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GENIUS LOCI OF UNIVERSITY CITIES: STAKEHOLDER PERSPECTIVES ON ACADEMIC IDENTITY

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Purpose: The paper aims to explore the genius loci, or the unique identity of university cities shaped by their academic character, as perceived by various stakeholders. It seeks to identify how different audiences, such as students, residents, and university staff, describe and evaluate the distinguishing features of university cities and assess the positioning of Polish cities within these characteristics.

Design/methodology/approach: The research employs a hybrid methodological approach, including in-depth interviews and Multiple Factor Analysis (MFA). Data was collected from respondents across the city's stakeholder groups. The analysis combined qualitative insights with quantitative techniques, using MFA to identify dimensions defining the genius loci of university cities and positioning Polish cities based on these dimensions.

Findings: The study identified two key dimensions shaping the genius loci of university cities: 1. Cultural and Academic Integration: Reflecting the impact of universities on urban identity and life, with Kraków receiving high scores for its strong academic and cultural presence. Conversely, cities like Białystok scored lower, indicating less visible academic influence.

2. Infrastructure and Urban Greenery: Emphasizing the quality of campus infrastructure and integration of green spaces. Gdańsk emerged as a positive outlier, showcasing effective urban planning, while Łódź and Katowice scored lower, highlighting challenges in infrastructure.

Research limitations/implications: The research conducted was of an exploratory nature. The purposive sampling limits the statistical representativeness of the findings.

Practical implications: The study offers actionable insights for city branding strategies, particularly for university cities. Cities with strong academic and cultural profiles, like Kraków, Warszawa and Gdańsk, can leverage these strengths to enhance their global appeal. Cities with lower scores, such as Łódź and Katowice, could improve their image by investing in campus infrastructure, green spaces, and better integration of universities into urban life.

Originality/value: The paper provides a novel application of the genius loci concept to university cities. The use of MFA to integrate qualitative and quantitative data represents an innovative methodological contribution.

Keywords: university city, genius loci, city branding, multiple factor analysis, mixed methods **Category of the paper:** research paper.

1. Introduction

City's branding is an increasingly prominent focus for both researchers and urban practitioners (Tomaszewska and Glińska, 2018). It offers a framework for enhancing a city's identity, competitiveness, and attractiveness by strategically leveraging its unique characteristics. The growing interest in brand management among cities stems from the need to establish a distinct identity that sets them apart from competitors and ensuring their qualities are effectively recognized and utilized by various audiences (Kavaratzis, Ashworth, 2006). Hence, a city brand can be understood as a network of associations formed in the minds of its audience (Anttiroiko, 2015; Casais and Poço, 2021; Florek et al., 2006). The literature studies provide insights into the key elements relevant to place branding. A theoretical framework is emerging that highlights the interrelationships and interactions among these elements, offering a deeper understanding of city branding (e.g.: Duque Oliva et al., 2022; Gaggiotti et al., 2008; Glińska, 2016; Stephens, Balakrishnan, 2009). Studies emphasize the key elements involved in the branding process, the role of branding activities, and the interrelationships among crucial components such as place identity, image, and positioning. Branding activities are applied to various territorial products, including cities. Emerging sub-disciplines within territorial marketing focus on understanding the unique characteristics of different types of places and aim to define the core essence of place branding (Skinner, 2011).

Cities possess distinguishing features that form the foundation for managing their image and building a coherent city brand. These features often reflect the dominant functions of a city, enabling the classification of cities into categories such as cultural cities, tourist cities, or industrial cities. Similarly, university cities are distinguished by their academic function, which contributes significantly to shaping their identity and positioning. The academic nature of such cities not only defines their role as hubs of education, innovation, and intellectual activity but also embodies their genius loci – the unique spirit of place that captures their essence. As a core aspect of the city's identity, the academic character serves as both a tangible and intangible asset, central to its cultural, social, and economic significance (Adamczuk, 2015; Domański, 2013; Glinka, 2017).

