





Bibliometric Analysis of Studies on Urban Identity in Web of Science (WoS) Database

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Abstract

In this study, it is aimed to examine the bibliometric characteristics of studies on urban identity and to determine the current situation. In this context, studies on 'urban identity' published in the Web of Science database between 1999 and 2024 were evaluated. Access to the database was provided on 08.03.2024 and bibliometric analysis of 2303 publications on the subject was carried out through the VOSviewer 1.6.20 program. In the research conducted, it was found that the most studies on the subject were published in 2020 (209); the studies were mostly in article type (1941); the studies were mostly conducted in the USA (397) and the UK (267) and the language of publication was predominantly English (2072); the most frequently repeated keywords in the published studies were place identity (514), place attachment (289), urban identity (151).

Keywords: Bibliometric analysis, urban identity, VOSviewer, Web of Science (WoS).

Web of Science (WoS) Veri Tabanında Yer Alan Kent Kimliği Konulu Çalışmaların Bibliyometrik Analizi

Öz

Bu çalışmada kent kimliği konulu çalışmaların bibliyometrik özelliklerinin incelenmesi ve mevcut durumun tespit edilmesi amaçlanmaktadır. Bu bağlamda, Web of Science veri tabanında 1999-2024 yılları arasında yayınlanan "kent kimliği" ile ilgili çalışmalar değerlendirilmiştir. Veri tabanına erişim 08.03.2024 tarihinde sağlanmıştır ve VOSviewer 1.6.20 programı aracılığı ile konuyla ilgili 2303 adet yayının bibliyometrik analizi gerçekleştirilmiştir. Yapılan araştırmada, konuyla ilgili en fazla çalışmanın 2020 yılında (209) yayınlandığı; çalışmaların en fazla makale türünde (1941) yapıldığı; çalışmaların çoğunlukla ABD (397) ve İngiltere'de (267) yürütüldüğü ve yayın dilinin ağırlıklı olarak İngilizce (2072) olduğu; yayınlanan çalışmalarda en sık tekrar eden anahtar kelimelerin place identity (514), place attachment (289), urban identity (151) olduğu saptanmıştır.

Anahtar Kelimeler: Bibliyometrik analiz, kent kimliği, VOSviewer, Web of Science (WoS).

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1. Introduction

Urbanization and globalization has been two important phenomenas in the reshaping of social, economic, cultural landscapes and physical environments. These phenomenas have raised major concerns about issues related to urban life, particularly environmental sustainability (Brahmasrene & Lee, 2017; Saud et. al., 2020). These two phenomena cause problems resulting from rapid and unplanned construction, insufficient open green space, water, air and transport infrastructure. These are seen as the main factors triggering environmental sustainability concerns. There have been many recent studies that have examined the impact of such problems on the social life and the psychology of people (Jenerette & Wu, 2001; Lam, 2008; Checa & Neli, 2021). Nevertheless, it is noteworthy that there is relatively limited research on the sustainability of urban identity.

In recent centuries, there have been major breakthroughs in industry and commerce, which have resulted in large numbers of people moving from rural to urban areas. Today, according to the United Nations, about 56.5% of the world's population lives in cities, and this percentage is expected to reach 68% by 2050 (UN, 2018). This projected population growth will require urban areas to expand to accommodate more users. In this respect, the natural and cultural landscape resources of cities and their surroundings are likely to face various pressures in the future. Therefore, this raises concerns about the image and identity of cities.

As a co-production of different societies and cultures, today's cities have a multi-dimensional and dynamic structure. This heterogeneous system of cities have changed and transformed their identities. This situation demonstrates the significance of approaches to managing and safeguarding the local values of cities in the context of urban design and planning, with consideration to the long-term sustainability of urban identity.

The concept of urban identity plays a significant role in the social and cultural dynamics of urban environments. This closely intertwined with the phenomenon of place attachment and the sense of belonging that users experience in a particular setting. In this regard, the field of environmental psychology posits that humans possess a profound inclination to forge connections with their surroundings (Scannel & Gifford, 2017). The attachment and belonging to a place are essential for the establishment of a strong emotional and perceptual connection, which in turn promotes a sense of security and community. As a field of study, these concepts, which encompass the interconnection between the environment and human beings, have attracted the attention of various researchers (Anton & Lawrence, 2014; Boley et. al., 2021). In fact, the identity of a place encompasses more than its physical characteristics; it is given special meaning for individuals and communities. In other words, the concept of urban identity encompasses not only the physical characteristics of the space but also the experiences and relationships of the community living in it. For this reason, studies from disparate academic disciplines that focus on the city are valuable in understanding not only the physical aspects but also the social, cultural, and psychological dimensions of urban spaces. The methodology of this study is based on the bibliometric analysis of the researches in international database with the keywords identified. By analyzing the bibliometric characteristics of the studies in the literature on urban identity, the article seeks answers to the following questions:

- Who have been the most influential authors in the literature on urban identity and where have been the most influential institutions and collaborative networks?
- What is the geographical distribution of these studies, and which countries demonstrate a greater interest in the subject matter?
- Which keywords have been these studies produced in relation to?

