

Original Article

The Urban Image as an Instrument for the Contemporary Architectural Reading of the Urdesa Neighborhood of Guayaquil

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Received: 16 November 2025

Revised: 18 December 2025

Accepted: 19 January 2026

Published: 11 February 2026

Abstract - The urban image is characterized by being the distinctive symbol of a city that seeks to generate an identity and autonomy in its reading process to denote traditions and customs from the perspective of the architectural compositional elements that make up traditional buildings and their evolution towards a contemporary stage that enhances the typological conditions of both homes and businesses in the Urdesa neighborhood of Guayaquil, Ecuador. This study seeks to describe the urban image of this traditional neighborhood of Guayaquil based on a historical analysis using architectural housing evaluation techniques to show the changes in the urban image of housing defined in the formal buildable aspect, relationship with public space and design influence with natural spaces to determine how these indicators have complemented the structure of the urban image, emulating a timeline analysis of the original development to the transformationism of 21st century Urdesa, to be exposed in a photographic memory of architecture denoting the traditional aspects still preserved. This booming contemporary architecture still preserves the urban image of Urdesa. The results were strategies that contribute to revitalizing Urdesa's indigenous image as a traditional neighborhood in Guayaquil, which has a deep-rooted natural, constructivist, and functional connection with the coastal area.

Keywords - Urban image, Traditional architecture, Local development, Society, Culture.

1. Introduction

The urban image of a particular neighborhood or city generates an implicit identity that provides fundamental information for understanding, from the basic to the specific, the traditions and knowledge that have led a settlement to consolidate itself through the unique features that define its ways of living and its architectural character, so fundamental to its urban development. Without this implicit identity, urban areas would lack the added value defined by their potential, such as their historical, gastronomic, or commercial character, for example. Currently, cities are identified by a solid image that offers specific services and architectural elements that contribute to territorial legibility [1].

In Guayaquil, over the years, an evolution has been experienced since the pre-Columbian era, and the transition from European colonial architecture has resulted in the so-called traditional neighborhoods of Guayaquil. One of these is considered one of the first neighborhoods of the Guayaquil bourgeoisie, the Urdesa neighborhood [2], which has gained interest in contemporary studies due to its status as a landmark

of modern urban development. It adopted the American Dream model, employing housing with subtle demarcations of open patios, active permeability, a single-level housing structure, and envelopes with new materials such as steel, sprayed concrete, and glass. This has been an architectural milestone within the architecture of Guayaquil, which has gone from a process of suburbanization to urbanization from the beginning of 1948 to 1957 [3].

The Urdesa neighborhood has been part of theoretical questions [4, 5] that have prevailed the theory that Urdesa was not a consolidated neighborhood in its beginnings but was taken by force due to the ideal conditions of the territory due to its proximity to the rural productivity zone and its proximity to two means of city development over time such as the watercourses with the Estero Salado and the road development of one of the main roads of the time such as the Avenida Francisco de Orellana.

Urdesa, as such, is of particular interest for study because the urbanization process gave rise to a typology of housing



complexes for Guayaquil's bourgeoisie in the northern part of the city. This typology is evident in its form and function, defining a comparative American lifestyle as comfortable and luxurious, which conferred status upon the wealthy families of the time. This analysis focuses on its beginnings in the 1960s [2].

This has made the Urdesa neighborhood (Dolores Sucre Urbanization of Guayaquil) one of the most traditional and exclusive areas of Guayaquil, Ecuador [3]. The urban image of this traditional Guayaquil neighborhood and its evolution to its current state are analyzed, highlighting its changing morphology, urban diversity, and the preservation of some aspects of traditional Guayaquil architecture.

2. Materials and Methods

2.1. Urban Planning History of the Neighborhood

Its history dates back to the mid-twentieth century, when the city began expanding northward between 1940 and 1950. Urdesa was established as a set of cocoa production plots that were gradually populated by the first landowners with an equestrian housing design that over the years was acquired by the new Guayaquil bourgeoisie [4] with a unique housing design that employed the so-called American typology with the modality of planned urbanization as shown in an aerial photograph of the time shows the land where the urbanization would be built [6].

