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GENESIS AND FUNCTIONS OF THE SUBURBS OF LVIV, KRAKOW, AND WROCLAW BETWEEN THE 13TH AND 15TH CENTURIES

MA Thesis in Late Antique, Medieval and Early Modern Studies

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Accepted in conformance with the standards of the CEU.

Chair, Examination Committee

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Author's declaration

I, the undersigned, **Markiian-Liubart Kyrchiv**, candidate for the MA degree in Late Antique, Medieval and Early Modern Studies, declare herewith that the present thesis is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography. I declare that no unidentified and illegitimate use was made of the work of others, and no part of the thesis infringes on any person's or institution's copyright. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

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Abstract

This thesis aims to study and compare the administrative and infrastructural development in the territories outside the central walls of cities in East-Central Europe. Since the medieval suburbs were the territory where goods for trade were produced, changes that can be traced in the organization and functioning of the territories extra muros should be analyzed. For this purpose, three important cities of the region, Wroclaw, Krakow, and Lviv, were chosen. This research attempts to demonstrate elements of the complex urban space organization in the Middle Ages through the implementation of the so-called German law, the settlement process in the suburbs, and the influence of cities' institutions and patricians. The three selected cities demonstrate similar patterns of suburban genesis from their respective proto-towns, emergence and functioning of various settlements and infrastucture located in the area extra muros as well as the development and placement of several infrastructural entities. The first chapter presents the general context of the region as the changes brought up by so-called German law, major geopolitical events, and the landscapes of each of the three cities. The second chapter deals with the genesis of the suburbs and defines osadas, jurydykas, and new towns within this territory. The last chapter is devoted to the placement of several types of infrastructural entities at different proximity to the in-wall city.

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INTRODUCTION

In recent decades, interest in the study of European suburban space has been increasing.¹ Although the urban culture of the Late Medieval and Early Modern Times has played a massive role in the development of Europe, most studies refer to the central area of the city, disregarding the parts *extra muros*. Since the suburbs were the territory where goods for trade were produced and many other communal activities were carried out, changes in the organization and functioning of these terriories should be crucial for urban studies. Of course, there are numerous investigations of institutions that existed in the suburbs, such as churches, monasteries, guilds, and hospitals. Still, questions like topography, metrology, and land division still need to be developed. One of the reasons why the suburbs may be out of the picture is also terminological problems, as the administrative organization of *extra muros* was not simple and could vary between cities. As Laurențiu Rădvan pointed out in his recent publication, the medieval history of East-Central Europe, including urban studies, is still often overlooked by scholars.² Furthermore, scholarship needs a comparative method of already discovered information regarding suburbs, in this case, in the context of the vast region of East-Central Europe.

For me, it is crucial to construct a general understanding of urban space formation. The territories of the former medieval suburbs are usually a full-fledged part of contemporary cities, pushing the term 'suburb' further, to the present outskirts. In European cities, this can be associated with the demolition of city walls which used to demarcate *intra muros* and *extra muros*. At a time when interest in history and medieval studies is waning, the turn to something not too ephemeral, like the urban space (with which almost everyone interacts), is promising.

¹ See: Guy Thewes and Martin Uhrmacher, *Extra muros: vorstädtische Räume in Spätmittelalter und Früher Neuzeit*, Städteforschung. Reihe A, Darstellungen 91 (Wien Köln Weimar: Böhlau Verlag, 2019).

² Laurențiu Rădvan, "Towns and Cities," in *The Routledge Handbook of East Central and Eastern Europe in the Middle Ages, 500-1300, 2021, 245.*

Wroclaw, Krakow, and Lviv were selected for several reasons. They all received charters of privileges according to the so-called German (Magdeburg) law in the thirteenth and fourteenth centuries. Furthermore, some elements of this self-governing right were implemented even before the granting of charters in each of the cities. In addition, Wroclaw, Krakow, and Lviv were located on important trade routes, thereby being connected to each other. Each city has great historical significance and they also represent examples of significant influence over their respective areas. Lviv was a center for a court of appeal and a legal model for other Ukrainian cities. Krakow was the principal seat of Polish kings, and Wroclaw was the historical capital of Silesia, the region where Germans started their Eastward colonization, also spreading the ideas of the Magdeburg law. Last but not least, these cities are now important cultural centers of Poland and Ukraine.

The time frame from the thirteenth to the fifteenth centuries was chosen because this is the period of genesis and early development of the suburbs. Moving toward the Early Modern period, some elements of the original suburban functioning changed, which I also want to demonstrate in this thesis. The economy became more extensive, and wealthy patricians and institutions accumulated real estate. To emphasize this transformation, some examples from the sixteenth century are given in the thesis. Still, they should be interpreted not as teleology but as the next station on the route of urban space development.

This thesis aims to study and compare the situation in the territories outside the central walls of cities in the East-Central Europe. Thus, the main question of the research is to find out the common pattern of the first stages of suburban development in East-Central Europe during the Late Middle Ages. There are a few supporting questions. What administrative units existed in the suburbs, and what were their functions in the urban agglomeration? Where were different infrastructure elements located at the extra muros, that is, at what distance were those from the in-wall city? What role did rivers play in the functioning of the suburbs?

I hypothesize that in the first stages of development, the suburbs of Wroclaw, Krakow, and Lviv followed the same pattern. These territories had a similar process of genesis and, subsequently, the way of division and management of lands both administratively and infrastructurally. As cities governed by the so-called German law, they created a similar space organization. Lviv is the most important in this comparison because it was founded several centuries later and was located further to the East.

This thesis uses several primary sources. Charters of the so-called German law of Wroclaw (1261), Krakow (1257), and Lviv (1356, 1368), as they officially marked the new stage of functioning of the suburbs.

The sources used for the Lviv case study are the publications and manuscripts of two lists of the "Main inventory of a hundred lans..." of 1608, which contain a list of Lviv *lans*³ with a brief historical reference about the changes in their owner. The inventories indicated the measurements and descriptions of all the land at the city's disposal at that time. One document indicates the authorship of Lviv governor Stanislav Anserin,⁴ and the second, the longer version, which does not indicate the author, was probably a draft version of the same document, signed by the clerks of Anserin's office or by him personally.⁵ Both documents are written in the Old Polish with several excerpts in Latin. Descriptions of changes in ownership and boundaries of some land parcels date back to the beginning of the fifteenth century and provide insight into the evolution of the regulation and use of allotments up to the seventeenth century.

³ The unit of area used in the measurement and division of territories granted to towns and villages according to locational privilege and spread throughout East-Central Europe during the High Middle Ages. It had several different types. One lan had approximately 25 hectares. Its approximate English equivalent was *hide*

⁴ "Sta łanów inwentarz główny z osobna każdych verificatią, na sześć tractatów rozdzielony [The main inventory of 100 łans with the description of each one separately, divided into six Trakts]," in *Gospodarka finansowa miasta Lwowa w latach 1624-1635* (Lviv, 1930), 457–62, https://pbc.biaman.pl/dlibra/publication/edition/5565/content. ⁵ "Sta łanów inventarz główny, którym się ta liczba ich z dziedzictwami obiaśnia porządkiem takim, iako maią mięć swoich połozenia, iedne w halickim przedmieściu, drugie w krakowskim a trzecie w osadach Wieśnych [The main inventory of 100 łans with all inheritances in the order in which they are located, one in the Halych suburb, another in the Kraków suburb and the third in Wiesne settlements]," *Proceedings of History Faculty of Lviv University: collection of scientific articles* 7 (2005): 94–105.

The purpose of creating such descriptions in inventories is not specified. These documents have been partially researched by historians of Lviv and elaborated in several articles.⁶

Information on many different elements of the three medieval cities has been covered in the secondary literature. Myron Kapral's article on Krakow and Lviv from the thirteenth to the eighteenth century⁷ and Jerzy Piekalski's monograph on the High Middle Ages in Prague, Wroclaw, and Krakow⁸ used the comparative method for the selected cities. Both of these studies mention the suburbs only in passing. The Historic Towns Atlases series and the numerous works of Maryana Dolynska on Lviv made significant contributions. Papers of Krasnovolski on Krakow and the already mentioned Pikalski regarding Wroclaw were also beneficial.

The first chapter deals with the general context of the region, providing information about the development of proto-cities, introducing changes brought up by so-called German law, and major geopolitical events such as the Mongol invasion or changes in the cities' subordination to the European political powers. Also, this chapter describes the natural conditions in which each of the cities functioned, with a strong emphasis on hydrology. The maps presented in this and the next chapter serve for general understanding and a better idea of the urban space for the reader. However, these illustrations are only close depictions, not exact ones, as they were products of the Modern period or schematic plans made by scholars based on vague source data.

⁶ I translated both of these documents from Old Polish into Ukrainian and English. The English translation of the shorter version of the inventory will published by the end 2023.

⁷ Мугоп Kapral, "Розвиток Львова Та Кракова у XIII–XVIII Століттях: Порівняльний Історико-Урбаністичний Аналіз [The Development of Lviv and Cracow from the XIIIth to the XVIIIth Century: Comparative Historical and Urban Analysis]," *Вісник Львівського Університету. Серія Історична*, 2016, 31– 48.

⁸ Jerzy Piekalski, "Three Variants of Urban Transformation in Medieval Central Europe : Prague, Wrocław and Kraków," *Quaestiones Medii Aevi Novae* 19 (2014): 425–45.

The second chapter is devoted to the administrative organization of the suburbs of Wroclaw, Krakow, and Lviv. This part demonstrates the formation of the urban space before receiving the charter of the so-called German law and the rapid development afterward. The functioning of such *extra muros* entities as *osada*⁹ and *jurydyka*¹⁰ and the innovation of satellite cities are also presented. The definitions of these and some other recurring terms are compiled in the glossary at the end.

The third section aims to determine the location of some types of infrastructure in the suburbs of each city. Special attention is paid to constructions interacting with waterways and some changes in economic relations that occurred at the end of the Middle Ages.

⁹ A small village usually engaged in one craft

¹⁰ An area with its own jurisdiction (immunity) outside the city, or as an autonomous enclave within it, that exerted municipal rights separate from the local (city) laws. Usually it was under the royal or ecclesiastical control.

CHAPTER 1 THEORETICAL FRAMEWORK OF SUBURBAN DEVELOPMENT IN WROCLAW, KRAKOW, AND LVIV

1.1 Extra muros as a part of the medieval city

Walls and moats surrounded late medieval and early modern European cities, differentiating them from the villages. Representatives of the city community also lived on the territory extra muros, where crafts and agriculture flourished, and small settlements that paid taxes to the city arose. Thus, the distinction between urban and rural area was not that strict there. Still, there was a hierarchical inequality between the population *intra* and *extra muros*. In the suburbs often lived those who were not (or not yet) integrated into urban society, foreigners, immigrants, marginalized people, and people from less profitable crafts. Yet, patricians and nobles built their residences with gardens right there. Guy Thewes and Martin Uhrmacher emphasize the difficulty of creating a single picture of the city territory outside the central walls. French researchers use different terms for the suburbs, which have slightly different connotations ('banlieu,' 'environs,' 'faubourg,' 'espace péri-urbain,' and 'espace suburbain'). A similar situation developed in German literature ('Stadtrand', 'Vorstadt', 'städtisches Vorfeld', 'Weichbild', 'Stadtmark', 'Umland').¹¹ The term 'suburb' can be used to generalize all territories that belonged to the city and lay *extra muros*, but it is not entirely correct. The administrative organization of the late medieaval suburbs was complex. For example, a city could have several suburbs with their own names, yet have a so-called *jurydyka* which may or may not be considered a part of one of the existing suburbs. The co-existence of different administrative units on the suburban territory is addressed in the second chapter.

¹¹ Guy Thewes and Martin Uhrmacher, "Einführung in Die Tagungsthematik," in *Extra Muros. Vorstädtische Räume in Spätmittelalter und Früher Neuzeit*, 2019, 17–24.

To proceed with the genesis and functioning of the territories around the places that will later become city centers (the cities *intra muros*) this chapter will highlight several important processes in East-Central Europe: the foundation of Wroclaw, Krakow, and Lviv; the Mongol invasion; the emergence of city self-government during German Eastward colonization; control and regulation of water bodies near cities; and the division of the suburban land.

First of all, Wroclaw, Krakow, and Lviv arose from the suburbs of already existing strongholds (grads). In the case of Wroclaw, this role was played by the castle on *Ostrów Tumski* (Cathedral Island) built in the tenth century on the Odra River.¹² In Krakow, it was the Wawel Royal Castle (tenth century); in Lviv, there was a princely residence (thirteenth century), which later received the name of *High Castle*. Castles became centres of fortified settlements, surrounded by wood-and-earth fortifications, outside of which merchant and artisan settlements began to emerge. In Krakow, it was knight's *osada* called *Okol*; in Lviv, this city area still retains the toponym *Pidzamche*.¹³ Jerzy Piekalski emphasizes that the current state of research does not allow us to trace when castles with surrounding settlements became proto-cities or precisely which territories were occupied by a specific early city. However, even if legal regulations appeared later, these early urban centers started performing urban economic functions much earlier.¹⁴ In the territories surrounding the cities, new settlements began to appear in addition to the existing ones.

