

FARMING AND TRADING IN MEDIEVAL MOLDAVIA: THE CIRCULATION OF PRODUCTS BASED ON HISTORICAL SOURCES

BY
GEORGE BILAVSCHI*

Abstract:

The present article contains a thorough analysis of the written sources on the agricultural economy and the medieval rural communities in the Eastern Carpathian area. Withal, the main objective of the research is to introduce in the field of historical research a series of information provided by foreign travelers, by chroniclers and chronographers, as well as by simple clerks, scribes and copyists, relevant to the medieval agricultural economy and, in particular, to the dynamics of the production of food commodities, agricultural goods and tools. The historical background, as determined by the political and military context of the epoch, became a decisive factor for state individualization in the area between the Carpathians and the Nistru (Dniester). The repeated invasions, the conflicts with nomadic populations and with the armies of neighboring states, as well as climatic variations, epidemics and natural disasters, all influenced the rate of economic development of the Moldavian state. In other words, under the impact of the above-mentioned factors, the dynamics of agrarian economy displayed stages of involution, but also of real progress, when the Moldavian territory became a market, a place of storage and a source of raw materials for most of the neighboring states.

The study of certain categories of documentary sources revealed that the agriculture and crafts activities, as well as the trade, were the fundamental fields of the economy of the Romanian medieval states. Technological innovations and advances in agricultural machinery have primarily supported the progress of demographic, economic and political factors. The agricultural and pastoral activities represented decisive endeavors for meeting the food and daily needs of the medieval communities. As a result, the most spectacular changes in the natural landscape were recorded during the 16th – 18th centuries. Thus, according to needs, agriculture has contributed decisively to the transformation of the environment, with decisive effects on all ecosystems.

Keywords: *medieval agrarian economy, Moldavia, written sources, cereals, cattle, trade, tribute, tithe, honey.*

INTRODUCTION

Written information on the agricultural economy and the medieval rural communities in the Eastern Carpathian area are inconsistent, disparate and laconic. In the same regard, the efforts of the scholars in the last half-century have been based on the exploration of some collateral aspects, of political-diplomatic and military persuasion, in connection with the factual history. Given that the written sources do not provide sufficient data regarding the various aspects of the extra-Carpathian medieval rural area, the archeology, anthropology, paleobotany, archaeozoology and linguistics could offer instead significant intakes of valuable informative material. Meanwhile, interactive and flexible themes and methodologies for investigating archaic societies have been developed in European academic centers, by promoting as well new study topics such as: individual mentality - collective mentality; domestic life - community social life; elite-ordinary; private and public daily life; food - culinary practices; clothing-fashion of the era; hygiene and sanitation; cultural-artistic activities;

* Institute of Archaeology, Romanian Academy – Iași Branch; bilavschi@arheo.ro.

ancestral cultural and religious gestures / customs; time perception and astrological practices; cosmology-earth sciences; the imaginary and fabulous; prosaic and eschatological fears; modification of the archaic landscape and ecology of the medieval living environment; and so on.

The objective of the present research is to introduce in the field of historical research a series of information relevant to the sector of the medieval agricultural economy and, in particular, to the dynamics of the production of food commodities, agricultural goods and tools. Even if the information sequences are disparate and inconsistent, these highlight the pace of agricultural, commercial, individual, collective and centralized efforts. In general, these categories of sources should be viewed with caution, requiring a rigorous analytical filter. Some records represent deliberate exaggerations or distortions of historical realities, but also errors of interpretation and recording. For these reasons, the study of the economy of the Romanian medieval states requires a different approach and a methodology based mainly on multidirectional investigations. The intensification of archaeological research and the highlighting of written sources have contributed in the last decades to a completion of the knowledge regarding various aspects of the life of the communities of rural producers.

The investigation of this area should be carried out concurrently with the research of the Romanian archaic rural world. These two themes are current concerns of contemporary archaeological research, especially since the knowledge of the issues related to the ethnic-demographic structure, the internal administrative-legal organization of the village communities, the social-economic and professional structure, the customary mind and practices from the cultural and funeral-religious field will contribute to the understanding of the rural and agricultural societies of the present, which are threatened by dilution and loss of identity.

However, for the correct understanding of the processes of the medieval period, one must refer to the economic realities of the Roman-Byzantine world, which have innovated and transmitted technologies, tools and a significant knowledge baggage. At the same time, the dynamics of the archaic agricultural practices between the Carpathians, the Danube and the Dniester can be fully understood by knowing the technological evolutions within the neighboring agricultural societies (the territories of the Russian princedoms, of Poland, Bohemia, Moravia, Hungary, of the Serbian and Bulgarian empires).

CATEGORIES OF WRITTEN SOURCES

In the Middle Ages the scribes (*grămățici*, *dieci* or *pisari*) and the secretaries of the princely chancery as well as the chroniclers only recorded the diplomacy actions and agreements, the political, military and religious events, being less receptive to the ordinary issues of peasant social-economic and cultural life. Thus, everything related to the political caste, the diplomatic endeavors and agreements, the war episodes were taken to the front of the daily realities of the medieval village world.

Partial information regarding various aspects of agricultural life and medieval toolkits, household activities, customs, diet and peasant nutrition in the Carpathian-Destrian area are provided only by the registers of monastery goods, chronicles, reports and travelogues of foreign travelers, who visited or transited the areas north of the mouth of the Danube and east of the Carpathians. Unfortunately, these information items are secondary, sparse and often incorrect, and only a careful analysis of these could increase the category of truthful information regarding the transformations of the rural universe and medieval economy of the East-Carpathian space.

In this regard, the first summary information was identified in the Slavonic chronicles of the XV-XVI centuries. For example, the chroniclers of Macarie and Azarie recorded only the military raids of the Tartars in the region between Dniester and Siret and, implicitly, the serious damage caused to the settlements, the shock felt by the population of the villages and market-towns as well as the large number of goods taken as loot (cereals, ornaments, tools, weapons and animals - cattle, horses, flocks of sheep)¹. Thus, it can be regarded that,

¹ BOGDAN 1891: 20; BOGDAN 1909: 152, 157.

despite still precarious technologies and the lack of sustained commercial exchanges, the medieval Romanian communities provided, through the agricultural and crafts activities, the goods necessary for their own existence, as well as the goods destined to trade and the tribute due to the Turks.

