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Kaunas city register of 1561–1564 as a source of information about the management and sale of forest commodities*

Kaunas, one of the oldest and most important Lithuanian cities, became a hub of political, economic, and manufacturing activity in the second half of the 16th century due to a high demand for forest commodities from the Grand Duchy of Lithuania (GDL) and the city's location at the confluence of rivers Neman and Viliya¹. Navigable rivers significantly contributed to trade in forest products and fueled economic growth in areas located in river basins.

Economic development led to the differentiation of agriculture and promoted domestic trade and export of forest products. Forests were regarded as an unlimited source of economically valuable products, and they were exploited for timber and other types of produce. The forest industry, namely the trade in forest commodities and their exports, played a very important role in the development of the Lithuanian economy. The harvested wood was processed into ash, potash, tar, pitch, charcoal, long planks, staves, and shingles in huts situated on the outskirts of forests. According to Henryk Samsonowicz, timber accounted for around 40%, and tar, ash and pitch – for 15% of Lithuanian exports in the 15th century. Beginning from the 16th century, Lithuania became an important supplier of timber for the Gdańsk market, mostly due to the demand for forest produce in Western Europe. Lithuanian timber exports catered to the needs

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¹ Z. Kiaupa, *Kauno istorija*, vol. 1: *Kauno istorija nuo seniausių laikų iki 1655 metų*, Vilnius 2010, p. 41 et seq.; M. Lübarskij, *Očerk istorii litovsko-russkogo gosudarstwa do Lublinskoy unii vkluzitelno*, Moskva 1910, pp. 138–142; M. Falkowski, *Fear and Abundance: Reshaping of Royal Forests in Sixteenth-Century Poland and Lithuania*, “Environmental History” 2017, vol. 22(4), pp. 618–642.

of the rapidly growing shipbuilding sector in Western Europe, in view of the shortage of local raw materials. George Carew, a 16th century English diplomat, referred to the Polish-Lithuanian Commonwealth as Europe's granary and a major reserve of timber for shipbuilding².

The growing demand for timber and forest produce contributed to more widespread exploitation of forests surrounding Kaunas. Forests were increasingly perceived as a source of income, and their depletion prompted the introduction of official measures to protect these valuable natural resources. Primeval forests surrounding Kaunas became the main source of commodities which fueled the region's economic growth³.

The Kaunas city register was the main source material for this study⁴. The register covers the period from 1 January 1561 to 10 April 1564, and it contains a total of 1441 entries, including 824 entries for 1561, 292 entries for 1562, 247 entries for 1563, and 78 entries for 1564. The register was kept mostly in the Polish language, but it also contains a number of Latin entries⁵. The presented analysis focuses mainly on register entries pertaining to the acquisition and trade in forest products. Forest resources played a very important role in the socioeconomic development and stability of Kaunas from the beginning of the 16th to the mid-17th century. The register contains information about lo-

² H. Samsonowicz, *Handel Litwy z Zachodem w XV wieku*, "Przegląd Historyczny" 1999, vol. 90(4), pp. 453–458; S. Hoszowski, *Handel Gdańska w okresie XV–XVIII wieku*, "Zeszyty Naukowe Wyższej Szkoły Ekonomicznej w Krakowie" 1960, no. 11, p. 5; E. Więcko, *Lasy i przemysł leśny w Polsce*, Warszawa 1960, p. 9. See also: A. Wawrzynczyk, *Studia z dziejów handlu Polski z Wielkim Księstwem Litewskim i Rosją w XVI wieku*, Warszawa 1956, pp. 43–54; W. Berkowski, *Handel towarem leśnym z Wołynią od XVI do połowy XVII wieku*, [in:] *Las w kulturze polskiej*, vol. 5, ed. W. Łysiak, Poznań 2007, pp. 53–60. The reasons for increased demand for timber in Western Europe in the 16th century are discussed by V.I. Pičeta, *Belorussiā i Litva XV–XVI vv. (issledovaniā po istorii social'no-ekonomičeskogo, političeskogo i kul'turnogo rozvitiā)*, Moskva 1961, p. 551 et seq. For a summary of H. Samsonowicz's research into the Baltic economic zone in the Middle Ages and the early modern period, refer to: G. Myśliński, *Bałtycka strefa gospodarcza w badaniach Henryka Samsonowicza*, "Zapiski Historyczne" 2022, vol. 87(4), pp. 39–67.

