

Domen Žalac, Matjaž Uršič

UNIVERSITYSCAPES: THE TRANSFORMATIVE ROLE OF UNIVERSITIES IN URBAN SPACES: THE CASE OF UNIVERSITY LIBRARIES IN LJUBLJANA AND VIENNA

ABSTRACT

The purpose of this article is to explore the social and spatial dynamics within the university libraries of the University of Ljubljana and the University of Vienna. The analysis shows that university libraries are crucial for shaping the academic environment and culture and play an important role in city–university relations. Understanding these dynamics is essential for planning and developing university spaces that can effectively respond to the needs and activities of their users. The article applies qualitative research methods and uses interviews with professors, students and assistants along with on-site observations to analyse the dynamics and transformative role of university spaces in Ljubljana and Vienna.

KEY WORDS: *university libraries, spatial dynamics, university–city relationship, University of Ljubljana, University of Vienna*

Univerzitetne krajevnosti: Transformativna vloga univerz v urbanih prostorih: primer univerzitetnih knjižnic v Ljubljani in na Dunaju

IZVLEČEK

Namen tega članka je raziskati družbeno in prostorsko dinamiko v univerzitetnih knjižnicah Univerze v Ljubljani in Univerze na Dunaju. Analiza pokaže, da so univerzitetne knjižnice ključne pri oblikovanju akademskega okolja in kulture ter da imajo pomembno vlogo v odnosih med mesti in univerzami. Razumevanje te

dinamike je bistvenega pomena za načrtovanje in razvoj univerzitetnih prostorov, ki se lahko učinkovito odzivajo na potrebe in dejavnosti svojih uporabnikov. Za članek smo uporabili kvalitativne raziskovalne metode, in sicer intervjuje s profesorji, študenti in asistenti ter opazovanje z udeležbo na kraju samem. S temi metodami smo analizirali dinamiko in preoblikovalno vlogo univerzitetnih prostorov v Ljubljani in na Dunaju.

KLJUČNE BESEDE: *univerzitetne knjižnice, prostorska dinamika, razmerje univerza – mesto, Univerza v Ljubljani, Univerza na Dunaju*

1 Introduction

In the dynamic field of urban studies, cities are conceptualised as fluid entities, perpetually in a state of transformation and redefinition (Hall 2002). As urban space evolves, traditional facets of urbanity are increasingly gravitating towards academia and tourism (Richards 2018). In this context, we are concerned with the presence of the university in the urban space and the coexistence or integration of other social systems related to it in the urban environment. This leads us to consider two similar, yet very different cases, the University of Ljubljana and the University of Vienna, as examples of such a transformation. A salient aspect of this transformation is the escalating integration and influence of universities within the urban space (Bugarič 2009), a phenomenon this investigation seeks to explore.

In understanding urban spaces, sensory dimensions play a central role in recognising the ways people produce socio-spatial practices. Cities are experienced through senses and tactile sensations, beyond tangible structures and visible landmarks (Pallasma 2005). This sensory approach offers a richer, more holistic understanding of the fields, flows and knots involved in the continual hybridisation of meaningful practices or performances in space (Barker 2002). It captures the lived experiences of cities' inhabitants. The latter highlight the importance of the immaterial elements that contribute to the identity of cities and the way people engage with their environment.

This article is concerned with the transformative roles of two specific institutions: the National University Library in Ljubljana, Slovenia, and the University Library of the University of Vienna, Austria. The focus is on academic institutions, including libraries. University libraries are central academic spaces that foster learning, collaboration as well as knowledge production and reproduction. Therefore, these institutions have emerged as pivotal entities within the urban space, with their centrality transcending physical space to encapsulate the socio-spatial and sensory milieu of the city (Lefebvre 1991).

We will analyse how the city, universities and related knowledge production institutions are inextricably linked to the spatial and topographical architecture, which reflects the multifaceted dispersal of social, cultural and economic activities across the urban space. In the book "Arcades", Benjamin (2003) offers a complex and nuanced depiction of urban space as not merely a physical environment but a lived experience shaped by social, cultural and historical contexts. This understanding of urban space as sensory and affective, composed of sounds, smells, tactile experiences, and visual impressions, adds significantly to the formation of the identity of both the city and the university.

This perception of urban space characterised by the profound influence of universities on the urban landscape calls for a reinterpretation of these spaces. To that end, we propose the concept of universityscapes, drawing inspiration from Appadurai's (1990) model of cultural flow. Universityscapes aim to chart the complex sensory, socio-spatial and cultural dimensions of university-driven urban transformation. In addition, we integrate the theoretical frameworks of Hočevar (2000) and Clark (2004) to provide a more complete understanding of the role of universities in shaping urban centres. Hočevar promoted the notion that the processes of integration (often understood as globalisation) and individuation (potentially understood as localisation) are intrinsically linked. He posited this relationship as the foundational conceptual and explanatory model, elucidating the long-term developmental trajectory of the transformation within socio-spatial systems. This insight stresses the socio-cultural dimensions, highlighting how universities can act as catalysts for cultural events, public discussions and community engagements. On the other hand, Clark's (2004) perspective underscores the economic implications, illustrating how universities can drive innovation, attract global talent, and stimulate local economies. Together, these frameworks offer a holistic understanding of how universities significantly influence and shape the identity, dynamism and resilience of urban centres.

In this regard, the article has three main research focuses. First, it is important to elaborate the role of the sensory experience of the university's presence in the city and its paramount importance for the design and development of academic content within the urban space. Second, given the perspective of universities as urban and social anchors, we analyse whether and why the University of Ljubljana emerges as a more influential force within its city compared to the University of Vienna, deeply influencing both the structure and dynamics of the surrounding urban landscape. Third, in terms of local social economies, we analyse how the academic activities in the city influence other services essential to the lives of its inhabitants. It is to explore whether the "academisation" of central city areas runs parallel to the processes of touristification and how it contributes to the functioning of the city.

