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RESEARCH ARTICLE

## ARCHITECTURAL FEATURES OF THE HISTORIC CITIES OF KAZAKHSTAN: THEORETICAL FOUNDATIONS AND CONTEMPORARY CHALLENGES

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**Abstract.** *The aim of this study is to analyze the architectural identity of historic cities of Kazakhstan in the context of the current urban changes. The purpose of the research is to give the theoretical knowledge about the nature of architectural identity, factors affecting the creation of identity and to reveal the problems of cities in the conditions of globalization. Scientific interest of the study is related to the possibility of generalization of theoretical approaches and the analysis of the relations between cultural memory, urban morphology and the current architectural practice. The methodology used is comparative-historical analysis, morphological approach, examination of the contextual characteristics of the urban environment and critical examination of scientific literature. The results show how standardization of architectural solutions, commercialization of historic city centers and the absence of effective regulatory solutions can be responsible for the loss of local identity. The study concludes that a change in design principles in favor of contextual design is required, along with a promotion of the concepts of critical regionalism and the need to establish architectural codes that take into account local cultural and historical details. The research's significance is the creation of a theoretical basis for the preservation of the identity of historic cities. Its practical significance is related to the possible use of the proposed approaches in the development of urban planning policies and regulatory frameworks for historic areas. Furthermore, it highlights the need for the integration of cultural heritage in the modern concept of architecture. The recommendations proposed can be used as a foundation for sustainable urban development strategies.*

**Keywords:** *architectural identity, historic city, Kazakhstan, contextualism, globalization, urbanization, cultural heritage.*

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## ҚАЗАҚСТАННЫҢ ТАРИХИ ҚАЛАЛАРЫНЫҢ СӘУЛЕТТІК ЕРЕКШЕЛІГІ: ТЕОРИЯЛЫҚ НЕГІЗДЕР ЖӘНЕ ЗАМАНАУИ СЫН-ҚАТЕРЛЕР

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**Аңдатпа.** *Зерттеу заманауи қала құрылысының өзгерістері жағдайында Қазақстанның тарихи қалаларының сәулеттік ерекшелігін талдауға арналған. Жұмыстың мақсаты – сәулеттік ерекшеліктің мағынасын теориялық тұрғыдан түсіну, оның қалыптасу себептерін анықтау және жаһандану процестері аясында қалалардың кездесетін қиындықтарын айқындау. Зерттеудің ғылыми маңыздылығы теориялық тұжырымдамаларды жинақтауда, мәдени жады, қалалық ортаның морфологиясы және заманауи сәулет тәжірибесі арасындағы өзара байланыстарды ашуда көрінеді. Әдіснамалық негізі салыстырмалы-тарихи талдауды, морфологиялық тәсілді, ортаның контекстуалдық сипаттамаларын зерделеуді және ғылыми зерттеулерге сыни шолу жасауды қамтиды. Зерттеу қорытындылары сәулеттік шешімдерді белгілі бір стандартқа келтіру, тарихи орталықтарды саудаға айналдыру және нормативтік ережелердің кемшілігі жергілікті ерекшеліктердің жоғалуына әкелетінін білдіреді. Контекстке сәйкес жобалауға көшу, сынышаймақтық идеяларды дамыту және сәулеттік ережелерді қалыптастыру туралы тиімді байламдар жасалды. Жұмыстың пайдасы тарихи қалалардың өзіндік ерекшелігін сақтауға арналған теориялық іргетасты құруында. Практикалық маңыздылығы ұсынылған әдістерді тарихи аймақтарға арналған қала құрылысы саясаты мен нормативтерін әзірлеуде қолдану мүмкіндігімен айқындалады. Сонымен қатар мәдени мұраны заманауи сәулеттік жобаларға ықпалдастырудың маңыздылығы атап өтіледі. Ұсынылған ұсыныстар қалалардың орнықты даму жоспарларын әзірлеуге негіз бола алады.*

**Түйін сөздер:** *сәулеттік өзгешелік, тарихи қала, Қазақстан, контекстуализм, жаһандану, урбанизация, мәдени мұра.*

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## АРХИТЕКТУРНЫЕ ОСОБЕННОСТИ ИСТОРИЧЕСКИХ ГОРОДОВ КАЗАХСТАНА: ТЕОРЕТИЧЕСКИЕ ОСНОВЫ И СОВРЕМЕННЫЕ ВЫЗОВЫ

