

# AESTHETIC PERCEPTIONS IN ARCHITECTURE AND URBAN DESIGN: BRIDGING ART AND FUNCTION

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**Abstract.** The philosophy of art, particularly its focus on beauty, underpins how aesthetic judgments are formed in architecture and urban design. However, overlapping philosophical orientations can cloud the criteria used to evaluate buildings and urban spaces. Drawing on Kant's perspective, free beauty refers to design expressions relatively unconstrained by functional rules, whereas restricted beauty involves specific guidelines or ends that shape aesthetic outcomes. This study hypothesizes that clear standards and rules can unify these judgments in architecture and urban design, ultimately fostering coherent urban results. Using a descriptive-analytical methodology, the research compares instances where aesthetic judgments lean more toward free beauty—emphasizing creativity and artistic freedom—with contexts where external provisions (e.g., engineering codes, heritage statutes) reinforce restricted beauty. In doing so, it outlines key differences between purely artistic evaluations and those also subject to engineering or regulatory norms. By clarifying how free and restricted beauty apply in different scenarios, this work addresses an existing knowledge gap: while architectural products may blend both free and restricted elements, urban design typically adheres more tightly to rule-based frameworks. The findings suggest that better-defined aesthetic guidelines can ensure functional and visually integrated outcomes in modern architectural and urban practices.

**Keywords:** aesthetic judgments, free beauty, philosophy of art, urban environments, urban design, restricted beauty, architecture.

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## 1. Introduction

Architectural and urban design find themselves at a precipice where technical requirements and aesthetic considerations coalesce. Architecture mainly distills into two realms: structure defined by technical specifications and artistic creativity seeking to make a communicative statement. Urban design, by contrast, involves a much larger set of user expectations and social uses, regulatory constraints, and going concerns that make assessments of visual appearance much more contentious. This often results in a tension that creates a compromise between artistic vision and the construction of what are, in the most reductive terms, merely functional assemblages of parts. Compromise, however, has a bad name in our culture, which makes the assertion of either discipline's relationship to visual appearance much more contestable, even as our appearances, it seems, are more surveilled than ever. This research gap is troubling, if for no other reason than that we risk assuming urban design is a step back in an evolution of architecture proper. Both may be good, but good isn't free and it certainly isn't always pretty. This paper

addresses that gap by classifying urban environments into historical, traditional, peripheral, contemporary, and hybrid categories, each reflecting distinct levels of aesthetic constraints and emotional or social demands. By highlighting how free and restricted aesthetic provisions occur in these contexts, we ask:

1. **How** do varying legal and cultural frameworks influence designers' decisions toward free or restricted beauty?
2. **What** are the specific indicators or principles that guide aesthetic judgments in these diverse environments?
3. **Why** do certain contexts favor greater flexibility or innovation, while others uphold traditional standards?

The theoretical basis for this research spans three main axes. First, the philosophy of beauty—traced from Baumgarten's early formalization of aesthetics to the views of Kant, Plato, and Aristotle—has long explored whether beauty is formal, moral, or absolute (Abdo, 1999). Modern contributions by Bell and Read deepen our understanding of emotional and psychological aspects in the creative

process (Bell, 2013; Read, 1983). Second, the psychology of perception underscores how sensory input, imagination, and memory form the backbone of human knowledge (Agros & Stancio, 1989), shaping our experiences of architecture and urban spaces. Third, the study of aesthetic judgments examines how engineering standards and artistic choices create functional yet meaningful built environments, with urban design representing an especially intricate extension of this balance.

This research, by weaving together these philosophical, psychological, and design-based perspectives, contributes to the existing body of knowledge by demonstrating how free beauty and restricted beauty interact within different urban settings. Past discussions often focused on the dual role of architecture as both art and science. But urban design intensifies the interplay of creativity and constraint. So understanding where freedom meets regulation clarifies the mechanisms that drive aesthetic decisions across varied contexts. This study builds on those insights and offers practical guidance for architects, planners, and policymakers who want to harmonize innovative visions with cultural or legislative requirements. That pursuit, as much in the service of advancing the theory as the practice of architectural aesthetics, seems pretty fundamental.