2 Defining the University within the Context of Urban Transformation

Hočevar's (2000) concept of "setting" is instrumental for understanding how universities function as stages where various sensory, spatial and social elements converge, thereby shaping the character of urban centres. This convergence of elements within the university "setting" is not isolated but deeply intertwined with the broader urban context.

In this broader context, Clark's (2004) work on the four realms of a city's amenity mix – scene, green, blue, machine – provides a valuable framework for understanding the impact of universities on urban settings by examining how universities contribute to and shape these realms. For instance, the "scene" of a city, which includes its cultural and entertainment amenities, may be considerably influenced by university events and activities. Similarly, the "green" and "blue" realms, representing the city's natural and water features, may be impacted by university-led sustainability initiatives.

By synthesising Hočevar's concept of "setting" and Clark's framework of urban amenity mix, we aim to provide a nuanced understanding of the multifaceted role played by universities in shaping urban spaces. This integrated approach allows us to examine not only the physical presence of universities within cities, but in addition their broader socio-spatial and sensory impacts on the urban landscape.

The aim is an integrated view of how universities actively shape their urban surroundings, instead of simply fitting in. Despite their geographical and cultural differences, these institutions share a common theme: a dynamic relationship with the cities they inhabit. Our research goes to the heart of this transformation, exploring how universities become an integral part of the urban fabric, influencing the structure, culture and dynamics of the city. We seek to understand the significance of universities becoming central figures in a city's narrative, and to contribute to the discourse on the complex relationship between cities and their universities.

Socio-spatial processes are multifaceted and extend beyond the physical structures that define a city. They integrate the social interactions (Lefebvre 2004), sensory experiences (Sennet 1977) and cultural nuances (Appadurai 1990) that characterise living in urban areas. To properly grasp the essence of these processes, one must delve deep into the specific sectors of a city, uncovering the subtle shifts and changes that define the urban transformation (Brenner and Schmid 2015). One significant aspect of this transformation is how urban spaces are redefined or restructured, often driven by the economic objectives associated

with university activities and their wider roles in the city (Goddard and Vallance 2013). Universities, in this context, are more than mere educational institutions. The evolving urban landscapes are experiencing the growing integration of academia into city life (Richards 2018); namely, a shift exemplified by the two case universities in Ljubljana and Vienna. This transformation underlines the multifaceted interplay of cities and universities, putting these educational institutions in pivotal roles in terms of urban development (Goddard and Vallance 2013; Youtie and Shapira 2008).

Universities contributions also extend beyond their traditional roles, shaping skilled labour, fostering research innovation, and driving cultural and social growth (Drucker and Goldstein 2007; Etzkowitz 2008; Gibbons 1998; Uršič et al. 2014b). The latter is then always subdivided into a social or societal component, which concerns the community and its well-being in the area, and economic and commercial activity. Moreover, university buildings, including their facilities, bring about the congregating of the population in particular urban areas (Soja 1989) where knowledge production and associated services are provided. All of these social aspects have an impact on the urban fabric itself, or in the neighbourhood in which university facilities are located. If a modern city is made up of physical, social, economic, political and environmental development components, then achieving a sustainable future necessitates the integration of all stakeholders within the relevant area (Bugarič 2006). This expansive influence calls for a deeper exploration of spatial identities and the socio-spatial practices within these institutions.

In particular, our exploration seeks to shed light on how sensory experiences define spatial identity within the university context. By examining the socio-spatial practices within these libraries, we seek to understand how these practices blend with and enhance the city's cultural fabric, thereby becoming co-producers of the urbanisation process.

2.1 Factors shaping the roles of university libraries in urban development

In this context, university libraries reveal the lasting importance of socio-physical spaces in reproducing community, cooperation and intellectual development. These libraries serve as anchors in the urban setting, going beyond their key academic roles to transform into areas of social interaction, cultural exchange, and community involvement. In Klinenberg's (2018) view, these institutions are not only depositories of books or scholarly resources, but also essential features of the city's social infrastructure, playing a fundamental role as a physical place and organisations that shape the way people interact in the processes of urban development and resilience.

However, understanding this transformative dynamic requires a deep dive into the influencing factors. The literature reveals a constellation of influences: the size and location of the university (Wiewel and Perry 2008), the city's socio-economic milieu (Addie 2016) and the university's dedication to civic commitments (Goddard et al. 2016; Uršič et al. 2014a). Inextricably woven into these factors is the university's historical evolution and its relationship with the city – a symbiosis that strongly informs their interactions (Rüegg 1993; Felt 2017).

Drawing from urban sociology, universities find themselves juxtaposed against other urban landmarks like museums and theatres. While these entities play pivotal roles in the city's cultural and intellectual life, they often operate in the shadow of dominant business and political entities, especially in coalitions focused on land and property as levers of economic growth (Logan and Molotch 1987). This intricate dance of socio-economic, political and educational dynamics shapes the ever-evolving story of urban metamorphosis under the influence of capital (Harvey 1985), with universities holding a central, albeit sometimes understated, role.

2.2 The significance of Lefebvre's trialectic of space in universityscapes

An examination of earlier sociological perspectives on space shows that as early as the beginning of the 20th century Benjamin (2003) had introduced the concept of social space; that is, the space that emerges and evolves as a result of societal activities. A special and important dimension of space, above material and abstract space, was revealed in these social activities.

To define social space even more clearly in the mid-20th century, in the quest to reimagine urban spaces Lefebvre (1991) developed the trialectic as a comprehensive framework for understanding the meaning of social in space. This trialectic model of spatial practice, representations of space, and spaces of representation enables an understanding of the intricate dynamics arising between universities and cities. In this context, the role of universities in shaping the urban environment (Wiewel and Perry 2005) becomes evident through concrete examples of capital accumulation. These institutions engage in various strategies that contribute to the economic transformation of the urban landscape, often centred on building and infrastructure development.