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**Аннотация.** *Исследование посвящено анализу архитектурной идентичности исторических городов Казахстана в условиях современных градостроительных трансформаций. Цель работы заключается в теоретическом осмыслении сущности архитектурной идентичности, определении факторов её формирования и выявлении вызовов, с которыми сталкиваются города в контексте глобализационных процессов. Научная значимость исследования состоит в обобщении теоретических подходов, раскрытии взаимосвязей между культурной памятью, морфологией городской среды и современными архитектурными практиками. Методологическая основа включает сравнительно-исторический анализ, морфологический подход, изучение контекстуальных характеристик среды и критический обзор научных источников. Результаты исследования показывают, что стандартизация архитектурных решений, коммерциализация исторических центров и недостаток регламентов ведут к утрате локальной идентичности. Сделаны выводы о необходимости перехода к контекстуальному проектированию, развитию критического регионализма и формированию архитектурных кодов. Ценность работы заключается в формировании теоретической базы для сохранения идентичности исторических городов. Практическая значимость заключается в возможности использования предложенных подходов при разработке градостроительной политики и регламентов для исторических территорий. Дополнительно подчёркивается важность интеграции культурного наследия в современные архитектурные концепции. Предложенные рекомендации могут стать основой для разработки устойчивых стратегий развития городов.*

**Ключевые слова:** *архитектурная идентичность, исторический город, Казахстан, контекстуализм, глобализация, урбанизация, культурное наследие.*

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## INTRODUCTION

The theme of architectural identity of the historic cities of Kazakhstan has been chosen due to the increasing issue of disappearance of architectural features of local cities in the era of globalization and rapid urbanization. The issue is especially topical for the Kazakhstan, a country that has a rich historical and cultural heritage. The study and preservation of historic cities (Uralsk, Semey, Turkistan, Kokshetau and Taraz) is of course necessary as carriers of architectural culture, and as spatial chronicles of the cultural development of the region. Although there is a significant amount of research on urban morphology, cultural heritage, and issues related to identity in international or domestic research, the issue of theoretical interpretation of architectural identity in the Kazakhstani context is not sufficiently studied. Specifically, the relation of the system of architectural identity and historical memory to the system of spatial structure has not yet been explored sufficiently [1] and the effects of the current process of urban development on the integrity of the historic environment have not been considered comprehensively enough [3].

This research is even more relevant because the historic cities in the country are currently being confronted by the pressure of standardized architecture, the commercialisation of inner cities and the absence of rules for city planning that take the local context into account. All these factors are responsible for the loss of their unique character and cultural continuity [2]. This dilemma, which is shared by many cities in the world, demands a comprehensive scientific approach to the issues of maintaining architectural identity in the context of intensive urbanization, which cannot be answered using existing methods.

The aim of this research is the study of historical cities of Kazakhstan and the object is the architectural identity of these cities as a complex of morphological, cultural and semantic features. The purpose of the research is to expose the theoretical and conceptual framework of architectural identity and the threats it faces in the present. For this purpose, the following objectives have been set: analyzing the existing studies [1] on the subject; identifying the elements that define architectural identity; establishing the problems of the current urban development; and suggesting directions for the preservation of this development [3;4]. The comparative-historical method, morphological analysis of the urban environment, the contextual approach, and critical analysis of academic sources are used in the methodological structure of the study. The research hypothesis is that architectural identity can be maintained by the merge of the historic urban environment and contextual design principles on the contemporary urban planning practice. The study's value is in the theoretical basis for the formulation of architectural regulations and strategies for sustainable development of historic cities.

The literature review traces the fundamental studies by international and domestic scholars on the subject of the identity, regionalism and contextualism of architectural space. The science of this topic is based on the concepts of critical regionalism [2] and morphology and traditions of Kazakh architecture [3]. The studies offer a crucial theoretical and methodological basis for the understanding of the relation of architectural form, cultural identity and regional context. These researchers have contributed a lot to the literature, but there is not enough research that is dedicated to the historic cities of Kazakhstan. This is an opportunity for more scholarly work in this arena.

The research on architectural identity is continued in the publications of the Kazakhstan Leading Academy of Architecture and Civil Engineering, Bulletin. In particular, U. Zholdas and G.S. Abdrasilova investigate the contemporary architecture of the region, which is the result of the reinterpretation of traditional construction techniques, taking into account the use of innovative technologies. The authors stress the role of local natural and climatic conditions, traditional building practices and regional characteristics in the definition of the architectural identity, a conception which is directly related to the concept of critical regionalism [4].

The study of the historical urban environment is also important for the research devoted to the development of Kazakhstan's architecture in the post-Soviet period. Architecture is considered to be

a mirror of the social and cultural development processes of the country in the works of B.U. Kuspangaliev, K.I. Samoylov and O.N. Priemets, and the preservation of national characteristics is related to maintaining the architectural image of the city in the era of modernization [5].

Urban space is also explored in contemporary studies of urban space, where the built environment plays a significant role in shaping identity. Therefore, T.Yu. Koroteeva and A.T. Akhmedova, studying the concepts of the “heart of the city” and the “living environment”, have come to the conclusion that it is necessary to preserve the humanistic principles of urban space organization and its historical and cultural context [6].

