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THE ROLE OF HISTORICAL HERITAGE IN THE CREATION OF CONTEMPORARY ARCHITECTURAL FORMS

DZIEDZICTWO HISTORYCZNE W KREOWANIU WSPÓŁCZESNEJ FORMY ARCHITEKTONICZNEJ

Abstract

The article posits that historical heritage exerts a significant influence on the evolution of contemporary architecture. A range of approaches to the analysis of past references is presented, encompassing literal reconstructions and contemporary reinterpretations. The role of urban and social context in the design process is emphasised. Examples of architectural projects that consciously and creatively engage in dialogue with history, integrating the past with the present, are also highlighted. The article posits that, when interpreted in a historically accurate manner, architectural heritage can serve as a significant creative instrument in the context of contemporary architectural design.

Keywords: architecture, architectural detail, historical heritage, urban context

Streszczenie

Artykuł omawia znaczenie dziedzictwa historycznego w kształtowaniu współczesnej architektury. Przeanalizowano różnorodne sposoby odnoszenia się do przeszłości – od dosłownych rekonstrukcji po nowoczesne reinterpretacje. Podkreślono rolę kontekstu urbanistycznego oraz społecznego w procesie projektowania. Wskazano również przykłady realizacji architektonicznych, które w sposób świadomy i kreatywny podejmują dialog z historią, integrując przeszłość z teraźniejszością. Artykuł dowodzi, że dziedzictwo historyczne, odpowiednio zinterpretowane, stanowi istotne narzędzie twórcze w projektowaniu architektury współczesnej.

Słowa kluczowe: architektura, detal architektoniczny, dziedzictwo historyczne, kontekst urbanistyczny

1. INTRODUCTION

The art of creating architectural forms has been perfected since ancient times. Throughout history, humanity has endeavoured to formulate a physical manifestation that aligns with specific assumptions. The form was designed to embody both functionality and aesthetic appeal. As Vitruvius[1] asserted in his treatise, Roman architecture was expected to be durable, useful,

[1] B.E. Gronostajska, *Teoria Witruwiusza we współczesnej architekturze XXI wieku*, "Czasopismo Techniczne. Architektura" 2009, no. 1-A, pp. 45–49.

and aesthetically pleasing. It is evident that the Roman architect was a forerunner of sustainable design, as evidenced by the extant literature on the subject[2]. The manner in which edifices were erected and the character of the urban space were influenced by a variety of assumptions, frequently stemming from technological or material constraints. However, these assumptions consistently upheld fundamental principles. The advent of science has engendered an array of unprecedented opportunities. It appears that the present limitation on the construction of taller and more structurally complex buildings is solely economic in nature. However, questions have been raised regarding the quality of contemporary urban spaces and whether the buildings constructed within them draw upon the knowledge and experience developed in the past.

As with all fields of art, urban planning is perpetually engaged in the search for optimal solutions[3]. Throughout their existence, cities have undergone advanced metamorphoses, which have often significantly transformed the most important public spaces of these centres. It is evident that a number of these transformations have profoundly altered the physical characteristics and operational capabilities of the most significant urban centres, thereby adapting them to the demands of the present age. In contemporary discourse, these transformations are characterized as audacious, yet coherent actions aimed at enhancing the quality of urban space.

It is an irrefutable fact that historical heritage plays an instrumental role in the formation of contemporary architecture. This influence manifests through two primary mechanisms: as a wellspring of formal and ideological inspiration, and as an integral element of cultural identity. In the contemporary era, characterised by global integration and a growing homogeneity in aesthetic preferences, the field of architecture has increasingly drawn upon local traditions, historical spatial arrangements, and architectural forms. This approach serves to underscore the unique characteristics and the contextual nuances of specific locations. In numerous instances, endeavours are undertaken to reinstate cultural continuity, thereby attaining a harmonious relationship between the past and the present. The philosophy of postmodernism has been the subject of extensive discussion in numerous publications[4]. Questions concerning the configuration and structure of the postmodern city frequently centre on the role and position of humans within these environments.

2. COMPOSITION AND CULTURAL IDENTITY AS VALUES OF CULTURAL HERITAGE

The foundational principles of architecture and urban planning undoubtedly encompass the capacity to discern the optimal location for investment and to integrate urban elements in a manner that engenders a symbiotic effect. Since ancient times, certain principles of urban composition have evolved, yet in virtually every historical period, the ability to navigate the city properly, and the aesthetic value of the surroundings – which in this case was related

[2] G. Schneider-Skalska, *Witruwiusz – prekursor projektowania zrównoważonego*, "Czasopismo Techniczne. Architektura" 2009, no. 1-A, pp. 127–131.