For example, universities in the Anglo-Saxon world strategically invest in real-estate expansion by acquiring land, constructing new buildings, and renovating existing structures. These efforts increase property values and create a source of capital (Den Heijer 2011). In addition, universities are entering into public-private partnerships (PPPs) with the private sector, leading to the development

of research facilities, academic campuses, and student accommodation projects (Farazmand 2018). Such collaborations serve as a means of capital accumulation for both the universities and their private partners.

This connection between universities and the economic transformation of the urban landscape is key in this study, which explores the socio-spatial (human activities, urban geography, spatial planning) role that universities play in influencing the development of place on the micro level of the city. Therefore, Soja's (1996) conceptualisation of Thirdspace is also considered in our theoretical framework. His perspective reinforces the views Benjamin and Lefebvre. As Soja puts it, space encompasses not only physical but also social and mental dimensions.

At this point, we can foreground the "scapes" proposed by Appadurai (1990) that encompass the people, things and ideas that move through space and produce our understanding of the social landscape. Such an understanding is facilitated by looking at the concept of social space advocated in the first part of the article. This brings us to an understanding of the urban environment and the university within it in terms of the postmodern or post-Fordist mode of production of urban space (Dear and Flusty 1998). The mentioned mode of production is an embodiment of fragmentation and multi-nodality, defined by a flexible consumption/production economy and cooperative entrepreneurship (Hočevár 2000). Cultural practices of social production are diversified, with socially and spatially dispersed and fragmented lifestyles (Sennett 1990). In this sense, the urban image exhibits a mixture of global styles and local aesthetic traditions, resulting in a spectacle-driven theatrical cityscape (Pallasmaa 2005; Zardini 2005). The theoretical model we present captures the complexity of universityscapes within urban space, encapsulating the sensory, socio-spatial and cultural dimensions of university-driven urban transformation.

Informed by seminal works of Benjamin, Lefebvre, Soja and others, the presented theoretical framework offers a nuanced lens with which to explore universityscapes within the broader urban context. This framework is particularly useful for understanding the complex interplay of actors and events that define modern urban spaces. As Hočevár (2000) states, urban "scapes" or venues are dynamic spaces shaped by both intentional and unintentional events occurring in both public and semi-public areas. These venues gain their allure and relevance through temporary or permanent spatial installations, which not only attract attention but also provoke thinking about the challenges and opportunities inherent to the site.

To operationalise these theoretical insights, we propose a comprehensive methodology that integrates interviews and participant observation. This approach aims to identify key attributes that significantly influence the "scapes"

created or impacted by university libraries in both Ljubljana and Vienna. While some of these attributes may be readily apparent, others might be subtle yet crucial elements that have traditionally been underrepresented or overlooked in the literature. By systematically examining these attributes, we aim to offer a holistic assessment of how university libraries in Ljubljana and Vienna help shape their respective urban landscapes, encompassing sensory, socio-spatial and cultural dimensions.

3 Analysis of universityscapes in Ljubljana and Vienna

3.1 Methodology

Our qualitative research methodology is designed to navigate the complex socio-spatial dynamics of urban university spaces; more specifically, the National University Library (NUK) in Ljubljana, Slovenia, and the University Library of the University of Vienna, Austria. This methodological structure is underpinned by the theoretical considerations discussed above.

The first tool in our methodology, the semi-structured interview, corresponds to the theoretical perspectives of Appadurai (1990) and his framework of “scapes”. Here, we engaged with stakeholders ranging from university students, library staff to university administrators so as to gain a diverse and comprehensive understanding of the flows, or “scapes”, within these urban university spaces (Appadurai, 1990). The flexibility of semi-structured interviews, as noted by Bryman (2016), allowed us to balance between exploring pre-determined topics and granting interviewees the freedom to elaborate on their experiences and perceptions.

In total, we conducted 12 interviews, involving 2 librarians, 1 student housing representative, 3 students, 2 tourist guides, 2 professors, 1 researcher and 1 assistant. The average duration of these interviews was approximately 45 minutes. Our second tool, spatial sensing (as part of the more general field of participant observation methodologies (Kawulich 2005)), resonates with Lefebvre’s (1991) concept of spatial practices and Sennett’s (1994) sensory engagement with the city. It involves gathering the physical attributes of the library spaces like lighting conditions, noise levels, and movement patterns (Lynch 1960) to allow us to grasp the sensorial characteristics of these spaces. Based on perceptions, we determine whether university libraries reflect the characteristics of the academic environment in the context of “scapes”, which are introduced as basic identifiers of the university environment. Building on these observations, we assume that academic content spreads to the micro-urban level. The transfer of the academic content will be in line with our observations of the urban environment in the vicinity of the two university libraries under study.

The mentioned methodological tool also relates to Soja's (1989) concept of spatial trialectics, which emphasises the lived space. Observing how these spaces are navigated and utilised in real-time provides first-hand information about the spatial narratives of the libraries (Yin 2018). These observations also parallel Benjamin's (2003) focus on the lived experience within urban environments and the historical perspective offered by Classen (1993), giving us a framework to interpret sensory experiences within the urban sociological landscape.

After the data were collected, we filtered the data based on thematic analysis, a method that connects with Richards' (1990) interpretive thematic analysis and Goddard and Vallance's (2013) understanding of the university's role as part of the dynamics of the city. This technique aids in identifying, analysing and reporting patterns within the data (Braun and Clarke 2006), in turn providing insights into the socio-spatial dynamics operating within the NUK and the University Library of the University of Vienna.

Drawing from the ideas of Logan and Molotch (1987), Pallasmaa (2005) and Zardini (2005), we aim to explore how sensory experiences mesh with spatial characteristics to create unique universityscapes within the city. This exploration is to enrich our understanding of urban sociology, particularly the sensory perception–spatial practice interaction when it comes to defining the character of university spaces in urban, or as we label them, universityscapes. This endeavour is intended to establish a nuanced understanding of these spaces, leading to an expanded discussion on urban sociology, together with the role of sensory studies in spatial understanding.