Initially, Urdesa was marketed with the slogan "Your happy home in the best location in Guayaquil." Urdesa was conceived as an open community space. Its homes did not have gates or high fences, but rather established permeable access systems with open porches [7]. Urdesa, an acronym for "Urbanización del Salado S.A.", was a visionary private initiative that sought to transform the low-lying, flood-prone areas of the Salado Estuary into a modern and attractive residential space. According to Santana and Moncayo [6], understanding this urbanization process and its implications for the city's growth is crucial, as its importance transcends the way Guayaquil developed in the northern zone. Following Urdesa's example, housing developments began to adopt a more formal and functional approach to housing and land use, aiming to satisfy the growing demand for housing and shape the city's character toward a more modern style and a developed urban society.



Fig. 1 Aerial photo of Urdesa in 1955, 1975, and 2012

It all began in 1955 with the development of urbanized lots, when the builder Ernesto Estrada conducted an aerial survey that revealed a plot of land built on the Salado Estuary [7]. This plot of land, approximately 300 hectares, was acquired by the construction company Edificaciones Ecuatorianas S.A. at a public auction held by the Guayaquil Charity Board in 1954 for "15 million sucres," recounts Chilean businessman Jacobo Ratinoff, one of the members of the urban development project. Ernesto Estrada, Julio Vinuesa, and Jacobo Ratinoff, architects of the time, decided to partner and form a company called Urbanizadora del Salado S.A. to acquire the land and market what was then the largest residential development project in Guayaquil [6].



Fig. 2 The urban image of Urdesa in its beginnings, 1960

Not everything was essential or satisfactory in the growing urban landscape of Urdesa; the main problem of the citadel was its access, characterized by challenges of the time, such as the topography, the design difficulties posed by the winding Salado estuary, and the fact that there was only one access and exit road available at the time. Therefore, according to initial urban planning criteria, supporting infrastructure such as bridges was established, like the Miraflores and Urdesa bridge, which still exists, albeit improved. These access routes to the area are what is now Kennedy Avenue, which ends at the edge of the estuary. Based on this development, the topography led to a terraced housing design that currently characterizes more than 50% of the houses in northern Guayaquil [8].

The distinctive block layout in Urdesa was distributed with a symmetrical lot design that provided direct access to each street, a feature prevalent in a particular design of lots divided into four sectors: 2,000 m² lots facing the estuary; Sector 1 of 800 m²; Sector 2 of 400 m²; and Sector 3 of 250 m². Urdesa was so successful that the development began with 50 lots and houses [6]. Thus, it was conceived as an upper-class residential neighborhood, with wide streets, green areas, and modern architecture for the time. In the 1960s and 1970s, Urdesa consolidated itself as the most exclusive neighborhood in Guayaquil, attracting wealthy families, businesspeople, and professionals. Modern-style houses and chalets were built, many with European and American influences.

Urdesa's strongest urban development in terms of resilience and adaptation to the cultural and youthful shifts of the 1980s was the implementation of policies that improved its connectivity with the opening of Avenida Víctor Emilio

Estrada (its main thoroughfare), transforming it into Urdesa's new commercial and gastronomic boulevard [9].

During the 1990s, Urdesa underwent substantial changes and transformations due to urban growth and internal migration to emerging residential development hubs such as Puerto Azul, La Costa, and Samborondón [1]. These areas saw the development of the first high-rise residential complexes and shared horizontal properties; this housing development improved the quality and capacity of homes.

