Ede, Holandia (Karel Martens, Neutelings Riedijk Architecten, 2002) Source: Maarten Helle</p>	<p>Fragments of a poem by K. Schippers, letters arranged vertically in modules on the façade.</p> <p>Technique: black screen printing</p>	<p>The letters become a compositional element contrasting with the horizontal structure of the building. A combination of language and space; The façade as a visual poem about the materiality of print.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - atomization of the text to the level of an elementary character - semantic-visual texture - message encoding
2	 <p>Metropole, Kopenhaga, Dania (C.F. Møller Architects, 2010) Source: Maarten Helle</p>	<p>Monumental letters formed from a raster, in the circular elements there are small signs of letters in the negative – positive convention.</p> <p>Technique: white screen printing</p>	<p>The lettering serves as an ornament and a sign of the building's identity / The building communicates through the scale and rhythm of typography – a symbol of urban energy.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - atomization of the text to the level of an elementary character, - lettering ornamentation / typographic texture, - typographic superposition / character layer overlay, - semantic-visual texture, - semiotic message encoding.

Cont. table 1.

3	 <p>POLIN Museum of the History of Polish Jews, Warsaw, Poland (Lahdelma, Mahlamäki, Oy, 2013)</p>	<p>A bilingual composition of Hebrew and Latin letters forming the word Po-lin. In Hebrew, the word po-lin means to rest here.</p> <p>Technique: black and white screen printing</p>	<p>Letter texture applied to panels at an angle; Light enhances the legibility of the message.</p> <p>/</p> <p>A sign of remembrance and reconciliation; architecture as a carrier of language and culture.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - typographic figuration, - atomization of the text to the level of an elementary character, - lettering ornamentation / typographic texture, - semantic-visual texture.
4	 <p>University Library, Cottbus, Germany (Herzog, de Meuron, 2004)</p>	<p>Outline of superimposed alphabetical systems located on two layers of glass.</p> <p>Technique: Double-layer white screen printing</p>	<p>The letters, as an abstract ornament, create a rhythm corresponding to the structure of the façade.</p> <p>/ A metaphor for knowledge and linguistic diversity; building as a text symbolizing the combination of different cultures.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - typographic superposition / character layer overlay, - semantic-visual texture.
5	 <p>Parkland Hospital, Dallas, United States (HDR & Corgan, 20210) Source: Dip-Tech, Ferro Company.</p>	<p>The painting contains the names and surnames of people who took part in the construction of the hospital.</p> <p>The lettering texture creates an organic plant element.</p> <p>Technique: screen printing in white with different transparency</p>	<p>Lettering as a material for creating a graphic image - a plant motif./ Praise for collective work and recognition for those involved in the construction of the hospital.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - typographic figuration, - typographic superposition / character layer overlay, - semantic-visual texture.
6	 <p>Teacher's Union Conference Center, Oslo, Norway (Element Architekten, 2009) Source: Element Arkitekter AS</p>	<p>Composition of letters in a positive-negative arrangement. Letters treated in a decorative way.</p> <p>Technique: white graphics</p>	<p>Playing with a composition made of printed letters. In texture, we distinguish such treatments as mirror reflection, negative transformation, compositional inserts. A metaphor for knowledge and education, formal searches.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - atomization of the text to the level of an elementary character, - semantic-visual texture.

Cont. table 1.