³ For more information about forest management and the significance of forest produce, see: M.V. Doūnar-Zapol'skij, *Gosudarstvennoe hoziájstvo Velikogo Knážestva Litoúskogo pri Ágelonah*, vol. 1, Kiev 1901. A new edition of the above monograph, including an extensive foreword and commentaries by Belarusian historians, was published in 2009: idem, *Dzáržaúnaá gospadarka Válikaga knáštva Litoúskaga prý Ágelonah*, eds. A.Ł. Gruša, R.A. Aláhnovič, Minsk 2009, pp. 290–298; A. Nyrek, *Gospodarcze znaczenie lasów w czasach nowożytnych*, [in:] *Pamiętnik XII Powszechnego Zjazdu Historyków Polskich 17–20 września 1979*, part 1, Katowice 1979, p. 278; H. Samsonowicz, *Z zagadnień handlu litewsko-hanzeatyckiego w XV w.*, [in:] *Tarp istorijos ir būtovės: studijos prof. Edvardo Gudavičiaus 70-mečiui*, eds. A. Bumblauskas, R. Petrauskas, Vilnius 1999, pp. 77–84; J.P. Śliwiński, *Uwarunkowania produkcji i splawu przemysłowych towarów leśnych z Wielkiego Księstwa Litewskiego do portów Bałtyku za Zygmunta II Augusta (1544–1572)*, 3rd edition, Olsztyn 2016, p. 31.

⁴ *Kauno miesto aktų knygos XVI–XVIII a. Vaito knyga 1561–1564. Acta civilia caunensia. saec. XVI–XVIII. Liber advocatialis 1561–1564*, ed. D. Antanavičius, Vilnius 2013; J. Tandecki, *Dokumenty i kancelarie miejskie*, [in:] *Diplomatika staropolska*, ed. T. Jurek, Warszawa 2015, pp. 407–446.

⁵ A brief reference to the above source can be found in a review article by Jarosław Zawadzki published in "Miscellanea Historico-Archivistica" 2015, vol. XXII, pp. 347–348 (*Acta civilia Caunensis...; Liber advocatialis 1561–1564*, ed. D. Antanavičius, Vilnae 2013).

cal affairs, including debts, debt repayment schemes, contracts for the export and import of goods (including forest produce) to and from Königsberg, damage payments, bonded labor, and other matters pertaining to daily life in Kaunas.

Forest revenues were always one of the most important sources of income for monarchs and royal treasuries⁶. Primeval forests surrounding Kaunas were rich reservoirs of fuel, construction timber, and lumber for local craftsmen, including coopers, wheelwrights, furniture producers and artisan homeworkers. Freshly harvested timber (green wood) had to be appropriately seasoned and dried to produce suitable material for the craft industry⁷.

In larger urban centers, the development of cooperage was largely dependent on other industrial sectors that had a high demand for barrels, in particular trade in fish and bulk goods such as ash, potash, and tar⁸. The tar industry developed in primeval forests, mainly in locations situated close to navigable rivers. Tar and pitch were produced from the wood of resinous trees, including birch bark and logs. Two main types of potash were derived from wood: 1) white ash that was obtained from deciduous trees and calcinated directly in potash pits, and 2) dark ash that was derived from a mixture of coniferous and deciduous trees⁹. Potash had many applications in the tanning industry and in the production of industrial dyes, glass, and soap¹⁰. Tar kilns and potash pits were built and managed mainly by Gdańsk merchants. Wheelwright and cooper workshops were founded in both urban and rural areas. Most wheelwrights catered to the needs of local and regional markets¹¹.

A wide assortment of products, mostly wax, tar, potash, cereal grain, flax, hemp, and leather hides, were transported from the Neman River basin to Kaunas and the Baltic port cities of Gdańsk and Königsberg. In turn, salt, fish, textiles, metal products, spices, and wine were imported by Kaunas and distributed to other regions in the GDL. Most merchants in Kaunas ran large scale trade operations and exported forest products to other European countries. Shipment and transportation were important parts of their activity.

⁶ B. Dederko, *Polityka leśna Litwy za Zygmunta Augusta*, “Las Polski” 1926, no. 12, pp. 604–605.

⁷ M. Dembińska, *Formy wykorzystania lasu*, [in:] *Dzieje lasów, leśnictwa i drzewnictwa w Polsce*, eds. J. Broda, A. Źabko-Potopowicz, Warszawa 1965, pp. 63–65; J. Broda, *Przemysł leśno-drzewny i rzemiosła*, [in:] *Dzieje lasów...*, pp. 103–105. For more information about charcoal production and its use by the Teutonic Knights, refer to: A. Chęć, *Produkcja i zastosowanie węgla drzewnego w komturii malborskiej – przyczynek do badań nad gospodarką leśną w państwie zakonnym w Prusach*, [in:] *Las w kulturze polskiej*, vol. 4, ed. W. Lysiak, Poznań 2006, pp. 133–136.

⁸ J. Broda, op. cit., p. 105.