At that precise moment, Urdesa changed, its focus shifting to a more commercial approach. The aim was to repurpose abandoned houses, transforming them into apartment buildings, offices, and shopping centers that shaped Urdesa's architecture. However, it retained its bohemian and gastronomic charm, and is now a top destination for enjoying restaurants, ice cream shops, and cafes [10]. Since the beginning of the 2000s, Urdesa has gradually slowed its residential development and its characteristic, transformative, and resilient urban image, becoming a traditional and emblematic neighborhood of Guayaquil [11]. The blend of neoclassical and modern trends has allowed it to preserve its distinctive color and vitality, part of its original architecture based on the American dream of housing, which distinguishes it from other areas of the city. Therefore, Urdesa continues to be a symbol of both traditional and modern Guayaquil, a place where history and urban evolution coexist [12].



Fig. 3 The urban image of Urdesa in the 1970s

Today, Urdesa's urban image has changed, promoting commerce and gastronomy as a means of territorial resilience, employing natural and built elements to generate greater urban appeal. Urdesa was chosen as a case study because of its potential as a benchmark for the design of traditional neighborhoods in northern Guayaquil, as it is considered the first gated community designed and developed in the 1950s and 1960s for the city's middle and upper-middle classes [8].

2.2. The Urban Image of Urdesa as an Aspect of Morphological Development in the Housing Style of Guayaquil

The urban landscape of Urdesa has undergone distinct morphological development since its origins as a rural plot in the early 1940s and 1950s, and its subsequent real estate development in the 1960s. This distinctive urban image is characterized by the use of the American style of housing,

which was highly innovative and widely accepted in Latin America [13].

Following the influences of local architecture, it shaped a hybrid design of a residential neighborhood and its subsequent transformation into a more commercial and multifunctional space. Previous studies have drawn parallels between this American-style neighborhood and the architecture of neighboring countries such as Chile, Colombia, and Brazil, which, through a suburban housing model, have adopted concepts of gated communities, open interior spaces, and solid layouts that demonstrate how public and private spaces should be clearly defined in a home [14]. Based on these initial definitions, the American style has allowed for the codification of a clear separation between residential and work zones in the urban morphology of the territory through the consolidation of a purely residential development with planned subdivisions [15].

In the neighborhoods of Guayaquil, local adaptations have influenced pioneering neighborhoods like Urdesa, fostering the garden development concept with curved streets and layouts centered around natural elements. This style defines the specific architectural characteristic of a growing urban environment, creating open spaces through the introduction of materials and configurations unique to Guayaquil, such as spacious entrance halls called "zaguan," direct connections between communal and service spaces, and the restriction of the upper floor to private bedroom areas [1].

Currently, the morphology of the Urdesa neighborhood, beginning in the early 21st century, has seen many residences converted into commercial spaces (restaurants, cafes, clinics). Apartment buildings have also been constructed (due to land value). This has resulted in a loss of architectural homogeneity. Although some old houses are preserved, they coexist with modern constructions (for example, glass and concrete buildings). The increase in property values in the area has attracted businesses and gourmet boutiques, displacing some long-term residents. The Urdesa neighborhood is divided into two distinct zones: Exclusive Core: Interior streets with mansions (e.g., around Plaza Urdesa). Periphery: More accessible areas with lower-rise buildings.

3. Methodology

A framework is proposed consisting of two determining factors for urban analysis that must be considered: the mix of uses, relationship with urban morphology, and the analysis of architectural elements based on an analysis of housing typologies and their configuration through a timeline analysis from the introduction of contemporary housing from the 1960s to the present. The spatial configuration analysis "Space Syntax" will be used to evaluate the urban morphology and its impact on the urban image of contemporary neighborhoods in Guayaquil.

A morpho-typological methodology with a descriptive qualitative approach is employed, based on the analysis of the historical record of Urdesa's growth through interactions with its residents, using sampling in the core and peripheral zones. This analysis was supported by the housing census conducted between 2010 and 2025, which allowed for the collection of housing typologies and their significant contribution to the urban image. This hermeneutic and ethnographic analysis generates a broad understanding of the site's urban image, characterized by the development of Urdesa's architectural and urban identity [7].