Although the above-mentioned scholars have made major contributions to the field, no comprehensive studies have been found in the academic literature, which focus exclusively on the study of the architectural identity of the historic cities of Kazakhstan. Morphological changes in the urban fabric and the need to preserve its identity have been overlooked, as have the mechanisms for adapting international approaches to the conservation of the historic environment to local conditions in the context of changes in urban development. The need and importance of the current study are decided by these gaps.

## 2 MATERIALS AND METHODS

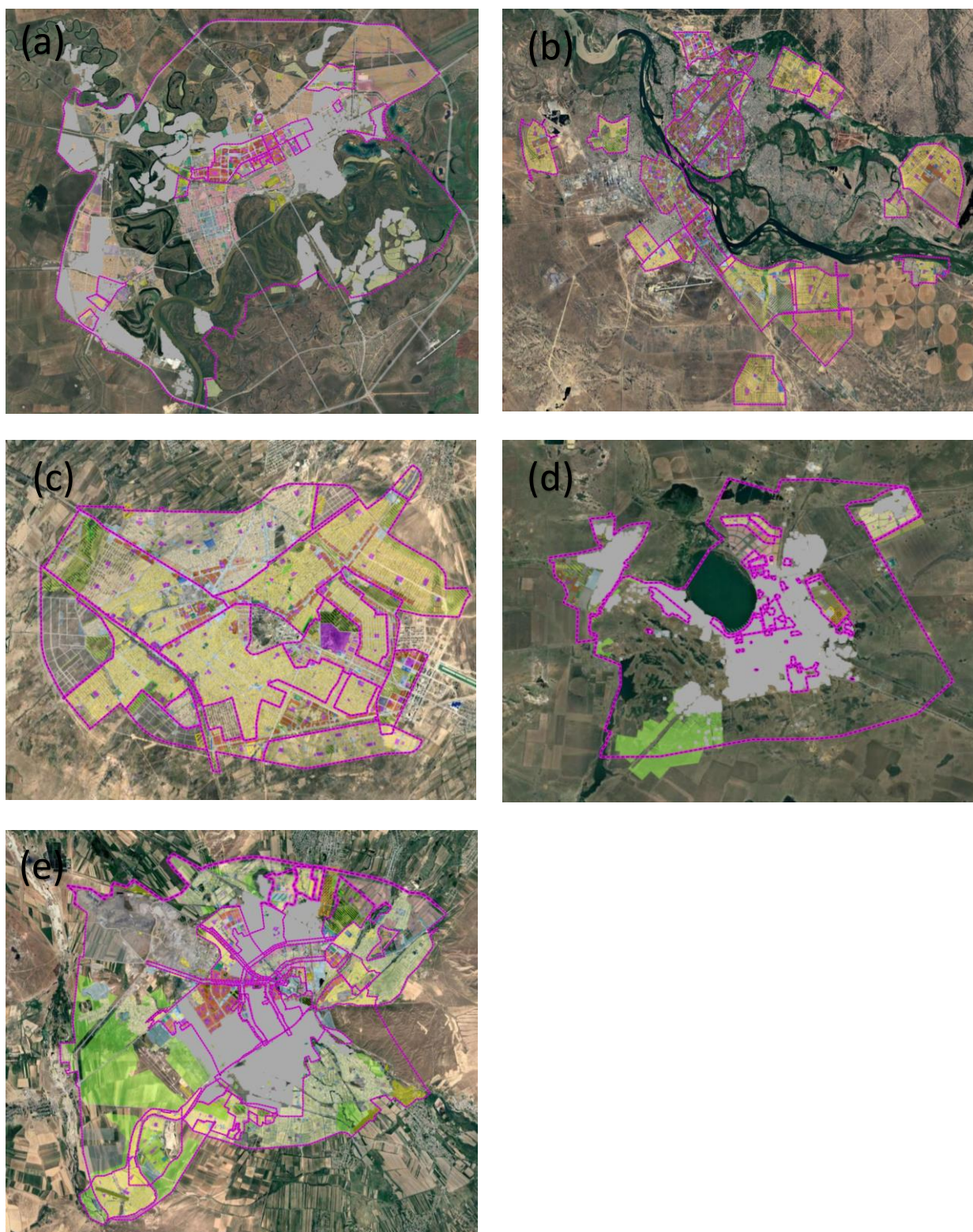
The research methods used in this study are comparative analysis of architectural identity of the historical cities of Kazakhstan and combination of qualitative and quantitative methods. The selected case study cities – Uralsk, Semey, Kokshetau, Taraz and Turkistan – are historical urban centers with a long history of functioning with a multi-layered morphological structure and specific typologies of contemporary urban transformation. The analysis was carried out in the historical core areas of each city, which are areas where the traditional compact urban development and the central districts of each city have historically been located, where the main historical, cultural and administrative functions are concentrated.