The first more dependable news regarding physical geography, soil richness, climate, agriculture, mining and metallurgical industry in Moldova are found in the *Descriptio Moldaviae*, the work of scholar prince Dimitrie Cantemir.² Sparse information, but very useful, can be found in the travel reports of foreign travelers who visited Moldova at a certain point. Most of the documents were published in the series *Călători străini despre Țările Române*, coordinated by M. Holban.³ Other information pieces about Moldavian crops, livestock, goods, merchandise and practices are present in the writings of chroniclers.⁴ Some disparate information, which determined the directions of investigation, comes from documents and acts (*urice, ispisoaice, surete, zapise* or *regeste*, issued by the Prince, boyars and monasteries), which sanction transactions with movable and immovable property, confirm privileges, donations and ownership over certain properties and inherited assets, as well as *de jure* legal obligations, consolidated and reconfirmed even several centuries in a row.⁵ These sources also provide some data regarding medieval agriculture, tools, products and goods existing on the markets and in the local fairs, their price, the revenues obtained, the frequency of the exchanges, the duties and obligations in money and goods due to the Ottoman Porte. The most consistent are the inventory registers of the monasteries, on the basis of which we can reconstruct quite comprehensive blocks of data regarding the evolution of the techniques, the inventory of agricultural tools, the field works and their calendar, the varieties of plants and vegetables grown, culinary preferences, food, etc. in the rural communities, and especially the monastic ones.

We will briefly argue below the informational value of these sources for various aspects of the medieval agricultural economy in the Eastern Carpathian territories. Although Moldavian documents do not provide information on the form and functionality of agricultural instruments, some Transylvanian writings provide us with data on various components of the plow (e.g. the *Bistrita Glossary*). For example, in the mentioned lexicon there are indications regarding the coulter, plowshares, stils and how to use the plows in various types of soils.⁶ Since the fifteenth century, with the reign of Alexander the Good, agricultural tools have become a very important commodity and demanded by Moldavian merchants. Plowshares and coulters were the most demanded tools on the Transylvanian and Polish markets.⁷ Many of the tools present on the Moldavian markets were produced in Transylvania⁸ or were imported in the form of ingots and iron bars, then processed by the Moldavian blacksmiths. Certainly, these valuable objects were brought by trade even before the state organization east of the Carpathians. The precarious technology and the lack of primary iron ore deposits in these territories did not allow the production of quality finished iron goods locally. The blacksmiths ordered the iron in raw (ingot) or finished (billets) form and processed it in their workshops. It is not excluded that the processing technologies and techniques were transmitted by traveling blacksmiths, who came from the countries neighboring Moldavia (Transylvania, Hungary, Poland, Saxon cities, etc.).

² CANTEMIR 1973: 16-25, 43-51.

³ *Călători străini*, I, 1968; *Călători străini*, II, 1970; *Călători străini*, III, 1971; *Călători străini*, IV, 1972; *Călători străini*, V, 1973; *Călători străini*, VI, (I-II), 1976; *Călători străini*, VII, 1982; *Călători străini*, VIII, 1983.

⁴ URECHE 1958; COSTIN 1958; COSTIN 1976; NECULCE 1959.

⁵ PAPIU-ILARIAN, I-II, 1862; GHIBĂNESCU, I-XXIV, 1906-1930; BĂLAN, I-III, 1933-1934, 1937; *Documente Hurmuzaki* 1876-1940; VERESS, I-IX, 1922-1934; BOGDAN 1905; BOGDAN 1905A; BOGDAN 1913; COSTĂCHESCU 1931-1932; COSTĂCHESCU 1933; COSTĂCHESCU 1943; DIR 1951-1957; DRH A 1969-2014; *Documente Iași* 1999-2007; ș.a.

⁶ EDROIU, GYULAI 1966: 316.

⁷ FISCHER 1911: 176-177; EDROIU, GYULAI 1966: 316.

⁸ COSTĂCHEL, PANAITESCU, CAZACU 1957: 28-36.

In contrast, the products of local craftsmen and peasants arrived on the European markets once state east of the Carpathians is established and consolidated, in the 14th - 15th centuries, and, implicitly, following the establishment of advantageous commercial relations for both parties involved in the exchange games. Thus, from Chilia and the Cetatea Albă, goods went to both Central, Northern and Western Europe, as well as to the Levantine area.⁹ Trade with the north and center of the continent was mainly through permanent fairs in Suceava, Siret, Hotin and Cernăuți,¹⁰ while trade with Wallachia and Transylvania was also carried out through the market towns of Bacau, Tg. Trotuș, Piatra, Tg. Neamt, Suceava or Baia.¹¹ The internal regulations stipulated the fairs for various categories of goods and for certain merchants, who came from different European states and with which there were economic and political agreements. For example, the cattle trade was held in Ajud and Bacău, in order to avoid the overcrowding of the animal markets in the other fairs. While the merchants from Brașov and the ones from Lviv were selling their goods and buying livestock (cattle, oxen, calves, etc.) in Bacau, the Sibiu merchants were allowed access to the Ajud market.¹² With the organization of customs, the establishment of routes, with the fixing of prices and tariff, the goods of the merchants from Brașov entered Moldavia through Oituz, Trotuș and reached Bacau, where the registration and sale of cattle was carried out.¹³ For example, the merchants from Brașov would have to pay, according to the privileges issued by Alexander the Good and his followers, 4 groschen for each load, 6 groschen for each horse, and 2 groschen for each cattle or ox.