An evaluation of the architectural system and the configuration of the place is generated around a morphology composed of natural and built elements, establishing a typological archetype in the design of the neighborhoods that grew after Urdesa's landmark development in the 1960s, which formed the surrounding neighborhoods of northern Guayaquil.

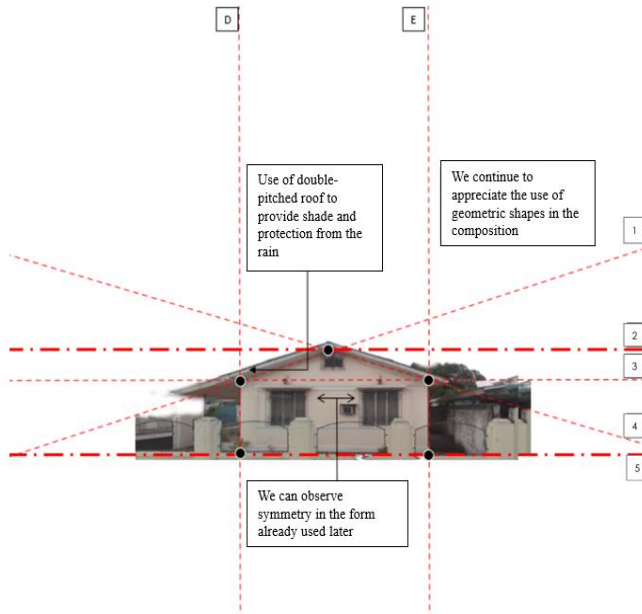


Fig. 4 Space syntax analysis of dwellings from the period 1960 - 1972

4. Results and Discussion

4.1. Design Aspects of Traditional Housing

It is established that the design of the old houses in Urdesa combines colonial and modern styles, with ornate facades and one- or two-story structures. The distribution of spacious rooms and the use of traditional materials such as wood and concrete are adapted to the warm climate. Furthermore, these houses integrate into the urban environment while maintaining significant historical value. Based on this fundamental concept, an analysis of the architectural image is established using the technique of axes and points of relationship, which reveals that the housing has evolved from the concept of the fully open American house with permeable enclosures, as shown in Figure 3.

The development of the traditional house on its side facade generates symmetry in terms of the formal distribution, a characteristic aspect of the traditional houses of Urdesa, with the characterization of windows and perimeter patios prevailing.

In relation to the typological evolution that was established from the 1980s onwards, the houses were transformed with non-permeable enclosures that covered the open interior spaces.

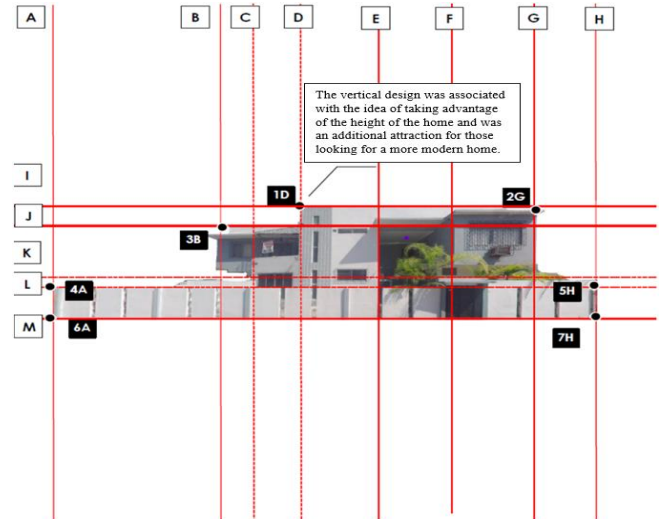


Fig. 5 Space syntax analysis of the urban image of housing during the period 1980 - 2000

This development responds to a new trend in which privacy and security had to prevail in that era of political and social unrest, so the houses were transformed and expanded to serve as bedroom spaces that would supply the new cultural and social boom that at that time was due to the development of rental apartments, generating their first transformation of use.