The five cities selected (Uralsk, Semey, Kokshetau, Taraz and Turkestan) were identified as historic urban centers that had recognized historic cores, a relatively long settlement continuity and enough cartographic evidence to compare them. They were recognized as historic cities as they have historically shaped central areas, monuments of urban architecture and construction in the framework of the Kazakh heritage legislation. Even though these cases vary in origin, size, and historical purpose, the analysis was restricted to the historic cores of the cases and the same spatial boundaries and indicators were used in both temporal slices.

Scientific novelty of the study is connected with the creation of comparative morphological methodology for the evaluation of historic cities transformation process by means of a coordinated study of archival cartographic materials, satellite images and GIS overlay methods. A set of indicators has been identified for the selected cities for the first time, allowing the quantitative assessment of the variations in building density, average building height and loss of the historic urban fabric. The research also identifies common trends and locally specific patterns of change in the historic urban cores.

The analysis is based on high-resolution satellite images, the limits of the historical core of the cities are outlined and the image is overlaid. Satellite mapping services that are open-access can be used as sources of satellite imagery and base maps, along with the Landsat/USGS archives. The authors drew the study areas' boundaries in QGIS using historical and contemporary cartographic data.

The spatial dimension of the research areas is defined by the historic-core boundaries, which are marked by letters (a–e) and presented in the comparative satellite image of the studied cities shown in Figure 1.



**Figure 1.** Comparative satellite imagery of the historic cores of the studied cities with boundary overlays: (a) Uralsk; (b) Semey; (c) Turkistan; (d) Kokshetau; (e) Taraz. [Author's material]

Historical urban core morphology can be especially seen through the visual observation of the urban environment. Below is presented an example of a representative fragment of the architectural structure that is shown (see Figure 2).



**Figure 2.** Figure 2. Fragment of urban morphology in the historic cities of Kazakhstan: (a) Historic Building in Uralsk; (b) Former Bank Building in Uralsk; (c) Mausoleum of Khoja Ahmed Yasawi in Turkistan; (d) Historic Residential Fabric in Turkistan; (e) Historic Street in Taraz; (f) Historic Urban Fabric of Semey. [Author's material]

Figure 2 were added to support the quantitative analysis with qualitative evidence of the architectural identity of the historic cities of Kazakhstan. They demonstrate examples of architectural and urban forms and elements that are representative of the buildings, streets, residential fabrics and urban ensembles that carry cultural memory and morphological continuity. Thus, the figures illustrate the expression of architectural identity in terms of the general spatial parameters as well as the retention of individual monuments, street scale, façade rhythm and the integrity of the historic urban fabric. These visual materials are used in conjunction with the comparative results to provide for the

interpretation of the results and to enable the identification of preserved elements and areas of transformation in the historic cores of the cities studied.

The methodological approach to calculating the urban morphology indicators and indicators of change in the historic urban fabric of the historic cities of Kazakhstan is presented in Table 1.

**Table 1** - The methodological approach to calculation of urban morphology indicators and indicators of the change of historic urban fabric in historical cities of Kazakhstan (1970-2023).

No	Indicator	Formula	Variables / meaning	Caption for article
1	Urban density	$D = \frac{S_b}{S_t} \times 100\%$	$S_b$ – total built-up area within the study boundary; $S_t$ – total area of the study boundary	Urban density was calculated as the ratio of built-up area to the total area of the historic core.
2	Change in density	$\Delta D = \frac{D_{2023} - D_{1970s}}{D_{1970s}} \times 100\%$	$D_{1970s}$ – density in the historical period; $D_{2023}$ – density in the contemporary period	Density change was determined by comparing the historical and current density values.
3	Average building height	$H_{avg} = \frac{\sum_{i=1}^n h_i}{n}$	$h_i$ – number of storeys of building $i$ ; $n$ – number of buildings in the sample	Average building height was defined as the arithmetic mean of storeys within the study boundary.
4	Change in average height	$\Delta H = \frac{H_{2023} - H_{1970s}}{H_{1970s}} \times 100\%$	$H_{1970s}$ – average height in the historical period; $H_{2023}$ – average height in the contemporary period	Height change was calculated as the relative increase in the average number of storeys.
5	Loss of historic urban fabric	$L = \frac{S_l}{S_h} \times 100\%$	$S_l$ – area of lost, demolished, or substantially altered historic fabric; $S_h$ – original area of historic fabric	Loss of historic urban fabric was calculated as the share of destroyed or transformed historic area.
6	Preservation rate of historic fabric	$P = 100\% - L$	$L$ – loss of historic fabric	Preservation rate was derived as the complement of the loss indicator.