The concept of a university city itself serves as a descriptive category and one of the models of cities, often used in the typology and ranking of urban spaces (Rewers, 2016). Nonetheless, the academic nature of a university city is among its most valuable assets, significantly shaping its identity and positioning within the competitive global landscape. Universities contribute to the intellectual and cultural vibrancy of the city, shaping its social dynamics, fostering innovation, and driving economic development. This academic character not only attracts students, researchers, and industries but also defines the city's reputation and recognition. The synergy between the university and the surrounding urban environment creates a unique sense of place, or genius loci, which embodies the city's spirit and sets it apart from other urban

centers. This genius loci are reflected in the physical, cultural, and social dimensions of the city, making it a vital element of its brand identity. Exploring how this academic nature is perceived by different audiences – such as students, residents, and visitors – provides valuable insights into the interplay between the university and its city, helping to uncover its full potential as a dynamic and competitive urban space.

The aim of this article is to explore how the genius loci, or unique identity of cities shaped by their academic character, is perceived by different stakeholders (understood as groups targeted by the territorial megaproduct). The first part of the paper introduces the concept of genius loci and examines its relationship to city image and branding. This is followed by a discussion of how the university city category has been conceptualized in the literature. The results of the author's research are then presented, focusing on how different audiences perceive the dimensions of genius loci of university cities and how Polish cities are positioned within these identified characteristics. Finally, the findings are discussed, and the limitations of the study are outlined. The originality of this paper lies in the novel application of the genius loci concept in the context of university cities, offering a new perspective on their distinctive characteristics. Furthermore, using Multiple Factor Analysis (MFA) to integrate qualitative and quantitative data represents a significant methodological advance, enhancing the rigour and depth of the analysis.

2. Literature review

2.1. Uncover genius loci concept

Norberg-Schulz (1980) conceptualizes place as "a space with a distinctive character", defined by its tangible elements – form, texture, color, and materiality – which together create its genius loci or spirit of place. This "environmental character" encapsulates the essence and atmosphere that uniquely defines a place. A place is, therefore, a holistic qualitative phenomenon that cannot be understood by isolating individual characteristics, such as spatial relations, without losing its inherent essence. The concept of genius loci is widely discussed across disciplines such as philosophy, architecture and cultural anthropology. It is broadly understood as a meta-concept encompassing both the physical attributes of a place and the sensory-based perception of its intangible, spiritual qualities. This notion emphasizes the interplay between spatial environments and social processes, providing a framework to explore how places shape and are shaped by human experiences (Vecco, 2020). Genius loci can also be interpreted as a concept rooted in human perception and sensation, influenced by both physical and emotional experiences as well as pre-existing knowledge (ibidem). It highlights the interpretive process through which individuals engage with and attribute meaning to places, blending lived experiences with cultural and personal contexts.

From an economic perspective, genius loci encompass key characteristics that highlight its value as an intangible asset. It is defined by its uniqueness and authenticity, serving as intangible heritage essential for the creation and preservation of cultural resources (Lokas et al., 2023). It is irreplaceable, intrinsically tied to the specific context of a place, and irreducible, reflecting a complex interplay of social, cultural, political, and historical factors (Tian and Zakaria, 2025). Moreover, genius loci possess a long service life that surpasses typical economic assets and functions as a public good – non-exclusive and accessible for simultaneous use by multiple individuals (ibidem). Figure 1 presents a schematic overview of the key elements of genius loci.

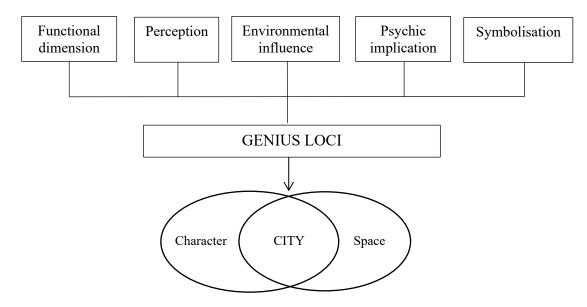


Figure 1. Conceptual diagram of genius loci. Source: elaboration based on (Badami, 2022).