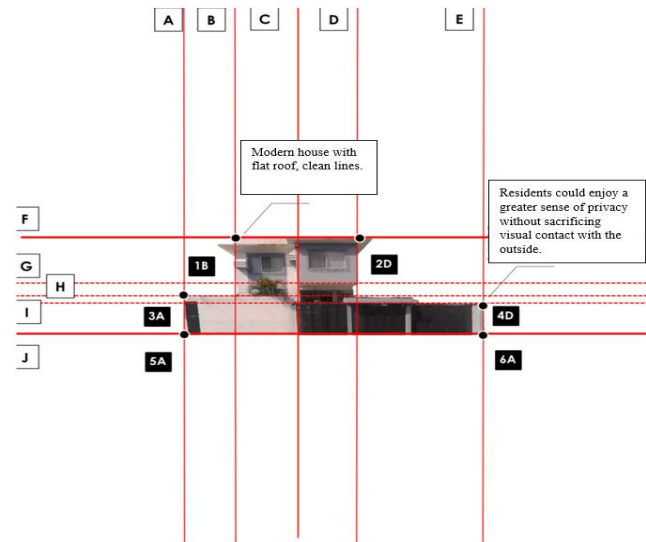


Fig. 6 Space syntax analysis of dwellings from the period 1980 - 2000

4.2. Influence of Modernism on the Urdesa Residence

This chapter provides a preamble to the changes that housing has undergone through minor and medium adaptations in the structure and internal distribution of the house due to aspects of architectural influence and insecurity.

The American model has influenced the modernist typology for the evolution of housing in Urdesa since it was initially conceived as a permeable public space, as all its spaces allow opening through patios and direct connections to pedestrian spaces characterized by their boulevard design, which has now been lost as they become privatized spaces with gates.

But public spaces long defined Urdesa's sense of belonging, characterized by a basic layout that initially allowed all pedestrians access to the interior, with landscaped sidewalks and green spaces at the entrance and along the sides, reflecting the prevailing American model. This has since transformed into the current model of traditional housing, which, since the beginning of the 21st century, has been privatizing the quality of public space. Historical photographic analysis of Guayaquil has revealed the evolution of the urban image of housing (See Figure 7) in relation to public space and its use, as well as interior interventions in housing that have redistributed its habitability.



Fig. 7 Evolution of housing in Urdesa today

4.3. Relationship of Natural Elements with the Development of the Urban Image

Natural elements have largely defined the character of the housing and its direct contact with nature, from the terrace design in homes in Lomas de Urdesa or sectors of Urdesa Central, which meet independent characteristics, to the generalized design of traditional housing.



Fig. 8 Influence of natural elements on the urban design of Urdesa

It is evident how housing models are transformational, since from their initial conception of chalets and single-person dwellings, they have established a regime of high-rise apartment blocks ranging from 3 to 8 stories, including underground levels and terraces. In other words, the influence of the mountainous topography has generated a shift from the superficial image of exclusive mountain houses to a collective housing model (See Figure 8).

The study area is in one of the most extensive mangrove forests in the urban area of Guayaquil, which extends into the interior of most of the residences in Urdesa. Its interior branch, which runs from south to north through the neighborhood, has delimited natural spaces in the backyards of each of the houses, generating this active contact with the mangrove that has been a great influence on future housing designs in neighborhoods of northern Guayaquil [16]. This characteristic urban image prioritizes the direct connection with natural elements that lead to the main road artery (See Figure 9).



Fig. 9 Housing models in contact with the natural mangrove space in Urdesa

4.4. Strategies for Preserving the Urban Image of Urdesa

Strategies to preserve the urban image of Urdesa considered both the built environment and the natural environment that comprise urban development. This involved revaluing the modern architectural heritage through the cataloging of buildings with a systematic inventory of historically significant structures to maintain Urdesa's historic urban image [17]. This process generated protective regulations governing construction and parameters for restoration, along with technical and financial support for appropriate interventions.