The indicators were computed for each city using the cartographic materials, visual interpretation of the satellite imagery and spatial overlay analysis using GIS. The study was limited to the boundaries of the historical core of each city. For consistency with the results, the same spatial boundaries were used for both temporal periods.

### 3 RESULTS AND DISCUSSION

The study showed that the historic cities of Kazakhstan have a distinctive architectural identity that is influenced by morphological, cultural and semantic aspects. However, the process of urban development transformation is turning the historic urban environment into an environment that is gradually losing the key characteristics of the historic urban environment. The analysis of the historic cities of Uralsk, Semey, Kokshetau, Taraz and Turkestan revealed similar patterns in the morphology of the street network: the presence of a stable hierarchy in the street network, the predominance of low-rise development in historic cores, as well as the presence of prominent architectural landmarks related to religious and cultural heritage sites [3; 11; 18].

The scale and density of development were found to have changed significantly when comparing historical urban layouts with current information. In most urban areas, the height of the buildings and the introduction of standard architectural answers have changed the urban landscape and the proportion of the city blocks. The results are in line with the research conducted by M. Conzen, K. Lynch and V. Oliveira [14; 15; 25] which highlights how morphological change plays a role in the loss of visual and spatial identity of a city.

The changes in building height is clear from the visual comparison, which has led to the cities' growing height and consequently to the transformation of the historical scale of urban development.

These trends are described in these tables in detail (see Figure 3 below).

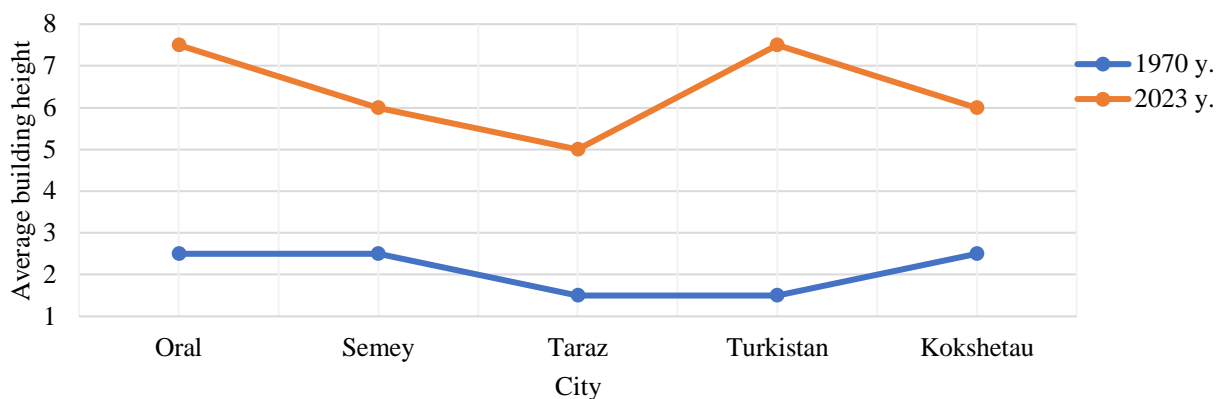


Figure 3 – The dynamics of average building height in the historic cities of Kazakhstan (1970-2023)

To illustrate the trends identified, a comparative table has been prepared, summarizing the key parameters of the transformation of the urban environment.

Table 2 presents comparative indicators of selected historic cities of Kazakhstan such as the changes in the building height, density and loss of historic urban fabric.

Table 2 - Morphological characteristics dynamics in historical cities of Kazakhstan (1970-2023)

№	City	Average Building Height (1970s)	Average Building Height (2023)	Change in Density (%)	Loss of Historic Urban Fabric (%)	New Dominant Features in the City Center
1	Uralsk	2–3 storeys	6–9 storeys	+48%	27%	Residential complexes, shopping malls
2	Semey	2–3 storeys	5–7 storeys	+37%	33%	Administrative buildings
3	Taraz	1–2 storeys	4–6 storeys	+42%	22%	Hotels, business centers
4	Turkestan	1–2 storeys	5–10 storeys	+65%	18%	Cultural and tourism facilities
5	Kokshetau	2–3 storeys	5–7 storeys	+31%	19%	Mixed-use centers