⁹ P. Sianko, *Historia i technika piroliozy drewna na Podlasiu*, [in:] *Inter Regnum et Ducatum. Studia ofiarowane Profesorowi Janowi Tęgowskiemu w siedemdziesiątą rocznicę urodzin*, eds. P. Guzowski, M. Liedke, K. Boroda, Białystok 2018, pp. 481–506; K. Sarnecki, *Przyczynek do dziejów otrzymywania potasu w dawnej Polsce*, “Sylwan” 1960, no. 8, pp. 69–81. For more information about the significance of trade in forest products in the economic development of the Republic of Poland, including Volhynia, see: W. Berkowski, op. cit., pp. 55–56.

¹⁰ K. Ślaski, *Leśnictwo i drzewnictwo w dawnej Polsce do XVI w.*, “Sylwan” 1967, no. 6–7, p. 18.

¹¹ E. Więcko, op. cit., p. 130.

Around 100 crafting professions existed in Kaunas in the second half of the 16th century. This diversity of craft professions and workshops turned Kaunas into a prosperous center of craftsmanship and commerce¹².

In the late Middle Ages and at the beginning of the modern era, tributes, including in-kind donations, from hunting grounds and forests were the main sources of revenue for the Lithuanian Crown. Due to the growing share of timber in trade and commerce, Lithuanian rulers implemented various measures to protect forests against extensive exploitation by local communities. During the reign of the Jagiellonian dynasty, the management and exploitation of primeval forests owned by the monarch, forest colonization, and the supply of forest commodities for the ruling class were overseen by administrative authorities, including hunting and forestry services¹³. In the late 15th century, administrative efforts focused mainly on forest rights (the rights to obtain and use forest resources, and to remove them from the forest) and hunting operations. Other forest commodities attracted the rulers' interest only in the 16th century. The formal exploitation of forest resources was codified by the First Statute of Lithuania¹⁴ issued in 1529 by King Sigismund I the Old, and other laws pertaining to forest management were decreed by King Sigismund II Augustus in 1557–1567¹⁵.

¹² Z. Kiaupa, op. cit., pp. 237–238; M. Falkowski, op. cit., pp. 624–625, 632; A. Wawryńczyk, op. cit., pp. 70–71; E. Więcko, *Gdańsk – ośrodek morskich obrotów drewnem*, Gdańsk 1948, pp. 27–31. The economic potential of 16th century Poland and Lithuania was analyzed by I.T. Baranowski who noted that during the reign of Sigismund I the Old and Sigismund II Augustus, timber exports from Poland to Gdańsk significantly contributed to the region's economic development, where wood products from Lithuania and Ruthenia played the most important role (cf. I.T. Baranowski, *Przemysł Polski w XVI wieku*, ed. K. Tymieniecki, Warszawa 1919, p. 122).

¹³ A. Jabłonowski, *Podlasie*, [in:] *Źródła dziejowe*, vol. 17, part 3: *Polska XVI wieku pod względem geograficzno-statystycznym*, vol. 6, part 3, Warszawa 1910, p. 147 et seq.; J. Śliwiński, *Grodzieńszczyzna i Podlasie w XV–XVI wieku w Wielkim Księstwie Litewskim (wielkoksiążęce puszcz w włości, eksploatacja, pożary)*, Olsztyn 2010, pp. 76–96, 154–160; A. Pytasz-Kołodziejczyk, *Zasoby wodne w dobrach wielkoksiążęcych zachodniej Grodzieńszczyzny w XVI wieku. Administracja i eksploatacja*, Olsztyn 2017, p. 91 et seq.; eadem, *Territorial administration of the Grand Duchy of Lithuania and the management of the natural resources of the grand-ducal domain in the 15th and 16th centuries (formation and function)*, “Echa Przeszłości” 2020, vol. XXI/2, pp. 59–75; M. Falkowski, op. cit., pp. 627–628; O. Hedemann, *Dawna administracja leśna, “Echa Leśne”* 1932, no. 8–9, pp. 10–11; J. Broda, *Leśnictwo i drzewnictwo w Polsce w okresie gospodarki folwarowej (do poczatków kapitalizmu)*, “Sylwan” 1967, no. 6–7, pp. 23–29; M. Biskup, *Lasy Prus Królewskich w drugiej połowie XVI i pierwszej połowie XVII w oraz ich gospodarze*, [in:] *Twórcy i organizatorzy leśnictwa polskiego na tle jego rozwoju*, ed. A. Żabko-Potopowicz, Warszawa 1974, p. 32.

¹⁴ *Primasis Lietuvos Statutas. Tekstai senaja baltarusiu, lotynu iv senaja lenku kalbomis*, part 1, Vilnius 1991, pp. 61–309; T. Czacki, *O litewskich i polskich prawach, o ich duchu, źródłach, związku i o rzeczach zatrzymanych w pierwszym Statucie dla Litwy 1529 roku wydanym*, vol. 1, Poznań 1843, pp. 202–263.