In accordance with the aforementioned, this study presents an analysis of the bibliometric data of the aforementioned studies in the Web of Science (WoS) database. This analysis aims to guide researchers by clarifying important trends and focal points in the scientific literature on urban identity in the period 1999-2024. This analytic approach can provide a comprehensive research perspective that is objective in nature, thereby revealing information on how urbanization processes and urban identity are shaped through scientific publications.

2. Material and Method

Bibliometric analysis is an analytical method that is employed to obtain formal and quantitative data on the current state of a discipline. Furthermore, it facilitates the monitoring of academic trends through the use of visualization software (Dirik et al., 2023). The method is preferred by researchers for reasons such as discovering the trends of studies conducted on a specific topic, the components of the research, the intellectual capacity of the literature such as country, author, university, journal productivity, and the gaps in the current literature (Wallin, 2005; Donthu et al., 2021). This method is used by different disciplines such as gastronomy (Ayaz & Türkmen, 2018), marketing (Zeren & Kaya, 2020), architecture (Park & Lee, 2022), medicine (Chen et al., 2023), and landscape architecture (Çelik & Şekeroğlu, 2023). The transparency, reliability and ease of reproduction of bibliometric analysis, together with the visualization of data, increase the advantages and understandability of this method (Rama et al., 2023). This method allows for the meaningful evaluation of large volumes of data such as citations, number of authors and frequency of keywords (Donthu et al., 2021). The bibliometric analysis method is a preferred approach for identifying current publication trends and academic interactions related to scientific research, in contrast to the more commonly utilized review articles. Review articles usually involve researchers summarizing, comparing and evaluating past studies on a particular topic. Therefore, review articles can be influenced by the academic background and orientations of the researcher on the topic. On the other hand, articles dealing with bibliometric analysis studies stand out as analysis articles that aim to objectively evaluate large data groups of past studies in a particular field. Therefore, there has been a noticeable increase in the number of studies using bibliometric analysis method (Çelik & Şekeroğlu, 2023; Gönüllüoğlu & Arslan Selçuk, 2024).

In bibliometric research, various databases such as Google Scholar, Web of Science (WoS), Scopus, PubMed, Dimensions, Semantic Scholar are used to access scientific studies. Among these databases, WoS is a comprehensive database with over 21,000 refereed journals indexed by Science Citation Index Expanded (SCI-Expanded), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI) (Clarivate, 2024). WoS has features such as peer-reviewed journals and access to bibliometric information of publications and is widely used (Fang et al., 2018; Thompson, 2018).

In this context, a bibliometric analysis was applied to reveal the status of studies on urban identity published in the WoS database in the last 25 years.

In the study, WoS database was used to access the studies conducted on urban identity between 1999-2024. Access to the database was provided on 08.03.2024. In this direction, it was aimed to obtain the data of the studies containing the keywords “urban identity” or “city identity” or “place identity” by selecting all fields in the database. In the research conducted, 2303 scientific studies were reached.

The data was exported in “.txt” format to make it suitable for visualization. VOSviewer 1.6.20 program, which is one of the analysis tools used to visualize the networks of bibliometric data and to reveal the relationship patterns between word-word phrases in texts, was used. The data obtained from the studies were evaluated through author-citation-journal-country-institution-keyword analysis. With this method, it is aimed to better understand the current state of the academic literature on urban identity and the prominent trends. The aim of this study is to gain a clearer insight into the current state of the academic literature on urban identity and the most prominent trends.

3. Findings and Discussion

According to the WoS database query with the keywords “urban identity”, “place identity”, “city identity”, the oldest study in the database was published in 1982 (1). This study concentrated on one of the most significant issues of that era: the transformation of the industrial sector and the stark contrast between the social classes. Subsequently, the text turned its attention to the failure to cultivate a conscious sense of community and identity (Accampo & Auzias, 1982).