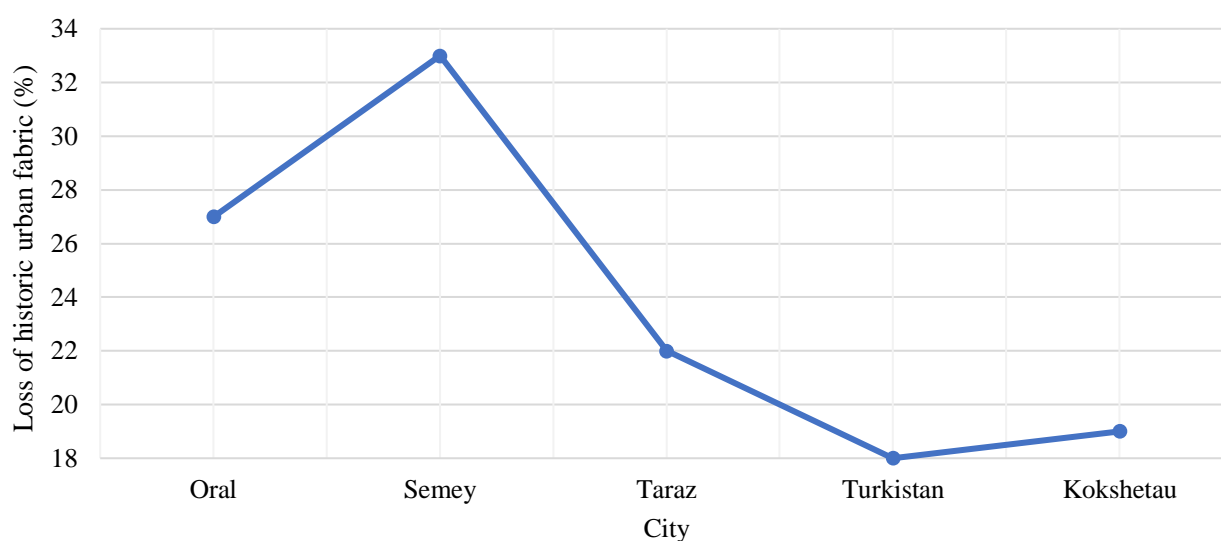
These findings can be compared to one another to demonstrate that the cities do not undergo the same changes at the same rate. The most dynamic density and building height development is observed in Turkestan, while the loss of historic urban fabric is less than in Semey and Uralsk. This implies that the intensity of development is related, not exclusively, to the planned cultural and tourism oriented redevelopment, rather than to uncontrolled replacement of the historic fabric, in the case of Turkestan. By contrast, Semey is characterized by a relatively high density growth and the highest loss of historic urban fabric and suggests a more disruptive type of change to the historic core. In Uralsk, a similar pattern is evident, but the new dominant functions are more strongly related to the replacement of the inner city fabric in residential and commercial buildings.

Taraz and Kokshetau are in the middle. Their markers indicate a gentler but more disjointed redevelopment process: selective redevelopment and block-scale renewal generate moderate amounts of density without a complete disruption of the historic fabric. Here, low-rise remnants endure, suggesting that in these cities, architectural identity is not completely obliterated but remains in an altered urban landscape. This trend is similar to the concept of identity loss that can happen not only from extensive destruction, but from the gradual functional replacement and incremental morphological modification.

The results achieved show that the greatest risks to the architectural identity stem from rising building heights, urbanization and the rehabilitation of historic buildings with standardized architectural structures. The transformations are in line with E. Relph's idea of “placelessness” that arises with the application of global architecture standards [13]. In addition, the research found that in the cities of Turkestan and Taraz tourist-oriented urban development facilities are being built, and this process can be called “tourist reconfiguration” of an historic urban centre [19] is being implemented.

The further analysis showed that each of the analysed cities has its own morphological patterns which can be used as a basis for preserving and developing architectural identity. But the lack of detailed urban planning regulations raises the likelihood of their loss. This is confirmed by results [18] that highlight the importance of the Historic Urban Landscape approach in the sustainable development of historic cities.

Analysis of the extent of the historic urban fabric loss shows that there are significant differences between cities, as well as the impact of urban planning policy on the protection of the heritage. The results are shown below graphically (see Figure 4).



**Figure 4** – Degree of Loss of Historic Urban Fabric in Cities of Kazakhstan (%)

The comparative table has been prepared on the basis of the results of the morphological analysis and historical and contemporary cartographic materials.

The evaluation of the level of historic urban fabric losses (Figure 13) shows the diversity of the changing processes in the examined cities. The maximum losses are reported in the town of Semey (33%) and Uralsk (27%), which coincide with the most intensive redevelopment of the central areas in the period from 1990 to 2010, the replacement of low-rise structures with multi-storey residential buildings, and the formation of new administrative and business areas. Taraz and Kokshetau have moderate levels of loss (22% and 19%, respectively), mainly because of piecemeal block-scale renewal and redevelopment.

The minimum loss (18%) in Turkestan is due to the extensive state initiatives for preservation of cultural heritage and the creation of a tourism cluster for the integration of historic sites into the modern urban space. The results corroborate international studies which indicate that the level of conservation of urban fabric is directly linked to the implementation of long term heritage management strategies and the control of urban transformation processes [18; 20; 25].