As part of the focus on public and natural spaces, the proposed landscape conservation of the mangrove aims to improve the existing linear mangrove park by connecting a public ecological corridor [18]. This includes interpretive trails that expand pedestrian routes with environmental information, ecological restoration to recover degraded mangrove areas, and finally, landscape integration that creates a visual and physical connection between the urban development (built environment) and the estuary (natural environment) [19].

These strategies must be aligned in a complementary manner with regulations for Mixed Use and Densification

Control, establishing a delimitation of areas by activity, regulating vertical density to maintain the urban profile of 2 and 3 levels that characterizes the majority of Urdesa's development, generating quality standards between heritage and current criteria for buildings, thus developing citizen participation for the inclusion of long-time residents in the planning and design strategies of new housing or facades in Urdesa [6].

Visual identity as such must manage 4 key concepts that Urdesa has been developing: the typology of modern architecture, a color palette, and identifying elements such as street furniture, amenities, and urban trees [20], which opens the way for pedestrians, creating a central distribution path that expands the urban image of the sector.

These strategies will be aligned with the Urdesa Urban Recovery Master Plan, which aligns buildable and natural elements, thus promoting a comprehensive vision under parameters for monitoring and evaluating the urban image of Urdesa.

The urban image is a fundamental element in defining the basic evolutionary foundation of an urban area. Through the constructivism of its buildings and public spaces, this image permeates the understanding of its origins and the traditional elements [21] that shape its population, which is marked by an evolution that combines diverse land uses, from singular and particular to mixed.

This image of architectural identity in Urdesa was established from its beginnings as an upper-class residential neighborhood, through its transition to commercial coexistence, and finally to the cultural and traditional development of its public spaces [22].

5. Conclusion

The urban image of Urdesa (one of the most emblematic neighborhoods of Guayaquil, Ecuador) is of great importance for several reasons, including social, economic, and cultural factors. This has led to a changing structure, and through this historical, chronological, and hermeneutical analysis [23], it has been established that Urdesa's legacy of American-style housing has evolved, giving way to collective housing, privatized structures, and a reduction in green space, as well as a decrease in contact with public space [15].

These measures have diminished the quality of Urdesa's urban image as an exclusive neighborhood and made it more commercialized. This is due to the profitability of housing through apartments, the hierarchy of housing blocks, the enclosure of homes through walls, and the sharing of the traditional Urdesa house. Therefore, maintaining the roots and improving the conditions of Urdesa's urban image is essential to preserving its legacy, boosting the local economy, and

ensuring a pleasant environment for those who visit or live there. Initiatives such as sidewalk renovation, regulation of advertising, and promotion of public spaces can make a difference [24].

A comprehensive analysis of the urban image of the Urdesa neighborhood reveals a fundamental paradox: while urban transformations have generated economic and cultural vitality, they have also led to the progressive loss of the architectural and urban identity that originally characterized the area.

The evolution of Urdesa as one of Guayaquil's first bourgeois neighborhoods has shaped the morphological trends of its urban image, adapting its land use and configuration from a residential district to a commercial and gastronomic one, representing a paradigmatic case of unplanned urban transformation [7].

Analyzing its urban image demonstrates how social, economic, and cultural pressures over time have allowed Urdesa to become a territory in constant change and a testament to resilience, not only on the part of its residents but also in the flexibility of public policies to revitalize the neighborhood and give it a new urban vision.

The current urban perception reflects a tension between nostalgia for the elegant Urdesa of the mid-20th century and the acceptance of its new commercial and cultural character. This duality suggests the need for intervention strategies that reconcile the preservation of architectural heritage with contemporary demands for use and densification.

The proposed actions seek to restore the balance between tradition and modernity, conservation and development, and local identity and metropolitan dynamics. Their implementation requires a comprehensive approach that integrates citizen participation, regulatory frameworks, and both public and private investment.