Privileges granted over the centuries to Transylvanian, Wallachian, Galician, Polish, Italian or German merchants, by the Moldavian rulers, have boosted the movement of goods, as well as of the knowledge/technologies. Thus, the charters show that the merchants from Brasov, Bistrita and the Szekler Lands (Șapte Scaune) were allowed to buy from Moldova cereals (wheat, oats, millet), “large cattle”, horses, “oxen and cows”, fish, sheep, pigs, honey and beeswax, skins of cattle, sheep, lambs, wolves, foxes and squirrels.¹⁴ In exchange of these, there were imported from the cities of Europe, along with “cloth of Cologne, Louvain, Buda and the Moravia”¹⁵, such goods as textiles, “plowshares”, sickles, scythes, “weapons of all kinds”, swords, breastplates, daggers, axes, stirrups, knives, tents, belts, ropes, cotton, silk, various “cloths”, “tapestries”, oil, spices and many more.¹⁶

A special category of goods was represented by metal products (iron/steel, but also gold, silver, bronze or copper/brass). Thus, in particular, iron and its finished products, were important inheritance values for the medieval man. Certainly, in the 16th -17th centuries in Moldavia, high quality iron was used, from the areas of southern Poland, southern Slovakia, the Silesian, Carinthian regions, from Styria, Vienna or German centers. Some documents convey accurate information about the provenance of the iron in the form of ingots and/or finished products, the frequency of exchanges, the prices and policies of its trading. In this sense, the investigation of the customs registers of the medieval Cluj from the collection of the Directorate of the State Archives of Cluj-Napoca, the Archive of the City of Cluj-Napoca, the “Socoteli Orășenești” Fund, resulted in their scientific utilization by S. Goldenberg and F. Pap.¹⁷ The publication of these sources gave us the opportunity to find out the size of the commercial relations between the three Romanian historical provinces,

⁹ IORGA 1899: 3-6; BRĂTIANU 1922: 50-54; BRĂTIANU 1927: 37; BRĂTIANU 1929: 45-47; CÂMPINA 1953: 79-119; CÂMPINA 1953A: 191-236; GONȚA 1989: 49.

¹⁰ NISTOR 1912: 11; GONȚA 1989: 49.

¹¹ IORGA 1915: 34-36; MANOLESCU 1965: 15-16, 18-20; GIURESCU 1965: 55-70; OLTEANU 1969: 849-874; GONȚA 1989: 49.

¹² GONȚA 1989: 60.

¹³ IORGA, I, 1915: 91.

¹⁴ *Documente Hurmuzaki*, XV₂, 1913: 1181; URSU 1925: 375-379; BOGDAN, II, 1913: 271-288, 329-330, 339-342; GONȚA 1989: 62, 64.

¹⁵ GONȚA 1989: 62.

¹⁶ PASCU 1956: 211; PASCU 1954: 236-237; *Documente Hurmuzaki*, XVI, 1911: 91; GONȚA 1989: 62.

¹⁷ GOLDENBERG 1958; PAP 1995: 33-40.

connected, in turn, through constant relations with the central and east-European economic and commercial system.

Although the most consistent information comes from late documents and reflects the situation at the end of the Middle Ages, this data is important because it expresses ordinary, accomplished transactions, surely, constantly and in the previous period. Thus, tools, parts of agricultural instruments or iron bars, from central and northern Europe, reached Moldova through the Transylvania fairs. The Cluj registers between 1599 and 1637 recorded an impressive volume of tools that were traded in Cluj. This is no less than 100,442 scythes, over 700 sickles, 365 hoes, 50 pickaxes and 9 yoke pins.¹⁸ The goods came from workshops and warehouses in Vienna, Slovak, Polish (some products being made by Krakow craftsmen) and Hungarian cities.¹⁹ Domestic demand was quite high, so the royal, noble and monastery forges worked continuously to ensure the needs of the people of the Principality.²⁰

A special category of tools traded on the internal markets of Transylvania were the so-called "Hainfeld scythes", named after the town where these were manufactured, located in southern Austria (Hainfeld).²¹

In exchange for goods exported from Moldavia, important quantities of iron bars, tools, weapons and various metal objects came from Poland and Hungary, as early as the 14th century. The royal privileges, issued by Sigismund of Luxembourg, on July 30, 1414, and Ludovic I of Poland, on April 24, 1353, addressed to the Transylvanian merchants, regulated the number and categories of goods that could be exported to Moldavia.²² Among these products, iron was subjected to an intense demand on the Moldavian markets.

The charters attest to the frequent commercial exchanges with the Polish Kingdom and the other neighboring states, however, since the 16th century, there is also an infusion of iron/finished metal products, coming from the markets of Silesia, Vienna, Styria, Bohemia or Nürnberg, in the conditions in which, until then, the south Poland metallurgy met the demands of the central and east-European area. This situation is also showing in the exchanges that the Baltic state had with Moldavia. Starting with the 16th century, the iron tools brought by various merchants to the Moldavian fairs came from the Silesian, Styria, Carinthian or German areas, thus competing with similar articles of Polish or domestic production.²³ In addition, the strategic and political-diplomatic decisions of Moldavia also dictated the economic and commercial policy guidelines. For example, in 1497, Bartolomeu Drágffy calls on the burghers of Sibiu to provide weapons and "digging tools" to the Lord of Moldavia, Stephen the Great, who is at war with the troops of the Polish king Jan Albert.²⁴

We know from chancery acts that in the autumn of 1468, on September 28, the King of Hungary Mathia Corvin reverted the prohibitions previously imposed and allowed the Transylvanian merchants (from Brasov, Sibiu, and Bistrita, Hungarians, traders of the Seven Szekler counties, etc.) to circulate free east of the Carpathians to trade goods, iron objects and other things that were missing in Moldavia to the fairs and market towns beyond the mountains, without paying taxes higher than the usual tariff.²⁵

The taking over of the Rodna mining center by Stephen the Great, but also its loss during the time of Petru Rares caused major changes in the Moldavian crafting economy. Alexandru Lăpușneanu undertook major diplomatic activities to recover for Moldavia this mining region, particularly rich in copper.²⁶ At the same time, the restoration of the country's reserves, consisting of numerous "big cattle" herds, sheep flocks and horse studs boosted trade with Constantinople, Transylvania, Poland, Hungary, Prussia, England, Florence, Venice,

¹⁸ PAP 1995: 34-35.

¹⁹ BILAVSCHI 2013: 141-142.