Analyses using the concept of genius loci emphasize three key elements related to place: material layer, human interaction with nature and intangible experience (Tian, Zakaria, 2025; Vecco, 2020). The first element involves interpreting both natural and man-made features in landscape representations, such as mountains, rivers, trees, and buildings. This analysis helps reveal the geographical and ecological aspects of the depicted site, as well as the symbolic meanings these elements hold within specific cultural and historical contexts. The third element focuses on the emotional and psychological responses evoked by these features, which are crucial for capturing the genius loci of a place. By examining these components together, it becomes possible to uncover not only the physical characteristics of a location but also its deeper cultural and atmospheric significance, contributing to the overall sense of place. The process of identifying and uncovering the genius loci involves numerous elements and requires a holistic understanding of the city's resources, as well as how these resources are utilized and positioned. This is synthetically illustrated in Figure 2.

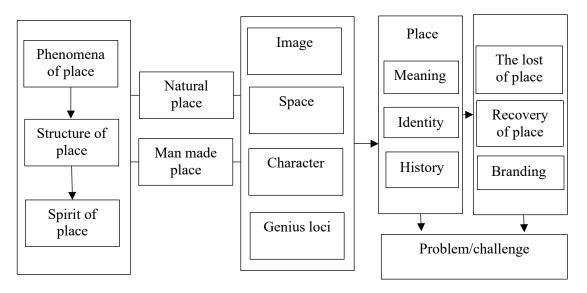


Figure 2. The search process of finding Genius Loci. Source: own elaboration based on (Norberg-Schulz, 1980; Siregar et al., 2018, p. 2).

The concept of genius loci has been explored in various contexts, emphasizing its role in shaping urban identity. For instance, Asmara's genius loci is integral to its UNESCO World Heritage status, rooted in its historical and cultural-spatial characteristics (Tecle-Misghina,

Heritage status, rooted in its historical and cultural-spatial characteristics (Tecle-Misghina, 2022). The study conducted by Rudnicka-Bogusz (2022) identifies features that differentiate military installations from other historic architecture, focusing on which elements must be preserved to maintain the genius loci of barracks complexes, particularly their scholastic potential and sentimental value. A study on Krakow's genius loci (Borkowski et al., 2017) highlights its role in shaping the city's image as a tourist destination. Based on tourist traffic data from 2012-2016, the research demonstrates how genius loci influence tourist satisfaction, loyalty, and perceptions of a destination. These examples highlight the significance of genius loci in defining and shaping urban experiences, which, in turn, influence the perception of a city's image and branding. The presented examples focused on discovering manifestations of genius loci. From this perspective, a key issue is how a place is perceived through the lens of genius loci by its users, and how specific categories or characteristics contribute to the formation of a place's image and its associated genius loci in the public consciousness. The aim of this article is to explore how the genius loci of university cities is perceived, focusing on the elements in the perceptions of different audiences that may be relevant from this perspective.

2.2. Conceptualisation of university city

The concept of the university city has gained increasing attention in the context of socioeconomic transformations and the growing importance of knowledge-based economies. Academic centers significantly shape the potential of places – cities, regions, and beyond – by fostering development and enhancing promotion efforts (Boguski, 2008; Domański, 2013; Florida, 2000; Nowak, 2011; Purchla, 2012; Błoński et al., 2016; Sobocińska, 2011). A key feature of university cities is the free exchange of resources and ideas along the science-economy axis, facilitated by proximity between institutions and industries. This proximity enables access to highly skilled labour, customer markets, and informal knowledge flows, factors increasingly critical for business location decisions (Freidlich, 1929; Nowak, 2011; Sobocińska, 2011). Universities thus contribute to regional or city competitiveness by stimulating creativity and innovation (Florida, 2010; Purchla, 2012).