[3] K. Lenartowicz, *W poszukiwaniu złożoności miasta* [in:] *Miasto: historia i współczesność. Materiały pokonferencyjne Międzynarodowej Konferencji Naukowej z okazji jubileuszu profesora Stanisława Latoura*, Wydawnictwo Uczelniane Politechniki Szczecińskiej,, Szczecin, 2001, pp. 78–85.

[4] D. Kulas, *Dyskurs filozofii postmodernistycznej*, PhD thesis, Uniwersytet Śląski, Katowice 2006.

to the location of the object in a way that ensured its most advantageous presentation – were important. It is imperative to note that significant objects were strategically positioned within pivotal points of the urban infrastructure. Emphasis was placed on the inception and culmination of compositional axes, and on the most significant public spaces. The implementation of such actions is contingent upon the conceptualisation of the city in its entirety, rather than as a mere aggregation of individual buildings. In numerous historical centres, the remarkable uniformity with which spatial planning policies were executed in the past is evident. Examples of such cities include Florence, whose buildings are subject to specific height limitations, display practically uniform roofing, and boast a perfectly preserved panorama that highlights the city's most important landmarks. Despite the existence of extensive legal conditions related to spatial planning, urban areas are often designed on a point-by-point basis. Local spatial development plans cover only selected zones, which are not always adjacent to each other. Furthermore, even within the purview of a local plan, investments are executed as discrete entities, frequently with considerable delays. Consequently, the buildings fail to integrate into a cohesive whole. The varied forms, scales, and functions of these elements contribute to an ambience that can be perceived as somewhat random within the urban landscape.

When addressing the subject of historical heritage in the context of architectural form, it becomes imperative to acknowledge the profound influence of historical events on edifices situated within urban environments. A multitude of prominent instances in the realm of urban planning are exemplified by public spaces that serve to memorialise significant historical transformations or events. These locations frequently contain monuments that are imbued with profound symbolic significance**.** These objects are frequently adorned with inscriptions. Examples of such monuments include the Lateran Obelisk and the Column of Marcus Aurelius, both of which – located in Rome – serve as repositories of historical information. These structures often become iconic landmarks of a city, as exemplified by the Arc de Triomphe in Paris. This is a notable exception, as a second arch, designated the Grande Arche, was constructed in Paris within the La Défense district. The objective was to create a more contemporary, 20th-century version of the arch, which subsequently became one of Paris's iconic landmarks. The structure, designed by Johann Otto von Spreckelsen, exemplifies a successful adaptation of a historical concept into a contemporary form.

At present, endeavours to refer to the context are infrequent. The conception of a contemporary edifice intended to astonish observers frequently entails an absence of consideration for its surroundings and an attempt to integrate the novel structure into the pre-existing environment. However, it should be noted that there are exceptions to this general rule. A notable example of this approach is the renovation and extension of the Prado Museum in Madrid by Rafael Moneo, which engaged in dynamic dialogue with its surroundings. The integration of the new form into the historical structure has been executed with precision, ensuring the preservation of legibility while introducing contemporary architectural expression. A comparable approach was employed in the conception of the Szczecin Philharmonic by Barozzi Veiga. The contemporary manifestation of the edifice, despite its radical nature, evokes the spirit of the city's historic edifices through its verticality, rhythm, and white façade. The project demonstrates that references to heritage can be abstract and symbolic rather than literal, thereby allowing for the creative development of tradition in a manner that aligns with the demands of contemporary architectural culture.

Architectural design that incorporates historical heritage elements also fulfils cultural and social functions. The transformation and adaptation of historical buildings for new functions,

for example, the conversion of industrial halls into cultural centres or the adaptation of tenement houses to meet the needs of contemporary public institutions – are practices commonly employed within the framework of sustainable development and the circular economy. Such actions not only serve to protect historical substance, but also to revitalise it, thereby making it an active part of the contemporary city. The conversion of historical structures into contemporary spaces has emerged as a prevalent strategy, driven by a multifaceted set of considerations, including economic factors, environmental concerns, and societal needs. This solution aligns with the principles of sustainable development and the circular economy[5]. The symbolic aspect is also of significance. Architectural heritage serves as a medium for collective memory, local identity, and historical narratives. Contemporary architecture that incorporates this dimension can function as a conduit between the past and the future. This dynamic reconstruction is not merely a static representation; rather, it serves as a living cultural dialogue that enables society to identify its position within the evolving terrain of civilisation.