## 2. Theoretical framework

To reduce potential biases, this study draws upon three interrelated theoretical pillars, which together form a coherent framework for examining aesthetic judgments in architecture and urban design:

### 1. Philosophical foundations of beauty

Drawing on Baumgarten's concept of aesthetics as an independent field and Kant's distinction between free and dependent beauty, this pillar explores how formal, moral, or absolute beauty (Plato, Aristotle) shapes judgments in design. It also integrates modern perspectives by Clive Bell and Herbert Read, who highlight emotional responses and the creative process in visual arts. By merging classical and contemporary views, this pillar establishes the philosophical lens through which free and restricted beauty can be interpreted.

### 2. Psychological insights into perception

Building on works such as Agros and Stancio (1989), this second pillar emphasizes how sensory input, imagination, and memory influence people's responses to architectural and urban forms. This includes Clive Bell's notion of "aesthetic emotion" and Bernard Myers's observation that spatial experience in architecture differs from other art forms. Through these perspectives, the framework captures the psychological underpinnings of how observers and designers perceive unity, contrast, proportion, and other qualities.

### 3. Engineering and artistic standards in architecture and urban design

Recognizing that architecture and urban design bridge artistic freedom (free beauty) and rule-based constraints (restricted beauty), this third pillar explores how engineering codes, heritage guidelines, and planning laws intersect with creative desires. By referencing case studies that highlight regulated environments (e.g., UNESCO heritage sites) and more flexible modern developments, this pillar illuminates the dynamic interplay between creative expression and functional or cultural limits.

Viewed together, these three pillars—philosophical foundations, psychological insights, and practical design standards—form a unified theoretical framework. They guide the study's interpretation of free vs. restricted beauty and ensure a holistic lens for analyzing aesthetic judgments in diverse architectural and urban contexts.

## 3. Methodology

This study uses a form of descriptive–analytical research that incorporates the philosophical and psychological ideas of aesthetics with the kinds of observations that are typical in architecture and the design of urban spaces. The descriptive part draws upon the work of various influential figures, both classical (Kant, Plato, Croce) and more contemporary (Read, Bell, Myers), to construct a kind of theoretical and cognitive framework one could use to understand the kinds of aesthetic judgments they make. The framework then serves as the basis for a kind of operationalization.

In implementing the descriptive–analytical approach, the research begins with a literature synthesis. This synthesis defines philosophical foundations (e.g., free vs. restricted beauty, moral vs. formal beauty, and subjective aesthetic taste), explores psychological elements like imagination, illusion, and emotional response, and identifies core architectural and urban design principles (e.g., unity, balance, rhythm, proportion, sustainability, cultural continuity). From these sources, the study develops a matrix of key aesthetic variables—for instance, folding/grafting/impact mechanisms, vertical elements, or visual rhythms—that map onto observable indicators in real environments, such as façade designs, open-space organization, building heights, or historical features. Each theoretical concept (e.g., free beauty vs. restricted beauty) is then associated with potential field observations—including whether creative choices emerged spontaneously or under strict guidelines—to ensure that the descriptive–analytical approach can be validated on the ground.

### 3.1. Objectives and data sources

To **pinpoint** how free and restricted beauty manifest in different contexts, the research sets forth **specific objectives**:

1. **Identify** the criteria that underlie aesthetic judgments, focusing on both philosophical constructs

(free vs. restricted beauty) and psychological influences (perception, emotional resonance).

2. **Evaluate** how these criteria apply in contrasting environments, distinguishing areas subject to strict aesthetic regulations from those that allow more freedom.
3. **Examine** the ways in which design outcomes reflect either creative expression (aligned with free beauty) or adherence to formal constraints (aligned with restricted beauty), aiming to propose context-aware strategies for designers and urban planners.