Definitional approaches to university cities vary (Ćwiklicki, Pilch, 2023). Rewers 2016 describes the university city as a descriptive category within urban typologies, distinguishing it from academic centers/academic cities¹⁰. While academic cities are metropolitan areas with diverse functions, university cities are smaller towns where the university plays a dominant role in shaping the local economy and social life (ibidem). Quantitative indicators, such as the proportion of students in the population, are insufficient on their own to define university cities (ibidem). In contrast, Gumprecht (2009) defines a university city as one where a university significantly influences the community's character and functioning, proposing a quantitative criterion that at least 20% of the population should be students. Almond, in his research on American college towns, developed a taxonomy outlining the characteristics that define them (Almond, 2020). In Poland, an example of a report aimed at identifying university cities is the study conducted by the Polish Economic Institute (PEI) (Debkowska et al., 2019). The study aimed to rank Polish university cities based on criteria reflecting their academic attributes (ibidem). This included prestige, assessed through academic staff evaluations and international recognition; graduate employability, measured by employer preferences and the economic outcomes of graduates; and innovation, evaluated through patents, intellectual property rights, and EU funding. Additionally, the ranking considered scientific potential, including parametric evaluations, staff qualifications (doctoral and habilitation degrees), and research infrastructure, as well as scientific effectiveness, which encompassed external research funding, staff development, degrees awarded, publications, citations, and Field-Weighted Citation Impact (FWCI). Study conditions were assessed based on access to highly qualified staff and institutional accreditations, while internationalisation was measured by the availability of foreign-language study programs, the presence of international students and staff, student exchange activities, and the multicultural composition of the student community.

The key concepts in place branding – brand image, brand identity, and brand positioning – are closely interconnected (Florek, 2014; Kapferer, 2008). Brand image reflects audience perception, while brand identity represents how the owner wants the brand to be seen, shaping its positioning and highlighting its advantages over competitors. A city's perceived identity directly influences its image, emphasizing the link between image, identity, and branding. Public perception and attributed meanings often form the foundation for strategic efforts to enhance a city's appeal. In the case of a university city, the links between the city's identity and its genius

¹⁰ Acknowledging the distinction in the literature between university cities, academic cities and college towns, this study treats the terms as synonymous. This approach was adopted because the respondents in the research did not perceive any significant differences between the two terms.

loci are particularly pronounced because the university often plays a central role in shaping both the tangible and intangible qualities of the place. The aim of this article is to identify the perceptions of the genius loci of a university city among different audiences, considering its role as a territorial product with distinct cultural, spatial, and social characteristics. In doing so, the aim was to determine how Polish cities are perceived in this context.

3. Methods¹¹

To achieve the research objective, the study was guided by two questions:

- What characteristics do respondents use to describe the distinguishing features of the genius loci of a university city?
- How is the image of Polish university cities perceived?

A hybrid methodology (Chlipała, 2018; Creswell, 2013; Creswell, Plano Clark, 2018; Tashakkori et al., 2021) was employed to address the stated research questions. Data were collected through in-depth individual interviews, with the interview scenario specifically designed to enable the application of quantitative data reduction techniques during the analysis. The integration of quantitative and qualitative methods within the research procedure occurred at three key stages. During data collection, qualitative and quantitative data were gathered simultaneously, with the intent of nesting and integrating them. In data analysis, an intramethodical approach was employed, where both data types were integrated by following relevant threads aligned with the study's objectives. Finally, during result interpretation, conclusions were drawn by complementing, extending, and confirming findings from both qualitative and quantitative analysis was conducted using multiple factor analysis (MFA), chosen because it is well-suited for analyzing data derived from small sample sizes (small N).

Multiple Factor Analysis, first introduced by Escofier and Pagès (1994), is an extension of principal component analysis (PCA) that integrates data tables with varying measurement levels to analyze their relationships in a common multidimensional space (Abdi and Valentin, 2007). MFA allows the extraction of latent variables that maximize variance in the data without requiring large datasets. It supports both quantitative and qualitative variables, enabling structural and intra-structural analyses as well as the representation of objects in a shared factor space. MFA relies on singular value decomposition (SVD) and generalized singular value decomposition (GSVD) to identify independent dimensions from normalized data tables. Each table is analysed separately through PCA, with eigenvalues forming the basis for factor

¹¹ The MFA results described here represent a revised and supplemented version of a broader research project conducted as part of the author's doctoral dissertation, titled 'Hybrid Methods in City Image Identification'.

extraction. The latent factors represent linear combinations of observable variables, with no correlation among them, allowing systematic relationships to be uncovered (Panek, Zwierzchowski, 2013).