The participant observation research lasted between 2020 and 2023. During this time, the researcher performed four participant observations in Vienna, namely in August 2022 and November 2022, at different times, and the frequency of the people he met also varied on each visit. In contrast, the researcher was present at the Ljubljana site for a considerable time, working in the reading room of the NUK library itself for a significant part of this period.

The described research methodology offers a practical translation of the theories introduced in the previous section. It enables us to delve into the world of universityscapes to explore their dynamics, challenges and opportunities.

3.2 Outlining the socio-spatial context in Ljubljana and Vienna

The focus of this section is to reveal the mentioned universityscapes through the insights arising from the interviews. The main aim is to understand the views of professors, students and assistants at both the University of Ljubljana and the University of Vienna with respect to the social and spatial dynamics linked to the universities and their libraries. This aim entails unravelling the complex interplay

of the social and spatial dynamics of university libraries and their micro-level urban environment.

Social factors distinguishing the two universities are presented in Table 2. The university in Ljubljana is relatively bigger than the one in Vienna in terms of the size of the city itself and the number of people living there. These differences suggest that the city–university relationship is context-dependent and shaped by local cultural, social and economic factors.

Table 1: Comparison between the University of Ljubljana and the University of Vienna.

Criteria/Aspect	University of Ljubljana (UL)	University of Vienna (UV)
The University's Embeddedness in the City	26 regular members (3 art academies, 23 faculties) and 3 associate members (National and University Library, Central Technical Library of the University of Ljubljana, and Innovation and Development Institute of the University of Ljubljana)	60 locations in Vienna (15 faculties, 5 centres)
Historical Significance	Founded in 1919	Founded in 1365
Economic Impact	Total revenue 2020–2021: € 442.05 million University staff: 6,661	Total revenue 2020–2021: € 691.5 million University staff: 10,381
Societal Role & Engagement	37,509 students enrolled at UL (total population of Ljubljana 293,218; 13% students)	88,900 students enrolled at UV (total population of Vienna 1.9 million; 10% students, UV has 5% of the higher education student population) Host of over 1,000 events and 350 international conferences

It thus appears that the university's influence on the urban fabric is proportionally higher in Ljubljana, which is also in harmony with our field findings and mapping, that also reveal the university is more integrated into the city as a whole than what happens in Vienna, where the university is confined to a single part of the city. Accordingly, in the case of Ljubljana the interdependence and interconnectedness of the city with university content is greater.

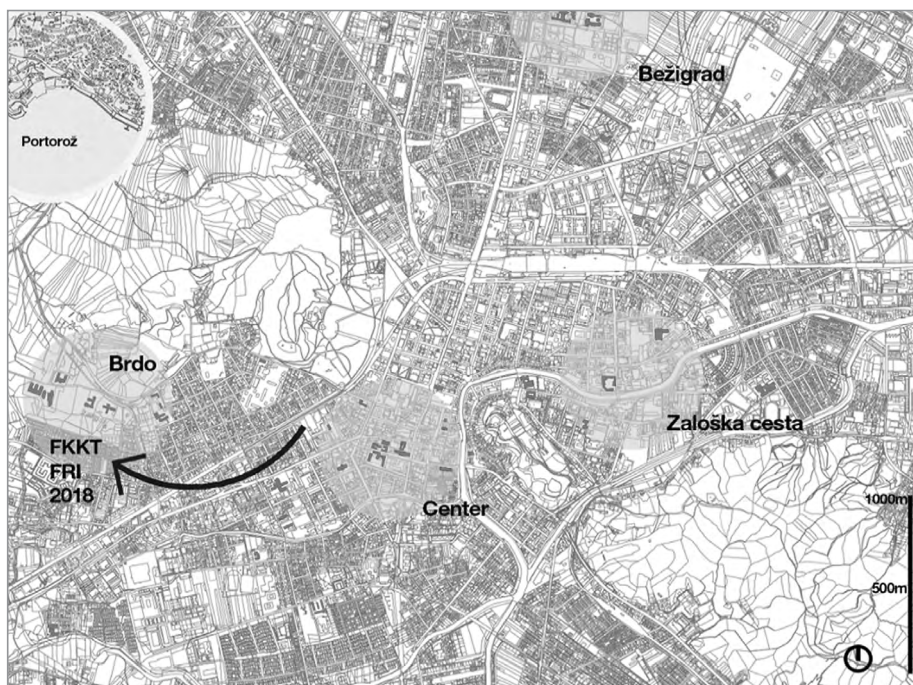
3.2.1 The City–University relationship: A case study of Ljubljana

In the interviews we observed a stronger focus than in Vienna on the geographical positioning and infrastructural development of academic bodies. This is particularly shown in Slovenia where academic faculties like the Academy

of Theatre, Radio, Film and Television (AGRFT) and other faculties are actively considering the economic and practical implications held by the locations of their facilities.

“There is a noticeable shift to establishing institutions in areas outside the city centres, where land is more affordable”, observes the young researcher (Researcher and Assistant 2020). This trend has sparked vigorous discussions among multiple stakeholders, including the university, Ministry of Education, city authorities, and student organisations, about the evolving relationship between urban centres and universities. Where universities represent new anchor points in the city and thus also extend the city centre (Birch et al. 2013) to the outer periphery, as also evident in the architectural understanding of Ljubljana’s city centre, which is not only related to cultural landmarks.

Map 1: Spatial configuration of the University of Ljubljana.