3. THE INTERSECTION OF PUBLIC SPACE AND ARCHITECTURE

A thorough examination of historical architectural designs reveals that they exhibit characteristics that enhance the comfort of urban environments. The efficacy of these solutions is contingent upon the geographical location and, consequently, upon the prevailing climatic conditions. Nevertheless, climate has had a discernible impact on the evolution of architecture. An analysis of street patterns in various cities reveals a correlation between street width and latitude, with streets in equatorial cities being significantly narrower than those in cooler climates. The implementation of shaded streets has been demonstrated to significantly enhance pedestrian comfort, particularly during periods of peak temperature. A unifying element that is observed in solutions found in different parts of the world is the arcade, often referred to as the colonnade. A variety of arcades exist, yet irrespective of their application, they offer respite from the sun's rays during the summer months and shelter from precipitation during the winter months. It is noteworthy that arcades often house shops which have been operating continuously for centuries. Arcades were not found exclusively in large urban or palace complexes. These materials also found application in wooden construction.

This solution has not lost its usefulness even in modern times. The Nowa Huta project in Krakow exemplifies numerous adaptations of this solution. As with numerous components of the overall design, these elements were adapted to the stylistic forms that were prevalent at the time of the project's implementation. The designers of this urban plan drew inspiration from classical models of ideal cities, adapting Renaissance spatial solutions to the planning realities of the Socialist era. The urban layout of the district was based on the principles of axiality and symmetry. The design's focal point is Plac Centralny (Central Square), from which the primary streets and viewing axes radiate outwards. This solution organised the space in a harmonious and clear manner, similar to the Renaissance designs of Sforzinda by Filarete and Palmanova by Vincenzo Scamozzi.

[5] C. Cellucci, *Circular economy strategies for adaptive reuse of residential building*, "Vitruvio – International Journal of Architectural Technology and Sustainability" 2021, no. 1, p. 110. DOI: 10.4995/vitruvio-ijats.2021.15404.

The Nowa Huta project also reflects the Renaissance concept of harmony and urban order, expressed through monumental, rhythmic buildings with a classicist character. Despite maintaining the stylistic tenets of socialist realism, the architectural composition of the estate is distinguished by an acute regard for proportionality, the continuity of the façade, the regularity of the façades, and the incorporation of architectural embellishments. The configuration of representative avenues and squares, interconnected by viewing axes, gave rise to spaces within a society whose very existence was to be governed by the tenets of order, equality, and community. The ideological reference to the Renaissance utopia of ideal cities is also evident in the concept of the city as a self-sufficient organism. The urban development plan for Nowa Huta was meticulously designed to integrate residential, educational, service, recreational, and cultural functions. This approach was intended to ensure a high standard of living for residents and to facilitate access to all necessary institutions within a unified, coherent spatial structure. Of particular note, the district was conceived as a comprehensive urban undertaking, integrating the concept of community with an emphasis on aesthetic appeal and spatial organisation. As evidenced by the design of public spaces in Renaissance cities, these areas were intended to serve practical functions, in addition to contributing to the formation of civic identity and the expression of the prevailing political order.

Presently, only a select number of assumptions derived from the aforementioned example are employed in the formulation of urban-planning principles. Rather than a single central point, the objective is to attain a more polycentric structure of principles. In the context of a *15-minute city*, however, it is imperative that each district provides residents with access to essential services within a reasonable walking distance. This approach aligns with the principles employed in the Nowa Huta project. However, the aforementioned arcades are conspicuously absent from contemporary buildings, particularly in numbers sufficient to provide pedestrians with shelter from inclement weather. It appears that this specific configuration of space, which in a sense combines the space of the street and the ground floor of the building, has been overlooked.

4. THE IMPACT OF MODERN TECHNOLOGIES ON ARCHITECTURAL DETAILS

In traditional architecture, attention to detail was inextricably linked to the craft of building and to local tradition. The elements of the façade – including rustication, window profiles, plinth details, and decorative door frames – are the result of centuries of technological and aesthetic development. In Gothic, Renaissance, and Baroque architecture, the application of detail also served as a narrative tool, representing symbols, social functions, and the status of a building. Since the second half of the 20th century, there has been a gradual shift away from the use of ornamentation and classical detail in construction, driven by the evolution of technologies in the field. These have been superseded by the integration of exposed technological connections, façades composed of modular components, prefabricated systems, and multi-layer coatings. The manifestation of contemporary detail is frequently observed in the precise material connections employed, in the rhythm of façade panel divisions, and in the integration of lighting and drainage systems. It is important to note the transition from classical visibility to a transparent outcome, resulting from design and technological decisions. In other words, details are no longer ‘visible’ in the traditional sense. The minimalist trend is

characterised by a focus on subtle elements of design, such as consideration of proportions, joints, shadows, and materials. This approach represents a sophisticated form of expression that diverges from conventional ornamentation.