A stratified-targeted sampling approach was employed, with strata representing stakeholder groups commonly connected to both the city and the university: officials, academic staff, entrepreneurs, pupils, current students, and NGO representatives. Given the exploratory nature of the study, the sampling was purposive. Participants were selected to ensure that their roles, as relevant to the research objectives, were considered central to their personal or professional identities. To minimize the influence of perceptions shaped by broader experiences in multiple cities, all respondents were chosen from a single location, Kraków. This approach aimed to focus on localized perspectives and avoid biases stemming from exposure to other urban environments.

The fieldwork, conducted between March and May 2022, involved 32 individual in-depth interviews with 4–5 interviews per group. Sampling continued until theoretical saturation was achieved (Glaser and Strauss, 2009), ensuring that the selected respondents adequately reflected the characteristics, opinions, and perceptions of the phenomenon under study. Redundancy was used as a criterion to confirm sample adequacy (Pasikowski, 2015). Each interview lasted an average of 70 minutes.

At the analysis stage, a key representative was selected from each group/ layer for multiple factor analysis. This selection utilized cultural domain analysis (CDA), incorporating consensus analysis (Borgatti, 1994). While not all individuals within a group share identical perceptions, consensus analysis identifies dominant patterns, assesses variation within the sample, and evaluates respondents' knowledge of the cultural domain (Borgatti, 1998; Boster, 1986; Romney et al., 1986). This approach reveals prevailing cultural models and determines the respondent whose answers best reflect group consensus using cultural competence coefficients (Dressler, 2020). Techniques such as sorting (pilesort), free association (freelist), and triadic comparisons were employed to conduct CDA and identify the most representative respondents for further calculations (Borgatti, 1998).

Key university cities were selected based on the cited studies (Dębkowska et al., 2019). Based on the adopted criteria, the authors distinguished four groups of cities: leader, chasing leader, chase group, and peloton. In this paper, the analysis was limited to 11 cities: the leader (Warsaw), the chasing leaders (Kraków, Poznań, Wrocław), and the chase group (Białystok, Gdańsk, Katowice, Lublin, Łódź, Szczecin, Rzeszów). Respondents rated key Polish university cities based on the characteristics they had identified, using a 5-point Likert scale. This allowed them to assess the intensity of each characteristic in the cities they evaluated. In the next step, MFA was used to identify dimensions that describe the ideal type of university city, based on the characteristics distinguished by the respondents, as well as the positioning of the cities under study within the space defined by these dimensions.

4. Results

First, respondents were asked to list all the characteristics (on a free-association basis) that the ideal university city should have. This procedure aimed to capture associations that could be linked to the perceived genius loci of a university city. The responses obtained are presented in Table 1.

Table 1.

Resident	NGO represent- tative	Pupil	Student	Represen- tative of the academic staff	Representati- ve of the ad- ministration	Entre- preneur
Student presence	Plenty of green space	Presence of universi- ties	A well- equipped campus	The presence of prestigious universities	Large number of students	Presence of univer- sities
Presence of the uni- versity	The visibility of "student life"	Historic city / city with history	Developed transport in- frastructure	Large number of students	Extensive resi- dential infra- structure	Large num- ber of stu- dents
Plenty of green space	Developed urban infra- structure	Developed transport in- frastructure	Scientific/res earch infra- structure	The city's pre- vailing acade- mic culture	Presence of universities	Observed "youth be- haviour"
A well- equipped campus	The city's cooperation with foreign centres	Opportunitie s for young people to develop	Cultural venues	The use of re- sources	Availability of jobs for stu- dents	The presen- ce of a spe- cific langua- ge
Many pla- ces of en- tertain- ment	Cooperation of universi- ties with em- ployers		The presence of universi- ties	Local govern- ment aware- ness	Extensive en- tertainment fa- cilities	Tolerance
Develo- ped tran- sport in- frastru- cture			Many loca- tions with sports faci- lities		Student-driven demand	Existence of an ecosy- stem of uni- versities – business – local autho- rities
The avai- lability of jobs for students			Numerous restaurants and bars			The univer- sity's impact on city life
			Extensive residential infrastructure			
			Convenient location Plenty			
	11		of green space			

Source: own elaboration.