The transformations of the cities of East-Central Europe coincided with the Mongol invasion of Kyivan Rus, Hungary, Lesser Poland, and Silesia in the 1240s. Krakow suffered

¹² Piekalski, "Three Variants of Urban Transformation in Medieval Central Europe: Prague, Wrocław and Kraków," 31.

¹³ Kapral, "Розвиток Львова Та Кракова у XIII–XVIII Століттях: Порівняльний Історико-Урбаністичний Аналіз [The Development of Lviv and Cracow from the XIIIth to the XVIIIth Century: Comparative Historical and Urban Analysis]," 41.

¹⁴ Piekalski, "Three Variants of Urban Transformation in Medieval Central Europe: Prague, Wrocław and Kraków," 13–14.

some destruction from Mongols in 1241 and was soon rebuilt and chartered in 1257. The same year Mongols also attacked Wroclaw, which was rebuilt and subsequently chatered by 1261.¹⁵ While Krakow and Wroclaw underwent reconstruction, Lviv was only founded in the mid-thirteenth century within Ruthenia. Soon, in 1272, Lviv became the capital of Ruthenia and remained so until the end of the state's existence in the 1340s. After the geopolitical conflict regarding the division of the Ruthenian territories by neighboring powers was settled at the end of the fourteenth century, Lviv was finally incorporated into Poland.¹⁶ However, the three cities were not at the same time within the borders of one state. When the last Piast Duke of Wrocław, Henry VI the Good, died in 1335, the city became part of Bohemia.¹⁷

Social and economic changes in East-Central Europe required new patterns of urbanization. Besides the fortification processes, towns needed foreigners to provide new workforce and replace losses after the Mongol invasion in settleements that suffered from it and a new legal system providing autonomy. The former were often required to provide specialists in various crafts and constructions; the latter was needed in particular for the more accessible organization of economic development and life for newly arrived colonists.¹⁸ Thus, rulers issued charters that encouraged and regulated the arrival of new settlers. Legal models of several German towns became the most prominent; the laws of those towns were used as the basis for new charters of city privileges. For most of East-Central Europe, such a model was provided by Magdeburg, which had received its charter in 1188.¹⁹ Newcommers could have

¹⁵ Laurențiu Rădvan, At Europe's Borders: Medieval Towns in the Romanian Principalities, 2010, 47–48.

¹⁶ Yaroslav Hrytsak, "Lviv: A Multicultural History through the Centuries," *Harvard Ukrainian Studies* 24: Lviv: a city in the crosscurrents of culture (2000): 48.

¹⁷ Rădvan, At Europe's Borders: Medieval Towns in the Romanian Principalities, 48.

¹⁸ Olha Kozubska-Andrusiv, "Comparable Aspects in Urban Development: Kievan Rus' and the European Middle Ages," in *Medieval East Central Europe in a Comparative Perspective*, 2016, 147.

¹⁹ Katalin Szende and Felicitas Schmieder, "Cities and Towns in Medieval Central Europe," in *Oxford Handbook* of *Medieval Central Europe*, ed. Nada Zečević and Daniel Ziemann, 1st ed. (Oxford University Press, 2022), 267-C12.P51, https://doi.org/10.1093/oxfordhb/9780190920715.013.13.

settled together on the street inside the walled city or had their settlement in the suburbs.²⁰ German communities were allowed to be governed by their laws and had judicial autonomy.²¹ Private motives of the colonists to leave their homeland cannot always be followed.²²

So-called German law (*ius Theutonicum*) was adapted by local rulers as a standard component of settlement charters from the thirteenth century onwards in Silesia, Moravia, Bohemia, and the Polish duchies to regulate and encourage the settlement process.²³ The number of German inhabitants in the region was unrelated to the spread of *ius Theutonicum*. The term itself originated in the thirteenth century in the West Slavic territories outside the Holy Roman Empire. It was more of the general description of the self-government system, as each town or village was governed in accordance with its own charter.²⁴ The main mechanism of settling process was called *locatio* under the leadership of a *scultetus* (*Schultheiss*) in villages and *advocatus* (*Vogt*) in cities.²⁵

The newly planned city often had a chequerboard plan centered on a rectangular main (market) square. The walled cities of Wroclaw, Krakow, and Lviv followed this structure. The stronghold remained outside the city walls when receiving the so-called German law in the three cities.

A late medieval suburb was not just an area within an urban jurisdiction outside the city walls but an administrative unit. Boguslaw Krasnowolski described precisely the problems of the emergence of suburbs in Central Europe, and Poland in particular. It was rare for a suburb to be planned while a city was laid out. More often, the suburb was partially formed in the

²⁰ Katalin Szende, "Iure Theutonico? German Settlers and Legal Frameworks for Immigration to Hungary in an East-Central European Perspective," *Journal of Medieval History*, no. 45 (3) (2019): 366.

²¹ Olga Kozubska-Andrusiv, "German Law in Medieval Galician Rus' (Rotreussen)," *Rechtsgeschichte - Legal History* 2008, no. 13 (2008): 31–32, https://doi.org/10.12946/rg13/025-046.

²² Szende, "Iure Theutonico? German Settlers and Legal Frameworks for Immigration to Hungary in an East-Central European Perspective," 363.

²³ Szende, 373; Kozubska-Andrusiv, "German Law in Medieval Galician Rus' (Rotreussen)," 31.

²⁴ Szende, "Iure Theutonico? German Settlers and Legal Frameworks for Immigration to Hungary in an East-Central European Perspective," 374–75.

²⁵ Szende, 377.

period before the charter was issued or based on the existing nearby villages. In most cases, it resulted from a conscious action that linked rural and urban colonization into a single whole, creating single complexes of settlements.²⁶

1.2 Local hydrology and landscape

To understand the context of Wroclaw, Krakow, and Lviv, it is necessary to follow the general characteristics and changes brought by the rulers of the suburban territories, mainly regarding the watercources. The hydrography and the artificial changes influenced not only visual and logistic features, but also the economy. It was essential for the rulers to increase the defensive role of water bodies and supply water to areas remote from waterways by changing the river channel and by constructing wells and pipelines. Fishing, public baths, and waterwheels that powered mills and crafts contributed to the city's economy. In addition to ensuring the listed needs, it was also necessary to protect oneself from the river, that is, from floods and pollution.

Wroclaw, located on the Oder River and its four branches, has the largest river network in Poland and one of the largest in Europe.²⁷ *Wroclawski Węzeł Wodny* (Wroclaw water management system) dates back to the time of the fortress on Tumski Island (turn of the ninth and tenth centuries). The oldest dam (*Piaskowy Stopień Wodny*) was built to block water for defensive purposes. Over time it also took on economic functions: mills and forges were built nearby. However, this led to the excessive acceleration of the erosion of the channel bed, which in turn led to the construction of another dam (*Mieszczański Stopień Wodny*) around 1334. At

²⁶ Bogusław Krasnowolski, *Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku* [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 386 (Kraków: Wydawnictwo Naukowe Akademii Pedagogicznej, 2004), 216–17.

²⁷ Bartosz Adamiczka, "Rozwój, Odrzucenie, Powrót – Fazy Interakcji Miasto-Rzeka w Kontekście Wrocławia [Development, Rejection, Return - Phases of City-River Interaction in the Context of Wrocław]," *Prace Naukowe Uniwersytetu Ekonomicznego We Wrocławiu*, no. 443 (2016): 12.

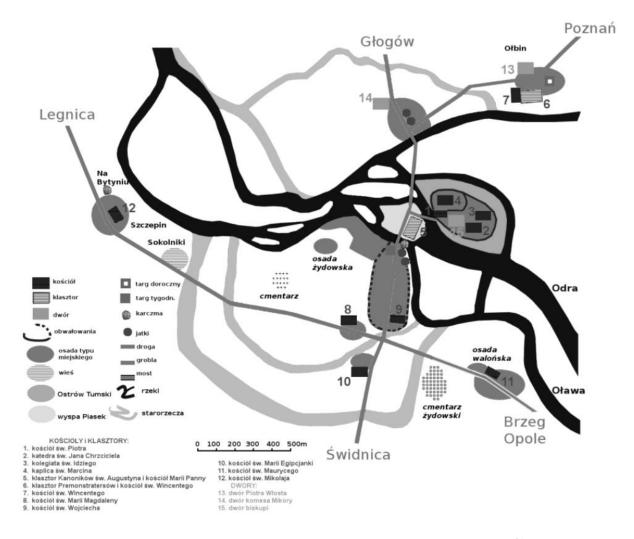
the end of the thirteenth century, hydro-technical works were carried out in Wroclaw, which connected the ponds formed in the former channel and directed the water of the Olava River into them, thus creating an internal city moat, which functioned until the second half of the nineteenth century. Nearly till the end of the Middle Ages, Wroclaw fought and prevented floods, simultaneously trying to provide water for all the city's needs.²⁸ The current was accelerated and used to power mills and craft workshops. Starting from the fifteenth century, further excavations were carried out, which increased the shipping capacity of a central water management system (*Śródmiejski Węzeł Wodny*).²⁹

As Pekalski explains, access to water, necessary for the functioning of households and crafts and the use of water wheel energy, fishing, and the defensive function of rivers compensated for the inconveniences of life near large plain rivers (wet soil, the risk of flooding and low water quality in wells.³⁰

²⁸ Grzegorz Jankowski, "Wrocławski Węzeł Wodny jako element kształtujący krajobrazy nadrzeczne Wrocławia [Wrocław hydrotechnical system as an element creating riverside landscapes of Wrocław]," in *Infrastruktura komunikacyjna w krajobrazie*, Prace Komisji Krajobrazu Kulturowego PTG 18 (Sosnowiec: Komisja Krajobrazu Kulturowego Polskiego Towarzystwa Geograficznego, 2012), 60–62.

²⁹ Agnieszka Dziubińska and Adam Weintrit, "Wrocławski Węzeł Wodny [Wroclaw Water Management System]," *LOGISTYKA* 3 (2014): 1602.

³⁰ Jerzy Piekalski, Rytm Rozwoju Miasta Na Kulturowym Pograniczu Studium Strefy Placu Nowy Targ We Wrocławiu [The Rythm of the City Development at the Cultural Frontier Study of Nowy Targ Square Zone in Wroclaw], 2018, 15.



*Figure 1. Wroclaw and its rivers in the twelfth-thirteenth century*³¹

Similarly, the Vistula River flowed in several channels, changing its riverbed during large floods; the intersection of these branches allowed the placement of ferries and moorings. Like Wrocław, although perhaps to a lesser extent, Krakow struggled with flooding and extensively used its water resources for watermills.³² The western outskirts of medieval Krakow were not conducive to rapid settlement, as they were located in a swampy valley. The appearance of the first settlers was probably due to the good water supply of the area: the

³¹ Mateusz Smolarski and Marek Jaskólski, "Rzeka w Świadomości Mieszczańskiej Na Przykładzie Odry We Wrocławiu [The River in the Bourgeois Consciousness on the Example of the Oder River in Wrocław]," in Środowisko Śląska Oczami Przyrodników, 2016, 19.

³² Antoni Czacharowski, Roman Czaja, and Zenon Kozieł, *Atlas historyczny miast Polskich: Kraków [The historic atlas of Polish towns: Kraków]* (Toruń: Uniwersytet Mikołaja Kopernika, 2007), 45, 48–49.

Vistula River flowed nearby and periodically changed its course. The development of the largest suburb in this area, Garbar, was significantly influenced by the construction of the *Młynówka Królewska* (Royal Mill system) according to the privilege of 1286.³³ The *Młynówka Królewska* provided water for residents, filled numerous ponds from which fish were caught, and irrigated gardens.³⁴

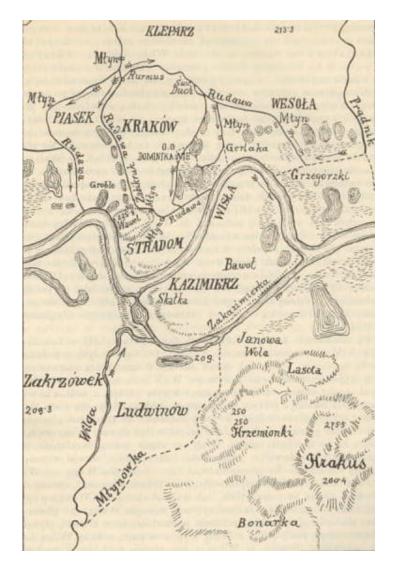


Figure 2. The central part of the hydrographic plan of the outskirts of the fifteenth-century Krakow³⁵

³³ Krzysztof Petrus, "Największe Przedmieście Krakowa. Zarys Rozwoju Przestrzennego Garbar. Część I [the Largest Suburb of Krakow. A Brief History of Urban Development of Garbary. Part I]," *Czasopismo Techniczne. Architektura* R. 108, Z. 16, 5-A (2011): 141–42.