Data collection centers on both documentary sources—including heritage guidelines, planning documents, academic articles—and empirical observations via case studies. Field visits yield structured observations, using a standardized checklist derived from the theoretical matrix to evaluate façade composition, materials, street layouts, decorative elements, and user flow. Where possible, the study also incorporates spatial mapping and photography to record site details such as building geometry, green-space distribution, and references to past events or traditions. Should resources permit, interviews or surveys supplement these observations, capturing insights from residents, visitors, architects, and urban planners about the perceived balance between creative innovation and regulatory demands. In contexts with enough respondents, Likert scales are used to gauge how strongly participants feel that particular spaces achieve “beauty,” “cultural continuity,” or “design innovation,” while morphometric analyses (e.g., height-to-width ratios, open-space coverage) can link objective measurements with subjective aesthetic judgments.

### 3.2. Examples of urban environments

To illustrate how the framework applies in practice, the research compares two contrasting urban contexts. The first is a Historic or Traditional District, often governed by strict preservation laws and heritage guidelines (e.g.,

UNESCO sites), where “restricted beauty” prevails due to cultural and regulatory norms. The second is a Contemporary or Innovative Development, such as a newly planned neighborhood or urban expansion, which upholds fewer formal constraints and showcases “free beauty” through imaginative design. Four selection criteria guide the choice of specific sites: (1) the degree of formal aesthetic regulations, (2) cultural or historical significance, (3) accessibility for direct observation, and (4) representativeness of architectural variety.

### 3.3. Data collection and observational analysis in detail

By conducting case studies and field visits, researchers apply a standardized checklist (drawn from the theoretical matrix) to assess aspects like façade composition, materials, decorative motifs, and user pathways. Photographs and maps capture the interplay between buildings, open spaces, vegetation, and people’s movement patterns. These visual records help identify whether regulated design rules are strictly followed or if architects opted for creative flourishes.

In some instances, surveys or interviews with residents and visitors gauge subjective impressions of aesthetic cohesion, historical continuity, and perceived functionality, while professionals (architects, urban planners) may share expert insights into how formal regulations or personal creativity shape aesthetic outcomes. If responses suffice, researchers may apply Likert scales (quantifying degrees of “beauty” or “cultural identity”) or correlation/regression analyses (linking morphological features, like building heights or green-space proportions, to reported aesthetic satisfaction).

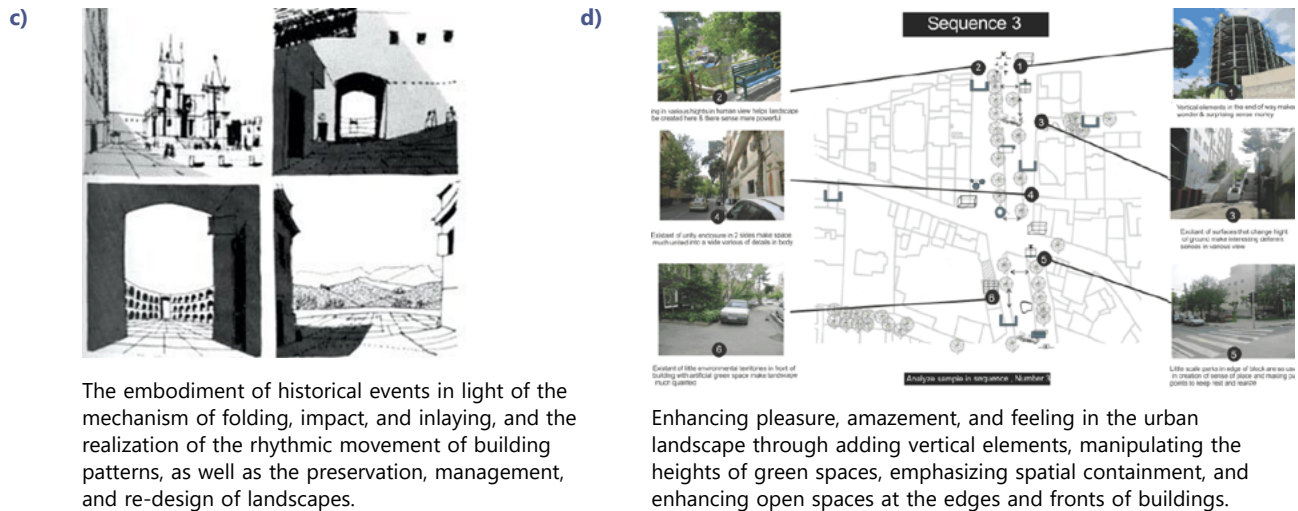
Alongside these methods, the research references Figure 1 to clarify how aesthetic standards translate into observable urban design features. Daneshpour and Pajouh (2014), Appolloni et al. (2020), and Veinberga and Zigmunde (2019) emphasize core themes:



The dynamism, continuity, or hierarchy of spaces within the urban fabric, so that the blocks and spaces of the fabric appear like images in motion.