¹⁵ *Akty, otynojsačesja k' istorii Zapadnoj Rossii, sobrannye i zdannye Arheografičeskou Kommissieū*, vol. 3: *1544–1587*, Sanktpeterburg 1848, pp. 72–95; Ustava na voloki gospodara korolâ ego milosti u-vo vsem Velikom Knâzstvem Litovskom. Leta Bożego Narożenia 1557, meseca aprelâ 1 dnâ, [in:] *Litowskaja Metrika. Knigi publicznych del*, part 1, series: Russkâ Istorîcheskâ Biblioteka, vol. 30, Juriew 1914, col. 539–586; Ustawa na wołoki hospodara Korola Jeho-Miłosti [z 1557 r.], [in:] J. Jaroszewicz, *Obraz Litwy pod względem jej cywilizacji od czasów najdawniejszych do końca wieku XVIII*, part 2, Wilno 1844, pp. 229–276; Ustawa leśna 1567 roku, ed. O. Hedemann, “Echa Leśne” 1936, no. 4, pp. 3–5. See also: J. Maroszek, *Dzieje województwa podlaskiego do 1795 roku*, Białystok 2013, pp. 80–83, 160–166, 345, 359–362; M. Falkowski, op. cit., pp. 628–629.

Sigismund II Augustus, the last monarch from the Jagiellonian dynasty, held a monopoly over trade in forest products and derived substantial revenues from these operations. Despite the above, the king issued permits enabling local entrepreneurs to harvest timber and other products from Lithuanian forests. The production and trade in goods derived from wood and timber (long planks, staves, ash, masts, boards, tar, and pitch) were stable sources of income¹⁶. Forests surrounding Kaunas and forest resources in other regions of the GDL were regarded as passive sources of income that did not require considerable investment. Forests catered to the growing demand for wood, and the harvested timber was processed locally or exported on a large scale, which often placed an overwhelming burden on forest resources. Timber production turned Kaunas into a major hub of commerce in Lithuania. Forest-based industries employed many workers-specialists, including forestry workers, loggers, and tar producers¹⁷. Forestry workers often lived in makeshift huts that resembled shacks or sheds. According to Otto Hedemann, forest huts were built impromptu from the available materials, and they offered temporary shelter to workers who ran potash pits, produced wood ash, pitch, tar, charcoal, staves, and shingles. These cabins became known as potash huts. Potash huts were located in large forests, and they provided the optimal means for exploiting forest resources at the time¹⁸. Potash huts were also used by beekeepers, fishermen, and other craftsmen.

Large numbers of qualified workers such as log drivers and sailors, as well as hired laborers were required to float logs downstream rivers from the GDL to ports in Gdańsk, Königsberg, and Riga. Log driving operations consisted of numerous stages, and preparations would begin already in winter, when trees were felled and transported to timber floating sites or fields. Storage yards, sheds with log driving equipment, and timber warehouses were built in these locations¹⁹. Logs were driven to Baltic ports twice a year. Depending on weather conditions, the log drive began at the turn of March and April, and ended in October or later²⁰.

The Kaunas city register provides detailed information about the scarcity of qualified lumber graders as well as sailors and steersmen for navigating boats, punts, *vychinas*, and cargo vessels²¹. Logs and other forest products were processed by skilled craftsmen

¹⁶ B. Dederko, op. cit., pp. 605–606; M. Falkowski, op. cit., p. 632.

¹⁷ Cf. *Kauno miesto aktų knygos*, no. 656: “Junelis Kuprelis (...) prowadzic wanczos do Kowna z Wilna”; Z. Kiaupa, op. cit., p. 240; J.P. Śliwiński, *Uwarunkowania produkcji...*, pp. 15–19, 31–37, 45.

¹⁸ O. Hedemann, *Dawne puszczce i wody*, Wilno 1934, p. 48; W. Berkowski, op. cit., p. 55.

¹⁹ Cf. J. Burszta, *Materiały do techniki splławu rzecznego na Sanie i średniej Wiśle z XVII i XVIII wieku*, “Kwartalnik Historii Kultury Materiałowej” 1955, vol. 3, no. 4, p. 752.

²⁰ E. Więcko, *Gdańsk – ośrodek...*, pp. 30–31; J. Trzoska, *Gdańsk jako port drzewny w II połowie XVII i XVIII wieku*, “Rocznik Gdańskiego” 1966, vol. 25, p. 81. For more information about trade between Gdańsk and the region of Podlasie and exports of forest products see: Z. Romaniuk, *Kontakty handlowe miast podlaskich z Gdańskiem w XV w.*, [w:] *Małe miasta. Między tradycją a wyzwaniem przeszłości*, ed. M. Zemło, Supraśl 2002, pp. 69–87.