³⁴ Anna Hebda-Małocha and Michal Małocha, "Gospodarcza Rola Młynówki Królewskiej w Krakowie i Jej Wpływ Na Obecne Zagospodarowanie Miasta [The Economic Role of Młynówka Królewska in Kraków and Its Influence on the Spatial Planning of the City]," *Czasopismo Techniczne. Środowisko*, 2007, 125–26.

³⁵ Klemens Bąkowski, *Dawne Kierunki Rzek Pod Krakowem [Former Directions of Rivers near Krakow]*, 1902, 13.



Figure 3. Water system plan in sixteenth-century Krakow³⁶

Lviv's settings differed from Krakow and Wroclaw: the Poltva River did not create such an extensive network as the Oder or the Vistula. Some general information can be gleaned from the records of Martin Gruneweg, the German merchant who lived in Lviv in 1582-1602. He described the history of the regions he visited in his diaries. His entry covering the period of Leo I of Galicia's reign (1269-1301) was based on sources that are not available any longer and mentioned melioration works on Poltva due to the waterlogging the river caused.³⁷ The absence of any earlier claims makes it necessary to take this source into consideration. Maryana

³⁶ Anna Hebda-Małocha and Michal Małocha, "Gospodarcza Rola Młynówki Królewskiej w Krakowie i Jej Wpływ Na Obecne Zagospodarowanie Miasta [The Economic Role of Młynówka Królewska in Kraków and Its Influence on the Spatial Planning of the City]," *Czasopismo Techniczne. Środowisko*, 2007, 125.

³⁷ Yaroslav Isaevich, "«Альтана Посеред Раю»: Львів у 1582–1602 Рр ["Altana in the Middle of Paradise": Lviv in 1582–1602]," Львів: Історичні Нариси, 1996, 38.

Dolynska suggests that this operation's purpose could have been not only draining the shore but also creating an artificial river channel for the city's defense.³⁸

Transformations related to urban health also took place. Over the years, the number of inhabitants of the cities increased and so did daily water consumption per person. The biggest problem was the used and polluted water from the baths, lavatories, and craft workshops. In Krakow, it usually flowed down the gutters together with the rainwater to the Royal Mill system. To eliminate pollution, primitive devices for mechanical wastewater treatment were assembled.³⁹ Water delivery was widespread (for example, in Lviv in the fourteenth century, water was often bought in barrels), but such services were difficult for suppliers and expensive for consumers. Due to the initial dense building plans for the in-wall city, fires could have dire consequences, so a constant water supply was necessary. For various needs, many wells were located within the city walls (we cannot calculate their exact number in any of the cities). The quality of water, however, was low; along with the usual pollution, groundwater was also poisoned because of the burials in suburban cemeteries.⁴⁰ Wroclaw is located in an area with almost no underground water, so the citizens used river water from wells or the riverbed itself.⁴¹

The pipelines were the solution for water pollution and groundwater flooding the basements. The first mention of the water pipeline in Wroclaw dates back to 1386, but archaeological research proves that there were attempts to solve the water supply problem as early as the thirteenth century.⁴² Following the example of the Krakow pipeline of 1399, the

³⁸ Maryana Dolynska, "Формування і Розвиток Території Львова: Зміни Адміністративно-Територіального Поділу Міста в XIII–XXI Століттях [Formation and Development of the Territory of Lviv: Changes in the Administrative-Territorial Division of the City in the 13th-21st Centuries]," in *Львів: Місто – Суспільство – Культура: Збірник Наукових Праць*, vol. 10, 2016, 19.

³⁹ Hebda-Małocha and Małocha, "Gospodarcza Rola Młynówki Królewskiej w Krakowie i Jej Wpływ Na Obecne Zagospodarowanie Miasta [The Economic Role of Młynówka Królewska in Kraków and Its Influence on the Spatial Planning of the City]," 127.

⁴⁰ Lucja Charewiczowa, Wodociągi Starego Lwowa 1404-1663 [Waterworks of Old Lviv 1404-1663], 1934, 6.

⁴¹ Smolarski and Jaskólski, "Rzeka w Świadomości Mieszczańskiej Na Przykładzie Odry We Wrocławiu [The River in the Bourgeois Consciousness on the Example of the Oder River in Wrocław]," 20–21.

⁴² Jerzy Piekalski et al., "A City and River in Pre-Industrial East-Central Europe. Case Study: Wrocław," *Archaeologia Historica Polona* 28 (December 30, 2020): 93–94, https://doi.org/10.12775/AHP.2020.004.

similar construction began in Lviv in 1404-1407. The reservoir was built to the east of the city walls, in the *Halych* suburb, on the *lans* of the Holy Spirit hospital, also providing water for the *osada* of Lyczakow nearby.⁴³ These three cases were among the first in Poland.

The extensive economic use of watercourses, with emphasis on the milling in the suburbs of Wroclaw, Krakow, and Lviv, is addressed in the third chapter.

1.3 Division of the suburban territory

The second wave of colonization in medieval Europe, which began in the eleventh century and lasted until nearly the end of the Middle Ages, was primarily aimed at boosting the economy.⁴⁴ It required the rationalization of land use, and the rural and suburban territories in East-Central Europe during the High Middle Ages were measured and divided using the particular measuring unit: the *lan*. The *lan* was introduced by German colonists in the territories of modern Germany, Poland, the Baltic states, Belarus, Ukraine, the Czech Republic, Slovakia and Hungary.⁴⁵ According to the *lan* system in the settlements, the collection of land rent (financial and / or in-kind) was organized as well as feudal duties of the peasants (*pańszczyzna*). Every household was supposed to have a landplot of nearly the same size. The initial (theoretical) size supposed to be about 30-43 *Morgen*, which is 16-25 hectares.⁴⁶ Most likely, the *lans* were rectangular in shape. According to the second known location privilege to Lviv issued by Casimir III (1368), the *lans* extended from the 'forehead' of the walls, which means that they were located radially, surrounding the city center with their narrow sides and

⁴³ Charewiczowa, Wodociągi Starego Lwowa 1404-1663 [Waterworks of Old Lviv 1404-1663], 6–8.

⁴⁴ It contrasted with the first wave (eighth-ninth century) that was characterized by military activities: the conquest and occupation of new lands. Jan Piskorski, "Medieval Colonization in East Central Europe," in *The Germans and the East*, 2008, 28.

⁴⁵ Heiner Lück, "Aspects of the Transfer of the Saxon-Magdeburg Law to Central and Eastern Europe," *Rechtsgeschichte - Legal History* 2014, no. 22 (2014): 83, https://doi.org/10.12946/rg22/079-089.

⁴⁶ Franciszek Piekosiński, O łanach w Polsce wieków średnich [About lans in Poland of the Middle Ages], 1887, 10, 15.

continued to the border between the city and royal territories.⁴⁷ On these *lans* various forms of settlement appeared.

The granting of the *lans* to a settlement is one of the characteristic features of the legal location. This allowed local officials to more freely dispose of the lands, which were partially freed from the central jurisdiction or the power of a certain feudal lord. ⁴⁸ According to traditions and legal norms, primary legal locations received repeated confirmations, which could even increase the number of lans. There could have been even more global changes: the territories of the settlement could have been rebuilt on different types of self-governing rights.⁴⁹

The functioning and changes of this unit are essential for understanding what the suburbs were. Despite its significant influence in the late Middle Ages on the territory of East-Central Europe, the *lan* is almost uncovered in historiography. Back in the nineteenth century Polish historian Franciszek Piekosiński, considering the *lan* question, pointed out that all researchers of so-called German law omit the question of *lan* in their studies.⁵⁰ The situation has not changed much since then. Most monographs and articles on the functioning of so-called German law use the term *lan* only in context, as a territorial unit, without indicating its origin and specific size⁵¹ Research on the subject may consider the legal features and changes in the right to self-government in East-Central Europe, bypassing the territorial aspect, and accordingly not use the term *lan* at all.

German ethnographer Bruno Schier clarifies the origin of this measure of the area. The Slavic term *lan (lahn)* corresponds to the German *Hufe* and comes from *lehen*, also known as

⁴⁷ Charter of Casimir III 1356 for Lviv: Привілеї Міста Львова (XIV–XVIII Ст.) [Privileges of the City of Lviv (14-18th Centuries)], 1996, 33–36 (№3).

⁴⁸ Tetiana Hoshko, *Hapucu з Icmopii Магдебурзького Права в Україні (XVI - Початок XVII Ст.) [Essays on the History of Magdeburg Law in Ukraine (16th - Beginning of 17th Centuries)]*, 2002, 4.

⁴⁹ Piekosiński, O łanach w Polsce wieków średnich [About łans in Poland of the Middle Ages], 26.

⁵⁰ Piekosiński, 1.

⁵¹ See: Maciej Mikuła, *Municipal Magdeburg Law (Ius Municipale Magdeburgense) in Late Medieval Poland*, vol. 30, Medieval Law and Its Practice, 2021; Fryderyk Papée, *Historya miasta Lwowa w zarysie [The history of the city of Lviv in outline]* (Lviv, 1894).

feud in Western Europe. This borrowing took place around the twelfth-thirteenth centuries with the migration of the colonists from Central-Eastern Germany (Eastern Franconia, Thuringia and Upper Saxony).⁵² German studies also indicate that the *Hufe* system dates back to the Carolingian Empire.⁵³ Franz Beranek suggests that initially, *Hufe* had no standard size, only later stabilized at a size of 20 to 40 *Morgen*, depending on the landscape. Land measurement using *Hufe* came from the Latin *mansus*. Furthermore, in Late Medieval sources and contemporary scholarship, this Latin term is sometimes used as a synonym for *lan*.⁵⁴

We emphasize the theoretical nature of these measurements for several reasons. The real size of the *lan* depended mostly on the geography of the region and soil quality.⁵⁵ Also, numerous illegal manipulations took place during the initial⁵⁶ and repeated measurements (for example, illegal movement of boundary stones⁵⁷) or during inventories. In addition, the errors of the metric system also played a role in creating the differences. This applies both to the variations of *Morgen* in different regions (*Morgen* are used most often to define *lan* in the literature, as it is a modern measure for many authors), as well as to the transfer between different measurement units. It is known that ropes, rods, elbows, and even palms were used to measure *lans* beside *Morgen*.⁵⁸ German studies suggest that *Hufe*, although roughly the same within the same region, could be critically different between different regions.⁵⁹

⁵² Bruno Schier, "Ortsnamen als Quellen der historischen Volkskunde in Böhmen," *Bohemia*, 1977, 317–19, https://doi.org/10.18447/BOZ-1977-1151.

⁵³ Franz Engel, "Mittelalterliche Hufenmaße Als Siedlungsgeschichtliche Quellen," Abhandlungen der Braunschweigischen Wissenschaftlichen Gesellschaft, no. 8 (1956): 276.

⁵⁴ Franz J. Beranek, "Das Lahn. Zur germanisch-slawischen Kulturverflechtung.," in Europäische Kulturverflechtungen im Bereich der volkstümlichen Überlieferung. Festschrift für Bruno Schier zum 65. Geburtstag (Göttingen, 1967), 97.

⁵⁵ Piekosiński, *O łanach w Polsce wieków średnich [About lans in Poland of the Middle Ages]*, 21–22; Antoni Musztyfaga, "Ze Studiów Nad Osadnictwem Kasztelanii Nysko-Otmuchowskiej Na Przełomie XIII i XIV Wieku [From Studies on the Settlement of the Nysa-Otmuchów Castellany at the Turn of the 13th and 14th Centuries]," *Sobótka* 23 (1968): 181–97.

⁵⁶ Piekosiński, O łanach w Polsce wieków średnich [About łans in Poland of the Middle Ages], 273.

⁵⁷ Maryana Dolynska, Львів: простір на тлі мешканців XIII–XIX ст [Lviv: the urban space against the background of its inhabitants (13th to 19th centuries)] (Lviv, 2015), 87.

⁵⁸ Piekosiński, O łanach w Polsce wieków średnich [About łans in Poland of the Middle Ages], 5–10.

⁵⁹ Engel, "Mittelalterliche Hufenmaße Als Siedlungsgeschichtliche Quellen," 273.