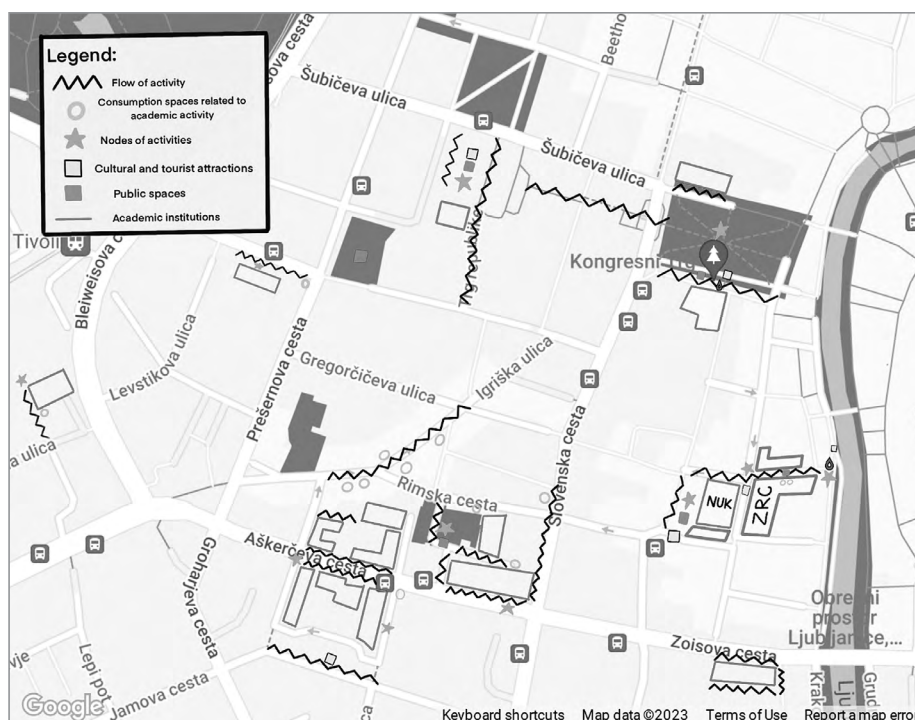


Source: Jurij Sadar 2019.

The University of Ljubljana epitomises this trend. It operates as a somewhat decentralised entity, with each faculty having the freedom to decide on its own spatial development. A representative for student accommodation explains: *“The student organisation and student housing have a degree of independence from the university’s operations, leading to a disconnect between the students’*

living spaces and the academic environment” (Student housing representative 2023). This model contrasts with the more unified approach taken by many international universities that allows for student organisations and academic faculties within a single, integrated system.

Map 2: The National and University Library (NUK) and the Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU) Ljubljana.



Source: GoogleMaps 2023.

The separate spatial development of the university, student hostels, and student organisations in Slovenia indicates a certain level of organisational fragmentation.

In the past, the University of Ljubljana employed an integrated spatial vision. However, since the 1990s the university’s development strategy has been more ad hoc, seeking to optimise the limited funding available or new facilities over maintaining a holistic spatial plan. A faculty representative notes, “*This shift in city–university dynamics has opened up avenues for exploring diverse discourses, including the creation of gender-neutral facilities, greater student engagement, and the promotion of safe, inclusive academic spaces*” (Academic 2020).

Picture 1: Atrium, Slovenian Academy of Sciences and Arts, Ljubljana.



Source: Author 2023.

The history of the University Library in Ljubljana reveals it is an original edifice constructed in the early 20th century, remaining intact ever since. The street immediately parallel to it has had an interesting evolution, after being gradually adapted and expanded to accommodate the university and academic facilities. *“The Slovenian Academy of Sciences and Arts began to develop in the immediate vicinity, while other economic and cultural activities sprang up to support the university’s knowledge production and promote university community life”*, explains one of the professional cultural worker and tourist guides (Tourist guide in Ljubljana 2023). In this regard, the definition of modern urban spaces takes account of the interaction of institutional actors, here the University of Ljubljana and the Slovenian Academy of Sciences and Arts, and the nearby the City Museum of Ljubljana. City events, whether intentional or not, promote the creation

of new urban spaces and lead to stronger interest in exploring them. Places where constructed events, both intentional and unintentional, occur in public areas, whether open or closed, and in private areas accessible to the public, are defined as urban venues by Hočevar (2000). These venues are made more attractive by situational spatial installations, whether temporary or permanent, which also draw attention to certain issues affecting the site.

Picture 2: The National and University Library (NUK) and the Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU) Ljubljana.



Source: Author 2023.

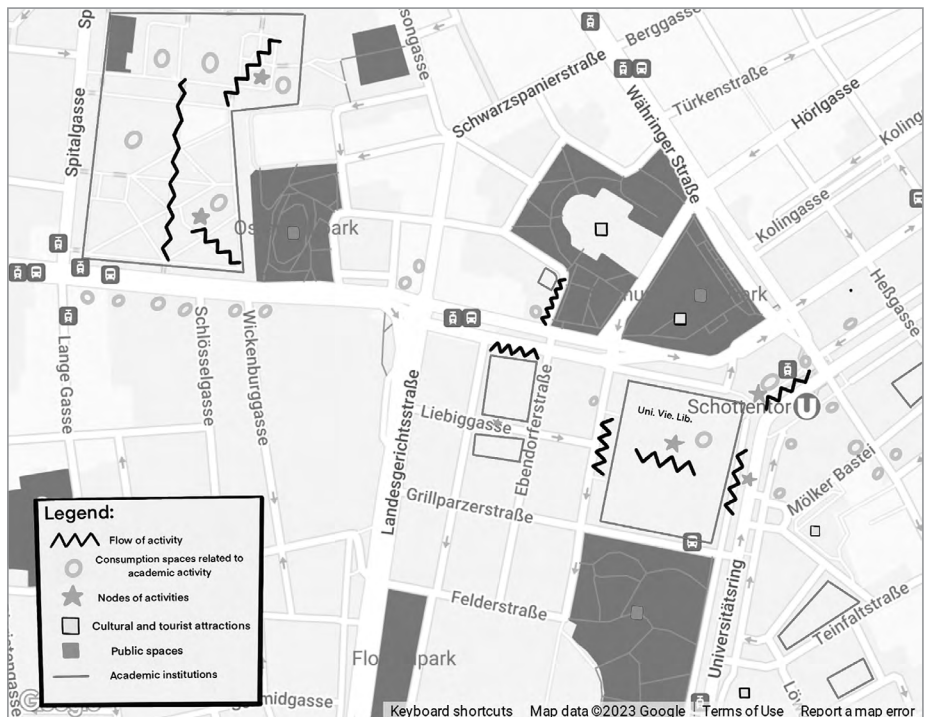
3.2.2 The city-university relationship: the context in Vienna

The University of Vienna appears in a completely different light to Slovenia because it is not the only university in the city. The University of Vienna is separate from the University of Technology. There is also a large number of other universities in Vienna. It may hence be argued that in Vienna individual universities act autonomously with respect to spatial development, whereas in the case of Ljubljana it may be argued that individual faculties act autonomously (Interview with a professor 2021).