A considerable number of materials that could be classified as historical are found in contemporary architecture. However, the quantitative proportions between individual materials have undergone significant modification. Presently, the majority of public buildings are covered with a layer of glass on their façades. Despite the implementation of advanced, multi-layer glazing units, the thermal insulation properties of these structures remain inferior to those of a solid wall, irrespective of the number of layers utilised. This is particularly salient during the summer months, when a building's energy consumption typically exceeds its winter levels. This is due to the higher cost of cooling compared with heating.

Façades constructed with glass materials typically lack architectural details. In this regard, the available details are constrained to the fastening system provided by the system manufacturer, as opposed to the architect's specifications. A comparison of the present situation with numerous projects from the Modernist era reveals that these projects, which also proposed simple, transparent, and at-the-time avant-garde forms, are replete with various details often created for the needs of a specific building. Geometric forms characteristic of the Art Deco period could also be employed, even in the form of prefabricated elements. However, contemporary façades exhibit a conspicuous absence of such solutions. This prompts the following question: In an age of virtually unlimited possibilities for creating unusual elements, why do we not take advantage of this in our designs? The drive to reduce construction time and costs is undoubtedly a contributing factor to this phenomenon. However, it should be noted that these factors may not be universally applicable to all investment projects, particularly those that could be considered representative. In the context of buildings intended to underscore the stature of a city or of prominent corporate entities within a specific industry, it appears advantageous to contemplate the development of these structures through the implementation of distinctive solutions, as has been historically observed. Consequently, these edifices will possess distinctiveness, and the aforementioned architectural element may become their distinguishing characteristic.

5. THE EVOLUTION OF COMMUNICATION SOLUTIONS IN URBAN SPACES

The guidelines created by Le Corbusier, one of the leading representatives of Modernism in 20th-century architecture, can be seen to align with Vitruvius's design principles. The conceptual underpinnings of his modern urban planning philosophy were predicated on the notion that urban planning should be underpinned by rationality, functionality, and the subordination of urban planning to the needs of the contemporary human. One of his most significant projects in this field is *Ville Radieuse*[6]. The new design theory is predicated on the principle of functional division of space, which is an early postulate of the Modernist movement. This postulate is exemplified by the ideas of CIAM (Congrès Internationaux d'Architecture Moderne). In this model, the urban area was divided into four primary functional zones: residential, occupational, recreational, and transport. The allocation of each function

[6] Le Corbusier, *La ville radieuse*, Editions de l'Architecture d'Aujourd'hui, Paris 1935.

to a designated area was intended to foster spatial order and enhance the efficiency of urban life. The urban layout exhibited an axial configuration, characterised by pronounced geometry, with a central communication axis that served as the primary conduit for the arrangement of building groups. This solution could be described as modern, but similar assumptions were used in the plans for Roman camps called *castrum*, from which many cities evolved in later times, including current capitals such as Paris and London. In such instances, a rectangular plan was also employed, encircled by defensive walls, equipped with four gates, and exhibiting a distinctive arrangement of two primary thoroughfares: the *cardo* (north-south) and the *decumanus* (east-west). The two thoroughfares intersected in the centre of the camp, thus forming a square around which the most significant edifices were concentrated. A fundamental aspect of Le Corbusier's urban planning philosophy entailed the standardisation and typification of buildings. The housing units he designed, including the renowned Unité d'Habitation, were founded on modular solutions, with the objective of facilitating mass production and optimising the construction process. A fundamental assumption of the study was the strategic positioning of high-rise residential buildings in green spaces, with the objective of enhancing sunlight exposure within the buildings and facilitating residents' interaction with nature, in accordance with the principles of *light, space, greenery.* The construction of high-rise buildings was also intended to reduce land consumption. Le Corbusier also advocated for transport infrastructure that separated pedestrian and vehicular traffic. The road system was characterised by a hierarchical structure. The city was to be subordinated to the motor car, reflecting the fascination with modernity and technology at the time[7]. However, the concept of the *Ville Radieuse* was not merely a spatial scheme; it was also an ideological manifesto – an expression of faith in progress and rationalism. The implementation of Le Corbusier's theoretical concepts manifested in urban projects, including Chandigarh in India and Marseille in France. These projects were frequently the subject of criticism, which accused them of excessive formalism and an inability to accommodate the spontaneous forms of urban life[8]. Concepts of ideal cities are invariably distinguished by a certain utopianism in their solutions[9], yet it is imperative to acknowledge that they are indispensable in the development of contemporary spatial planning ideas.