In the context of the present study, the studies included in the database were limited to those published in 1999 and the initial two months of 2024. In this context, it was observed that there were 11 publications in the WoS database in 1999 and 187 publications in 2023. Therefore, it can be stated that there has been a notable trend in the literature on this subject in recent years. It is particularly

striking that the largest number of publications (209) were published in the aftermath of the pandemic, the effects of which largely emerged in 2020.

According to the selected range, scientific studies were mostly articles (2112). Information on these numbers is presented in Table 1.

The fact that a document type could be marked as more than one type caused the number of document types to exceed the number of documents analyzed (2303) (Table 1).

Table 1. Types and number of studies published in the WoS database

Type of Publication	Number of Publication
Article	2112
Proceeding Paper	236
Book Chapters	104
Book Review	80
Others	246

The studies published in the last 25 years are generally included in the categories of 'Environmental Studies' (387), 'Hospitality Leisure Sport Tourism' (301) and 'Urban Studies'(290). The distribution of the studies into categories is given in detail in Table 2. Similar to the problem with study types, the option to include studies in more than one research category by the authors causes the number of studies in the categories to be higher than the total number of documents analyzed (2303).

Table 2. Categories of documents published in the WoS database

Research Categories	Number of Publication
Environmental Studies	387
Hospitality Leisure Sport Tourism	301
Urban Studies	290
Geography	273
Architecture	186
Environmental Sciences	174
Regional Urban Planning	163
Psychology Multidisciplinary	138
Green Sustainable Science Technology	126
History	122
Others	1667

The studies on urban identity in the WoS database were published in 20 different languages. It is seen that the predominant language of the published studies is English (89%). The studies have been published in 1266 different publication venues. On the other hand, 'Sustainability' (2.7%), Journal Of Environmental Psychology (2.1%), Procedia Social And Behavioral Sciences (1%) journals stand out as the journals with the most studies on the subject. Published studies are mostly indexed in SSCI (47.3%), ESCI (28.6%) and A&HCI (12.5%) (Table 3).

Table 3. Journal-publication language published in WoS database

Feature	Type	Number of Publication
Publication Language	English	2072
	Spanish	67
	Turkish	42
	Russian	24
	French	19
	Others	79
Publication Titles	Sustainability	64
	Journal Of Environmental Psychology	49
	Procedia Social And Behavioral Sciences	25

	Journal Of Place Management And Development	24
	Cities	22
	Others	2119
Index	Social Sciences Citation Index (SSCI)	1091
	Emerging Sources Citation Index (ESCI)	658
	Arts & Humanities Citation Index (A&HCI)	289
	Science Citation Index Expanded (SCI-EXPANDED)	285
	Conference Proceedings Citation Index–Social Science & Humanities (CPCI-SSH)	163
	Others	233

When the citation relationships of the journals in which the studies were published were examined with the criteria of at least 1 published study belonging to a source and at least 1 citation belonging to 1 source, 761 journals were found to be linked to each other. Figure 1 shows a visualization of the network relationships of the 50 journals with the highest interconnectivity. The Journal of Environmental Psychology is the most cited journal for studies on urban identity. The total number of citations of the studies (49) published in the journal is 6802 and the total link strength is 628. Among all journals, the total number of citations of the journal 'Sustainability', in which studies on the subject are published the most (64), is 539 and the link strength is 198.