The future of Urdesa will depend on the ability to generate an urban development model that values its historical legacy while responding to contemporary needs, maintaining that urban image which, although transformed, remains a defining symbol of Guayaquil's identity.

Urdesa's influence, in terms of its policies adapting to mixed uses such as housing, commerce, or purely commercial uses, has influenced the planning of the growing neighborhoods of Guayaquil over the last 40 years, which have been transformed in response to the immediate needs and services of the community, being the typological basis that has configured a large part of the neighborhoods in northern Guayaquil.

Conflicts of Interest

This section is compulsory. A competing interest exists when professional judgment concerning the validity of research is influenced by a secondary interest, such as financial gain. We require that our authors reveal any possible conflict of interest in their submitted manuscripts. If there is no conflict of interest, authors should state that “The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper.”

Funding Statement

The research was funded by the authors and Universidad de Guayaquil, which contributed its facilities.

Acknowledgments

The authors thank Universidad de Guayaquil for their contribution to the descriptive analysis of information and research.

References

- [1] Teresa Pérez de Murziand, and Gaudy Orejuela, “Residential Fabrics in Guayaquil: Urban Indicators Related to Compactness and Functionality,” *ZARCH: Journal of Interdisciplinary Studies in Architecture and Urbanism*, no. 19, pp. 124-139, 2022. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [2] Andrea Perez Lopez, Maikel Leyva Vazquez, and Jesús Rafael Hechavarría Hernández, “Pedestrian Traffic Planning with Topsis: Case Study Urdesa Norte, Guayaquil, Ecuador,” *International Conference on Human Interaction and Emerging Technologies*, Paris, France, vol. 1, pp. 69-76, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [3] Robert Priessman Fenton, “Cacao Capitalism and Extended Urbanization: on the Contradictory Origins of Bounded Urbanism in Nineteenth-Century Coastal Ecuador,” *International Journal of Urban and Regional Research*, vol. 45, no. 1, pp. 5-20, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [4] David Hidalgo Silva, *Guayaquil: Management Model and Implementation of the Market City*, from the City as a Project to the City Project, Springer, Cham, pp. 247-263, 2025. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [5] Harvey Dávila Narváez et al., “Trade Marketing as a Business Positioning Strategy,” *Journal of Social Sciences*, vol. 25, no. 1, pp. 130-145, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [6] Manuel Rivera-Mateos, and César Santana-Moncayo, “Cities, Architectural Heritage and Tourism: A Perceptual Analysis from the Assessment of Residents in Guayaquil (Ecuador),” *Urbe. Brazilian Journal of Urban Management*, vol. 16, pp. 1-16, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [7] Juan Carlos Bamba Vicente, and Ximena Vaca Romero, “Multiscalar Method for the Morpho-Typological Analysis of Social Housing Architecture. The Public Working-Class Neighborhoods of Guayaquil (1937-1948),” *ACE: Architecture, City and Environment*, vol. 19, no. 56, pp. 1-18, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [8] Nelson Carofilis, Viviana D’auria, and Pablo Ortiz-Tirado, “Recovering the (Hi) Stories of Popular Urbanism in Revolutionary Times: Insights from Conversations with TUPAU and Taller 5 Architects on Critical Pedagogy, the Politics of Participation and Urban Design in Guayaquil, Ecuador,” *Environment and Urbanization*, vol. 37, no. 2, pp. 382-400, 2025. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [9] José-Fernando Romero-Subia et al., “The Disparity between Urban and Rural Areas in Citizen Satisfaction with Local Public Services,” *TEM Journal*, vol. 12, no. 1, pp. 275-284, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [10] Manuel A. Zambrano-Monserrate et al., “Dynamism of the Housing Rental Market in Guayaquil, Ecuador: An Empirical Analysis,” *Empirical Economics*, vol. 64, no. 2, pp. 747-764, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [11] Cynthia Legarda Arreaga et al., “Neighborhood Stores and their Socio-Economic Impact on Tax Culture - Guayaquil 2022,” *University and Society*, vol. 15, no. 3, pp. 721-728, 2023. [[Google Scholar](#)] [[Publisher Link](#)]