To sum up, the results show that the contemporary processes of urban development are seriously threatening the architectural identity of the historic cities of Kazakhstan. Concurrently, the sustainable development of the urban environment can be promoted by conserving the morphological structures,

semantic richness and contextual characteristics, in accordance with the international studies [17; 20; 25].

#### 4 CONCLUSIONS

The architectural identity of the historic cities of Kazakhstan was studied by comparative analysis of archival cartographic materials, satellite images and spatial overlay in GIS in the historic centers of the cities of Uralsk, Semey, Kokshetau, Taraz and Turkistan. The primary scientific contribution is that it has shown that redevelopment of historic urban centres is not only a physical process but also a process of progressive reconfiguration of the morphology, spatial scale and integrity of the historic urban fabric. The following conclusions can be drawn from the analysis conducted.

1. The architectural identity of the historic cities of Kazakhstan is created as a result of the synergistic action of the morphological structure, cultural memory and the semantic properties of the urban environment. This is therefore a phenomenon of many layers, which is not just about the preservation of individual monuments.

2. The comparative analysis revealed that the primary way urban transformation is taking place in the analyzed cities is through height, density and the erosion of the historic urban fabric. The most dramatic changes can be seen in the historic cores, where old town building is being superseded by newer, more concentrated, building.

3. The cities in the study don't change at the same rate. The city with the highest loss of historic urban fabric is Semey and Uralsk, and the highest density and building heights are in Turkistan. Kokshetau and Taraz are in a middle ground with a more selective and fragmented transformation.

4. The findings show that the architectural identity of a site is not only preserved by the survival of isolated items of heritage but also by the retention of the historical scale, street hierarchy, visual continuity and compositional integrity of the historic core.

5. The novelty of the study is the development of a comparative morphological framework for assessing historic cities of Kazakhstan, which is based on the analysis of archival maps, satellite images and GIS overlay synchronized in time. This framework allows for the detection of both general trends and patterns of transformation per city.

6. The implications of the findings for practice are that the results can be incorporated into the development of codes, urban planning regulations and heritage sensitive redevelopment strategies for historic areas.

7. The proposed approach could be used in the early stage to identify the risk to architectural identity and could be used as a methodological basis for contextual design in historic urban environments.

8. For future research, more case-study cities should be included, indicators be improved, and GIS-based monitoring tools should be created for long-term evaluation of the changes of historic urban fabric.

Finally, the study demonstrates that the morphological structure, spatial scale and historic fabric should be protected in a coordinated manner to ensure long-term conservation of architectural identity in the historic cities of Kazakhstan. The shift to contextual design and heritage-sensitive regulation should thus be considered as a prerequisite for sustainable changes in historic urban centers.

#### REFERENCES

1. **Glazychev, V. L., Golts, G. A., & Sayko, E. V. (Eds.). (1995).** The City as a Sociocultural Phenomenon of the Historical Process. [Gorod kak sotsiokul'turnoe yavlenie istoricheskogo protsessa]. Moscow: Nauka. 351 p. (In Russ.).
2. **Frampton, K. (1983).** Towards a Critical Regionalism: Six Points for an Architecture of Resistance. In H. Foster (Ed.), *The Anti-Aesthetic: Essays on Postmodern Culture*. Seattle: Bay