The MFA identified two primary factors, explaining 66.02% of the total variance (55.56% by the first factor and 10.46% by the second). The first factor reflects the general atmosphere of the city and the influence of the university on urban life, while the second factor relates to

the university and city infrastructure, including campus quality and urban greenery. Factor interpretation was based on loading coefficients, representing correlations between variables and components. The variables contributing to these factors are presented in Figure 3. Their distinction helped address the first research question: What characteristics do respondents use to describe the distinguishing features of the genius loci of a university city?

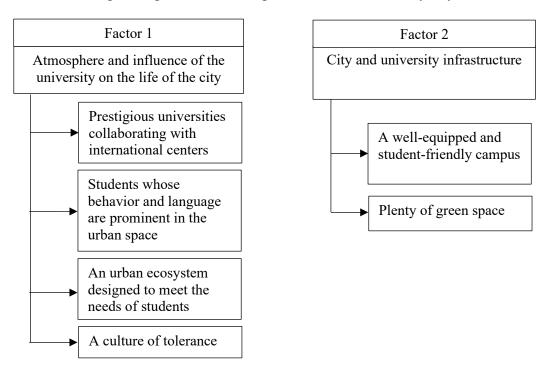


Figure 3. Factors describing a university city. Source: own elaboration.

The analysis included positioning the cities within the space defined by the identified factors. This approach allowed for the identification of how these cities were perceived in relation to the characteristics associated with the genius loci and the ideal university city (Figure 4). The results of the multiple factor analysis reveal that the first dimension primarily distinguishes Kraków from Białystok. Respondents perceive Kraków as the city where universities play the most significant role in shaping urban life, characterized by a strong academic atmosphere. Warsaw is closely aligned with Kraków along this dimension, suggesting similar perceptions of its university-related influence. On the opposite end, Białystok, followed by Rzeszów, received the lowest scores, indicating weaker associations with university life and atmosphere. Szczecin and Lublin demonstrated the greatest similarity in this dimension. Although neither city was strongly identified as a university hub, their responses placed them in close proximity, reflecting comparable perceptions of limited university influence on urban dynamics.

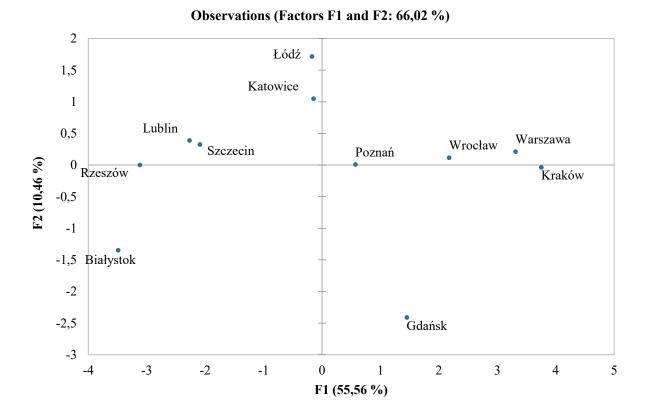


Figure 4. Cities in the global PCA space. Source: own elaboration.

The second dimension highlights the role of infrastructure, urban greenery, and campus visibility in shaping perceptions. Łódź and Katowice received the lowest ratings, with respondents noting a lack of prestigious universities, underdeveloped campuses, and limited integration of green spaces within these cities. The variables associated with this dimension were negatevely correlated in the initial stages of the analysis, and their spatial distribution was determined by the square root of the cosine of the variables. Gdańsk emerged as a positive outlier, receiving high ratings for its well-developed campus infrastructure, clear signage of university-related facilities, and integration of green spaces. Respondents frequently noted Gdańsk's seaside location as a contributing factor to its green and student-friendly image. Białystok also scored highly in this dimension, with respondents emphasizing the prominent role of its campus in the city-scape and attributing the modern infrastructure to effective utilization of European Union funds. Other cities, including Kraków, Wrocław, Poznań, Rzeszów, and Warszawa, were rated similarly, suggesting a more balanced integration of university-related factors and urban attributes. The factor loadings indicate that urban greenery was the most significant variable differentiating cities along this dimension.

The analyses conducted thus answer the second research question posed: How is the image of Polish university cities perceived?