Its size also changed in later times due to the socio-economic development of the regions. It is evident by the sources used for the Lviv case-study, the publications and manuscripts of two lists of *The Main Inventory of a Hundred Lans* of 1608. These documents contain a list of Lviv *lans* with a brief historical reference about the changes in their owner. The inventories indicated the measurements and descriptions of all the land at the city's disposal at that time. One document indicates the authorship of Lviv governor Stanislav Anserin,⁶⁰ and the second, which does not indicate the creator, was probably a draft version of the same document, made by the clerks of Anserin's office or by him personally.⁶¹ Descriptions of changes in ownership and boundaries of some landplots date back to the beginning of the fifteenth century and provide insight into the evolution of the regulation and use of allotments up to the seventeenth century. The purpose of creating such descriptions in inventories is not specified. These documents have been partially researched by historians of Lviv and elaborated in several articles.⁶²

Scholars from Germany, Poland and Ukraine stated the same claim that the *lan* began to decline as a measurement unit till the sixteenth century.⁶³ With the growing demand for agricultural goods on the territory of Poland, people in positions of *Vogt* or *Schultheiss* increasingly provided households with smaller allotments according to their capabilities.⁶⁴

⁶⁰ "Sta łanów inwentarz główny z osobna każdych verificatią, na sześć tractatów rozdzielony [The main inventory of 100 łans with the description of each one separately, divided into six Trakts]."

⁶¹ "Sta łanów inventarz główny, którym się ta liczba ich z dziedzictwami obiaśnia porządkiem takim, iako maią mięć swoich połozenia, iedne w halickim przedmieściu, drugie w krakowskim a trzecie w osadach Wieśnych [The main inventory of 100 łans with all inheritances in the order in which they are located, one in the Halych suburb, another in the Kraków suburb and the third in Wiesne settlements]."

⁶² See: Andryi Feloniuk, ed., Onucu nepedmicmь Львова XVI - XVIII століть [Inventories of the suburbs of Lviv of sixteenth-eighteenth centuries], Lviv historical works. Sources 4 (Lviv: National Academy of Sciences of Ukraine, Institute of Ukrainian Archeography and Source Studies named after M. Hrushevskyi, Lviv Branch, 2014); Maryana Dolynska, "До Питання Про Площу Львова XIV–XVIII Ст [To the Question of the Square of Lviv 14th-18th Centuries.]," Львів: Місто, Суспільство, Культура: Збірник Наукових Праць 6 (2007): 46– 57.

⁶³ Engel, "Mittelalterliche Hufenmaße Als Siedlungsgeschichtliche Quellen," 285; Piekosiński, O łanach w Polsce wieków średnich [About łans in Poland of the Middle Ages], 34; Mykhailo Hrushevsky, Історія України-Руси [The History of Ukraine-Rus'], vol. 5, 1905, 186–87.

⁶⁴ Piekosiński, O łanach w Polsce wieków średnich [About łans in Poland of the Middle Ages], 34.

However, in *The Main Inventory of a Hundred Lans* we can observe the functioning of not entire *lan* allotments but their parts or sums as a result of sales, inheritances, and donations already in the fithteenth century. In Lviv, the enrichment and accumulation of real estate in the suburbs by individuals and institutions (orders, churches, monasteries, hospitals) are confirmed by these documents of 1607-1608.⁶⁵ Tetiana Hoshko writes about the problem of the oligarchy in Lviv and other cities that used the so-called German law (such as Wroclaw and Krakow) that arose in the sixteenth century.⁶⁶ Furthermore, in the Polish-Lithuanian Commonwealth in the Early Modern period, the situation was complicated by the practice when wealthy citizens bequeathed or donated funds, movable and immovable property to religious institutions for the eternal salvation of the donor's soul.⁶⁷ Changes in the suburbs are also tied to the fact that the Polish landmarket prices reached their lowest point in the first half of the sixteenth century. The lower the values of the land, the larger were the number of the recorded land transactions.⁶⁸ The source for the Lviv case study vividly demonstrates the numerous repurchases and donations of allotments (or their parts) measured in lans during this period.

Undoubtedly, these processes did not arise in the Early Modern period from nowhere, but they were established in the Late Middle Ages. These crucial aspects of further

⁶⁵ "Chensze z Halickiego przedmiescia roku Bozego 1607, dnia 8 octobra wÿbierame, za reuizią i inuentarzem w tÿmze roku ponowionÿm i wedle połozenia sta łanow sporządzonÿm [Taxes from the Halych suburb of the year 1607, collected on October 8th, according to the revision and inventory renewed in the same year and according to the location of the 100 łans]," in *Inventories of the suburbs of Lviv of sixteenth-eighteenth centuries*, Lviv historical works. Sources 4 (Lviv: National Academy of Sciences of Ukraine, Institute of Ukrainian Archeography and Source Studies named after M. Hrushevskyi, Lviv Branch, 2014), 137–61; Zubyk, "Sta łanów inwentarz główny z osobna każdych verificatią, na sześć tractatów rozdzielony [The main inventory of 100 łans with the description of each one separately, divided into six Trakts]."

⁶⁶ Hoshko, Нариси з Історії Магдебурзького Права в Україні (XVI - Початок XVII Ст.) [Essays on the History of Magdeburg Law in Ukraine (16th - Beginning of 17th Centuries)], 160.

⁶⁷ Oksana Vinnichenko, ""Своя Смерть': Річпосполитський Шляхтич Перед Обличчям Вічності (За Ранньомодерними Тестаментами) ["Oneself's Death": The Polish-Lithuanian Nobleman in the Face of Eternity (According to Early Modern Testaments)]," іп *Повсякдення Ранньомодерної України. Історичні Студії в 2-х Томах [З Історії Повсякденного Життя в Україні. Серія Монографічних Видань]*, vol. 2: Світ речей і повсякденних уявлень, 2014, 289.

⁶⁸ Piotr Guzowski, "The Peasant Land Market in Late Medieval and Early Modern Poland, Fifteenth and Sixteenth Centuries," in *Property Rights, Land Markets and Economic Growth in the European Countryside (13th-20th Centuries)*, ed. Gérard Béaur et al., vol. 1, Rural History in Europe (Turnhout: Brepols Publishers, 2013), 227, https://doi.org/10.1484/M.RURHE-EB.4.00146.

transformation of *extra muros* territories cannot be ignored. The real estate in the cities became game pieces between wealthy patricians and institutions. It directly affected the administrative organization and control of suburban lands. In the next chapters, I will try to trace some of these processes in the later chapters of this thesis.

To conclude, Wroclaw, Krakow, and Lviv grew from proto-cities around strongholds, but in the latter, this process took place about three hundred years later, in the thirteenth century. Further development of cities owes to the implementation of *ius Theutonicum*. Subsequently, the Mongol invasion in the middle of the thirteenth century motivated the transformation of the urban space even more. According to the so-called German law, urban territories were measured in lans (this unit of area already existed in various forms in Europe for several centuries). The purpose of introducing this unit was to divide the territories of extra muros into approximately equal parts (the reasons for the errors in the area of these allotments were given above). Also, urban development involved more extensive use of existing rivers. Wroclaw resisted the damage of its rivers for a long time but instead had a reliable natural fortification. Krakow primarily used the river for economic needs, developing Mlynówka Królewska. Lviv, in contrast, had a small river system but suffered less from water damage than the other two cities. Changes to the landscape in these cities due to the melioration, the construction of mills and dams, and other processes are worth further research, as it was done, for example, in the region of Northern Poland. ⁶⁹ The construction of water mills in three cities and the use of water wheel energy are discussed in more detail in the third chapter.

⁶⁹ See: Dariusz Brykała and Zbigniew Podgórski, "Evolution of Landscapes Influenced by Watermills, Based on Examples from Northern Poland," *Landscape and Urban Planning* 198 (2020): 1–15.

CHAPTER 2 ADMINISTRATIVE ORGANIZATION OF THE SUBURBS

The suburbs of Wroclaw, Krakow and Lviv in the thirteenth-fifthteenth centuries contained many different territorial entities that overlapped with each other, creating the city's complex administrative organization. This chapter aims to determine and compare each city's urban development pace in the administrative dimension and demonstrate the interaction of the in-wall cities with its extra muros settlements. Analysis of theses agglomerations is essential for understanding the development of the city, its economy, and socio-topography. First, according to its own locational privileges, each of the cities was measured and divided in *lans*, as it was discussed in the first chapter. In the documents, for convenience purposes, the lans could be conventionally grouped into *tracts* (in the case of the Lviv's 1607-1608 documents, six such *tracts* were formed,⁷⁰ which could change in quantity and location over time. Due to sale, inheritance, donations and other transactions, the lans could be divided or two or more of them could be united under the same owner. On these *lans*, their parts or sums small settlement appeared (osada and urban village). Some existed before the locatio, and others were settled or grew from the households. In several cases, even entire new towns arose in the suburbs. There was also a territory in the suburbs that was excluded from the authority of the city under the royal or ecclesiastical control, which was called *jurydyka*. A detailed description of these administrative units, their use, and their owners will be provided in this chapter. Closer to modern times, these units began to supplant each other, the existing administrative system was

⁷⁰ "Sta łanów inventarz główny, którym się ta liczba ich z dziedzictwami obiaśnia porządkiem takim, iako maią mięć swoich połozenia, iedne w halickim przedmieściu, drugie w krakowskim a trzecie w osadach Wieśnych [The main inventory of 100 łans with all inheritances in the order in which they are located, one in the Halych suburb, another in the Kraków suburb and the third in Wiesne settlements]"; "Chensze z Halickiego przedmiescia roku Bozego 1607, dnia 8 octobra wÿbierame, za reuizią i inuentarzem w tÿmze roku ponowionÿm i wedle połozenia sta łanow sporządzonÿm [Taxes from the Halych suburb of the year 1607, collected on October 8th, according to the revision and inventory renewed in the same year and according to the location of the 100 łans]."

losing the original meaning due to the increasing city population, more complex economic system, and more extensive agriculture.

2.1 Genesis

On December 26, 1261, co-ruling dukes of Silesia, Henry III the White and Wladyslaw of Salzburg, granted the charter to Wroclaw. The document interpretation implies that the first *locatio* happened before the Mongol invasion, and its area did not coincide with the area marked during the location around 1242. However, it is difficult to determine more precisely the range of the estate covered by the first *locatio*, which may have been initiated by the grandfather of Henry III and Wladyslaw, Henry I the Bearded, in the last years of his reign. Indeed, the process of implementation of the so-called German law in the region began during the reign of Henry I (1201-1238). He initiated various colonization campaigns settling mainly German immigrants and providing them with a legal basis based on their law.⁷¹

The question of the size of the territory of Wroclaw provided by the first locatio remains unanswered.⁷² The charter does not contain any information about the number of lans granted to the city.⁷³ Dagmara Adamska notes that medieval documents mention settlements on seven lans starting from 1261.⁷⁴

 ⁷¹ Rafał Eysymontt and Mateusz Goliński, eds., *Atlas historyczny miast Polskich: Wrocław [The historic atlas of Polish towns: Wrocław]*, Reprod. en fac-sim, vol. IV Śląsk (Wrocław: Instytut archeologii i etnologii PAN, 2017),
5.

⁷² Eysymontt and Goliński, IV Śląsk:17.

⁷³ Charter of Wroclaw (1261) *Breslauer Urkundenbuch*, 1870, 18–27 (№20).

⁷⁴ Eysymontt and Goliński, *Wrocław*, IV Śląsk:27.



Figure 4. Plan of Wroclaw of 156275

On June 5, 1257, Boleslaw V the Chaste, together with his mother Grzymislawa and his wife Kinga, issued the privilege of giving Krakow the so-called German law as Wroclaw already had, considering the Magdeburg system as a model. In the literature, this document is called *Wielka lokacja* (Great location). *Wielka lokacja* did not specify the area of agricultural land granted to the city. The document does not mention the number of lans given to the city, so all researchers' calculations are exclusively theoretical. Krasnowolski assumes the total area

⁷⁵ Barthel and Georg Weihner, 1826: "Niezwykły Plan Wrocławia z 1562 Roku [An Unusual Plan of Wrocław from 1562]," 2021, https://e-dolnyslask.info/niezwykly-plan-wroclawia-z-1562-roku/.

granted outside the city walls was 120 *lans*.⁷⁶ Historians also consider versions about 90 or, less likely, 180 lan.⁷⁷

However, it may not be the first charter of Krakow. Boguslaw Krasnowolski and many other historians assume that the charter was granted to Krakow even earlier, around 1220, during the reign of Leszek the White. The main argument is that Boleslaw V had to issue a new locational privilege after the Mongols burned the city in 1241. Krasnowolski notes the influence of Western legal models on Boleslaw V and cites several inconsistencies in planning within and around the city walls, which do not correspond to the privilege of 1257.⁷⁸

In the late Middle Ages, Krakow had three suburbs on three important trade routes from the in-wall city: Kleparz in the north, Garbary in the west, and Wesola in the east. Krasnowolski suggests that all three suburbs arose during the period of *Wielka lokacja*.⁷⁹ In the period of the late thirteenth and early fourteenth century, with the processes of building fortifications, Krakow expanded, occupying part of the suburbs around the walls, in particular absorbing Wawel Royal Castle and the *osada* of Okol in the north, which was a satellite of the city and in the period 1321-1346 had the name Alta Civitas. The territory of the suburbs was also reduced by the emergence of two new satellite towns, Kazimierz in 1335 and Kleparz in 1366, with their own small suburbs.⁸⁰ Subsequently, the city expanded in the northern and eastern directions by purchases of neighboring settlements. For example, in 1388–1389, the private villages of Grzegozki and Dąbie were bought for the city.⁸¹

⁷⁶ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 102.