The sequence of visual vision through rhythm, combining unity and multiplicity, and breaking monotony or boredom by adding elements of surprise and coincidence.



**Figure 1.** Criteria for evaluating beauty in urban environments (Daneshpour & Pajouh, 2014, pp. 443–447)

These categories guide observational checklists and help codify each environment's adherence to recognized aesthetic standards, focusing on issues such as temporal continuity, spatial organization, and visual dynamism.

### 3.4. Quantifying and qualifying aesthetic judgment

To systematically interpret collected data, the study uses qualitative thematic analysis—coding field notes, photographs, and (if available) interview transcripts under themes like “contrasts,” “heritage compliance,” “social function,” or “innovation.” It then synthesizes recurring patterns across historic versus contemporary settings, revealing how regulations, tradition, or creativity shape the overall look and feel of urban spaces. If enough data is available, statistical tools such as correlation or regression may link design features (e.g., building-height ratios) to user feedback, while variance analysis can compare how different demographic groups (residents vs. visitors, professionals vs. laypersons) perceive these same spaces.

### 3.5. Practical application of the framework

The findings from this methodological process have multiple applications. For urban planning and preservation, insights may shape policies that balance heritage authenticity (i.e., restricted beauty) with modern design opportunities (free beauty), thereby reinforcing well-being, walkability, and environmental sustainability. In architectural education, teaching materials can emphasize philosophical roots alongside empirical methods to validate aesthetic concepts. Community engagement can also improve, ensuring that local residents and cultural identity play a part in design and policy decisions.

This methodology fulfilled the need for both theoretical grounding and practical verification in terms of what makes beautiful architecture and urbanism by integrating a descriptive dimension (theory-based constructs of

beauty) with an analytical dimension (structured observations, potential interviews, quantitative measures). Keeping Figure 1 allows for the highlighting of how the philosophical ideas—like free vs. restricted beauty—actually map onto design elements. All in all, the methodology strengthens aesthetic discourse in these fields.

## 4. Results

The research employed a descriptive–analytical method as a measurement approach to characterize the results and elicit aesthetic valuations in urban settings. Using this method made clear that aesthetic valuations of architecture and urban design are guided by a combination of design policies or principles—including preservation, development, renewal, and similar kinds of directives—and formal mechanisms like difference and contradiction, unity with multiplicity, continuity in transformation, and displacement or modification. Furthermore, several design elements—balance, rhythm, repetition, proportionality, contrast, singularity, and similar kinds of attributes—can be put to work in the built environment and the larger urban landscape. This set of applications can produce a stronger visual sense of the space and translate intended meanings into the kinds of symbolic representations that generate a sense of shared perception necessary for any environment to be lifelike. They also transform that environment into a beautiful and creative place.

Within this framework, the aesthetic judgments that pertain to architecture and urban design fluctuate between free beauty and restricted beauty, reflecting diverse degrees of artistic freedom and regulatory guidance. These judgments can be summarized according to specific themes: the quality of the urban environment, difference and contradiction, unity with multiplicity, compatibility or adaptability, and the maintenance of continuity amid transformation. Each of these thematic elements contains indicators that may be adopted to address research