²⁰ GOLDENBERG 1958: 69; PRODAN 1968: 45, 235, 823, 827; PAP 1995: 36.

²¹ FISCHER 1971: 286, 289, 306.

²² IORGA, I, 1915: 92.

²³ ZIENTARA 1971: 278.

²⁴ *Documente Hurmuzaki*, XVI, 1911: 147-148, no. 269-270; GONȚA 1989: 96-97.

²⁵ GONȚA 1989: 61.

²⁶ *Documente Hurmuzaki*, XVI, 1911: 548, no. 1007.

Genoa, Russia etc. From Prussia, the lord of Moldavia demanded in 1559 more goods, among which were axes, halberds (*Hacken*), cannons, breastplates, helms and other weapons, in exchange for which he would pay with oxen, cattle, horses and herbs.²⁷ The Mayor of Bistrita was asked to allow Bistrita blacksmiths to continue working in the fairs and cities of Moldavia²⁸, which supports the statement regarding the presence in the workshops of the Prince or of the big Moldavian fairs of specialized metalworking craftsmen from Transylvania, from Poland, and from the Saxon and Szekler counties.

Later on, the change of the political orientation of the prince of Transylvania Gabriel Bethlen, occurred in the years 1616-1622, in the context of the long and costly military conflict with Poland concluded with the 1622 peace of Mikulov, on the markets of Transylvania and Moldavia enter the agricultural tools and weapons manufactured in the workshops of the production centers of southern Slovakia, from the Špis mining region (Zips/Szepesség, today's Hungary).²⁹ In addition, the end of the Turkish-Polish war in the fall of 1676 and the mounting of Gheorghe Duca on the throne of Moldavia, with the added title of Grand Hetman of Ukraine, temporarily put an end to the deep economic crisis that hit both Moldavia and Poland. The prince of Moldavia was concerned about restoring the country's agriculture, increased the country's reserve of cattle, oxen and horses and especially encouraged the inhabitants between Prut and Dniester to "make beehives, cows, sheep, plows of oxen ... notwithstanding the distilleries of spirits, beer and others."³⁰ By 1670, Gheorghe Duca was sending merchants to Brasov to purchase hoes and other tools for the vineyards of Cotnari.³¹

The charters attest to the fact that towards the middle of the 17th century, large quantities of iron, called "small", "medium" and "large" iron, as well as bars of "steel" of net superior quality have entered the markets of the two Romanian states of the north-Danube, imported from Poland, Hungary, Slovakia, Vienna, Styria etc.³² Thus, the merchants from Lvov unloaded in the fair of Suceava, besides many other products, goods such as knives, scythes, sickles, cutters, "plow irons", Hungarian swords, pallaches, axes, etc., for which they paid customs, both in the capital of Moldavia and in the town of Siret.³³

At the same time, the merchants of the Hanseatic League received the right of deposit in Suceava but also free passage of goods to Wallachia, Transylvania and beyond Prut. They only paid the transit tariff in Baia, Suceava, Siret, Moldovița and Trotuș.³⁴ In addition to their famous cloth, German merchants brought iron, household iron objects, weapons, etc.³⁵ For example, Baia was known at the time as an important mining center for Moldavia. On the "Baia Way", which passed through Rodna (where from the first miners who settled in Baia probably came), the goods came from Bistrita to Moldavia.³⁶

Regarding the costs of the iron objects, the prices varied over time, however, these were constantly appreciated as there were particularly expensive goods, regardless of the legal and social status of the buyer. These objects represented inheritance assets and were passed down from generation to generation. In addition, the tools and household items were repaired until irreversibly damaged. For example, in the second half of the 17th century, probably reflecting a much earlier situation, the price of iron and, in particular, tools and other household metal objects, increased exponentially in relation to foodstuff prices. Thus, in a civil court case in 1691-1692, "26 scythes were priced at a sheep per piece or, in money, 40 thalers".³⁷ Also in the same period, in

²⁷ IORGA, I, 1915: 190-191.

²⁸ *Documente Hurmuzaki*, XV₁, 1911: 569, no. 1053.

²⁹ ZIENTARA 1971: 279-280.

³⁰ COSTIN 1958: 22; IORGA 1915: 145; IORGA 1937: 336.

³¹ *Documente Hurmuzaki*, XV₂, 1913: 1341-1342; no. 2455.

³² PAP 1995: 38.

³³ *Documente Hurmuzaki*, XV₁, 1911: 72-75; GONȚA 1989: 62, 64, 72.

³⁴ *Documente Hurmuzaki*, XV₁, 1911: 59; IORGA, I, 1915: 92.

³⁵ IORGA, I, 1915: 87-88; GONȚA 1989: 59.

³⁶ IORGA, I, 1922: 213-215.

³⁷ *Documente Hurmuzaki*, XV₂, 1913: 1450, no. 2697.

Moldavia haunted by poverty, murders, thievery and many other crimes, the inhabitants of Câmpulung went to Bistrita to give an ox for corn or iron “nets” (harrows) and hoes, especially useful in agriculture.³⁸

Equally relevant to the topic discussed in this study are the information on the agricultural economy as a whole, with the specific techniques and instrumentation, daily practices and tasks, types of cereals, vegetables and fruits grown, breeds of animals and poultry raised, etc.

An important area for the medieval economy was the contribution of domestic animals to the agricultural economy and, in particular, the exports of animals from Moldavia to the other neighboring territories, as far as Italy and the German states. Substantial data can be found in the charters of the time (merchandise registers, charters confirming commercial privileges, etc.).³⁹ However, the image would not be complete without the information transmitted by some foreign travelers or identified in the inventory registers of monasteries property.