⁷⁷ Kapral, "Розвиток Львова Та Кракова у XIII–XVIII Століттях: Порівняльний Історико-Урбаністичний Аналіз [The Development of Lviv and Cracow from the XIIIth to the XVIIIth Century: Comparative Historical and Urban Analysis]," 43.

⁷⁸ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 88–91. ⁷⁹ Krasnowolski, 127, 130.

⁸⁰ Krasnowolski, 104–23.

⁸¹ Kapral, "Розвиток Львова Та Кракова у XIII–XVIII Століттях: Порівняльний Історико-Урбаністичний Аналіз [The Development of Lviv and Cracow from the XIIIth to the XVIIIth Century: Comparative Historical and Urban Analysis]," 43.

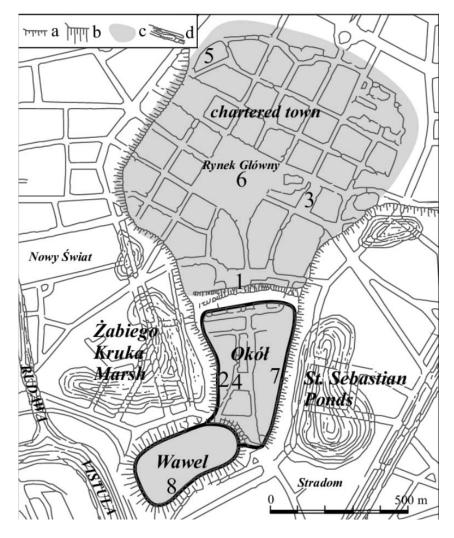


Figure 5. Late Medieval Krakow plan⁸²

⁸² Aldona Mueller-Bieniek and Adam Walanus, "Cultivated Plants in Medieval Kraków (Poland), with Special Reference to Amaranth (Amaranthus Lividus L. Cf. Var Lividus) and Ruderal Communities," *Acta Palaeobotanica*, no. 55 (1) (2015): 99.

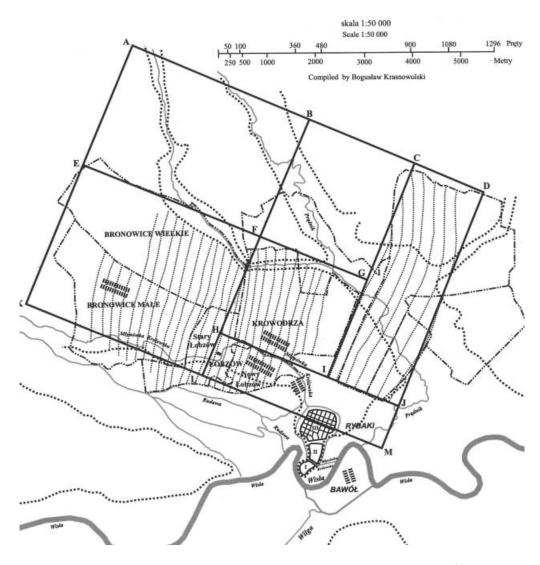


Figure 6. Land granted to Krakow under the 1257 charter⁸³

There is no concrete data on the administrative structure of Lviv in the Ruthenian period.⁸⁴ Still, it is known that the suburbs were divided into the Northern one, which was divided between the royal headman (*Vogt*) and the city authorities, and the Southern one, which was wholly subordinated to the city. Later, they became *Halych's* and *Krakow's* suburbs, respectively. The *Halych's* suburb included the territory settled in the Ruthenian period.⁸⁵ The

⁸³ Czacharowski, Czaja, and Kozieł, *Atlas historyczny miast Polskich* =, 51.

⁸⁴ Dolynska, "Формування і Розвиток Території Львова: Зміни Адміністративно-Територіального Поділу Міста в XIII–XXI Століттях [Formation and Development of the Territory of Lviv: Changes in the Administrative-Territorial Division of the City in the 13th-21st Centuries]," 13.

⁸⁵ Yaroslav Isaevich, "Львів [Lviv]," in Енциклопедія Історії України, vol. 6 (Ла-Мі), 2009, 322–23.

names of the suburbs come from the same ones of the two city gates that led to Halych and Krakow.⁸⁶

The charter for Lviv (unlike the ones for Wroclaw and Krakow) indicates the extent of land granted to the city. When Lviv had already become part of the Polish kingdom, Casimir III granted Lviv 70 *lans* on June 17, 1356. The donation provided that 60 of the total number would be taxed annually to the royal treasury in the amount of 24 Rus'ian groschens on St. Martin's Day. The other ten *lans*, which were located in the area of Bilogoshcha, were designated for public pasture and were exempted from paying such a tax.⁸⁷ *Halych's* and *Krakow's suburbs* contained 45 and 14 *lans*, respectively. On the territories granted in 1356, the urban villages of Porechye, Volitsa, and Zamarstiniv arose.⁸⁸ In 1368 Casimir III granted Lviv 100 *lans* with the second privilege (supposedly granting 30 new *lans* to the already existing 70). The new terms of the grant were slightly different. An annual rent of 12 Prague zlotys was imposed on 89 *lans*, but they received 20 years without payment before the taxation would start. There are no specifications on whether it was covering only the new 30 *lans*, or all 89, as for the longest time dominant was the idea that after 1368 charter city had 170 *lans*.⁹¹ In 2007 Dolynska refuted the theory about 170 *lans*.⁹¹

One *lan* was granted to the Church of the Virgin Mary and was entirely exempt from taxes. The remaining ten *lans* were exempted from paying rent and assigned to pastures.⁹² The

⁸⁶ Dolynska, "Формування і Розвиток Території Львова: Зміни Адміністративно-Територіального Поділу Міста в XIII–XXI Століттях [Formation and Development of the Territory of Lviv: Changes in the Administrative-Territorial Division of the City in the 13th-21st Centuries]," 24.

⁸⁷ AGZ, III, s.13-18.

⁸⁸ Dolynska, "Формування і Розвиток Території Львова: Зміни Адміністративно-Територіального Поділу Micra в XIII–XXI Століттях [Formation and Development of the Territory of Lviv: Changes in the Administrative-Territorial Division of the City in the 13th-21st Centuries]," 24.

⁸⁹ Kapral, Привілеї Міста Львова (XIV–XVIII Ст.) [Privileges of the City of Lviv (14-18th Centuries)], 16.

⁹⁰ Papée, Historya miasta Lwowa w zarysie [The history of the city of Lviv in outline], 32–33.

⁹¹ Dolynska, "До Питання Про Площу Львова XIV–XVIII Ст [To the Question of the Square of Lviv 14th-18th Centuries.]," 46–57.

⁹² AGZ, III, s.40-45.

urban villages of Golosko Male, Golosko Velike, and Klepariv later arose on the territories acquired under this donation. In the fifteenth century, there were several more small land donations to the city. In 1415 and 1444, there were donations of *obshars* (unmeasured territories outside the existing *lans*). By the second half of the fifthteenth century, the formation of the urban territory of Lviv had been completed.⁹³

However, assuming that suburban genesis and land division began only with Polish rule would be wrong. At the beginning of the nineteenth century, Denys Zubrytskyi expressed doubts about the authenticity of Casimir's grant of 1356 because the original document had not been preserved and only the confirmation was issued in 104 years, in 1460.⁹⁴ In addition, several sources testify the granting of so-called German law to Lviv long before Kazimir. Zubrytskyi supplements this theory with evidence of spatial and legal location elements, namely the grant of real estate to the Lviv *Vogt* Bertold Stecher, a German colonist, by Leo I of Galicia⁹⁵ and the position of the *Vogt* is characteristic only for so-called German law.

German communities arose not only in Lviv. In most of Ruthenia's main political and commercial centers, German colonies using the so-called German law appeared long before the Polish expansion and wide implementation of *ius Theutonicum*.⁹⁶ They quickly occupied a privileged position among the citizens. The name of Lviv appeared in a German version (Lamburg, Lemberg) during Ruthenian times, which shows how significant colonists` influence was.⁹⁷

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⁹³ Dolynska, "Формування і Розвиток Території Львова: Зміни Адміністративно-Територіального Поділу Micra в XIII–XXI Століттях [Formation and Development of the Territory of Lviv: Changes in the Administrative-Territorial Division of the City in the 13th-21st Centuries]," 23–25.

⁹⁴ Denys Zubrzycki, *Kronika miasta Lwowa [Chronicle of the city of Lviv]* (Lviv: nakładem autora, 1844), 36–38.

⁹⁵ Zubrz., Kronika, s.491-492; AGZ, III, s.47-48.

⁹⁶ Andrzej Janeczek, "Early Urban Communes under German Law in Halyč-Volhynian Rus' (the Thirteenth to the Mid-Fourteenth Century)," in *Acta Poloniae Historica*, vol. 119, 2019, 63; Olga Kozubska-Andrusiv, "… Propter Disparitatem Linguae et Religionis Pares Ipsis Non Esse …' 'Minority' Communities in Medieval and Early Modern Lviv," in *Segregation – Integration – Assimilation*, 2009, 51–66.

⁹⁷ Aleksander Czołowski, Lwów Za Ruskich Czasów [Lviv in Rus `ian Times], 1891, 34.

Having analyzed the sequence of land acquisitions by the city, Maryana Dolynska found other confirmations that some spatial elements arose earlier than 1356. As one of the examples, she proposed *lans* grouped in the *tract* near the city walls in the south where a craftsmen's settlement called "Under the Watch" was located. The seventeenth-century source called this *tract* "separate" or the third of *Halych's suburb tracts*. Dolynska claimed that this formation did not fit into the intended structure, having a triangular form. Rents from this settlement began to come to the city treasury in 1404; thus, it gives reason to assume that the atypical configuration was already measured by 1356 and then was included in the 100 *lans* listed in 1608.⁹⁸

⁹⁸ Dolynska, Львів: простір на тлі мешканців XIII–XIX ст [Lviv: the urban space against the background of its inhabitants (13th to 19th centuries)], 39–40.

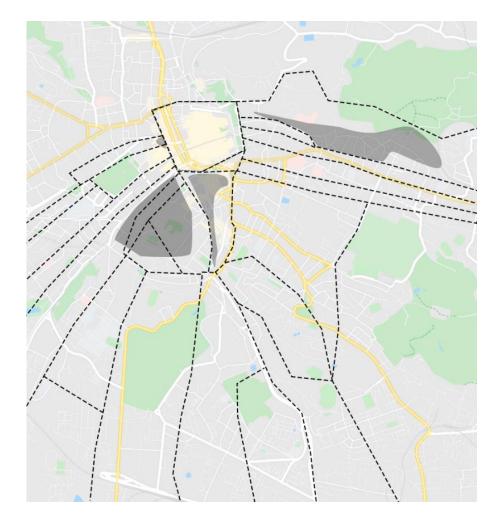


Figure 7 The layout of the lans of the Halych's suburb of Lviv in 1608, according to the "Main inventory of a hundred lans"

The inventory also shows intense changes in the division into lans in the city. In fact, as of 1608, only a few allotments are listed in the size of one *lan*, and others range from 0.5 to 5.5 lans due to repurchases and bequests. The document contains four entries relating to the fifteenth century. Among the oldest records, the city entirely owned one *lan* with vineyards that bordered the Royal headman's *jurydyka*; this border was approved as early as 1413. Two allotments belonged to the hospital of the Holy Spirit: one with a size of 2.25 *lans* together with the street and the church of St. Lawrence, received through a donation in 1471; the second one (1.75 *lan*), adjacent to the first one, also had a street, and was received by the hospital

according to the will of one citizen of Lviv in 1403. The last mentioned *lan* of the Brotherhood of the Virgin Mary with a chapel received taxes from houses and *osadas* on it since 1421.⁹⁹

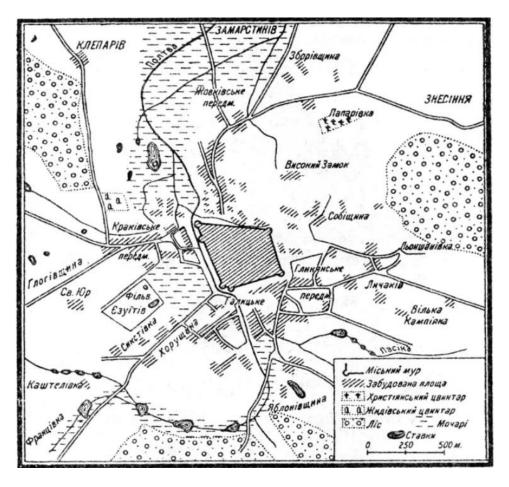


Figure 8. Town plan of late medieval Lviv¹⁰⁰

⁹⁹ "Sta łanów inventarz główny, którym się ta liczba ich z dziedzictwami obiaśnia porządkiem takim, iako maią mięć swoich połozenia, iedne w halickim przedmieściu, drugie w krakowskim a trzecie w osadach Wieśnych [The main inventory of 100 łans with all inheritances in the order in which they are located, one in the Halych suburb, another in the Kraków suburb and the third in Wiesne settlements]."