**Table 1.** The aesthetic provisions in architecture and urban design in urban environments

Main items	Secondary items	Possible values (indicators)
<b>Aesthetic judgments in architecture and urban design (urban environments)</b>	<b>Quality of the urban environment</b>	The existence of appropriate and solid facilities that are consistent with the artistic sense of the building. Combining the natural environment with the built environment and sustainable transport. Reducing the long-term negative impact of health risk factors. Reducing clutter and ensuring easy care of streets and public spaces. Creating urban environments that promote and protect the rights of all people. Promoting access to safe places and spaces for regular physical activities. Creating new urban landmarks that stimulate the place industry to achieve diversity and a better understanding of all parts of the city. Providing public spaces and branches that are lively and enjoyable to use. Developing urban policies that re-plan and design places. Preservation, Dictation, Rehabilitation, Renewal, Development. Encouraging vitality and well-being through a focus on walkability, connecting roads, walking paths, and public spaces effectively.
	<b>Differences and contradiction</b>	Inclusion by adding a strange intellectual part. Integration of a group of ideas in the form of formal metaphors about the past. Incorporating elements rooted in historical or contemporary formal patterns. Localizing variable values according to existing relationships between elements and inheritance. Abstraction of elements and converting them into architectural engineering forms. Modifying or changing new forms so that they remain associated with the old in previously understood contexts and connotations. Changing building heights. Changing the color, pattern, or shape prevailing within the urban landscape. Self-regulation of forms by restoring old standards or substituting aesthetic enjoyment.
	<b>Maintain continuity during the transition</b>	Clarity of the shape or body of the local building. Strengthening attractive and vital local places. Ensuring coherence in the structural composition of architectural or urban façades. Maintaining, managing, and designing landscaping in proportion to building blocks. Avoiding gaps between building lines. Establishing a visual hierarchy of spaces within the urban fabric. Providing local plants with strong decorative qualities suitable for the site. Ensuring multifunctionality and diversity of land use. Considering dynamic diversity in the ratios and proportions of spaces and their relationships with each other. Embodying the time dimension in animated images through visual analysis and awareness of the space occupied by the building.
	<b>Unity with multiplicity within the urban landscape</b>	Balance, contrast, or uniqueness. Preservation and maintenance of buildings with distinct contextual value. Evaluating the condition of built elements and building materials. Observing the rhythm of elements or spaces. Division and differentiation of space. Diversity in property, land, and landscape. Allowing for sudden collapses in visual movement by cutting the floor with new elements. Variation in prominence and regression within spaces. Emphasizing the importance of places by embodying events according to three mechanisms: (1) The folding mechanism adds to a new urban product framed by past events. (2) The grafting mechanism projects new forms within the existing urban fabric, strengthening relationships between new and old. (3) The impacting mechanism employs historical events to signify meaning.
	<b>Compatibility and adaptability</b>	Possibilities of gradual change in function and form. Flexibility in use. Reuse of historical buildings and distinct spaces. Emphasis on suitability of places for functional, social, and economic community needs. Adaptation to climate change, urban sustainability, and a healthy living environment. Ensuring the suitability of buildings and areas for present and future uses. Preparing physical areas to enable change, development, and progress of spatial solutions. Allowing for the restructuring of urban systems either spatially or functionally. Maintaining functional interdependence across various spaces of the fabric and between the existing system and its boundaries.

questions or for practical application. For clarity, Table 1 below outlines the aesthetic provisions in architecture and urban design, providing a structured overview of main items, secondary items, and possible values or indicators.

The research's descriptive–analytical approach demonstrates how aesthetic judgments in architecture and urban design arise from a mix of policy-driven principles, formal design elements, and symbolic interpretations. These judgments lie along a continuum between free beauty,

where imagination is comparatively unconstrained, and restricted beauty, where cultural, regulatory, or functional limits are strictly enforced. By documenting the primary themes—quality of the urban environment, difference and contradiction, unity with multiplicity, compatibility or adaptability, and continuity during transformation—this study clarifies how professionals can apply diverse indicators to evaluate and shape the aesthetic character of urban landscapes.

## 5. Discussion

The present findings highlight a continuum between free beauty—where designers operate with considerable flexibility—and restricted beauty, shaped by specific cultural, functional, or legislative norms. Observations in historic and traditional contexts, for instance, confirm that preservation laws and heritage guidelines strongly reinforce restricted aesthetic judgments, mirroring earlier discussions on moral and formal beauty (Abdo, 1999; Kant, 2005). These environments ensure adherence to historically validated motifs, reflecting Aristotle's notion of beauty as a balance between moral/functional imperatives and stylistic expression (Jiménez, 1991). In such cases, design interventions are less about novelty and more about continuity, consistent with the descriptive-analytical insight that authenticity and established precedents often override "free" creative impulses (Matar, 1998, 2013).