²¹ *Kauno miesto aktų knygos*, no. 106: “Hanus Wyderis krolewczanin obzalował Symona Synthokopya mieszkańców kowieńskiego, ysz mu w Kroliewcu (...) sternika swego Maka Syxnis, ze mu then Makos m[ia]f prziprowadzic strugiem beczkę kly[j]u thu do Kowna”; no. 237: “Grigier Sedeykun czinil opowiadanie na

before they were transported from the storage yard to the log driving site. A lumber grader was one of the most important professions in timber processing sites. The grader's assessment often determined the price of the sold goods. Based on the grader's visual inspection, timber was sorted into several quality classes, and each class was marked with a grade stamp. A lumber grader was responsible for keeping production logs, records and accounts, and safekeeping goods in the storage yard²². However, lumber graders who were hired on a seasonal basis often abandoned their work posts and disrupted the life of local communities by stealing and engaging in fights, mostly under the influence of alcohol²³. Many lumber graders received advance payments from their employers, but failed to perform the contracted services. In consequence, timber producers were deprived of their income, and valuable shipments, vessels, and log driving equipment were often lost²⁴. According to the Kaunas city register, employee poaching was common practice among log driving operators and merchants²⁵. These practices and the shortage of qualified workers testify to the rapid economic growth of the GDL.

Lithuania attracted the interest of Hanseatic merchants from Gdańsk, Königsberg, and Riga as a rich source of timber and forest produce. However, due to the shortage of qualified workers and capital, the Lithuanian timber market quickly fell into the hands of foreign operators who exported a wide assortment of wood products from the GDL via Kaunas²⁶. After Gdańsk had lost the status of a major trade hub and the German trading

Juchna Mikolayunos, ysz go nayał na czale lyatho na sthrug (...)" no. 11, 43, 55, 98, 132, 144, 183, 195, 210, 238, 270, 294, 295, 432, 458, 459, 504, 508, 558, 559, 738, 757, 927, 1000, 1424. A *vychina* was a large river ship that was navigated mainly on the Neman River, and it is mentioned 77 times in the Kaunas city register, J.P. Śliwiński, *Uwarunkowania produkcji...*, pp. 46–47.

²² O. Hedemann, *Dawne puszcz...*, pp. 69–70; J. Śliwiński, *Grodzieńszczyzna i Podlasie...*, pp. 154–160; idem, *Uwarunkowania produkcji...*, pp. 32–35.

²³ *Kauno miesto aktų knygos*, no. 148: "Jan Lawrynowicz czynil opowiadanie na Jakuba Klepperys budnika, y siego naymithowy, na uliczi Wielkiej pothkawschi, stoph czenowy y z insemi thowarzisi odyal y spwyem y na osthatek zbyl. Nyzli ze inscji thowarzisi iego ucziekly, a naymith Janow tego Jakuba dodzierzal [s] y przywyd w noczi do urzędu. A chczacz się z niem prawnie obchodzic, dal go do kazni do rosprawy"; see also: no. 495, 538, 568, 643, 918, 919, 1023, 1099.

²⁴ *Kauno miesto aktų knygos*, no. 660: "(...) naial sternikiem bicz na czale lato, na czo dal iemu zadatku osmdziesiat grossi, potem dziesięć grossi, potem pulkopi, a potym dwadzieścia grossi. Awsiasi pieniądze pot Wieloną wiczinę zostawił na brzegu. A s tey wiczini sprisi pobrano y linę, y inse statki do wiczini przilegacze zaprzedał"; no. 679, 732, 818, 894, 987, 1099, 1178, 1230.

²⁵ Ibidem, no. 873: "Sliachetry pan Mikolai Sangailanis stanowssy przed urządem czynil opowiadanie na Michala Andrzejewicza, isz przesz niego naimował 24 budników do budy na liesen robote, których iemu Michal Andrzejewic wedlyka pana Mikolaiowy powiesci ręczic miał. Za którym iego rękojemstwem pieniądze wssyści poobili, inszy na thrzysta drzewa, oth sta po 50 gr lit., a inszy na thrzy lasty popiolu, ot każdego lastu tesz po 50 gr lit., a jednego budnika tenze Michal Andrzejewic besz wiadomosczi pana Mikolaiowy s cziemnicze wyał. Nad to iescze pan Mikolay opowiedział, ze iemu Michal Andrzejewic przed panem Iwanem Ilgowskim młodszym y przed Bartholomieiem Rawem mieszaninem kowieńskim tych budników wrocic obieczal, których y do dnia dzisiejszego nie wrocziel, w czim sobie mienil Mikolay Sungailanis Jakubowic skode niemalą". For more information about problems with hired forestry workers see: no. 131, 136, 148, 228, 270, 358, 365, 575, 643, 755, 772, 810, 890, 1018, 1057, 1095, 1105.