The earliest documentary sources mention that “agriculture is millennial in these regions”,⁴⁰ and the breeds of cattle are the same throughout the medieval period. However, depending on the climate and the geographical areas preferred by human communities, different breeds of animals were raised from one region to another. For example, the Steppe Sura (gray) cow, of poor constitution, was well adapted to the dry vegetation in the southern half of Moldavia and the Bărăgan area. In contrast, sturdy cattle with short horns would have been used by the natives on the longitudinal valleys of the watercourses in Moldavia, but they were also preferred by the migratory populations (Goths, Huns, Gepids, Avars, Pechenegs, etc.).⁴¹

The written sources 16th - 17th century support the significant weight in the economy of Moldavia of the cattle (cows, oxen, bulls and buffaloes), but also of horses, sheep, pigs and goats, which provided both traction force in the field works and the necessary of meat products, dairy, skins and furs (indispensable for domestic consumption), but also for trade. Their sales abroad brought important revenues to the treasury of the principality. An impressive number of cattle and sheep were exported from Moldavia to the fairs of Hungary, Russia, Poland, Germany, Venice, Genoa, Tuscany, etc. Moldavia has constantly exported pigs to both Transylvania and neighboring countries. In the first two decades of the 16th century, the charters of the time recorded a considerable effervescence of trade with cattle, oxen, sheep, lambs, rams, pigs and horses.⁴²

Analyzing the inventory register of assets and property of Galata monastery, mentioned above, the domains of the monastery included 16 villages in 1588, a number of 101 horses, 191 oxen, cows and calves, 140 pigs and no less than 1128 sheep, which meant a significant fortune for that period.⁴³

At the same time, the customs registers of Brasov provide us with information regarding the number of animals brought from Moldavia, as well as other products of animal or cereal facture. Thus, greatly sought after were the skins of sheep, ox or cattle.⁴⁴ To see the economic power of Moldavia in the middle of the 16th century, it is sufficient to study the text of the treaty concluded on March 1, 1542, between Petru Rares and the Margrave Joachim of Brandenburg, in which the prince of Moldavia offered to procure 30,000 cattle and to help his ally with 200,000 Hungarian florins (gesture that has depleted the country's finances).⁴⁵ Another 100,000 florins in cash and another 100,000 heads of cattle, followed by another 10,000 heads of livestock, were to be made available to the German prince. The transaction intervened at a crucial moment for the ruler of

³⁸ *Documente Hurmuzaki*, XV₂, 1913: 1455, no. 2707.

³⁹ *Vezi și ISTRATI* 1973: 143-148; *CERNOVODEANU* 1973; *LAZĂR* 1978: 361-372.

⁴⁰ *IORGA*, I, 1936: 69, 117; *IORGA*, II, 1937: 135.

⁴¹ *IORGA*, I, 1936: 68.

⁴² *Documente Hurmuzaki*, XV₁, 1911: 162-163, no. 298-301; *PASCU* 1956: 212-214; *MANOLESCU* 1965: 87, 177, 178-180; *MANOLESCU* 1968: 147; *GONȚA* 1989: 99-103.

⁴³ *DIR*, A, *MOLDOVA*, veacul XVI, III, 1956: 402-410; *Documente Iași*, I, 1999: 47-54, no. 31.

⁴⁴ *MANOLESCU* 1965: 119; *GONȚA* 1989: 122.

⁴⁵ *PAPIU-ILARIAN*, III, 1864: 13-20; *GONȚA* 1989: 128.

Moldavia, the country going through heavy trials following the wars with the Turks and Tatars (1538) and the locust invasion during Stephen's reign, nicknamed for this reason "Locust". Thus, Petru Rareș was hoping to restore the financial power necessary for the conflict that would follow. Probably, the "big cattle", considered "the country's only wealth and reserve for economic prosperity"⁴⁶, together with the large flocks of sheep of the inhabitants of Campulung, Neamt, Vrancea, Orhei, Lăpușna and Tigheci, were lost as a result of the invasions of the Turks and Tatars or these were sold to the German merchants on pitiful amounts because the country of Moldavia was unable to provide the necessary fodder for their maintenance following the invasion of locusts, burning crops and abundant rainfall.⁴⁷

For the 16th - 18th centuries, numerous sources attest to the frequent use of cattle or horses to clear and plow fields. In this regard, the Tuscan nobleman Antonio Maria Graziani (1537-1611), a good authority on the 16th - 17th century Moldavian realities, remarked that "people add as many as twelve oxen to the plow and are more satisfied with their growth than with the work of the land because cause of their particularly good pastureland".⁴⁸ Graziani continued that although "the fields are very fruitful" ... "people deal in agriculture only to a very small extent". Moldavians "are sowing only to sustain their lives for a year." Graziani himself noted elsewhere that the country of Moldavia was rich in pastureland and "the fertility of the soil is very great; in fact, people who are less dedicated to plowing are sowing as much wheat as they need to live for a year. They do not sow wheat before 1st of April".⁴⁹ From his reports it appears that for the 16th - 17th century the plowed area was much less compared to pastureland and hay meadows, the ratio being 1/40 of the territory of the country. Graziani also argued that agricultural work (such as plowing the earth) required the use of a large number of traction animals (about five, six pairs of oxen pulling heavy plows), as evidenced by religious iconography (pictorial representations on the walls) in the churches of St. Ilie and Voronet, founded by Stephen the Great).⁵⁰ As for the other daily tasks, the writer confesses that "of wine, of course, they are not lacking, but they use much mead, like some who have a lot of honey, and the abundance of cattle is unbelievable." However, "it is considered a sin to slaughter the cattle", because "a multitude of oxen is removed from Moldavia, from which meat is fed not only to the neighboring peoples of Hungary and Russia, but also to Poland, Germany, and even others, Italy, and especially those in the city of Venice". Graziani also says that "every year there are seven cattle trade fairs in Moldavia" and that "there are usually many thousands of oxen".⁵¹

In contrast, the French nobleman Charles de Joppecourt, a career soldier, recorded in the beginning of the 17th century the following: "The plains of Moldavia are very fertile and in many places watered by beautiful springs and rivers that make them very productive in wheat, rye, barley, oats, millet, hay; thanks to these, the inhabitants of the plains raise a large number of cattle of all kinds and even buffaloes, which are used instead of oxen or horses for the working of the fields"; "This is especially the cause for which there is a buffalo head wearing the crown in the coat of arms of the country ..."; the country has "many very pleasant hills and so rich in wines that not only in Moldavia are abundant, but it is also transported to Podolia and other neighboring countries"; the existence of sulphur deposits; besides the boyars there were merchants and peasants.⁵²

A contemporary of Graziani supported his reports stating that the Moldavian cattle are of considerable size and very numerous, being exported to Germany and Russia, and the Moldavian horses are of small size, but strong and "resistant to work".⁵³

⁴⁶ GONȚA 1989: 127.