- Press., 53(3), 16–30. 12d\_Frampton\_CriticalRegionalism.pdf.
3. **Aukhadieva, L., & Karatseeva, T. (2022).** Architectural images and symbols of regional identity of modern architecture in Kazakhstan. *Innovaciencia*, 10(1), 1–17. <https://doi.org/10.15649/2346075X.2960>.
  4. **Zholdas, U., & Abdrasilova, G. S. (2022).** Modern regional architecture: Rethinking traditional construction methods through the implementation of innovative technologies [Sovremennaya regional'naya arkhitektura: pereosmyslenie traditsionnykh metodov stroitel'stva s vnedreniem innovatsionnykh tekhnologiy]. *Bulletin of the Kazakh Leading Academy of Architecture and Civil Engineering*, 3(85), 21-27. <https://doi.org/10.51488/1680-080X/2022.3-01> (In Russ.).
  5. **Kuspangaliyev, B. U., Samoylov, K. I., & Priemets, O. N. (2022).** Architecture of kazakhstan achievements and prospects of development. *Bulletin of the Kazakh Leading Academy of Architecture and Civil Engineering*, 3(85), 65-73. <https://doi.org/10.51488/1680-080X/2022.3-06>.
  6. **Koroteyeva, T. Yu., & Akhmedova, A. T. (2022).** “Heart of the city” and “Living environment” as prerequisites for the formation of the concept of a residential environment [“Serdtsse goroda” i “sreda obitaniya” kak predposylki formirovaniya kontseptsii “zhilaya sreda”]. *Bulletin of the Kazakh Leading Academy of Architecture and Civil Engineering*, 3(85), 57-63. <https://doi.org/10.51488/1680-080X/2022.3-22> (In Russ.).
  7. **Yermagambetova, K., Aytileu, Z., Suleymenova, E., & Abduazimova, Z. (2026).** Philosophy of urban space and architectural heritage: Contemporary theoretical perspectives. *Bulletin of the Kazakh Leading Academy of Architecture and Civil Engineering*, 1(99), 67-84 <https://doi.org/10.51488/1680-080X/2026.1-05>
  8. **Kussainov, A. M., Gludinova, M. B., & Bantserova, O. L. (2025).** Photogrammetry as a tool for the preservation and development of Kazakhstan’s national architecture. *Bulletin of the Kazakh Leading Academy of Architecture and Civil Engineering*, (98), 80-92 <https://doi.org/10.51488/1680-080X/2025.4-05>
  9. **Karatseyeva, T. Y., Ilvitskaya, S. V., & Akhmedova, A. T. (2025).** Living environments: From 20th century theory to 21st century practice. *Bulletin of the Kazakh Leading Academy of Architecture and Civil Engineering*, 1(95), 56-70 <https://doi.org/10.51488/1680-080X/2025.1-03>
  10. **Geoinformation Portal of the State Urban Planning Cadastre [AIS GGK].** [Electronic resource]. Available at: <https://gov.ggk.kz/geoport>
  11. **Fedorova, M. (2024).** Saving the urban historical environment: through struggle or cooperation (the example of the Ural cities) [Sokhranenie gorodskoi istoricheskoi sredy: cherez bor'bu ili kooperatsiyu (na primere gorodov Urala)] *Interaction. Interview. Interpretation*, 16(4), 44–57. <https://doi.org/10.19181/inter.2024.16.4.3> (In Russ.).
  12. **Abdrasilova, G., & Aukhadiyeva, L. (2025).** Architecture as a determinant in shaping the identity of a city: A case study of Almaty. *Urbani Izziv*, 36(1), 85–99. <https://doi.org/10.5379/urbani-izziv-en-2025-36-01-01>.
  13. **Relph, E. (2020).** Place and Placelessness [Mesto i otsutstvie mesta]. (A. translator, Trans.). *Novoe literaturnoe obozrenie*. (Original work published 1976) (In Russ.).
  14. **Lynch, K. (1982).** The Image of the City [Obraz goroda]. (V. L. Glazychev, Trans.). (Original work published 1960). Moscow: Stroyizdat, 328 p. (In Russ.).
  15. **Conzen, M. P. (Ed.). (2004).** Thinking about urban form: Papers on urban morphology, 1932–1998. Peter Lang.
  16. **Rapoport, A. (1977).** Human aspects of urban form: Towards a man–environment approach to urban form and design. Pergamon Press, Oxford, 438 p.
  17. **Ripp, M. (2022).** A metamodel for heritage-based urban development: Enabling sustainable growth through urban cultural heritage. Springer. DOI: <https://doi.org/10.1007/978-3-030-10612-6>

18. **Bandarin, F., & van Oers, R.** (2015). Reconnecting the city: The historic urban landscape approach and the future of urban heritage. Oxford, UK: Wiley-Blackwell. <https://doi.org/10.1002/9781118383940>
19. **Pendlebury, J.** (2013). Conservation values, the authorised heritage discourse and the conservation-planning assemblage. *International Journal of Heritage Studies*, 19(7), 709–727. <https://doi.org/10.1080/13527258.2012.700282>
20. **Vale, L. J., & Campanella, T. J.** (Eds.). (2005). *The resilient city: How modern cities recover from disaster*. New York, NY: Oxford University Press. <https://doi.org/10.1093/oso/9780195175844.001.0001>
21. **Madanipour, A.** (2003). *Public and private spaces of the city*. Routledge. <https://doi.org/10.4324/9780203402856>
22. **Edensor, T.** (2020). *Stone: Stories of urban materiality*. Palgrave Macmillan.
23. **Cole, J. P.** (2022). *Urban morphology and the shape of the city*. Springer. <https://doi.org/10.1007/978-3-030-92454-6>
24. **Palazzo, D., & Steiner, F. R.** (2011). *Urban ecological design: A process for regenerative places*. Island Press.
25. **Oliveira, V.** (2016). *Urban morphology: An introduction to the study of the physical form of cities*. Springer. <https://doi.org/10.1007/978-3-319-32083-0>

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## CONFLICT OF INTEREST

The authors state that there is no conflict of interest.

During the preparation of this manuscript, the authors used artificial intelligence tools (ChatGPT) solely for editorial assistance, such as improving phrasing and checking grammar, spelling, and punctuation. All ideas, interpretations, and conclusions are the responsibility of the authors, who take full accountability for the content of the article.

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