²⁶ J.P. Śliwiński, *Uwarunkowania produkcji...*, pp. 38–39. For more information about trading posts in Kaunas which were dominated by Gdańsk merchants, refer to: M. Małowist, *Wschód a Zachód Europy w XIII–*

post in Kaunas had been closed down, the Neman River became the main route for transporting goods from the GDL to Königsberg. Numerous entries in the Kaunas city register testify to flourishing trade and thriving business relations between Kaunas and Königsberg²⁷. These records clearly indicate that trade in timber and other products harvested from Lithuanian forests generated quick profits for merchants and log driving operators acting on behalf of the monarch²⁸.

Jan Kop, a merchant from Gdańsk, was one of those who rapidly amassed a fortune by procuring wood in the GDL in the name of the Crown. Kop signed a contract with King Sigismund I the Old in 1542, and his name is frequently mentioned in the Kaunas city register²⁹. In 1560, Kop was granted a lease to manage royal forests on the Neman, including in all of Samogitia, by the last Jagiellonian king. Kop procured timber from forests in Kaunas and Alytus districts and traded wood products (mainly long planks, wood ash, and pine timber) over a period of 7 years. His business operations covered a large territory, and many entries in the Kaunas city register clearly indicate that Kop employed numerous forestry workers³⁰.

²⁷ XVI wieku. Konfrontacja struktur społeczno-gospodarczych, Warszawa 1973, pp. 25, 58–59, 114–115; H. Samsonowicz, Handel Litwy..., pp. 453, 456.

²⁸ Kauno miesto aktų knygos, no. 276: "Slachetni Paweł Siesiczki sluzebnik jego miloszci kxyazeczia pruskiego obzalował Baltromieya Soladzius, ys iemu dał do Krolewca doniescz dziewczęc tolarów"; no. 342: "(...) się naioł drzewo prowadzic do Krolweca, no. 389 which notes that: Sławetni pan Hanus Spil lawnik y mieszanin kowieński stanowszy thy przed urzędem uczinił opowiedanie, ys posłal drzewo do Krolewca wiczinamy, tu w Kownie mytowi doszicz uczyniwsy", also: no. 436, 438, 451, 467, 568, 586, 714, 726, 732, 894, 1000, 1026, 1033, 1095, 1130, 1152, 1161, 1171, 1176, 1178, 1218, 1223, 1230, 1232, 1238, 1269, 1289, 1290, 1345, 1354, 1385, 1388, 110, 1420, 1424; J. Broda, Leśnictwo i drzewnictwo..., p. 24; K. Heymanowski, Sila robocza w gospodarce leśnej na Mazowszu w okresie przedzboriorowym (od połowy XV w.), "Sylwan" 1978, no. 8, pp. 21–33.

²⁹ J.P. Śliwiński, Uwarunkowania produkcji..., pp. 149–150; M.V. Doūnar-Zapol'ski Dzáržaūnaā gaspadarka..., pp. 296–297.

³⁰ Kauno miesto aktų knygos, no. 111, 115, 128, 131, 136, 227, 228, 246, 249, 329, 339, 482, 484, 485, 575, 629, 693, 722. Jan Kop is also mentioned in the Lithuanian Metrica (LM); LM, book 25 (1387–1546). Užrašymu knyga 25, no. 228, eds. D. Antanavičius, A. Baliulis, Vilnius 1998, p. 280; LM, book 251/37 (1555–1558). 37-oji Teismu były knyga (XVI a. pabaigos kopija), no. 16, eds. I. Valikonytė, L. Steponavičienė, Vilnius 2010, p. 38; LM, book 37 (1552–1561). Užrašymu knyga 37, no. 247, ed. D. Baronas, Vilnius 2011, p. 270 (and no. 555, p. 447; no. 594, pp. 472–473); LM, book 564 (1553–1567). Viešuų reikalų knyga 7, no. 40, ed. A. Baliulis, Vilnius 1996, p. 61, (and no. 55, p. 71; no. 65, p. 77; no. 68, p. 79); LM, book 531 (1567–1569). Viešuų reikalų knyga 9, no. 62, eds. L. Anužytė, A. Baliulis, Vilnius 2001, pp. 77–78 (and no. 89, p. 96; no. 105, p. 107). See also: J.P. Śliwiński, Uwarunkowania produkcji..., p. 154; M. Falkowski, op. cit., pp. 632–633.