5. Discussion

Complex development challenges and intensifying global competition are compelling cities to adopt marketing strategies that position their unique attributes (Dewalska-Opitek, 2010). Enhancing a city's competitiveness often involves identifying distinctive elements and assets tied to its territorial characteristics, which play a key role in shaping branding and public perception. In this context, a city's unique identity can be conceptualized as its genius loci, a core element for branding. One such asset is the presence of a university, which, when effectively leveraged, can not only drive urban development but also serve as a powerful tool in shaping the city's image. This study aims to explore how the audience of a territorial product, such as a university city, perceives and identifies the characteristics that could define its genius loci. Based on the concepts presented, which highlight the key elements of genius loci, the distinctions made by the respondents can be attributed to each of these elements. This analysis is graphically depicted in Table 2.

Table 2.

Elements of genius loci	Characteristics of a university city highlighted by respondents	
Material layer	Plenty of green space A well-equipped campus Prestigious universities Students	
Human interaction with nature	An urban ecosystem designed to meet the needs of students A student-friendly campus	
Intangible experience	Students whose behavior and language are prominent in the urban space A culture of tolerance	

Source: own elaboration.

The analyses conducted not only provided insights into the perception of the genius loci of university cities but also enabled the positioning of Polish cities concerning the distinctive features characteristic of this type of city. From this perspective, the results obtained can be referenced and contextualized within the broader framework of the existing rankings of university cities. The ranking of university cities by the Polish Economic Institute (PEI) (Dębkowska et al., 2019) serves as a reference point. This analysis categorized Polish university cities into four groups: leader, chasing leader, chase group, and peloton. The comparison of these rankings with the results of the author's research provides valuable insights into the positioning and characteristics of Polish university cities. Differences are shown in grey in Table 3.

The apparent differences arise from the adopted approach, emphasizing that quantitative measures may not align with the way the city is perceived by its territorial product's target group. Kraków's high score on the dimension of atmosphere and influence of the university on the life of the city aligns with its established reputation as an academic and cultural hub,

reflecting historical prestige and a robust academic presence. This finding is consistent with earlier work by Rewers (2016), who emphasized that university cities possess distinctive traits that enhance their competitive positioning. Similarly, the strong association between academic vibrancy and city identity observed in Kraków supports Florek's (Florek, 2014) model linking brand identity, image, and positioning, underscoring how perceptions of academic excellence contribute to the overall genius loci. However, the study also highlights significant variation among Polish university cities, particularly in the visibility and integration of academic institutions. The lower scores for Białystok and Rzeszów on the dimension of atmosphere and influence of the university on the life of the city suggest challenges in embedding academic identity within the broader urban context. This aligns with findings by Sobocińska (2011), who noted that strengthening the integration of universities into the socio-cultural fabric through partnerships, programs, and community engagement could help address a competitive academic image.

Table 3.

City	PEI ranking	University character of the city - factor 1	University character of the city - factor 2
Warszawa	1	2	7
Kraków	2	1	3
Wrocław	3	3	6
Poznań	4	5	4
Lublin	5	9	9
Gdańsk	6	4	1
Łódź	7	7	11
Katowice	8	6	10
Szczecin	9	8	8
Białystok	10	11	2
Rzeszów	11	10	5

Academic nature of cities - comparison of the PEI index of academic cities and own research results

Source: own elaboration.

The second dimension, emphasizing infrastructure and urban greenery, highlights the impact of physical and environmental attributes on perceptions of university cities. Gdańsk's high ratings for campus visibility, urban greenery, and well-planned infrastructure demonstrate how strategic urban design can enhance the attractiveness of academic centers. In contrast, cities like Łódź and Katowice scored lower on this dimension, indicating underdeveloped infrastructure and limited integration of green spaces. These results suggest a need for targeted investments in sustainable urban development, particularly in enhancing campus infrastructure and integrating green spaces into urban planning. Such initiatives could not only improve perceptions of university cities but also contribute to broader goals of environmental sustainability and livability. The findings have implications for city branding strategies. For cities like Kraków and Gdańsk, leveraging existing strengths – such as their cultural heritage, academic reputation, and environmental assets – could reinforce their positioning as premier university cities on a global scale. For cities with lower scores, targeted branding strategies could focus on addressing specific weaknesses. These strategies are critical in a competitive global landscape where university cities must differentiate themselves to attract students, researchers, and industries (Boguski, 2008; Burlita and Błoński, 2016).