In addition, contemporary cities are confronted with the challenge of ensuring sufficient transport. Despite urban redevelopment initiatives, the formerly expansive thoroughfares are incapable of accommodating the present-day volume of vehicular traffic. In the field of urban planning, there is an increasing inclination to seek solutions that prioritise the city as a catalyst for civilisation's advancement[10].

Contemporary urban planning concepts, such as sustainable urban development, compact cities, and *15-minute cities*, are predicated on divergent values and functional assumptions[11]. Contemporary urban planning trends have brought to the fore questions regarding the division

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[7] L. Mumford, *The city in history*, Harcourt, New York 1961.

[8] J. Jacobs, *The death and life of great American cities*, Random House, New York 1961.

[9] R. Fishman, *Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier*, MIT Press, Cambridge 1977.

[10] K. Pluta, *Teaching the creation of spatial form of contemporary cities*, "World Transactions on Engineering and Technology Education" 2019, no. 3, pp. 385–391.

[11] C. Moreno et al., *Introducing the 15-minute city*: *Sustainability, resilience and place identity in future post-pandemic cities*, "Smart Cities" 2021, no. 1, pp. 93–111. DOI: 10.3390/smartcities4010006 (access: 3.10.2023).

of space, monumental scale, and the dominance of the motor car as a means of transport. The integration of functions within local space is a key concept in both the compact city and the *15-minute city*, and is of particular importance in the context of urban planning and development. The objective of this solution is twofold: first, to increase the accessibility of services, and second, to reduce the need for car travel, thereby strengthening social ties by supporting local communities[12]. It is imperative that adequate provisions are made to ensure that housing, employment, educational institutions, recreational facilities, and services are within walking or cycling distance. In terms of transport within the city, the concept of public transport prevails. There is also an increasing emphasis on participatory design of space, involving the local community in decision-making process[13].

Furthermore, major urban centres have come to acknowledge the imperative for integrated approaches that encompass both intensive development and the requisite preservation of the natural environment[14]. This is not only for the sake of biodiversity, but also for access to recreational spaces and for mitigating adverse climate change[15]

A prime example of contemporary urban revitalisation that aligns with these principles is the reconstruction of the Cheonggyecheon River in Seoul. The project encompassed a comprehensive integration of urban, ecological, and social dimensions. The project, which was undertaken primarily between 2002 and 2005, sought to restore the natural course of the river and transform its environs into an appealing public space in the heart of the metropolis. The project also solved numerous problems that had arisen in the area as a result of intensive urbanisation. As a consequence of dynamic economic and infrastructural development in the latter half of the 20th century, the riverbed of the Cheonggyecheon was covered with concrete structures that provided support for transport routes. This development resulted in enhanced traffic flow; however, it concomitantly precipitated the deterioration of the natural environment and a total disconnection of residents from this component of the urban landscape. The revitalisation process was initiated by the removal of road infrastructure and the restoration of the river's natural course. The dismantling of the concrete structures enabled the restoration of the space's original character. The implementation of these measures resulted in a substantial reduction of the urban heat-island effect, as evidenced by a decline in average temperatures from 36.3°C to 32.7°C. Improvement of water quality was identified as a fundamental element of the project. The implemented measures enabled the restoration of a healthy river ecosystem, which in turn contributed to the return of a variety of fauna and flora species. Reports[16] have demonstrated that the number of fish species increased from three to fourteen, and the number of insect species from seven to forty-one, following the implementation of the revitalisation measures. In addition to the ecological aspects, the project encompassed the creation of new public spaces.

In the context of similar transformations that have taken place in many rapidly developing cities, the issue of environmental care is becoming increasingly important. This is not solely

[12] A. Christopher, *Język wzorców. Miasta, budynki, konstrukcja*, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2008.

[13] J. Gehl, *Cities for people*, Island Press, Washington 2010.

[14] M. Benedict et al., *Green infrastructure. Linking landscapes and communities*, Island Press, Washington 2006.