⁴⁷ GONȚA 1989: 127-128.

⁴⁸ *Călători străini*, I, 1968: 381, 383; ALEXANDRESCU-DERSCA 1968: 846.

⁴⁹ *Călători străini*, II, 1970: 380-381.

⁵⁰ *Călători străini*, II, 1970: 381; *Călători străini*, VI/1, 1976: 299.

⁵¹ *Călători străini*, I, 1968: 381; vezi și ALEXANDRESCU-DERSCA 1968: 848; GONȚA 1989: 48.

⁵² *Călători străini*, IV, 1972: 383-384; ALEXANDRESCU-DERSCA 1968: 861.

⁵³ *Călători străini*, I, 1968: 383; PAPIU-ILARIAN, I, 1862: 213; GONȚA 1989: 48. The remarks belong to the Russian traveler Gorecius (Gorecki), who visited Moldavia in the second half of sixteenth century.

The Polish chronicler Martin Cromer, who was passing through Moldavia in the middle of 16th century, observed that "Moldavians do not cultivate the fields much, but only feed themselves on the herds of cattle, because their country is full of very good oxen and cows".⁵⁴ He further states that "the Poles, Russians, Hungarians, Prussians, Silesians, Czechs, Germans, Slavs, Italians and Turks bring an almost endless number of animals from there every year."⁵⁵ However, in some areas, large numbers of heads of livestock to support the foreign trade would have required extensive pastureland, which were likely to be detrimental to the plowed fields.

In *Descriptio Moldaviae* Dimitrie Cantemir made an interesting "portrait" of the Romanian society and of the Moldavian economy of the 17th - 18th centuries. He asserted that "the inhabitants of the mountains have small oxen, while the ones from the plains have large and beautiful oxen" and that "the fattest and most beautiful oxen are found on the Sărata valley in the region of Falciu and on the Băseu river in Dorohoi County, as well as in Cernăuți County". Further on, the writer dissociates between the small but strong horses of highlands and those from the plains, who distinguished themselves by their imposing stature, slenderness, vigor and athletic qualities, being highly appreciated by "Poles, Hungarians and Turks". At the same time, he noticed three breeds of sheep: "Mountain sheep, Soroca Sheep and wild sheep". However, he could not appreciate their number and distribution of breeds by geographical area, "because in all counties in the west of Moldavia, which are not good for sowing, the inhabitants live there only with the sheep breeding" and "of these sixty thousand are taken by Greek merchants in the Sultan's kitchen". Certainly, the number of herds and, implicitly, of the heads of animals that formed a pastoral organization, was high because, says Dimitrie Cantemir, "just the inhabitants of the Campulung region gave a tithe of 24,000 lambs annually, which means that the number of sheep it was 240,000".⁵⁶ Dimitrie Cantemir also wrote that, next to wheat, barley occupied an important place among cereals, "that in the rich years wheat gave the inhabitants twenty-four times the seed sown, rye thirty times, barley sixty times, millet gives three hundred times, an unbelievable thing for one who does not see with his own eyes."⁵⁷ However, these ratios seem exaggerated, but the most important aspects that emerge from these exaggerated assessments are the productivity of agricultural land in Moldavia, the improvement of agricultural techniques and practices, the measures taken to restore the quality of the soils and the systematic concern for increasing the production of cereals, necessary to ensure the population's food, the surplus destined to trade and to pay the annual tribute to Constantinople. The writer mentions that oats and rye were cultivated on restricted plots for which, "in its place, horses are given to eat barley".⁵⁸ As for the crops of millet, spelt, oats or rye, the internal acts provide rather precarious information. However, throughout this period, the cultivation of millet, spelt, buckwheat, oats, rye and millet continued, in addition to the two important varieties of wheat, the autumn and spring.

However, the Hungarian Jesuit Paul Beke reported that "at them (Moldavians) it seems that its <not> sown or plowed in the autumn but in the spring, when it is warm, only once, around Easter, and then they do not plow as much as they scratch the ground; however, they gather the richest and earliest harvest in July. They do not have everywhere *siligo* wheat (a better species of wheat, superior to the *triticum*), and not abundantly; <but> they have plenty of the cleanest wheat, with oats, barley, not to mention the millet that the Romanians very like <and> from which they cook a very good porridge precisely according to their taste, but for others it is inedible." Further, he stated that "this bountifulness of the land undoubtedly makes the inhabitants so lazy, as if they would like to harvest <at the ready> all the fruits of the land without work; and in truth with very little work they reap so many foodstuff of all kinds that these could be sold only to strangers."⁵⁹

⁵⁴ COSTĂCHEL, PANAITESCU, CAZACU 1957: 17; GONȚA 1989: 47.

⁵⁵ COSTĂCHEL, PANAITESCU, CAZACU 1957: 17.

⁵⁶ CANTEMIR 1973: 31-33; ALEXANDRESCU-DERSCA 1968: 857; GONȚA 1989: 48-49.

⁵⁷ CANTEMIR 1973: 47.

⁵⁸ CANTEMIR 1973: 47.

⁵⁹ *Călători străini*, V, 1973: 274-275.

Bread was usually made from millet flour (darker in color) and less often from wheat, barley or rye. As a rule, in the noblemen's and prince's houses it was served with butter while it was hot⁶⁰, and the favorite of the nobility was the white loaf⁶¹, obtained from wheat flour.