7	 <p>Inholland University, Rotterdam, Holanda (Erick van Egeraat, 2008)</p>	<p>A composition composed of elongated graphic signs, processed mathematical and chemical formulas.</p> <p>Technique: double-layer white and ultramarine screen printing</p>	<p>The texture of letters creates orthogonal compositional arrangements and is related to the exact sciences.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - semantic-visual texture
8	 <p>SUVA, Basel, Switzerland (Herzog & de Meuron, 1993)</p>	<p>Arrangement of repeated three word sequences: SUVA, INSA, CNA forming rows – lines of text.</p> <p>Technique: white screen printing</p>	<p>The text is an identification character related to branding</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - semantic-visual texture.
9	 <p>Church of the Sacred Heart of Jesus, Munich, Germany, artist: Alexander Beleschenko (Allmann Sattler Wappner Architekten, 2000)</p>	<p>An element of the texture is a nail motif used as a cuneiform sign, a transcription of a quote from the <i>Passion according to St. John</i></p> <p>Technique: Double-layer ultramarine screen printing</p>	<p>The painting is set in a monumental door. A composition of different shades of ultramarine forms a cross.</p> <p>The façade as a sign of the Lord's Passion and spiritual light; a combination of symbol and language; Glass becomes a medium of transcendence.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - typographic figuration, - atomization of the text to the level of an elementary character, - lettering ornamentation / typographic texture, - typographic superposition / character layer overlay, - semantic-visual texture, - semiotic message encoding.
10	 <p>Arup Fitzrovia, London, United Kingdom, artist: Alexander Beleschenko (Sheppard Robson Architects, 2008) Source: Alexander Beleschenko</p>	<p>Geometric signs created from a vertical element and a horizontal element placed at different heights. The texture of the image creates vertical stripes.</p> <p>Technique: double-layer screen printing in white and ultramarine colors</p>	<p>The characters differ in the height of the transverse position of the element, which allows them to represent numbers from 1 to 9, creates a mathematical code.</p>	<p>The graphics include:</p> <ul style="list-style-type: none"> - semantic-visual texture, - semiotic message encoding.

Source: Author's own elaboration based on design documentation and materials provided by the architects.

3.5. Synthesis and Comparative Analysis of Findings

The analysis demonstrates that letter-based graphics in glass façades function as a complex sign system characterised by substantial formal and semantic diversity. Despite differences in fabrication technologies and architectural contexts, the examined projects share a common framework in which the letter serves as the primary meaningful unit. Three dominant strategies of visual and communicative expression can be identified: (1) the atomisation of the letter and its transformation into a compositional module; (2) the figurative use of text, in which letters construct an image, metaphor, or symbolic motif; and (3) the creation of typographic textures and multilayered palimpsests that operate as cultural codes or institutional messages.

A comparison of the analysed examples shows that letter-based graphics do not constitute a uniform phenomenon. In some projects (e.g., Veenman Printer, the Cottbus Library), the graphics take on an intellectual and narrative character; in others (such as Metropole or SUVA), they serve to build visual identity; while in yet others (Parkland Hospital, the Church of the Sacred Heart in Munich), they fulfil symbolic and emotional functions. A shared denominator, however, is the letter's capacity to link architectural materiality with cultural layers and to co-create the visual "text" of place. Projects such as POLIN or Parkland Hospital demonstrate that letters can serve as carriers of collective memory and community identity.

It is noteworthy that in most of the analysed objects, deliberate strategies were employed to hinder or even prevent linear reading—an essential component of their linguistic character. Fragmenting text into individual signs, multiplying letters, layering forms, altering scale, or transforming typography into ornament produces messages intended not for literal reading but for visual interpretation. Such strategies correspond to the tendency of "textual resistance"—an approach in which the linguistic layer intentionally loses its original informational function and becomes a carrier of emotion, symbolism, rhythm, and spatial structure. Consequently, most façades operate not as texts to be read, but as texts to be viewed, where meaning is constructed in a non-linear, polysemic manner rooted in visual perception.

The analysis further indicates that the projects with the greatest semantic complexity employ typographic layering (superposition), which generates multi-level messages and enhances the dynamism of the composition.

4. Discussion

The findings confirm that contemporary façade graphics based on letterforms constitute a significant field of interdisciplinary visual communication, where semiotics, applied linguistics, cultural narrative, and architectural aesthetics intersect. The analysed projects demonstrate that the process of interpreting a façade operates analogously to reading written

text—it requires the recognition of signs, the establishment of relationships between them, and their placement within social and cultural contexts. This supports the assumption that façade graphics may function as a cultural text, in which visual elements construct a complex intersemiotic message.