¹⁰⁰ "Як Виглядав Середньовічний Львів: Враження Очевидця [What Medieval Lviv Looked like: The Impression of the Eyewitness]," 2017, https://prolviv.com/blog/2017/11/10/iak-vyhliadav-serednovichnyi-lviv-vrazhennia-ochevydtsia/.

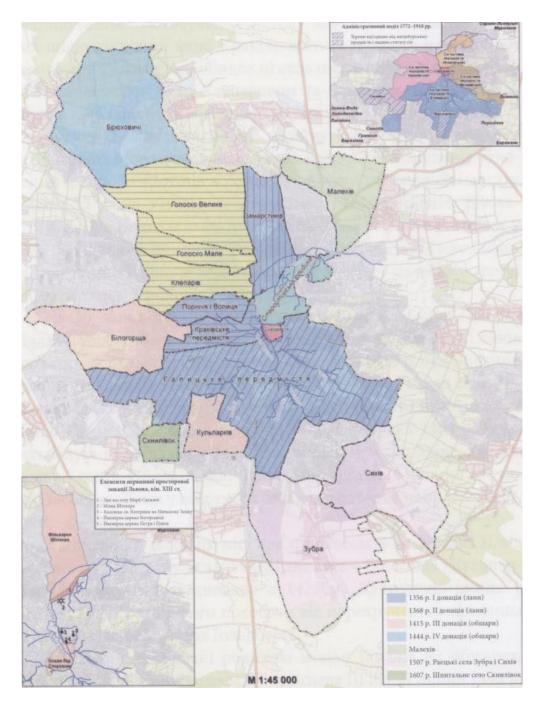


Figure 9. The formation of the territory of Lviv in the 14th - early 17th centuries¹⁰¹

¹⁰¹ Dolynska, Львів: простір на тлі мешканців XIII–XIX ст [Lviv: the urban space against the background of its inhabitants (13th to 19th centuries)], 56.

2.2 Inner suburban settlements

Roman Czaja claims that the settlement process of suburbs began with an "island-like" structure. Small settlements arose in certain places: directly near the city gates, on the banks of the river, near chapels, hospitals, or shopping areas, which did not form a coherent suburban system. Later, more construction took place near main roads, and at the end of the fourteenth century, street networks appeared, around which new buildings arose.¹⁰²

The suburbs were filled with urban villages and *osadas* that provided supplies and products for sale. *Osada* primarily represented one specific craft, while the village was larger and more diverse. Over time, *osadas* developed and could become closer in status to the village; sometimes, they were officially transformed, and sometimes they kept the status of *osada*.

Osadas of artisans, merchants, and farmers have existed on the territory of Wroclaw since the proto-city. The intensive development of osadas in the city took place as early as the thirteenth century.¹⁰³ Dagmara Adamska, analyzing the medieval documents of Wroclaw, found mentions of more than 40 *osadas* and about the same number of villages in the territory of *extra muros*.¹⁰⁴ By the second half of the thirteenth century, the first villages had already been founded in Krakow. Also, five osadas owned by the city were located near Garbary.¹⁰⁵ However, in Krakow, researchers devote the most attention to the knight's *osada* of Okol that arose in the thirteenth-century near to Wawel Royal Castle. In 1321-1334, this settlement was called Nova Civitas, or less often, the New City.¹⁰⁶ However, it was difficult for this settlement to develop in the urban space: rivers flowed from the east and west; in the south and north, the

¹⁰² Roman Czaja, "Zur Sozialtopographie Des Vorstädtischen Raumes in Ostmitteleuropäischen Staädten Im Mittelalter," in *Extra Muros. Vorstädtische Räume in Spätmittelalter Und Früher Neuzeit*, 2019, 215.

¹⁰³ Eysymontt and Goliński, *Wrocław*, IV Śląsk:13.

¹⁰⁴ Eysymontt and Goliński, IV Śląsk:23–29.

¹⁰⁵ Petrus, "Największe Przedmieście Krakowa. Zarys Rozwoju Przestrzennego Garbar. Część I [the Largest Suburb of Krakow. A Brief History of Urban Development of Garbary. Part I]," 142–43.

¹⁰⁶ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 115, 120.

Wawel Castle and the in-wall city, respectively, were located. Eventually, Okol was annexed to the latter in the first half of the fourteenth century.¹⁰⁷

In Lviv, there were five *osadas* in the *Halych's* suburb and eight in *Krakow's* one. All of them were located mainly along the main roads or around the city center. These settlements grew rapidly closer towards the Early Modern Times. For a better understanding, Fryderyk Papée gives the following numbers: at the beginning of the fifteenth century, in both Lviv suburbs, there were 102 houses with backyards, and in 1544 there were already about 450. A fifth of all *osadas* belonged to people from the in-wall city, and the residents of the suburbs owned all the rest.¹⁰⁸ Melioration and settlement of empty territories of *extra muros* was an overwhelming task for the authorities of Lviv in the fourteenth century. That is why many of the *osadas* were transferred to citizens who founded private villages on these territories.¹⁰⁹ However, some urban villages did not administratively belong to either of the two suburbs, although they were located on the city territory measured in lans. Dolynska claims it is impossible so far to tell how such a planning took place, but she proposes the theory. The historian assumes that wealthier patricians, receiving allotments, created households there that rapidly developed and turned into villages.¹¹⁰

The transformation of Okol in Krakow was just one example that there were not only small settlements on the territory of *extra muros*. In the city's administrative structure, there were also large elements: *jurydykas* and new towns. The former were enclaves in the urban space, and the latter performed the functions of satellites.

¹⁰⁷ Krasnowolski, 122.

¹⁰⁸ Papée, Historya miasta Lwowa w zarysie [The history of the city of Lviv in outline], 32–33.

¹⁰⁹ Roman Zubyk, *Gospodarka Finansowa Miasta Lwowa w Latach 1624-1635* [The Economy of the City of Lviv in the Years 1624-1635], 1930, 69.

¹¹⁰ Dolynska, "Формування і Розвиток Території Львова: Зміни Адміністративно-Територіального Поділу Міста в XIII–XXI Століттях [Formation and Development of the Territory of Lviv: Changes in the Administrative-Territorial Division of the City in the 13th-21st Centuries]," 25.

Jurydykas are considered to be a primarily Polish phenomenon. *Jurydykas* usually were centers of trade and crafts, as they were free from the restrictions that prevailed in the territory under the city's control. First, *jurydykas* were royal or ecclesiastical, but later, mainly after the Middle Ages, the nobility and patricians also began to establish their own.¹¹¹

(Royal) headman's *jurydyka* in Lviv arose after the *locatio* of Lviv by Casimir the Great, i.e., in the second half of the fourteenth century. Several disputes occurred between the royal headman and the city council about the exact border between their territories. In 1413, the mayor's office recorded the arbitrary transfer of the boundary stone and Lviv citizens' appropriation of parts of this *jurydyka* territory. Two centuries later, in 1608, the city confirmed the legality of the transferred borders.¹¹² The first *jurydyka* in Krakow called Garbary emerged in the same period, due to the charter of Casimir the Great from 1363. The western part of the *extra muros* of medieval Krakow, where Garbary was located, was swampy and thus did not attract a rapid settling process. Petrus claims that the appearance of the first settlers was due to the good water supply of the area, because the Vistula River flowed nearby.¹¹³ Although the area was prone to flooding, Krasnowolski also suggests the possibility of harnessing the river's power through waterwheels was of greater value.¹¹⁴ Garbary developed rapidly, expanding due to nearby villages and osada's absorption. By the end of the Middle Ages, Garbary became Krakow's most developed suburban area and one of the most important production centers in Lesser Poland.¹¹⁵

¹¹¹ Maciej Poradziński, "Jurydyki Krakowa [Jurydyka's of Krakow]," 2021, https://ciekawikrakowa.pl/jurydyki-krakowa/.

¹¹² Dolynska, Львів: простір на тлі мешканців XIII–XIX ст [Lviv: the urban space against the background of its inhabitants (13th to 19th centuries)], 60–61, 87.

¹¹³ Petrus, "Największe Przedmieście Krakowa. Zarys Rozwoju Przestrzennego Garbar. Część I [the Largest Suburb of Krakow. A Brief History of Urban Development of Garbary. Part I]," 140–41.

¹¹⁴ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 128.

¹¹⁵ Petrus, "Największe Przedmieście Krakowa. Zarys Rozwoju Przestrzennego Garbar. Część I [the Largest Suburb of Krakow. A Brief History of Urban Development of Garbary. Part I]," 140.

Part of the territory on Piasek Island in Wroclaw becomes *jurydyka* a little later than our chosen time frame. Still, it is an example of the opposition of the city authorities to the removal of land from the urban jurisdiction. In 1261, the Piasek Island in Odra River was included in Wroclaw, which caused a long-term dispute between the city council and the Augustinians, who referred to ancient rights to this territory. From the beginning of the fourteenth century, the order bought up plot after plot on the island. At the end of the Middle Ages, the Augustinians began to demand their own jurisdiction, that is, the exclusion of the northern part of Piasek Island from the city's authority. The council agreed to this concession in 1520, albeit on compromise terms, retaining some of the control of the secular authorities over the city's inhabitants or limiting the number of monastic craftsmen.¹¹⁶

The bishops of each city also created their own *jurydyka*; however, only Wroclaw had it in the Middle Ages. Cathedral *jurydyka* existed on Tumsky Island since the fourteenth century. Craftsmen was allowed to settle their households there, but on the condition that they worked only for their own needs. The Cathedral chapter had numerous disputes with the city authorities regarding selling foreign beer on the island, as it was not profitable for the city. At the beginning of the sixteenth century, the conflict was resolved through an agreement on the unlimited sale of Wroclaw beer in *jurydyka's* territory.¹¹⁷

The Cathedral *jurydyka* in Krakow (Biskupie) arose only in the sixteenth century from the settlement of bishops (founded a century before). This settlement was governed by socalled German law and was headed by a vladarius, who the bishop appointed. Biskupie became a large economic center of crafts. Cathedral *jurydyka* was located near Garbary, separated by *Młynówka Królewska*. The economic potential of Biskupie was causing problems for the city of Krakow, as Biskupie crafters freely traded their manufactured goods at smaller prices than

¹¹⁶ Eysymontt and Goliński, Wrocław, IV Śląsk:21.

¹¹⁷ Eysymontt and Goliński, IV Śląsk:18, 21.

in the city, disregarding guild restrictions.¹¹⁸ In Lviv, cathedral *jurydyka* also appeared in the sixteenth century in the south of the city center, around the church of St. George. In the absence of an emphasis in the secondary literature on the commercial success of this territory, it can be assumed that this *jurydyka* did not have such qualities.¹¹⁹

To sum up, the first *jurydykas* appeared in all three cities before they flourished in suburban areas in the Early Modern period. In Wroclaw and Krakow, these territories became commercial centers as they did not have to obey the city rules. Mainly the ecclesiastical power used such opportunities. In Lviv, *jurydykas* did not have the same commercial success as in the other two cities.

A novelty of the Late Middle Ages was the emergence of new towns in the suburbs. When Old Town Wroclaw was finishing the rebuilding after the Mongol invasion in 1261, *Nowe miasto* (New Town) was founded in the suburbs to the east of the in-wall city. It received its location charter two years later, in 1263. New Town existed separately for less than 60 years and was incorporated into Wroclaw in 1327. During this period, the new town did not get its own walls, and it did not become a commercial center due to the protests of the Wroclaw patriciate. Eventually, the *Nowe miasto* began to perform various functions for Wroclaw, such as producing cloth that merchants from the Old Town Wroclaw traded.¹²⁰

Krasnowolski believes that the peak of urbanization in Krakow was the creation of satellite towns that did not compete with the capital and strengthened the role of the metropolis. Krasnowolski also calls the creation of new towns near Wroclaw, including *Nowe Miasto*, a prototype of these transformations.¹²¹ Kazimierz's charter was issued in 1335. The city was

¹¹⁸ Poradziński, "Jurydyki Krakowa [Jurydyka's of Krakow]."

¹¹⁹ Myron Kapral, ed., *Атлас українських історичних міст: Львів [Ukrainian historic towns atlas: Lviv]*, vol. 1 (Kyiv, 2014), 34, 38.

¹²⁰ Eysymontt and Goliński, Wrocław, IV Śląsk:18.