From a philosophical standpoint, the findings align with Kant's (2005) distinction between dependent (restricted) beauty—tied to predetermined ends—and free beauty—linked to form-driven creativity. When designers in contemporary or innovative environments enjoy fewer external constraints, we see significant room for imagination and novel forms. This resonates with the formal aesthetics described by Baumgarten (quoted in Abdo, 1999) and the emotional dimension of beauty advanced by Bell (2013). Similarly, Read's (1983) discussions on the psychology of creativity suggest that unconstrained contexts spark emotional and imaginative responses, which our data show through varied façade treatments, color palettes, and street layouts in modern developments. Even in these liberal settings, however, local regulations (e.g., building codes, environmental protocols) still impose partial constraints, consistent with Gelernter's (1995) observation that architectural form inherently evolves from both innate creativity and societal conditions.

The psychological aspect—taking into account the illusions, perceptions, and memories people form—adds great depth to our comprehension of the architectural and urban spaces people share.

More confined or somewhat controlled environments lead to the residents therein creating and sustaining a cultural memory that retains and reveres a kind of undying attachment to the foundational aspects of the environments they occupy. The images they evoke collectively are powerful and significant, attesting to the kinds of neighborhood and familial identities that Al-Sarraf (1974) and Zoghbi (2009) have copiously detailed.

Evidence notwithstanding, it's doubtful that any neighborhood ever has quite the same look, much less the same feel, from one part to another. Still, the things that go into making an architectural environment seem like itself at the street level are the same kinds of things that make a building designed primarily for identity and recognition resonate at any level or even for anyone just passing by. This is just one way in which collective memory and identity come into play in our municipal urban space.

The study's outcomes affirm—from a design and engineering standpoint—that strict guidelines can effectively direct architects and planners toward specific aesthetic results, whether these be historically faithful or stunningly avant-garde. In historically privileged areas, legislation and tradition work together to create designs that are at least reminiscent of classical-style measures (think: proportion, rhythm, and even symbolic ornament), which is precisely the kind of architecture that Alsaadawi and Almajidi (2018) and Lethaby (2011) have told us to expect. After all, what is

Daneshpour and Pajouh's (2014) frameworks—folding, impact, grafting—find clear parallels in the ways designs incorporate layers of historical identity while still introducing updated forms (e.g., layering modern additions onto older structures). Our results show that designers typically adhere to these mechanisms to maintain continuity without negating progress. For instance, a reimagined heritage street might feature original colonnades carefully "folded" into a new glass canopy, bridging the old and new. Such approaches align with Matar's (2013) description of aesthetics as an ongoing balance between established rules and the spirit of innovation, offering a dynamic reading of "restricted" and "free" within the same project. Similarly, the focus on carefully curated detail in restricted contexts resonates with the culturally driven approach to architecture described by Lethaby (2011) and Portchard and Brown (1961), where slow, iterative growth ensures an evolution respectful of tradition. These observations confirm that cultural resonance plays a vital role in shaping or validating aesthetic decisions. Traditional design cues or local building materials often spark emotional and social significance, reaffirming the significance of psychological and symbolic aspects of the design process (Al-Ghabban, 2010; Al-Maskini, 2011). Even in freer contexts, the results show that certain illusions or illusions of continuity remain—pointing to a hybrid approach that merges contemporary aesthetics with intangible cultural references (Zoghbi, 2009; Kroce, 2009). Designers thus navigate an intricate map of user expectations, regulations, and creative ideals, consistent with the tension Matar (1998) identifies between universal aesthetic principles and local constraints.

Overall, these findings underscore the robustness of the three-pillar theoretical framework—philosophical underpinnings, psychological perception, and engineering/artistic norms—in analyzing aesthetic judgments. Free beauty emerges strongly in contexts that celebrate experimentation, while restricted beauty dominates heritage areas to preserve authenticity. Yet, most real projects occupy a middle ground where regulated creativity thrives (Burchard & Brown, 1961). By showing how design and planning professionals calibrate their work between these poles, the study extends earlier academic discourse on architectural form (Gelernter, 1995; Myers, 1952) and highlights practical takeaways for creating visually appealing yet culturally grounded urban environments (Reed, 1983). The seamless integration of illusions, symbolic references, and functional codes, as observed in sample case studies, attests to architecture's capacity to unify past and

present—thus confirming architecture's identity as both a social artifact (Allsopp, 1955/1971) and a forward-looking artistic endeavor.