An important aspect revealed by the study is the role of visual metaphor and symbol as tools of meaning condensation. The use of letter-based motifs enables the construction of emotional, historical, and identity-driven narratives, while shaping the viewer's perception through rhythm, scale, and compositional strategies.

The analysis also emphasises that the glass façade—due to its transparency, reflectivity, and capacity for layering—serves as an ideal medium for visual communication. The multilayered nature of letter-based graphics allows the construction of messages that shift with perspective, light, or the movement of the observer, rendering the façade an interactive element. For this reason, projects employing typographic superposition or semantic encoding can be viewed as analogous to linguistic communication processes in their dynamic and context-dependent dimensions.

From the perspective of design practice, the results suggest that the integration of semiotic principles and applied linguistics can support the development of façades with high communicative clarity, strong visual identity, and deep cultural grounding. This points to the growing need for interdisciplinary analytical and design tools that connect visual language with architectural theory.

5. Summary

The article presents an analysis of the visual language of contemporary glass façades from the perspective of semiotics and applied linguistics. Based on ten case studies, it demonstrates that letter-based graphics play a crucial role in constructing architectural communication, integrating aesthetic, symbolic, cultural, and narrative functions. The study identifies the main typographic strategies used in glass façades, including text atomisation, typographic figuration, multilayered sign structures, and various forms of message encoding.

The analysis of ten selected glass façades reveals a clear dominance of specific typographic techniques in shaping the visual language of architectural graphics. The most frequently employed technique is the semantic–visual texture, present in 90% of the examples, confirming that modular letter-based structures constitute a primary tool for visual communication on glass surfaces. Text atomisation, reducing language to elementary signs, occurs in 50% of the objects, while typographic superposition—layering of sign systems—appears in 40%, indicating a widespread use of complexity and meaning interpenetration. More specialised procedures—

typographic figuration, ornamental letter patterns, and semiotic message encoding—were identified in 30% of the projects, mainly in those with a strong narrative or symbolic identity.

The results show that contemporary letter-based façade graphics primarily rely on textural structures, while more advanced formal techniques are applied selectively to reinforce the individual character of specific buildings.

Linguistic analysis of the individual cases demonstrates that letter-based graphics fulfil varied yet functionally coherent communicative roles in architecture. In projects such as Veenman Printer or Metropole, the dominant strategies rely on the deconstruction of language—letters lose their original semantic function and operate as visual units, corresponding to the “de-linguistification” processes described in visual linguistics. Projects such as POLIN or SUVA use repetition and symbolic value of signs to create messages rooted in cultural memory and institutional identity. Meanwhile, the most formally complex designs—such as the Cottbus Library, Inholland University, or Arup Fitzrovia—employ multilayered sign systems resembling non-linear texts, where meaning emerges through the interference of codes and their contextual interpretation. As a result, the research confirms that contemporary glass façades operate as semiotic–linguistic environments: each building constitutes a distinct “visual text” that may be analysed in terms of language, metaphor, rhythm, and sign interaction.

In the analysed objects, letter-based graphics often deliberately hinder linear reading, which is a defining component of their linguistic character. Text disintegration, sign multiplication, and layered structures produce messages designed not for conventional reading but for visual interpretation. Consequently, the façades operate as “texts to be viewed,” where meaning is constructed through rhythm, structure, and visual perception rather than through traditional linguistic semantics.

The findings confirm that the letter, as a visual sign, enables the creation of façades with complex structures of meaning that are interpreted similarly to cultural texts. Contemporary glass façades thus function as communicative media—carriers of memory, identity, and values—and, owing to their material properties, allow the construction of multilayered and interactive narratives. The article demonstrates that applying tools of applied linguistics to architectural analysis opens new interpretative perspectives and may serve as a foundation for further research on visual perception and communication within the built environment.

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