About the fertility of the soil also wrote some foreign travelers, who were passing through the two extra-Carpathian Romanian countries, in the fifteenth century. "In the country of Moldavia there is abundance and all the food is cheap," noted Russian traveler Afanasie Nikitin in 1466, who visited the lands at the mouth of the Danube. "Moldavia is a fertile country and rich in cattle, oxen and good horses," noted the secretary and treasurer of Sultan Mahomed II, Giovanni Maria Angiolello, a witness in the Turkish military expedition of 1476 in Moldavia.⁶² "The country is very fertile and bountiful... rich in animals and in all kinds of fruit except oil, the corn is sown in April and May and harvested in August and September." The wines are like those from Friuli, the pastureland in the best condition, being able to feed in this country one hundred thousand horses", the Venetian doctor Matei Muriano also reported, in 1502.⁶³ Similar remarks were offered by the representative of the Habsburg House, Georg Reichersdorffer, present in Suceava in 1536. He praised the "hills with vineyards", the regions "very rich in crops and fields and in all things useful for living", the fishing wealth of ponds, lakes and pools, the geological resources of the mountains ("there are very rich mountains in gold and silver mines ..."), as well as the appreciable number of "wonderful Turkish and Moldavian horses and very good Asturcóns".⁶⁴

On the other hand, the Hungarian writer Ioan Czimor Decsi de Baranya notified that "Moldavia has a fine and fertile soil suitable for grape cultivation; however, it is so impoverished because of the immeasurable tyranny of the Prince, that it hardly produces, besides wheat, the necessities of human life", so that in many cases "the land remains entirely unplowed."⁶⁵ Likewise, the Piedmontese traveler, Giovanni Botero, a propagandist of Catholicism and missionary in the three Romanian countries, noted at the end of 16th century about the situation in Moldavia the following: this is "a fruitful plain", but poorly managed "because everyone cultivates the field he wants (so much of the land is and so rare is the population that they often work lazily), to not have another take his place." "The oxen are very large, from there a very large number of oxen for the neighboring countries are exported"; gold and silver mines are unexploited due to the oppression of the Turks; "The trade consists of wheat and wines that are exported to Russia and Poland; of the skins of ox, rough cloth, wax, honey ...; beef pastrami, vegetables, butter for Constantinople".⁶⁶ Also, the secretary of prince Petru Cercel, Franco Sivori, noted in his travel memoirs that "the corn is sown without much skills" and "without fertilizing the soil too much."⁶⁷

I also found the notes of the Bulgarian minority Petru Bogdan Bakšić (Baksev or Pietro Deodato Bakšić) useful, who briefly described the economic situation of Moldavia, but providing relevant data, as follows: there were wheat, millet and oat fields; fish and many other goodies; the province was rich in wheat, fruit and fish, livestock (cows, oxen, sheep, horses), honey and butter; the market town of Galati has a lot of fish, cattle like oxen, cows and other "quadrupeds", many vineyards and "produces enough wheat"; thence wheat was loaded into ships and transported to the Black Sea and thence to Constantinople and the Italian cities; Bârlad "is rich in wheat, cattle and the fish that are found are not despised"; it had no vineyards and fruits due to the humidity and cold, but these were imported from other places; the locals "plow, raise cattle, make

⁶⁰ CANTEMIR 1973: 109.

⁶¹ *Călători străini*, VI/1, 1976: 485; ALEXANDRESCU-DERSCA 1968: 851 (the travelogue of the Ottoman chronicler Evliya Celebi).

⁶² DA LEZZE 1909: 88; *Călători străini*, I, 1968: 133; GONȚA 1989: 47.

⁶³ ESARCU 1874: 92; ALEXANDRESCU-DERSCA 1968: 847; *Călători străini*, I, 1968: 149; GONȚA 1989: 47.

⁶⁴ G. Reichersdorffer, *Chorographia Moldovei*, in: PAPIU-ILARIAN, III, 1864: 125-144; *Călători străini*, I, 1968: 192-199; ALEXANDRESCU-DERSCA 1968: 852; GONȚA 1989: 47.

⁶⁵ *Călători străini*, III, 1971: 21.

⁶⁶ *Călători străini*, IV, 1972: 573-575.

⁶⁷ PASCU 1944: 176; see also ALEXANDRESCU-DERSCA 1968: 848.

butter, keep bees and others”; Husi had hills with vineyards and produced fruits such as apples, pears, peaches, nuts, etc.; Iasi had a river (Bahlui), which, being dammed, had formed a lake full of fish (only the prince was allowed to fish there and the inhabitants were allowed to take only three fish); the land around the city was very fertile and “bountiful in wheat”; there were countless cattle and many vineyards and gardens with fruit trees of all kinds; they imported oranges, lemons, olives and oil, which were sold at very high prices; the wine was produced in small quantities and was very expensive being exported to Poland; good bread was made; the monasteries around Iasi were true production centers, special administrative-economic domains, where there were numerous herds of cattle, oxen, sheep, cows, horses, bee hives; Cotnari is surrounded by vineyards and made a very good wine (all vineyards belong to the prince and the boyars); there were plenty of orchards; a lake with many varieties of fish; there were many cattle: oxen, cows, but also sheep and horses; in Suceava there was the river with the same name in which trout and other fish grew; in the land there was plenty of wheat, but also fruits of all kinds; there were no vineyards due to the mountain proximity and unfavorable climate; “People are more cultured” due to contacts with Poland and Hungary; in Baia there were neither vineyards nor cornfields; they grow just oats and other cereals adapted to the colder climate; there was a lot of fish in the river Moldova; on the hills there were flocks of sheep; in Neamt there were orchards with plums, apples and other fruits; due to the climate the vines are not cultivated and the cereals are not grown; the herds of cattle are reduced due to the lack of pastures, the city being surrounded by forested mountains; in the surroundings of Săbăoani there were many orchards with fruit trees and numerous herds of cattle; in the county of Roman there was grain richness, but the vines were not cultivated here; there were numerous herds of oxen, cows and sheep; Bacau was rich in wheat, wine, fruits of all kinds; “exotic” fruits were imported; the fish was abundant in the river Bistrița; there were large numbers of cattle throughout the country; Trotus was famous for the salt being extracted, then exported to many European countries such as Russia, Poland, Turkey etc.⁶⁸