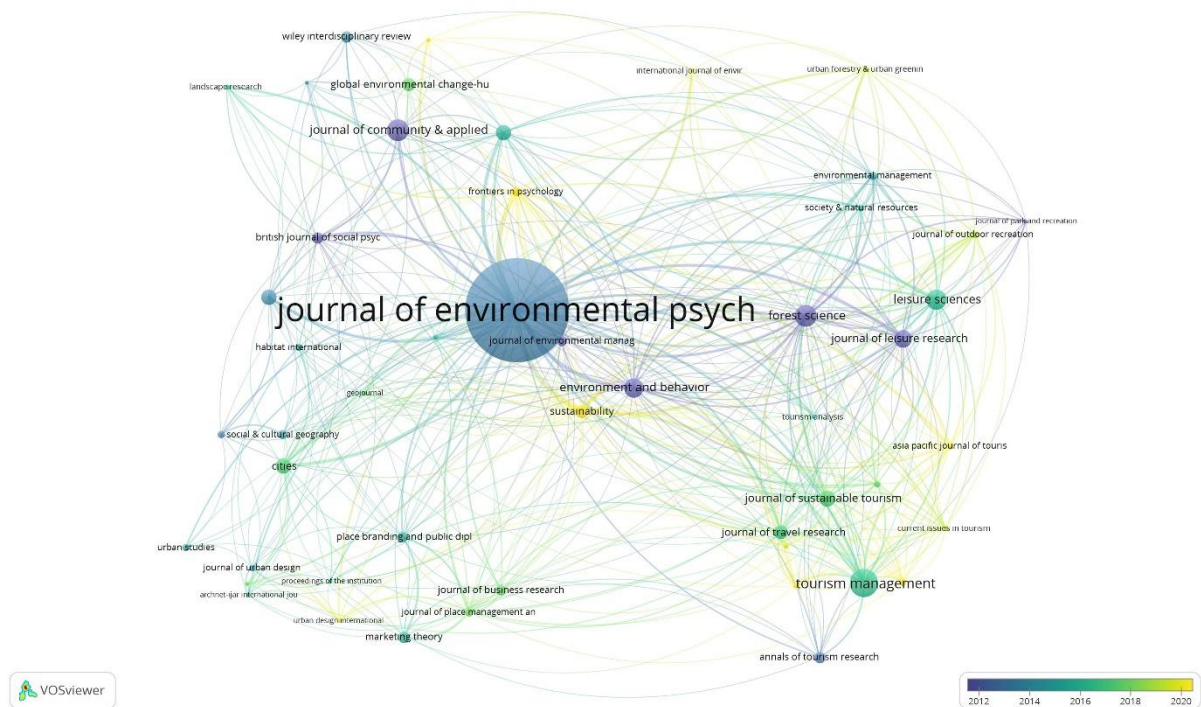


Figure 1. Journal citation links

In accordance with the established criteria, which required that at least one study be conducted in each country and that at least one citation be received from each country, it was determined that 90 countries established citation links with one another (Figure 2). It was observed that the most studies were produced in the United States, with 397 studies receiving a total of 11307 citations and having a link strength of 1733. The other country that has contributed the most to the literature on the subject is the UK. In the UK, 267 studies were conducted with a total number of 8545 citations and 1232 link strength, in Australia 117 studies were conducted with a total number of 7105 citations and 1190 link strength.