Despite the study's alignment with philosophical, psychological, and engineering/artistic theories, deeper empirical validation—for example, through large-scale user surveys or controlled experiments measuring emotional responses—would strengthen these findings further (Abdo, 1999; Jiménez, 1991). Exploring additional contexts, such as rapidly developing cities or historically contested sites, could also broaden understanding of how free vs. restricted beauty scales up amid changing social, economic, and political factors. Building on the synergy identified among creative freedom, legislative frameworks, and community identity, future work may illuminate more nuanced guidelines to direct architects and planners (Matar, 2013; Alsaadawi & Almajidi, 2018). Ultimately, the capacity to balance tradition with bold innovation remains central to architectural aesthetics—validating the centuries-long discourse on beauty's moral, formal, and psychological dimensions (Kant, 2005; Plato, Aristotle), while reinforcing architecture's evolving role in shaping humane, vibrant, and context-sensitive urban spaces.

## 6. Conclusions

The historical (archaeological) environment is characterized by restricted beauty that is inextricably linked to legislation. These legal frameworks ensure the preservation of historical authenticity, making it virtually impossible to deviate from established aesthetic norms. Yet, this preservation is critical for safeguarding the integrity and significance of such sites. Similarly, the traditional or local environment possesses a coarse beauty supported by policies of dictation, preservation, maintenance, development, and rehabilitation. By adhering to these rules, traditional environments maintain their cultural and historical essence, preventing extensive changes that might detract from their core value.

Today it is possible to speak of free beauty, which affords designers greater opportunities to go after beauty, with all its traditional attributes, in contemporary urban contexts. There are still laws and practical considerations to work around, but certain modern departures from classical aesthetic principles can be made in the form various elements of an environment take. The discussion becomes more complicated in our historical districts. These share a "common environment" tightly governed by laws of restricted beauty that ensure what is built aligns with some set of ancient or modernist aesthetic criteria. The Street Life Project I directed along with architect Mark Fretz, tackles these issues in both contexts. It looks first at free beauty and asks: What are the paths and vehicles of modern (as opposed to ancient) urbanism? How can they achieve free, as opposed to restricted, beauty? And it then shifts its focus to the commons in our public spaces, looking at the vehicles of free collective participation in both forms

of beauty: beauty in the eye of the beholder (free beauty) and beautifying the public realm (restricted beauty).

Viewed in the broadest sense, the architecture and urban design carry a dimension of appreciation that crosses many boundaries: the quality of the urban ambience, the relationship of difference and contradiction, the unity with multiplicity, the adaptation, compatibility, and continuity that sustain semblance of a half-decent urban environment even when the situation changes, and the quality of the ambience—at least in the half-decent urban environment. All of these can be considered indicators of progress toward solving the main research problem, which is pretty much the same as the NASA charter: to get as far as possible toward establishing a federal U.S. urbanism for statutory compliance.

Problems connected with the main research problem can be considered candidates for solving the federal urbanism problem. Solutions can be grouped under various kinds of reform. Reform can cover a half-dozen domains in the law and public policy governing urbanism or architectural design, or it can come in the totally backwards form of making more aesthetic decisions in enforcement and compliance actions.

From a practical standpoint, the findings suggest that designers, planners, and policymakers can utilize these insights to forecast how varying regulatory conditions affect design outcomes. Historical and traditional settings might call for participatory approaches ensuring that any alteration respects cultural values, while contemporary contexts can adopt more experimental design processes. Urban planners might set adaptive guidelines that permit selective modern interventions in heritage districts, balancing free and restricted beauty to preserve authenticity while sparking renewal. Such context-specific strategies, supported by ongoing empirical study, can forge a richer interplay between artistic vision and cultural safeguards.