- [12] Juan Torres-Espinoza, and Alina Delgado-Bohórquez, “Sustainability Evaluation and Densification Proposals in the Center of Guayaquil City,” *Journal of the Faculty of Architecture and Urbanism*, vol. 12, no. 24, pp. 92-108, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [13] Guillermo Castro Herrera, “Societies, Environment and Environmentalism in our America,” *Latin American and Caribbean Environmental History*, vol. 9, no. 2, pp. 45-63, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [14] Andrea Alberto Dutto, and Stefano Dighero, “Territorial Diagrams Planning Cycle Routes with Digital Tools Oriented to the Knowledge of the Territory,” *Proceedings of the 1st International and Interdisciplinary Conference on Digital Environments for Education, Arts and Heritage*, Brixen, Italy, vol. 1, pp. 618-626, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [15] María Lorena Sánchez Padilla, Jesús Rafael Hechavarría Hernández, and Yoenia Portilla Castell, “Systemic Analysis of the Territorial and Urban Planning of Guayaquil,” *Proceedings of the AHFE 2021 Virtual Conferences on Human Factors in Software and Systems Engineering, Artificial Intelligence and Social Computing, and Energy*, USA, vol. 1, pp. 411-417, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [16] Juan Carlos Bamba Vicente, Florencio Compte Guerreiro, and Ximena Julen Vaca Romero, “Morpho-Typological Characterization of the Public Neighborhoods in the City of Guayaquil (1937-1948),” *Center for Land Policy and Assessments, CPSV / Polytechnic University of Catalonia, UPC*, vol. 15, no. 45, pp. 1-24, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [17] Hu Xin, "Urban Renewal Design based on Analysis of Remote Sensing Images and Texture Characteristics," *Optik*, vol. 273, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [18] E. Yaipimol et al., "Potential Human Well-Being Benefits from Ecological Infrastructure: A Case Study from Chiang Mai, Thailand," *XXXI International Horticultural Congress (IHC2022): International Symposium on Urban Horticulture for Sustainable Food*, vol. 1356, pp. 417-426, 2022. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [19] Quanhua Hou et al., "Evaluation and Optimization of Ecological Spatial Resilience of Yanhe River Basin based on Complex Network Theory," *Scientific Reports*, vol. 14, no. 1, pp. 1-18, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [20] Olga B. Roa, Milagros Fois, and Carlos Velasco, "Enhancement and Revitalization of Public Spaces in the Historic Centre of the City of Guayaquil (Ecuador)," *Urban Design International*, vol. 25, no. 3, pp. 235-249, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [21] Victor H. Silva Guijarro, "The Sons of Guayas in Search of Freedom. Historiographic Analysis of the Socioethnic Protagonism in the Independence of Guayaquil According to the History Textbooks (1915-2015)," *Constitutional History*, no. 22, pp. 195-215, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [22] Teresa Pérez de Murzi, and Gaudy Orejuela, "The Geography of Urban Fragmentation: Gated Communities in the Urban Expansion of Guayaquil, Ecuador," *Urban Planning Magazine*, no. 48, pp. 110-134, 2023. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [23] Manuel A. Zambrano-Monserrate et al., "Urban Green Spaces and Housing Prices in Developing Countries: A Two-Stage Quantile Spatial Regression Analysis," *Forest Policy and Economics*, vol. 125, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [24] Diana Vallejo-Robalino, Ingrid Ríos-Rivera, and Gabriela González Plaza, "Social Cartographies in Contexts of Violence (S): (Un) Drawing Borders and Limits in the Popular Neighborhoods of Guayaquil, Ecuador," *Journal of Social Studies*, no. 88, pp. 39-57, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]