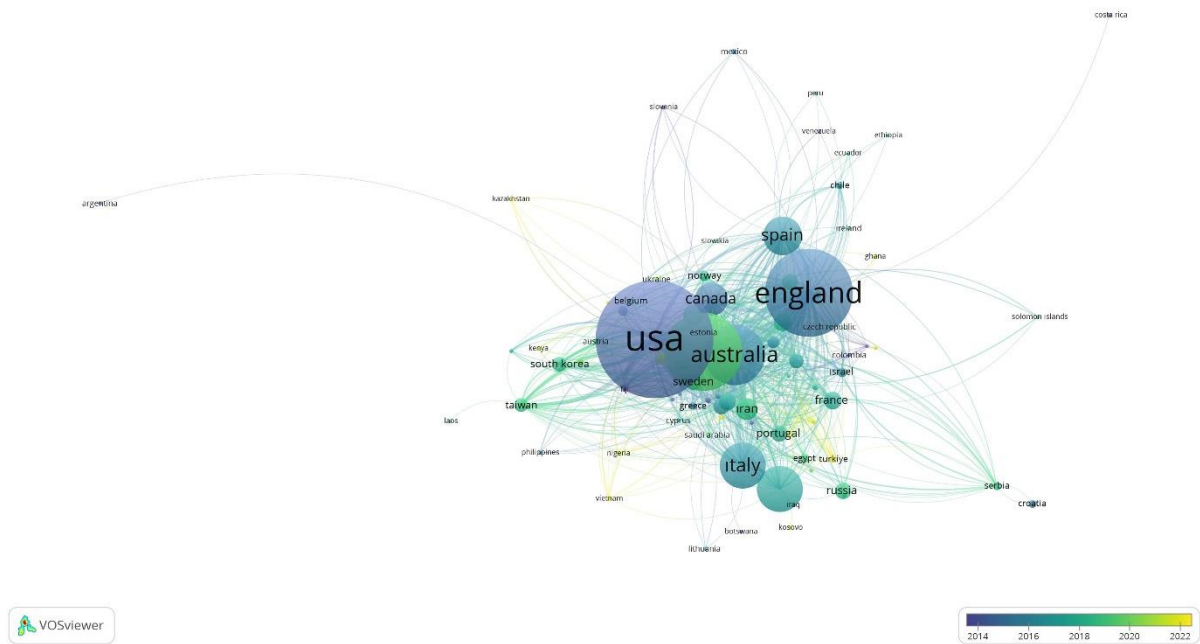


Figure 2. Country citation links

When author citation links were analyzed based on the fact that each author had at least 1 study and 1 citation, it was determined that there were linking relationships between 3276 authors. Figure 3 shows the connection networks of the 500 authors with the highest interconnectivity. Among the studies on urban identity, Patrick-Wright, who conducts scientific studies in the field of geography, has reached the highest number of citations by receiving a total of 1686 citations in 9 studies on the subject, and the total link strength of the author is 200. Alan Graefe, Gerard T. Kyle and Robert Manning, among the other authors who conducted studies on the subject, published 5 studies each, receiving 1231 citations and reaching a link strength of 553.

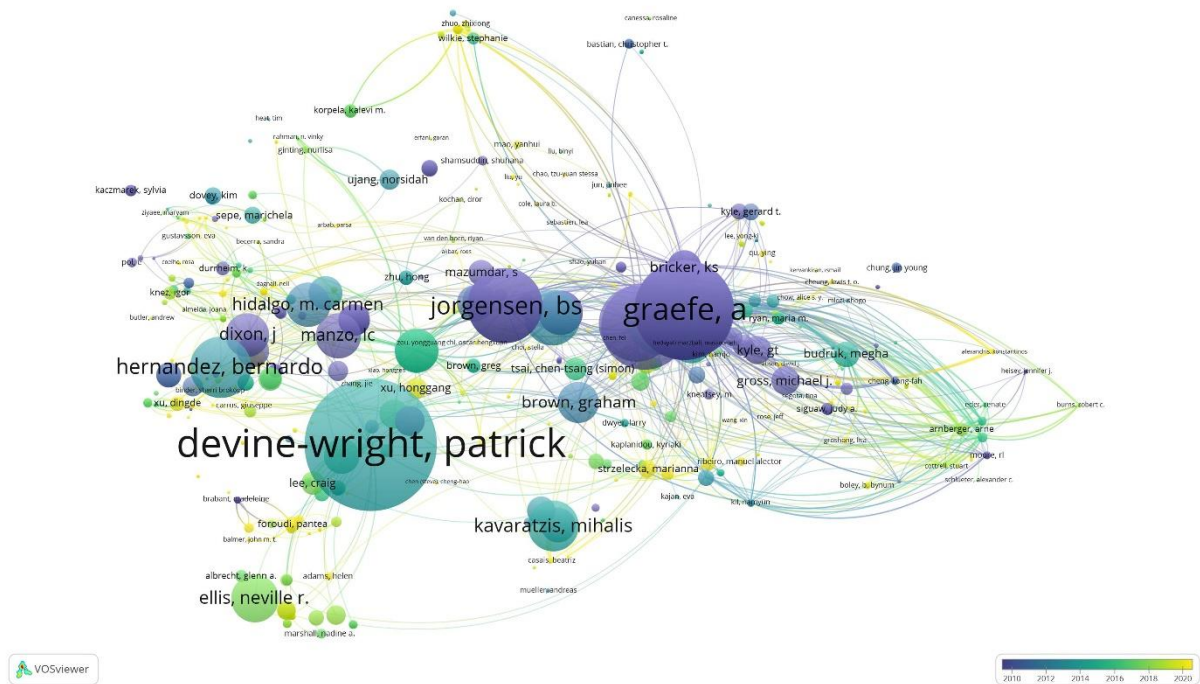


Figure 3. Author citation links

When the co-authorship relationships between authors were analyzed in line with the criteria of 1 author having at least 1 study and 1 citation, co-authorship links were identified between 3276 authors. The network relationships of the 500 authors with the highest connection strength among these connections are shown in Figure 4. Accordingly, Siren Lan and Qunyue, two of the authors with the highest link strength, produced 3 publications and reached 86 citations and 23 link strengths. Patrick-Wright, who has the highest number of citations, has a link strength of 13.