The case of Vienna also demonstrates the city's concurrent development with that of the university, following many examples of buildings having been successfully revitalised for university use (Zupančič Strojan 1998; Bugarič 2009). This applies in particular to the main university building of the University of Vienna that was bombed in the aftermath of the Second World War. The library, which was rebuilt after the war, was damaged quite badly by the bombing (Tour guide and Student at the University of Vienna 2022).

The University of Vienna is arranged as an entity within the city's surface area. The campus is located in the city, which is a self-sufficient unit, but at the same time the city functions since it is used by the city population in their everyday life. The campus has exceeded its original planned form. Nonetheless, the campus is essential for the university's social life itself.

Map 3: The University of Vienna.



Source: GoogleMaps 2023.

The University of Vienna is less connected with the identity of the city itself given that the city of Vienna offers the individual inhabitant other attributes than simply university functions. City contents have taken over and dominate over the university. They can be touristic, cultural, entertainment, commercial and various

services to meet the needs of the city's residents and visitors. The university's identity and social life are most prominent on campus, which is in its original form as "monastery" or self-sufficient spatial unit. As mentioned, university facilities have spread from the original campus walls to the rest of the city. The University of Vienna serves as a comparative type of city university, having expanded through the integration of university spaces into the fabric of the city itself.

Historically, the University of Vienna was characterised by a unified spatial vision. Yet, as the city grew, the university began to expand, forming educational complexes on the outskirts of the city, a shift that commenced in the 1990s and continues today. This expansion was a strategic move to allocate university facilities to available urban spaces, a plan that allowed for the simultaneous development of both urban and university facilities (Huygens et al. 2019).

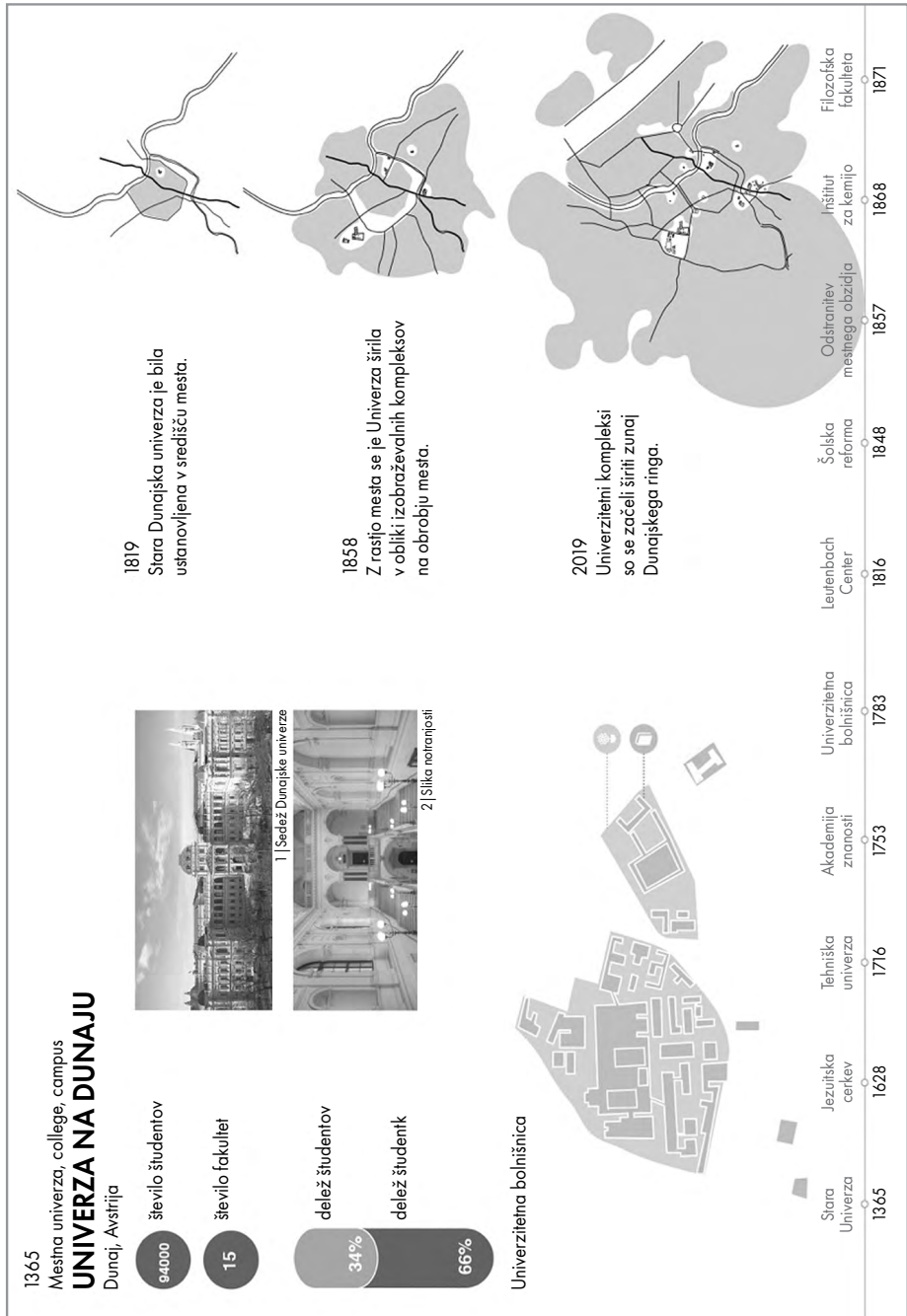
This shift marked the start of a new dynamic between the university and the city. Initially, the university was closely integrated into the city, particularly given that it was founded in the city centre. Still, as the university expanded and set up educational complexes outside the Vienna Ring, it began to exhibit a degree of independence (Planinšček 2019).