6. Summary

The analyses presented in this article uncover the genius loci of university cities through the experiences and perceptions of various stakeholder groups. By employing a hybrid methodological approach, the study identifies the characteristics that respondents consider central to their sense of place in the context of a university city, providing valuable insights into the elements that shape its unique identity. In addition, the use of multiple factor analysis (MFA) facilitated the positioning of Polish university cities within the identified dimensions. The conclusions drawn from the study indicate that two dimensions play a crucial role in defining the sence of university city. The first dimension underscores the role of cultural and academic integration in defining the essence of university cities. Kraków's high scores reflect its established reputation as an academic and cultural center, where universities are central to the city's identity. This strong association suggests that historical prestige and a visible academic presence significantly influence perceptions. Conversely, the low ratings for Białystok and Rzeszów may point to less visible or less impactful academic institutions within these cities. Strengthening the integration of universities into the social and cultural fabric of such cities could enhance their academic identity. The second dimension emphasizes the critical role of infrastructure, including campus quality and urban greenery, in shaping perceptions of university cities. Gdańsk's high ratings demonstrate the impact of effective urban planning and wellintegrated academic spaces on the city's overall image. Respondents highlighted factors such as clear signage of university facilities and the perceived environmental friendliness of the city, suggesting that accessibility and urban design contribute to a positive university city image.

The case of Białystok illustrates how targeted investments, such as those funded by the European Union, can elevate the perception of smaller cities as university hubs. This finding highlights the importance of leveraging external funding for modernizing campus infrastructure and improving the visibility of academic institutions within urban spaces. In contrast, the low ratings for Łódź and Katowice along this dimension suggest challenges that may stem from insufficient campus infrastructure or a lack of integration with green spaces. These cities could

benefit from strategic urban initiatives aimed at enhancing student-centric facilities and environmental features. For example, the development of green spaces and improved campus design could increase their appeal as university cities.

The results underscore the importance of a multifaceted approach to city branding for university cities. For cities like Kraków and Gdańsk, existing strengths can be leveraged to reinforce their image as premier university cities. This may involve promoting their academic reputation, cultural heritage, and environmental assets. For cities with lower ratings, such as Białystok, Łódź, and Katowice, targeted branding strategies could focus on addressing identified weaknesses, such as improving campus infrastructure, enhancing urban greenery, or better integrating universities into the city's identity. These efforts could align with broader goals of sustainable urban development and regional competitiveness.

The study contributes to the broader literature on city branding by extending the application of the genius loci concept to university cities. By integrating cultural, spatial, and social dimensions, the research provides a holistic framework for understanding how academic institutions shape urban identity. From a practical perspective, the findings offer actionable insights for urban planners and policymakers. Enhancing the integration of universities into the urban fabric, improving infrastructure, and leveraging cultural assets can create more vibrant and competitive university cities. Furthermore, the use of MFA to analyse stakeholder perceptions provides a methodological contribution, demonstrating the utility of combining qualitative and quantitative approaches in urban research.

Building on the findings of this study, several avenues for future research can be pursued to deepen and expand the understanding of genius loci in university cities. Comparative studies could be conducted across other academic centers, both regionally and internationally, to explore how perceptions differ and identify commonalities or unique features. Future research could expand on these findings by exploring longitudinal changes in perceptions of university cities. Additionally, comparative studies involving international university cities could provide a broader context for understanding the interplay between academic institutions and urban identity.

The research procedure employed allowed for statistical analyses but involved purposive sampling, meaning the results cannot be considered statistically representative. Additionally, respondents were selected based on their connection to Krakow through residence, work, or study, aiming to eliminate perceptions influenced by experiences in multiple cities. While this approach provided focused insights, it limits the findings to the perceptions of individuals associated with a single city. Conducting similar studies with groups from other university cities could yield different results, highlighting the need for caution in generalizing these findings.

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