Overall, the paper concludes that aesthetic judgments in urban design are indeed shaped by differing degrees of restriction and flexibility, reflecting historical, traditional, and contemporary environments. Future endeavors to integrate case studies or pilot projects would strengthen these conclusions, offering empirical support that shows how designers, communities, and policymakers negotiate the limits—and opportunities—between free and restricted beauty in the built environment.

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## Conflict of interest

The authors declare no conflict of interest.

## References

- Abdo, M. (1999). *The introduction to the philosophy of beauty: Critical, analytical and authentic axes* (2nd ed.) Madbouly Library.
- Agros, R. M., & Stancio, G. N. (1989). *Science in its new perspective* (J. Khalili, Trans., Issue 134). Zahra for Arab Media.
- Al-Ghabban, B. (2010). *Tasting the arts* (1st ed.). Dar Al-Mada.
- Allsopp, B. (1971). *A general history of architecture*. Pitman Press. (Original work published 1955)
- Al-Majidi, B. H., & Al-Saadawi, B. A. (2018). Difference and contradiction of critique methods to produce styles of modulation in architecture: (Architect Peter Eisenman as example). *Engineering and Technology Journal*, 36(11A), 1131–1132. <https://doi.org/10.30684/etj.36.11A.1>
- Al-Maskini, U. (2011). *Art is out of phase – or the concept of the wonderful in contemporary aesthetics from Kant to Derrida* (1st ed.). Jadawel.
- Al-Sarraf, A. (1974). *The horizons of fine criticism*. Al-Rasheed Publishing House.
- Appolloni, L., Giretti, A., & Corazza, M. V., & D'Alessandro, D. (2020). Walkable urban environments: An ergonomic approach of evaluation. *Sustainability*, 12(20), Article 8347. <https://doi.org/10.3390/su12208347>
- Bell, C. (2013). *Art* (A. Mustafa, Trans., 1st ed.). Vision.
- Burchard, J., & Brown, A. B. (1961). *American architecture and its social and cultural history* (N. G. Bishara, Trans.). Atlas Library Publications.
- Daneshpour, S., & Pajouh, H. (2014). Evaluation of beauty quality in urban landscape based on the concept of time dimension (Case study: River floodway of Zargandeh District, Tehran, Iran). *Journal of Civil Engineering and Urbanism*, 4(4), 440–450.
- Gelernter, M. (1995). *Sources of architectural form: A critical history of western design theory*. Manchester University Press.
- Jiménez, M. (1991). *What aesthetic* (C. Dagher, Trans., 1st ed.). The Arab Organization for Translation.
- Kant, E. (2005). *Criticism of the queen of judgment* (G. Hana, Trans., 1st ed.). The Arab Organization for Translation.
- Kroce, B. (2009). *Philosophy of art* (S. Al-Droubi, Trans., 1st ed.). The Arab Cultural Center.
- Lethaby, W. R. (2011). *Architecture, myth, and spirituality* (T. Al-Douri, Trans., 1st ed.). Abu Dhabi Authority for Culture and Heritage.
- Matar, A. H. (1998). *The philosophy of beauty, its flags, and doctrines*. Dar Qubaa.
- Matar, A. H. (2013). *An introduction to aesthetics and the philosophy of art* (1st ed.). Dar Al-Tanweer.
- Myers, B. (1952). *The fine arts and how we appreciate it* (S. Al-Mansoori & M. Al-Qadi, Trans.). The Egyptian Renaissance Library.
- Portchard, J., & Brown, A. B. (1961). *American architecture and its social and cultural history* (N. G. Bishara, Trans.). Atlas Library Publications.
- Reed, H. (1983). *The present of art* (S. Ali, Trans.). Department of Cultural Affairs and Publishing.
- Veinberga, M., & Zigmunde, D. (2019). Evaluating the aesthetics and ecology of urban green spaces: A case study of Latvia. *IOP Conference Series: Materials Science and Engineering*, 603(4), Article 042016. <https://doi.org/10.1088/1757-899X/603/4/042016>
- Zoghbi, S. (2009). *Nietzsche: Art, illusion, and the creativity of life*. Dar Al-Tanweer.