³¹ "Revizijā puši i perehodov zvérinhy v' byvšem Velikom Knážestvě Litovskom s' prisovokupleniem gramot i privilegij na vhody v puši i na zemli sostavlennaū starostou mstibogovskim Grigoriem Bogdanovičem Volovičem v 1559 godu"; Vilna 1866, p. 38: "W pusezi Oltskoj Ganus Skop, posered samoj pusczi, dla roblenia wanczosu budy postawił"; p. 44: "Tye ž osoczniki powedili, iż Ganus Skop w pusczi ego miłosti hospodarskoj Kowenskoj na hospodarja ego miłość sem let wanczos, popel i tarticy sosnowye, aż do sego czasu robi. I ne tolko dej na korolja ego miłość, ale i na potrebu swoju tarticy i inszoe derewo, na potrebu domowoju, wo wsei pusczi Kowenskoj robi i wypuskaet derewo, jakoż wsju pusczu spustoszil"; Kauno miesto aktų knygos, no. 111, 115, 128, 131, 136, 227, 228, 246, 249, 329, 339, 482, 484, 575, 629, 643, 693, 722, 759, 769, 806, 1065, 1133, 1295, 1385, 1390; Z. Kiaupa, op. cit., pp. 240–241; J.P. Śliwiński, Uwarunkowania produkcji..., pp. 155–158. The Kaunas city register also mentions Piotr Tydman, a Kaunas court assessor who supervised timber harvest-

Customs duties were also an important source of revenue for the royal treasury and municipalities in the GDL. The income generated by customs duties played a significant role in the monarch's trade policy³¹. Real and potential profits from commercial and revenue policies enabled the king to establish new customs chambers in a given location. Most royal privileges granted to local magnates, courtiers, and merchants involved exemptions from customs duties. The above led to frequent changes in the amount of customs duties levied on various products and the number of customs chambers. Before the 16th century, customs chambers were located at border crossings as well as in urban centers. Customs officers not only supervised the operations of customs chambers, but also acted as financial agents on the monarch's behalf and were responsible for supplying goods to the royal court. Several entries in the Kaunas city register make a reference to the local customs chamber³².

Sigismund II Augustus continued his father's customs policy. However, the implemented measures were chaotic, and the monarch frequently distributed the collected payments among officials, magnates, and municipalities in recognition of their service to the Crown. Customs chambers were leased to Jews, as well as Lithuanian burghers, nobility, and magnates. Abraham Kuncewicz (Kunczewicz) was a courtier and a collector of customs duties in Kaunas. At the request of Albert, Duke of Prussia, the king ordered Kuncewicz to lift customs duties and other taxes on 200 lasts of potash transported by rivers from Königsberg to Ducal Prussia³³. Kusko Nachimowicz (Nachymowicz), another member of the local Jewish community, was a customs collector and a customs clerk in Kaunas between 1559 and 1564³⁴.

ing and processing operations in royal forests and sold wood products on behalf of Sigismund II Augustus, cf. *Kauno miesto aktų knygos*, no. 131, 152, 303, 305, 322, 375, 440, 617, 628, 769.

³¹ M.V. Doūnar-Zapol'ski, *Dzăržaūnaā gospadarka...*, pp. 330–360; L. Žerebcova, *Struktura tamožennoj sistemy Velikogo knážestva Litovskogo v konce XV seredine XVI vv.*, "Ukraina Lithuanica: studiyi z istoriyi Velykoho knyazivstva Lytov'skoho" 2009, vol. 1, pp. 144–162.

³² *Kauno miesto aktų knygos*, no. 10: "(...) pisarzowy mitha kowieńskiej komory"; no. 241: "(...) kthory liezi wedla domu mithnego Jego K. Milosezci"; M.V. Doūnar-Zapol'ski *Dzăržaūnaā gospadarka...*, pp. 400–401; H. Samsonowicz, *Cla nadbaltyckie w późnym średniowieczu*, "Zapiski Historyczne" 1968, vol. 33(3), pp. 151–169; J.P. Śliwiński, *Uwarunkowania produkcji...*, pp. 99–101. Refer to pp. 11 et seq. for more information about the Kaunas customs chamber during the reign of Sigismund II Augustus; see also: W. Berkowski, *Struktury administracyjne komór celnych i mytnych na Wołyniu od XVI do połowy XVII wieku*, [in:] *Nad społeczeństwem staropolskim. Kultura – instytucje – gospodarka w XVI–XVIII stuleciu*, eds. K. Łopatecki, W. Walczak, Białystok 2017, pp. 321–338 and idem, *Wołyń w systemie celnym Wielkiego Księstwa Litewskiego i Korony Polskiej (XVI – połowa XVII wieku)*, "Europa Orientalis. Studia z Dziejów Europy Wschodniej i Państw Bałtyckich" 2009, vol. 1, pp. 217–233.

³³ *Kauno miesto aktų knygos*, no. 241, 381, 838, 1244, 1429. See also: J.P. Śliwiński, *Uwarunkowania produkcji...*, p. 193.

³⁴ *Kauno miesto aktų knygos*, no. 10: "(...) dal za dług Kuskowy Nachimowyczu pisarzowy mitha kowieńskiej komory"; no. 15, 593, 1290: "(...) podał mocz zupełną Kussku Nachymowiczu mytniku kowieńskmu"; no. 1367: "Niewierny Kusko Nachimowicz Zyd, sprawcza y pisarz poboru y myta kowieńskiego uczynił urzędnowy arrest na wsitkie dobra ruchome y nieruchome, tu w mieście kowieńskim y na przedmieściu będącze y lieżącze".