¹²¹ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 119.

founded on an island in the Vistula and was first called Nova Cracovia.¹²² Alta Civitas, also known as Kleparz, arose in the first half of the fourteenth century too. In 1366, Casimir the Great issued a charter for Alta Civitas, naming it Florence (honoring the name of the parish church dedicated to St Florian).¹²³

In Lviv, similar processes had a chance only at the beginning of the seventeenth century. In 1607, the idea of creating a line of fortification and a separate city of Wladyslaw in the Halych's suburb was presented to King Sigismund III. Such a project was intended to weaken the dependence of the suburbs on the city center and, at the same time, ensure defense against potential military attacks.¹²⁴ It stated that the fortifications would be constructed by their forces and at the expense of the suburb dwellers. Although the king was interested in such an idea and even sent the fortification engineer Aurelio Passarotti to create a plan for the fortification line, the project was constantly rewritten due to the financial inability to implement it.¹²⁵ Also, at the beginning of the seventeenth century, there was an attempt by Ratman Martin Novocampian to create his own jurisdiction on his extensive allotments in the suburbs and forbidding the settlers to pay municipal and royal taxes, but it was not successful either.¹²⁶ It is difficult to assume whether these new entities were intended as satellite towns of Lviv.

To summarise the above, the settlements that arose around the Wawel Royal Castle, the *High Castle*, and the Castle of *Ostrów Tumski* received a checkerboard layout for the in-wall city and gradually formed their suburbs in the High Middle Ages. The current state of research does not allow us to learn about the beginning of the *locatio* and the first stages of the implementation of the so-called German law. In each case, these processes took place

¹²² Maciej Poradziński, "Krakowski Kazimierz [Kazimierz of Krakow]," 2020, https://ciekawikrakowa.pl/krakowski-kazimierz/.

¹²³ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 116.

¹²⁴ Bartłomiej Zimorowic, Natalija Carova, and Ihor Mycko, *Leopolis Triplex* (Lviv, 2002), 140.

¹²⁵ Zubrzycki, Kronika miasta Lwowa [Chronicle of the city of Lviv], 213–214.

¹²⁶ Zubyk, Gospodarka Finansowa Miasta Lwowa w Latach 1624-1635 [The Economy of the City of Lviv in the Years 1624-1635], 72.

gradually, taking about half a century before producing the first charter known to researchers. The charter for Lviv is the only one of the three in which the number of granted lands (*lans*) is indicated. The reasons may be the chronological and spatial distance between the *locatio* of Lviv and the chartering of Wroclaw and Krakow.

The territory of *extra muros* was very diverse, particularly in subordination. Numerous settlements abounded in these territories in various ways benefiting the in-wall city, such as taxation, providing supplies and goods for trade. Agglomerations expanded, and over time new phenomena appeared: one settlement (including the in-wall city) devouring the other, and the city granting its settlement with *locatio* or its own jurisdiction.

Wroclaw was the most innovative of the three cities in administrative matters; this city was the first where the cathedral *jurydyka* and the new city arose. Also, Wroclaw had a leading role in the development of small settlements of *extra muros*. Following the example of Silesia, Krakow also created new satellite towns, two of which successfully functioned for several more centuries, and benefited greatly from the *jurydyka* of Garbary. The development of Lviv lagged behind Krakow and Wroclaw. Still, it followed the same pattern: at the beginning of the Early Modern period, it built up *osadas* and urban villages and even considered the idea of creating a new town *extra muros*. We assume that because of the less intensive development, less is known about the long-term conflicts between the city authorities and the owners of administrative units in the suburbs.

CHAPTER 3 SUBURBAN INFRASTRUCTURE

3.1 Preface

As noted in the previous chapter, the suburbs during the Late Middle Ages changed from an island-like structure to a more continuous one. This applied not only to administrative units but also to buildings. However, there are still no full-fledged studies of the development of medieval suburbs (which can become an exciting research project if relevant sources are available). Thus, we will consider only some elements of suburban infrastructure.

It is hard not to connect the development of these elements in the Late Middle Ages with further transformation. In Lviv, the enrichment and accumulation of real estate in the suburbs by individuals and institutions (orders, churches, monasteries, hospitals) are confirmed by documents of 1607-1608.¹²⁷ Tetiana Hoshko writes about the problem of the oligarchy in Lviv and other cities that used the so-called German law (such as Wroclaw and Krakow) already in the sixteenth century.¹²⁸ In the Polish-Lithuanian Commonwealth in the Early Modern period, the situation was further complicated by the practice when wealthy citizens bequeathed or donated funds, movable and immovable property to religious institutions for the eternal salvation of the donor.¹²⁹ Even before the beginning of the Early Modern period, when cities developed rapidly, some elements of capital accumulation are traced, some examples of which are given below.

¹²⁷ "Sta Łanów Inwentarz Główny z Osobna Każdych Verificatią, Na Sześć Tractatów Rozdzielony [The Main Inventory of 100 Łans with the Description of Each One Separately, Divided into Six Trakts]" (Lviv, 1608), Central State Historical Archives of Ukraine in Lviv, fol. 52 op. 1, case 395.

¹²⁸ Hoshko, *Hapucu з Icmopii Mardeбурзького Права в Україні (XVI - Початок XVII Ст.) [Essays on the History of Magdeburg Law in Ukraine (16th - Beginning of 17th Centuries)]*, 160.

¹²⁹ Vinnichenko, "Своя Смерть': Річпосполитський Шляхтич Перед Обличчям Вічності (За Ранньомодерними Тестаментами) ["Oneself's Death": The Polish-Lithuanian Nobleman in the Face of Eternity (According to Early Modern Testaments)]," 289.

Since we will consider examples of infrastructure located at different distances from the in-wall city, we will move from the center outwards.

The city walls separated the central Old Town from the suburban areas, but these structures still existed primarily closely attached to the in-wall city, so their construction will not be considered. As for satellite towns, *Nowe Miasto* in Wroclaw¹³⁰ and Kleparz¹³¹ in Krakow did not have their own walls, only Kazimierz had them.¹³² In general, defensive structures included walls, ramparts, and ditches. Rivers functioned within the complex of city fortifications. The rivers around Wroclaw and Tumski Island created a reasonably reliable defense system.¹³³ The structures that were built to prevent flooding in Wroclaw also served as protection against external enemies. In addition, ramparts and ditches in Wroclaw were built and strengthened from the middle of the thirteenth century.¹³⁴ However, Wroclaw embankments often collapsed due to natural causes such as high humidity and floods.¹³⁵At the end of the same century, walls were built around the central part of Krakow¹³⁶ and Lviv.¹³⁷ In both cities, artificial corrections of the Poltva and Vistula rivers were used to fill the ditches around the fortifications with water. From the point of view of the strength of fortifications, in the Late Medieval and Early Modern times, Lviv, with its two lines of fortifications (High and

¹³⁰ Eysymontt and Goliński, Wrocław, IV Śląsk:18.

¹³¹ Krasnowolski, Lokacyjne układy urbanistyczne na obszarze Ziemi Krakowskiej w XIII i XIV wieku [Location urban layouts in the area of the Krakow Land in the 13th and 14th centuries], 116.

¹³² Poradziński, "Krakowski Kazimierz [Kazimierz of Krakow]."

¹³³ Smolarski and Jaskólski, "Rzeka w Świadomości Mieszczańskiej Na Przykładzie Odry We Wrocławiu [The River in the Bourgeois Consciousness on the Example of the Oder River in Wrocław]," 19.

¹³⁴ Roland Mruczek, Mariusz Caban, and Tomasz Kastek, "Process of Building Outside Fortifications of Wrocław in the Light of Research in the Vicinity of City Arsenal," in *Forum Urbes Medii Aevi*, 2015, 71.

¹³⁵ Tomasz Kastek, "Początki Obwarowań Miejskich Na Dolnym Śląsku w Świetle Najnowszych Badań [The Beginnings of City Fortifications in Lower Silesia in the Light of the Latest Research]," *Architectus*, no. 1(57) (2019): 118.

¹³⁶ Jerzy Wyrozumski, "Uwarunkowania Historyczne Rozwoju Architektury Średniowiecznego Krakowa [Historical Conditions of Architectural Developments of Medieval Kraków]," *Czasopismo Techniczne. Architektura*, no. R. 108, Z. 23, 7-A (2011): 24.

¹³⁷ Rostyslav Paranko, "Standards of Living, Order, and Prestige: Public Facilities in Early Fifteenth-Century Lviv (Lemberg)," *Medium Aevum Quotidianum*, no. 42 (2000): 13.

Low Walls), exceeded Krakow since the main threat was all from the east (Mongols and Tatars).¹³⁸

3.2 Constructions on the waterways

If the protection provided by the rivers was a passive function, the use of waterway energy for craft through mills was an active one. Huge water mill wheels powered millstones and big hammers in forges, grounded grain and various materials. Water mills spread massively in Poland from the twelfth to the mid-thirteenth century.¹³⁹ There were mills in Lviv before the city's capture in 1340 by the Polish king Casimir III the Great when the city was part of Ruthenia.¹⁴⁰ Four mills are known in thirteenth-century Wroclaw;¹⁴¹ in Lviv, the same number was recorded only a century later.¹⁴² Calculating the exact number of such buildings in a complex system of Royal Mill in Krakow is more difficult.

Most of the mills in Wroclaw, Krakow, and Lviv were located near the city walls, probably for the logistic convenience of the craftsmen and easier delivery to the markets inside the in-wall city and near the city gates. Katalin Szende traces a similar pattern of building mills near marketplaces serving grain in another part of East-Central Europe, Hungary.¹⁴³

In 1304, an agreement on the sale of water from Rudava for an indefinite period was concluded between the elders of the Krakow village of Bronowice and the owners of Chelm.

¹³⁸ Kapral, "Розвиток Львова Та Кракова у XIII–XVIII Століттях: Порівняльний Історико-Урбаністичний Аналіз [The Development of Lviv and Cracow from the XIIIth to the XVIIIth Century: Comparative Historical and Urban Analysis]," 44.

¹³⁹ Bohdan Baranowski, Polskie Młynarstwo [Polish Milling], 1977, 17.

¹⁴⁰ Paranko, "Standards of Living, Order, and Prestige: Public Facilities in Early Fifteenth-Century Lviv (Lemberg)," 28.

¹⁴¹ Dziubińska and Weintrit, "Wrocławski Węzeł Wodny [Wroclaw Water Management System]," 1605.

¹⁴² Paranko, "Standards of Living, Order, and Prestige: Public Facilities in Early Fifteenth-Century Lviv (Lemberg)," 28.

¹⁴³ Katalin Szende, "Mills and Towns: Textual Evidence and Cartographic Conjectures Regarding Hungarian Towns in the Pre-Industrial Period.," in *Extra Muros. Vorstädtische Räume in Spätmittelalter Und Früher Neuzeit*, 2019, 509.

The basis for its conclusion was the existing water mill in Bronowice. It was the first documented water permit for a water intake in Krakow. Until 1330, the Bronowice Channel was successively expanded to the city gates. By 1506, the city was entirely surrounded by *Młynówka Królewska*. Simultaneously with the development and spread of mills, small settlements of tanners, potters, and barley producers in the suburbs of Krakow grew rapidly.¹⁴⁴

The owners of medieval mills were mainly secular or ecclesiastic. Quite often, the village headman received the right to build a mill in the founding document. The mill's construction was a long process, requiring high costs and an expert. The first builders of mills in Poland probably were foreigners who got acquainted with the art of designing these devices in their homeland. Sometimes a feudal lord permitted to construct a mill to an expert, a miller with sufficient money for this process. At that time, the miller could also receive a large piece of land, creating the milling *osada*. The miller, who became the owner of the constructed buildings, was the hereditary tenant of this sediment, had to pay a fixed rent and perform certain specific services (carpentry and water construction, construction, drainage). Sometimes, especially at the end of the Middle Ages, a feudal lord or a monastery built everything themselves and then hired a miller there.¹⁴⁵ Bohdan Baranowski claims that in the fourteenth and fifteenth centuries, the activity of miller entrepreneurs contains some typically capitalist elements. As an example, Baranowski set the Krakow merchant, Mikołaj Wirsingk, who, in the 1330s and 1340s, concluded numerous agreements with the city of Wroclaw regarding the construction of large mills. He also owned several mills in the suburbs of Krakow.¹⁴⁶

In Lviv, the German community and its *Vogt (advocatus)*, Bertold Stecher, settled in the suburbs (to the west of the stronghold) in the last third of the thirteenth century after the

¹⁴⁴ Hebda-Małocha and Małocha, "Gospodarcza Rola Młynówki Królewskiej w Krakowie i Jej Wpływ Na Obecne Zagospodarowanie Miasta [The Economic Role of Młynówka Królewska in Kraków and Its Influence on the Spatial Planning of the City]," 125–26.

¹⁴⁵ Baranowski, Polskie Młynarstwo [Polish Milling], 23–24.