This evolving dynamic can be understood as a time-linear model of dialectics. Initially, the university was closely connected with the city. Then, when it expanded and started to establish educational complexes on the city outskirts, it began to strive for independence. The city spaces eventually reached the university spaces, leading to their integration into the city.

The University Library in Vienna embodies the typical city–university relationship. Housed in a historic building constructed in the early 20th century, the library remains a vital part of the university. Its surroundings have been adapted and expanded to accommodate the growth of university facilities. In recent years, institutions such as the Austrian Academy of Sciences have developed nearby, contributing to the area's academic character. This collective growth of academic, economic and cultural activities around the university supports the production of knowledge and sustains a vibrant university community.

In the rest of the chapter, detailed narratives from the interviews are presented. Specific experiences and insights regarding the sensory environment are thus highlighted, along with the integration of technology, cultural diversity, and the role of the university library as an urban anchor in Vienna.

Map 4: Spatial configuration of the University of Vienna.



Source: Anja Planinšek 2019.

3.3 Analysis of the university library's multidimensional influence and impact

The library's physical and sensory characteristics were underlined by the professor as key determinants of academic interaction and intellectual engagement. He noted, *"The library's layout, which allows for both group and individual work, combined with the unique atmosphere of book smell and tranquillity, creates an environment conducive to diverse academic activities"* (Interview with a professor 2023). This perspective echoes the arguments made by Sennett (1994) and Lefebvre (1991) concerning the crucial role of spatial practices and sensory engagement in shaping learning environments.

The "technoscape", as described by Appadurai (1990), was identified as a key factor transforming the academic experience within the library (Professor Interview 2023). One student mentioned, *"Digital catalogues, online databases and interfaces to reserve a place or order a book create a web of interconnected knowledge and services that we, students and staff alike, have to navigate"* (Student Interview 2023). The library assistant concurred, adding that *"many of our administrative tasks have been simplified by advanced library technologies"* (Librarian assistant Interview 2023).

Picture 3: University library, Vienna.



Source: Author 2022.

A student emphasised the “ethnoscape” of the university library, viewing it as a stage for the interaction of different cultures (Student Interview 2023). “*The university library*”, the student said, “*encourages mutual learning and interaction between and among students from different cultural backgrounds*” (Student Interview 2023). This perspective lends weight to the theories of Appadurai (1990) and Logan and Molotch (1987) regarding the importance of space in promoting social interaction and cultural diversity.

Table 2: Comparative scope analysis: Multidimensional perspectives on the National and University Library, Ljubljana and the University Library, Vienna.

“Scapes”/Attributes	National and University Library, Ljubljana	University Library, Vienna
Ethnoscares (Cultural Diversity & Interaction)	<ul style="list-style-type: none"> • Cultural diversity within library users • Interaction of local and international students • Library as a venue for cultural events and exchanges 	<ul style="list-style-type: none"> • Multicultural representation in library resources • Cultural events promoting a global perspective • Diversity in library staff and user demographics
Technoscares (Technological Integration)	<ul style="list-style-type: none"> • Digital catalogues and online databases • Integration of modern technology for user services • Online platforms for academic collaboration 	<ul style="list-style-type: none"> • Advanced library technologies for administrative tasks • Digital platforms for research and academic engagement • Use of technology in archiving and preservation
Financescares (Economic Impact & Allocation)	<ul style="list-style-type: none"> • Economic contributions from library events • Allocation of funds for library expansion and modernisation • Partnerships with local businesses for library support 	<ul style="list-style-type: none"> • Economic impact of the library as a tourist attraction • Funding for library renovations and digital integrations • Collaborations with international institutions for financial support
Mediascape (Representation & Image)	<ul style="list-style-type: none"> • The library’s representation in local media • Promotion of library events and resources online • Media coverage of the library’s role in academic achievements 	<ul style="list-style-type: none"> • The library’s historical significance in media narratives • Media partnerships for promoting library events • Digital media platforms for library outreach
Ideoscape (Ideological & Symbolic Significance)	<ul style="list-style-type: none"> • The library as a symbol of academic excellence in Ljubljana • Promotion of progressive ideas and intellectual freedom • The library’s role in shaping academic discourses 	<ul style="list-style-type: none"> • The library’s ideological significance in Vienna’s academic history • Promotion of diverse ideologies through library resources • The library as a space for intellectual debates and discussions

The interviewees unanimously agreed that the university library serves as an important intellectual hub of the city (Professor, Student, and Assistant Interviews 2023). As the professor expressed, "The library is a beacon of knowledge, its architecture a standout feature in the cityscape" (Professor Interview 2023). The student viewed it as *"a cultural anchor, offering a quiet, focused space for study and hosting public events that foster community engagement"* (Student Interview 2023). The assistant agreed, envisioning it as *"a bridge between the academic community and the city, adding to the city's cultural heritage"* (Assistant Interview 2023). These insights mirror Goddard and Vallance's (2013) concept of the "urban anchor" and Wiewel and Perry's (2008) idea of universities' contributions to the urban landscape.

Based on a comprehensive methodology combining interviews and participant observation, we identified several attributes that play a central role in shaping the "scapes" influenced by the libraries in Ljubljana and Vienna. These attributes, while evident in the participants' narratives and experiences, may have been overlooked or understated in conventional analyses. Recognising the importance of these attributes, we included them as interval variables to provide a nuanced and detailed comparison of the two libraries.

The inclusion of these interval variables not only enriches our understanding of the libraries' impact on the urban landscapes, but also ensures a robust framework for future research. By mapping these attributes onto a measurement matrix, we can systematically assess the impact and role of each library in shaping the socio-spatial dynamics of their respective cities.