In summary, the trade between Kaunas and foreign markets flourished despite numerous challenges associated with internal and external security in the GDL. The analysis of diverse historical documents revealed that the vast natural wealth of primeval forests in Kaunas region was not always effectively harnessed and did not generate profits for the Crown or the city despite the growing demand for timber in Western Europe. However, Kaunas became the second most important city in the GDL after Vilnius in terms of tax revenues. During the discussed period, Kaunas acquired the status of a major trade and financial center.

However, the published documents clearly point to a shortage of workers who were suitably qualified to harvest and process forest products for export to Western Europe. The relevant problems were accentuated in numerous entries in the Kaunas city register. The examined records also suggest that Sigismund II Augustus was perpetually faced with financial difficulties. To generate additional revenues, the king was forced to lease forest districts to merchants and industrialists who had sufficient capital and managerial skills. In many cases, the lessees ruthlessly exploited these resources with the sole aim of maximizing profits. These practices violated the existing laws and severely depleted Lithuanian forest resources. As a result, forest production was monopolized by several entrepreneurs who leased forest districts, production facilities, and exported timber and forest produce to Western Europe. Dishonest business practices generated massive profits for importers and intermediaries, whereas the monarch and the country derived few benefits from these trade operations.

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Kaunas city register of 1561–1564 as a source of information about the management and sale of forest commodities

Summary: In historical sources describing 16th century Lithuania, extensive forests are mentioned as a distinctive feature of the region. Forest played a significant role in the development of silviculture and professional groups that exploited forest commodities. Above all, forests were a source of timber for local inhabitants, including builders and craftsmen, but they also offered shelter and provided local communities with food. Forest products such as timber, planks, charcoal, and wood tar were traded on the domestic market and exported to Western Europe. Rapid economic growth and a high demand for Lithuanian forest products enabled domestic and foreign merchants to exploit primeval forests surrounding the city of Kaunas.

Keywords: Grand Duchy of Lithuania, Kaunas, city register, commerce, forest produce, forest exploitation

Das Stadtbuch von Kaunas aus den Jahren 1561–1564 – eine Quelle zum Verständnis der Organisation und des Vertriebs von Waldgütern

Zusammenfassung: In den Beschreibungen Litauens aus dem 16. Jahrhundert wird immer wieder auf die ausgedehnten Wälder als charakteristisches Merkmal der Region hingewiesen. Die Wälder waren

schon immer von großer Bedeutung für die Entwicklung der Forstwirtschaft, d. h. aller Tätigkeiten von Berufsgruppen, die mit der Nutzung des Waldes verbunden sind. Er versorgte die Menschen vor Ort und seine Nutzer in erster Linie mit Holz, ohne das damalige Handwerk nicht funktionieren konnte, diente aber auch als Zuflucht und lieferte Nahrung. Waldrohstoffe wie Holz, Bretter, Holzkohle und Teer wurden im Binnenhandel gehandelt, und Waldgüter spielten eine wichtige Rolle bei der Ausfuhr nach Westeuropa. Wirtschaftlicher Fortschritt und eine für Litauen günstige Handelskonjunktur für Forstprodukte ermöglichten einheimischen und ausländischen Kaufleuten die freie Ausfuhr von Waldprodukten aus den Wäldern rund um Kaunas.

Schlüsselwörter: Großherzogtum Litauen, Kaunas, Stadtbuch, Handel, Waldgüter, Waldnutzung

Księga miejska Kowna z lat 1561–1564 jako źródło poznania organizacji i zbytu towarów leśnych

Streszczenie: Szesnastowieczne opisy Litwy wielokrotnie wskazują na rozległe lasy jako wyróżnik regionu. Lasy od zawsze miały duże znaczenie w rozwoju gospodarki leśnej, przez którą należy rozumieć każdą działalność grup zawodowych związanych z eksploatacją lasu. Dawały one okolicznym mieszkańcom i ich użytkownikom przede wszystkim drewno, bez którego nie mogło funkcjonować ówczesne rzemiosło, ale również służyły jako schronienie i dostarczały pożywienia. Surowce leśne, takie jak drewno, deski, węgiel drzewny czy smoła były przedmiotem handlu wewnętrznego, a towary leśne odgrywały znaczącą rolę w eksportie na zachód Europy. Postęp gospodarczy i sprzyjająca koniunktura handlowa dla Litwy na produkty leśne pozwalała rodzimym i obcym kupcom na swobodny wywóz z puszczy leżących wokół Kowna towarów leśnych.

Słowa kluczowe: Wielkie Księstwo Litewskie, Kowno, księga miejska, handel, towary leśne, eksploatacja lasu.