[15] W. Karlenzig, *How Green is Your City?*, New Society Publishers, Gabriola Island 2007.

[16] I. Lee, *Cheong Gye Cheon Restoration Project – a revolution in Seoul* [in:] ICLEI World Congress 2006.

for the benefit of the city's aesthetic appeal, but also in response to the imperative to curtail the deleterious effects of climate change and to enhance the quality of life within the city. Consequently, blue-green infrastructure (BGI) is acquiring increasing importance in contemporary spatial planning. Its treatment as strategic infrastructure has increased, and it is now considered on a par with transport, energy, and waste-management systems. It is evident that the subject is assuming an increasingly significant role in planning documents at both local and national levels. These documents contain provisions pertaining to the protection and development of BGI. Furthermore, it exerts a significant influence on the functional and spatial structure of cities, thereby supporting the development of sustainable neighbourhoods, reducing CO_2 emissions, and enhancing residents' quality of life. In numerous European countries, components of BGI are being introduced as a mandatory element of new urban development projects.

However, the integration of greenery and water features into urban landscapes is not a recent development. Even in ancient Greece and Rome, there were systems of aqueducts, public baths, fountains, and gardens that served practical, social, and aesthetic functions. In many medieval European cities, sophisticated systems for the management of rainwater and clean water were developed, often involving the use of canals and cisterns. In urban centres such as Córdoba and Fez, water systems and domestic gardens constituted a fundamental component of residential development, thereby creating balance between humanity and nature. These traditions, which have been cultivated over the course of centuries, indicate that the concept of BGI is deeply rooted in spatial-planning models originating from various cultural circles. In the urban composition of Renaissance and Baroque cities, greenery and water also played an important role. The integration of systems such as canals, parks, and fountains not only served to enhance the aesthetic appeal of the environment, but also fulfilled regulatory functions, including the moderation of temperature and the enhancement of comfort within urban spaces.

Ancient traditions of ecological construction were founded on the principle of adapting to local climatic and natural conditions. The utilisation of natural materials, shading systems, ventilation systems, and rainwater-collection systems was approached intuitively, or in accordance with local expertise. The contemporary conception of green building, as an element of sustainable architecture, is predicated on the aforementioned solutions, which are then developed through the utilisation of modern technologies. This approach constitutes not merely a reference to historical values, but also a critical reinterpretation of them. In order to meet the requirements of the contemporary era, it is necessary for solutions to be found which relate to the resilience of cities to extreme weather events, the protection of biodiversity, the efficiency of energy use and mobility.

6. CONCLUSION

The aforementioned examples, in the context of both urban planning and architecture, demonstrate the ongoing influence of historical heritage on contemporary design, particularly within specific areas. However, it appears that the range of application of the patterns developed over time, which could be characterised as exemplars of "good practice" in this domain, is frequently limited. In recent decades, particularly the last 20–30 years, there has been a marked decline in the emphasis placed on detail and individuality in architectural design,

and in the urban planning principles associated with it. This decline can be attributed to rapid advancements in materials and construction solutions.

In relation to so-called blue-green infrastructure, it is evident that its incorporation within the urban structure is imperative. It is evident from a multitude of examples that the excessive transformation of space, without due consideration for the pertinent elements of the natural environment, results in substantial deterioration in living conditions within urban areas. The employment of BGI facilitates the establishment of interconnected green and water areas. The objective of these measures is not merely to enhance the aesthetic appeal of the surroundings; rather, their primary intention is to ensure the effective functioning of the ecosystem. A coherent BGI natural system has been demonstrated to enhance the city's resilience to environmental and social crises. As presented in the article, the principles of BGI in contemporary spatial planning and architecture are derived from a long tradition of urban planning and architecture. This legacy endows us with both inspiration and the ideological and ethical foundations for designing an urban environment wherein humans, nature, and technology exist in a balanced relationship. BGI can therefore be regarded as a novel concept, yet it is also a continuation and development of universal principles that have been applied in urban planning for centuries.

The concept of historical heritage has undergone a paradigm shift, transitioning from an impediment to a catalyst within the architectural design process. The judicious utilisation of heritage elements in a conscious manner fosters the creation of spaces that are firmly embedded within their respective contexts. These spaces are meticulously designed to respond to prevailing social, aesthetic, and functional demands of the present era. The integration of cultural heritage into architectural design has been demonstrated to possess the capacity to foster connections between generations, cultivate a sense of belonging, and establish an environment that is conducive to human interaction.

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