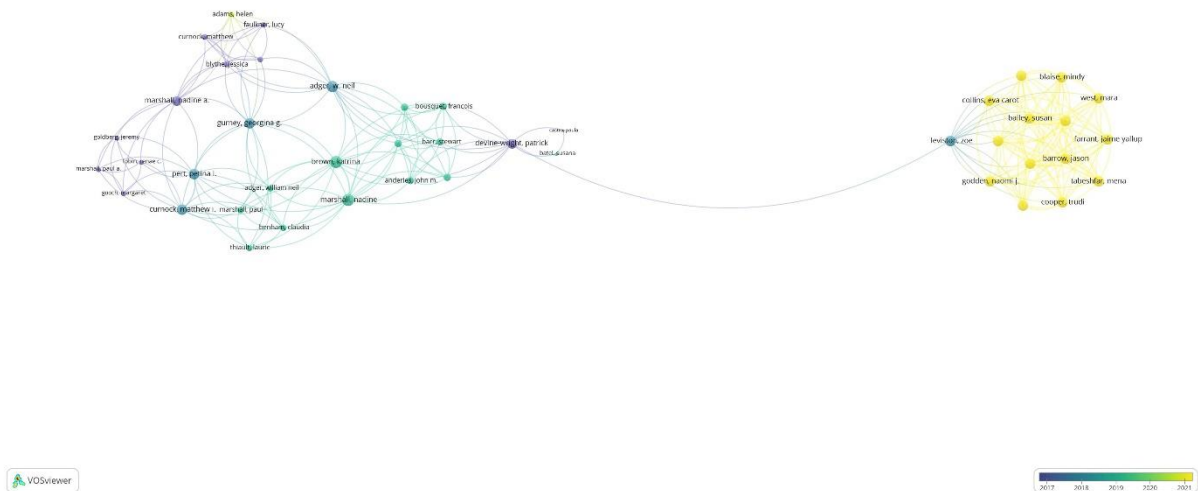


Figure 4. Authors' co-authorship links

When the institutions to which the authors are affiliated and the number of citations were analyzed based on the criteria that at least 1 publication was produced from each institution and cited 1 time, 1457 institutional citation links were identified. Accordingly, Penn State University has made the largest contribution to the literature on urban identity. The highest number of citations and links was reached by producing 18 publications in the institution. At the same time, the total number of citations to the relevant publications of the institution is 2329 and the total number of links is 1159. Among other institutions with high contribution to the literature, 6 publications of the University of Vermont had 1380 citations and 690 links, and 10 studies conducted at Colorado State University had 1333 citations and 574 links. (Figure 5).

'urban identity' has 151 repetitions and 214 link strength, the keyword 'sense of place' has 91 repetitions and 207 link strength, and the keyword 'identity' has 99 repetitions and 207 link strength.

4. Conclusion and Suggestions

Environmental pressures, especially with urbanization and globalization, have led to a gradual loss of the characteristics that distinguish cities from each other. These factors, which also deeply affect human life, create an identity problem in cities. This situation reveals the importance of scientific studies on the identity of cities that have become the living space of people. The present study aims to identify the most influential authors, institutions, and collaborations in the field of urban identity over the past 25 years. The date 03/08/2024 was selected as the limit for the analysis. In accordance with the parameters of the study, a bibliometric analysis of 2,303 studies on urban identity published in the WoS database between 1999 and 03/08/2024 was presented.

The studies on the subject were evaluated and found to have been predominantly scanned through the SSCI, ESCI, and A&HCI indexes, and to have been primarily published in article form. Furthermore, it was noted that the authors made significant contributions to the existing literature by conducting studies across a range of scientific disciplines, including articles, proceedings, and book chapters. The subject is of significant interest, particularly within the social sciences, and developments in urban identity have a considerable impact on these disciplines. However, the literature on urban identity, which is addressed by other professional disciplines with its physical, social, cultural, and psychological dimensions, continues to expand with a comprehensive perspective on a daily basis.

In urban identity studies, the keywords "place identity", "place attachment" and "urban identity" are the most commonly used words by authors. In addition, concepts such as "sense of place" and "place dependence" also come to the fore. Ujang and Zakariya (2015), for example, addressed urban renewal environments based on the principles of sense of place and environmental psychology (place attachment) in the context of the continuity of psychological well-being of urban residents. This study evaluated the definition and importance of place in urban regeneration studies and the effects on the continuity of the meaning and identity of place. Another study examined the collective memory of two cities after World War II and its relationship with place identity and place attachment (Lewicka, 2008). The USA and the UK have contributed the most to the literature on the subject. However, the general trend shows that other countries are also becoming more interested in the issue and that the issue has become a global area of interest. In conclusion, the issue of urban identity is becoming increasingly important. Therefore, researchers need to strengthen their collaborative networks, encourage the accumulation of knowledge in the field, and develop more effective strategies to preserve and emphasize the unique character of cities.

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The article complies with national and international research and publication ethics. Ethics Committee approval was not required for the study.

Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article.

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