¹⁴⁶ Baranowski, 25.

invitation of Leo I. Stecher later also became the first *Vogt* of Lviv and received the mill from the prince.¹⁴⁷ In 1353, this mill was donated to the Lviv parish church of the Virgin Mary, which had two-thirds of the profits, and the other third belonged to the city. At the end of the fourteenth century, the abbots of the church demanded complete control of the mill; after a lengthy trial, the claim was granted.¹⁴⁸ A similar grant of a mill to a private person as a sign of gratitude or affection happened in Krakow. In the 1330s, King Casimir the Great transferred a third of the rights to the Upper Mill (*Mlyn Górny*) to Benias Herlak, the son of the mill's builder, which Benias later sold to the Corpus Christi Monastery; and also a third of the rights to the Kutlowski Mill, which functioned for the needs of brewers and innkeepers who milled malt for their needs in it.¹⁴⁹ Such cases were not uncommon. Considering the expensive construction of the mill and the enormous profit from its use, as well as the division of profit and disputes between representatives of the secular authorities, church, guilds, and private individuals (patricians), it is difficult to disagree with Baranowski's assumption.

3.3 Entities located far from the in-wall city

Territories further from city walls and main roads, with drier soil, were often used for agriculture. A *folwark* was an agrarian household that functioned to pay a sublease (in cash or in-kind) for the *lan* on which it was located. They occupied a large space, so they were usually located far from the city walls. However, due to the gradual decline in the value of coins and the rise in prices at the end of the Middle Ages in Poland, the owners of the lands suffered

¹⁴⁷ Maryana Dolynska, "Нерухомість Німецької Родини Штехерів в Пізньосередньовічному Львові: Традиційний Та Інтердисциплінарний Погляд [Real Estate of the German Stecher Family in Late Medieval Lviv: A Traditional and Interdisciplinary View]," *Феномен Мультикультурності в Історії України і Польщі*. *Матеріали Міжнародної Наукової Конференції*, 2016, 61–63.

¹⁴⁸ Paranko, "Standards of Living, Order, and Prestige: Public Facilities in Early Fifteenth-Century Lviv (Lemberg)," 28.

¹⁴⁹ Bąkowski, Dawne Kierunki Rzek Pod Krakowem [Former Directions of Rivers near Krakow], 25.

significant losses. Hence the number of *folwarks* increased so that landowners can continue to make a profit.¹⁵⁰

Usually, less well-off residents of the suburbs worked in *folwarks*.¹⁵¹ Landowners with folwarks were not only patricians but also institutions, such as churches or hospitals.¹⁵² Wroclaw is the only one of the three cities where we know the approximate number of *folwarks*. Dagmara Adamska found mentions of more than 60 *folwarks* in Wroclaw medieval documents, the first mentions date back to the thirteenth century.¹⁵³ Lviv had its first *folwark* at the time of the *locatio*, or even in the Ruthenian period.¹⁵⁴ Roman Zubyk writes that the Lviv tax registers often do not mention larger *folwarks* (perhaps to avoid taxation).¹⁵⁵ Numerous *folwarks* also functioned in Krakow.¹⁵⁶

Another entity that was located far from the city walls was the *leprosarium*, a hospital where people suffering from leprosy were kept as citizens feared getting infected. Wroclaw, Krakow, and Lviv each had one, located on the suburbs.

During the Middle Ages, Krakow had the largest number of hospitals among the three cities. The hospital of the Holy Spirit existed here already at the beginning of the thirteenth century, outside the city in the walls. In the following century, their number in Krakow began to increase with the hospitals of St. Valentine (*leprosarium*), St. Simon and Judas, Divine

¹⁵⁰ Andrzej Wyczański, Wieś Polskiego Odrodzenia [A Village of Polish Renaissance], 1969, 143.

¹⁵¹ Dolynska, Львів: простір на тлі мешканців XIII–XIX ст [Lviv: the urban space against the background of its inhabitants (13th to 19th centuries)], 92.

¹⁵² Zubyk, Gospodarka Finansowa Miasta Lwowa w Latach 1624-1635 [The Economy of the City of Lviv in the Years 1624-1635], 72.

¹⁵³ Eysymontt and Goliński, Wrocław, IV Śląsk:23–29.

¹⁵⁴ Dolynska, Львів: простір на тлі мешканців XIII–XIX ст [Lviv: the urban space against the background of its inhabitants (13th to 19th centuries)], 42.

¹⁵⁵ Zubyk, Gospodarka Finansowa Miasta Lwowa w Latach 1624-1635 [The Economy of the City of Lviv in the Years 1624-1635], 72.

¹⁵⁶ Kapral, "Розвиток Львова Та Кракова у XIII–XVIII Століттях: Порівняльний Історико-Урбаністичний Аналіз [The Development of Lviv and Cracow from the XIIIth to the XVIIIth Century: Comparative Historical and Urban Analysis]," 43.

Mercy, St. Nicholas, St. Agnes, and St. Jadwiga.¹⁵⁷ There were six in Wroclaw: The oldest, the hospital of the Holy Spirit from the fourteenth century in *Nowe miasto*, the hospital of St. Mathias, and the hospital of the Holy Sepulchre were built inside the in-wall city; hospitals of Corpus Christi and St. Barbara were located near the city walls; and further in the suburbs was the hospital of St. Lazarus (*leprosarium*).¹⁵⁸ At the end of the Middle Ages, two hospitals operated in Lviv. First, the hospital of the Holy Spirit was established during the chartering period and was located inside the in-wall city.¹⁵⁹ The second, the hospital of St. Stanislav (*leprosarium*), was located in the *Krakow's suburb*. It was built at the beginning of the fifteenth century and included several buildings and a cemetery.¹⁶⁰

To conclude, from the considered infrastructure elements, we can observe how the urban space of Wroclaw, Krakow, and Lviv grew. A large number of buildings, in particular those related to the use of water wheels, as well as some hospitals, arose near the city walls. *Folwarks* and *leprosaria* functioned at further distances. The number of hospitals increased in the suburbs, in this area, with medieval Krakow having the largest number of such institutions. At the same time, the economic interdependence of new units also increased.

Wroclaw, having the largest river network, struggled with water hazards, resulting in the *Wrocławski Węzel Wodny*. Krakow primarily used the water resource of the Vistula for energy; we can assume that *Młynówka Królewska* system used the power of water wheels the most out of the three cities. On the other hand, Lviv had a defensive role for a long time and did not have such an extensive water use system like the other two cities as it was located near

¹⁵⁷ Piotr Franaszek, "O Początkach Szpitalnictwa Krakowskiego i Historii Krakowskiego Zespołu Szpitalnego w Dzielnicy Wesoła [The Beginnings of Krakow Hospitality and History of the Hospitality Complex in Wesoła District]," in *Kliniki i Zakłady Teoretyczne*, 2016, 15–19.

 ¹⁵⁸ Rafał Eysymontt, "Średniowieczny Szpital Pw. Św. Macieja We Wrocławiu [Medieval Hospital St. Maciej in Wrocław]," *Quart: Kwartalnik Instytutu Historii Sztuki Uniwersytetu Wrocławskiego* 3, no. 4(10 (2008): 4–26; Marek Słoń, "Hospital and Old Age in Late-Medieval Wrocław," *Acta Poloniae Historica*, no. 84 (2001): 31–52.
¹⁵⁹ Oksana Potymko, *Розвиток Медицини у Львові в XIV-XVIII Ст.: Література, Проблеми, Дискусії [The Development of Medicine in Lviv in the 14th-18th Centuries: Literature, Problems, Discussions]*, 2012, 65.
¹⁶⁰ Potymko, 79,85.

a relatively minor waterways. However, all three cities struggled with similar problems, and some solutions, such as constructing fortifications using ditches creating water management systems unfolded almost simultaneously, from the thirteenth century onwards.

Milling was a profitable occupation from the beginning. Wealthy citizens and institutions took advantage of it, expanding their holdings in their city and beyond, which Baranowski deservedly calls a typical capitalist element. Due to the lack of sources, we cannot compare the number and functioning of *folwarks* in Wroclaw, Krakow, and Lviv. However, global economic changes (such as the devaluation of coins) directly affected all three cities and provoked the growth of *folwarks* farms.

CONCLUSIONS

One of the indirect goals of this study was to demonstrate the advantages of the inclusion of the topic of medieval suburbs in the academic agenda. Indeed, their complex administrative organization and enclaves in the suburban space, as well as the organization and development of the real estate, are a wide field for research. Suburban areas were home to artisans, craftsmen, and merchants who played a pivotal role in trade and commerce, providing an opportunity for a wide range of socio-topographical studies. Moreover, urban territory *extra muros* offered a source of food supply to the cities, ensuring sustenance for citizens and driving urban economy.

There are numerous gaps in scholarship of the *extra muros* space of Wroclaw, Krakow, and Lviv, that make comparisons difficult. Still, we can deduce some patterns in suburban development of these important cites of East-Central Europe, including administrative organization, infrastructural planning, as well as several common problems. Researchers note that some development elements in Lviv were borrowed from Krakow, which also took an example from the more western city, Wroclaw.

The territories of the suburbs first developed around proto-cities near strongholds in the High Middle Ages. *Osadas* and villages could exist in these areas. Starting from the thirteenth century, each city implemented some elements of self-governing law similar to numerous other European cities. In each case, these processes took place gradually, taking about half a century before receiving the first royal or princely charter of so-called German law (*ius Theutonicum*) known to researchers. During this period, the development of some suburban territories took place, usually near the city center. At the next stage, Wroclaw, Krakow, and Lviv received a charter under the so-called German law. Suburban eareas were divided into approximately equal allotments measured by the unit called *lan*. Only the charters of Lviv (1356 and 1368)

indicate the number of these land allotments, which at first were 70 and then increased to 100 *lans*. Assumptions about the territories of Krakow range from 90 to 180 *lans*; still, we do not have any information about the size of Wroclaw's suburban territory.

The number and size of suburban settlements around cities grew, first in an island-like way, then more and more densely; accordingly, the administrative system became more complex. As agglomerations expanded, new phenomena appeared: one settlement (including the in-wall city) devouring the other, and the city granting its settlement with *locatio* or its own jurisdiction. Among the three cities, the most important innovation in administrative matters took place in Wroclaw; this city was the first where the cathedral *jurydyka* and the new city arose. Also, Wroclaw had a leading role in developing small settlements *extra muros*. Following the example of Silesia, in Krakow new satellite towns were also founded (two of those successfully functioned for several more centuries) as well as the *jurydyka* of Garbary, that became one of the most important production centers in Lesser Poland. The development of Lviv lagged behind Krakow and Wroclaw. Still, it followed the same pattern: at the beginning of the Early Modern period, it built up *osadas* and urban villages and even considered settling a new town in *extra muros*.

We observe a relatively standard arrangement of various infrastructures for the three cities. A large number of buildings, in particular those related to the use of water wheels, as well as some hospitals, arose near the city walls. Agriculture (*folwarks*), and places that danger people's health, like *leprosaria*, were usually located on the outskirts. The number of hospitals increased in the suburbs; medieval Krakow led by a notable margin in this area.

The development of the suburbs of Wroclaw and Krakow took place relatively synchronously; in Lviv, it also followed a similar pattern, but it was with delay. The reasons for this are the later foundation and locatio of the city compared to Wroclaw and Krakow, as well as its more eastern location, i.e., being a greater distance from western urbanization,

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having more possible threats (such as the Mongols and Tatars). Furthermore, while Krakow was a royal seat, Lviv was a city of lesser importance. Still, we observe a similar pace of urban development in all three cities. A more explicit formulation of this problem is hindered by the lack of information about the size of the territory of all three cities, based on which a more qualitative conclusion could be drawn. In addition, the development of Wroclaw and Krakow owed much to large urban watercourses, which Lviv did not have.

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GLOSSARY

Polish	Latin	Other	Description
Lokacja	Locatio		Process of the spatial and legal organization of
			existing or newly established villages and towns.
			It often means a grant of the self-governing law
			(e.g., the so-called German law) to the settlement
			through the issuance of a locational privilege.
Lan	Mansus,	Hide (eng),	The unit of area used in the measurement and
	Laneus,	Hufe/Hube (de)	division of territories granted to towns and
	Lanei		villages according to locational privilege and
			spread throughout East-Central Europe during
			the High Middle Ages. It had several different
			types. One <i>lan</i> had approximately 25 hectares.
Tract			A group of neighboring lans. The term was used
			to refer to a specific area in the suburbs.
Wójt	Advocatus	Vogt (de)	A head of a town established on or transferred to
			the so-called German law, as well as the head of
			the local court.
Osada			A small village usually engaged in one craft.
Folwark	Latifundium		A large primarily serfdom-based farm and
			agricultural enterprise.
Jurydyka	Iurisdictio		An area with its own jurisdiction (immunity)
			outside the city, or as an autonomous enclave
			within it, that exerted municipal rights separate
			from the local (city) laws. Usually it was under
			the royal or ecclesiastical control.