To sum up, the interviews shed light on how sensory experiences, spatial features and cultural diversity intermingle to create the unique character of university libraries (Professor, Student, Assistant Interviews 2023). These insights, which echo the theories of Appadurai (1990), Lefebvre (1991) and Sennett (1994), reinforce the importance of sensory studies in the understanding of urban university spaces. This vital knowledge contributes to the future planning and design of university spaces, aiding with the development of urban campuses better able to accommodate the wide-ranging needs and activities of their users.

4 Conclusion: The dynamics of the university landscapes in Ljubljana and Vienna

The intricate dynamics between cities and universities play a significant role in the urban landscapes of Ljubljana and Vienna. As institutions of higher learning, the University of Ljubljana and the University of Vienna have imprinted their spatial and social influences onto their respective urban environments. This study reveals that these impacts are not merely physical, but also cultural, social and symbolic.

The sensory and spatial experiences of university libraries add to the academic engagement and intellectual curiosity of students, faculty and staff. These spaces, filled with the unique smell of books and imbued with an atmosphere of tranquility, provide fertile grounds for diverse academic pursuits. The physical layout, which offers both communal tables for group discussions and quiet corners for individual work, fosters an environment conducive to intellectual engagement. This resonates with theoretical understandings of sensory engagement in urban spaces outlined by scholars such as Sennett (1994) and Lefebvre (1991).

Technological advancements have transformed the academic landscape, with the “technoscape” significantly influencing academic practices. Digital resources have expanded access to knowledge and streamlined administrative tasks, fostering a more efficient and interconnected academic environment. These developments align with Appadurai’s (1990) notion of the “technoscape” as a network of information that can be navigated and utilised.

The “ethnoscape” of the university libraries, which represents the movement and interaction of cultures, has contributed to cultural diversity and mutual learning. This supports the ideas of Logan and Molotch (1987) concerning the role of space in fostering social interaction and cultural diversity.

Further, the role of the university library as an “urban anchor” emerged as a significant aspect of the city–university relationship. University libraries serve as intellectual hubs within their cities, contributing to the broader urban environment and academic ambience, and embodying the concept of “urban anchor” as outlined by Goddard and Vallance (2013) and Wiewel and Perry (2008).

Despite their similarities, the universities in Ljubljana and Vienna also exhibit differences in their city–university dynamics. The discourse around the University of Ljubljana points to a decentralised spatial development approach and organisational disintegration, with the location of faculties, student hostels and student organisations occurring independently. Meanwhile, the University of Vienna illustrates a gradual shift towards decentralisation while still maintaining a semblance of an integrated model.

In conclusion, understanding the dynamics of university landscapes in both cities involves analysing the socio-spatial phenomena at play within university libraries. It calls for a holistic approach that encompasses sensory engagement, technological influences, cultural diversity, and the role of the university as an urban anchor. As the landscape of higher education continues to evolve, these insights can help guide the future planning and development of universities, with a view to fostering urban campuses that effectively cater to the diverse needs and activities of their users while contributing to the urban fabric of their cities. The intricate city–university relationships in Ljubljana and Vienna offer valuable case studies for other cities and universities navigating similar dynamics.

In relation to the first hypothesis, we assume that the University of Ljubljana is a more influential force within its city compared to the University of Vienna, profoundly influencing both the structure and dynamics of the surrounding urban landscape. We argue that, depending on the urban design, university facilities are much more tightly clustered around the anchor of the library in the case of Ljubljana, while the urban landscape, which is much more spread out in the case of Vienna, allows for other facilities and services that are not essential to support the academic environment. In fact, this is due to a less diversified economy and a smaller degree of heterogeneity, which in turn leads to the homogenisation of the content. Our point is not that this is a disadvantage in the case of the university, but that it makes the city itself more dependent on academic life. City planners must accordingly be alert to this delicate coexistence of the city and the university.

The second hypothesis was concerned with whether the presence of academic content displaces other social systems besides tourism in the vicinity. In the case of Ljubljana, this hypothesis is confirmed as little content within the vicinity of the university library does not have a direct connection with tourism or academic activities. In the case of Vienna, in contrast, the services needed for the life of the inhabitants are actually present on the premises of the academic activities themselves. In Ljubljana, we may conclude that there are more services dedicated to the university in the city centre than there are in Vienna, and there is a distinct mix of tourist and university facilities. This is primarily because Ljubljana is a smaller city than Vienna. Since it is smaller, it is more strongly influenced by such actors; in our case, the higher education sector. Moreover, if we focus on the university library in the context of Vienna, it is also intertwined with other university spaces and offers many more opportunities to intertwine individual paths and opportunities for activities in the area itself. Drawing upon Ljubljana as a case study, one might ask whether in the absence of its academic institutions the city might have ended up largely touristified. In the case of Ljubljana, however, the presence of academic facilities also has a symbiotic relationship with tourism because its cultural content significantly contributes to the tourist offer in the area of the city's main university library.

The last hypothesis, about the sensory experiences that establish the presence of university facilities and the urban environment's development, is confirmed by the interviews since in the interviews there was a strong tendency for interviewees to identify all possible sensory landscapes that form part of the library visit experience. At the same time, it also underpins the possibility of a re-exploration based on more tractable metrics that put at the forefront a better sensorial perception of space, while taking account of the theoretical and empirical preferences we have argued for in this article.

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Authors' data

Domen Žalac, Teaching Assistant

University of Ljubljana, Faculty of Social Sciences

Kardeljeva pl. 5, 1000 Ljubljana, Slovenija

E-mail: domen.zalac@fdv.uni-lj.si

Dr. **Matjaž Uršič**, Associate Professor

University of Ljubljana, Faculty of Social Sciences

Kardeljeva pl. 5, 1000 Ljubljana, Slovenija

E-mail: matjaz.ursic@fdv.uni-lj.si