The revenues, property and foods register of Galata monastery, from November 1, 1588, provides valuable data on the distribution of cereal and other plants grown on the fields in the monastery domain, thus reflecting a valid economic statistic for the entire sixteenth century and, maybe, for the first half of the next century. The first position in the list of the grain still in the “stooks” is wheat (32%), followed by oats (18%), barley (16%), while rye, peas, millet and maize, representing the rest of the percentages. Regarding the quantities stored in the monastery's warehouses, the document indicates higher quantities of rye, followed by wheat, barley, millet and buckwheat.⁶⁹

The information in the documents of the time also refers to the pits or food stores where cereals (wheat, barley, millet, etc.) and some vegetables were stored (peas, broad beans, lentils, beans and others).⁷⁰ In this regard, Giovanni Maria Angiolello noted that during the Turkish campaign of 1476 the Turks found in Suceava “pits with grain and other buried things”.⁷¹ Often, during the invasions and military campaigns, these were looted⁷², thus causing hard damage to the peasant household, whose members worked hard to secure the necessities of daily living and the payment of material and monetary debts to the boyar and prince.⁷³

The recovery of the agricultural economy during the reigns of Vasile Lupu and his descendants (17th - 18th centuries) by extending the cereal culture, the numerical increase of livestock for meat, milk, hides, wool and furs⁷⁴, determined the constant presence of Moldavian goods on foreign markets. The chroniclers of this period also recorded data on environmental conditions (climate, temperature and rainfall, various topographic

⁶⁸ *Călători străini*, V, 1973: 220-248; see also ALEXANDRESCU-DERSCA 1968: 847; BILAVSCHI 2013: 133-134.

⁶⁹ DIR, A, MOLDOVA, veacul XVI, vol. III, 1951: 402-410; *Documente Iași*, I, 1999: 47-54, no. 31.

⁷⁰ *Călători străini*, I, 1968: 99 (Walerand de Wavrin, *Expediția de pe Dunăre din 1445*).

⁷¹ *Călători străini*, I, 1968: 137; ALEXANDRESCU-DERSCA 1968: 844.

⁷² *Călători străini*, I, 1968: 137; ALEXANDRESCU-DERSCA 1968: 844 (refers to the report of Italian Giovanni Maria Angiolello during the Ottoman campaign of 1476 against Moldavia, in the reign of Stephen the Great).

⁷³ BILAVSCHI 2013: 134.

⁷⁴ COSTIN 1958: 230-231.

aspects of villages) in connection with agricultural works and the practice of transhumance.⁷⁵ However, there is insufficient information attesting to the knowledge and concerns of animal husbandry, to argue for the growing interest in increasing the number of animals, obtaining superior specimens, the care for improving and proliferating the breeds of animals, their health and the diseases contacted by animals due to undernutrition, poor care or natural disasters. Other relevant information regarding the need for the extension of arable land, hunting reserves and beekeeping enclosures is also included in their annals. In this regard, Ion Neculce mentioned the large princely hunting reserves of Bohotin and Țuțora, also utilized for both raising cattle and beekeeping.⁷⁶ On the other hand, Dimitrie Cantemir noted that the soils in Moldavia were not “too good for cereal cultivation”, but here there was “spreading pastures and natural hayfields”. Further, the scholar noted that the most nutritious grass in the Eastern Carpathians and the surrounding areas grew in the highlands of Câmpulung and Vrancea, but also in the central and eastern parts of Moldavia.⁷⁷

Particularly significant for the Moldavian economy was the cultivation of vines, intensifying especially in the second half of the sixteenth century. Thus, according to the charters of the time, extensive areas around Hârlău, Neamț, Bacău, Tecuci, Cotnari, Iași, Huși and Focșani were covered with vineyards, bringing significant revenues to the owners (usually the big landowners: the prince, the boyars and the monasteries) from the sale of wine on the domestic and foreign market, as there was no Turkish monopoly on the export of wine.⁷⁸ The cultivation and care of the vineyards were important practices for the free or dependent peasants, as well as for the inhabitants of the Moldavian towns. The numerous acts of sale and purchase of the vineyards, from the second half of the sixteenth century and the beginning of the next century, are proof of this.⁷⁹

Documentary sources, archaeological sources, ethnographic and linguistic sources provide sufficient information regarding the existence of the wine presses, the storage of wine barrels in wine-cellars and cellars made of stone or brick. Archaeological research undertaken in Suceava, Baia, Botosani, Siret, Hârlău, Iași, Vaslui, Huși, Bacău, Tg. Trotuș, Roman, Piatra Neamț, Tg. Neamț, Tecuci, Focșani and in many other rural and urban settlements, led to the discovery of numerous vaulted wine-cellars and household cellars, built of stone or bricks bound with mortar, sand or clay, some of these being true architectural works. Foreign travelers and pilgrims in the sixteenth century and in the first half of the 17th described in praiseworthy terms the wine and vineyards of Moldavia.⁸⁰

Beekeeping continues to represent throughout the whole Middle Ages one of the main traditional occupations and an important branch of the Moldavian economy. The internal documents, the chronicles and the information of the foreign travelers give us substantial data and allow us to underline a significant evolution, especially in the monastery and boyar domains, as well as an intensification of the particular concerns, within the communities of the independent villages. With the approval of prince, the peasants as well as the villagers had the right to set up beekeeping clearings in the forests of the country. The activity brought important revenue to the inhabitants of the villages, as well as to the monastery and boyar domains, to the townspeople or to the merchants, but also to the princely treasury. Moldavia evolved to be, in this period, an important exporter of honey, bees and wax on the European markets.⁸¹ The extent of the beekeeping clearings was variable. From

⁷⁵ URECHE 1958: 40-41.

⁷⁶ NECULCE 1975: 199-200.

⁷⁷ CANTEMIR 1973: 115.

⁷⁸ *Documente Iași*, I, 1999: no. 16, 28, 31, 60, 63, 67, 95, 104, 106, 113-116, 127, 145, 146, 160, 163, 181, 187, 191, 214, 223, 229, 246, 249, 250, 258, 279, 280, 286, 306, 358, 378, 421, 428, 454, 457, 492; the documents contain transactions and donations representing among others the *falces* (1½ hectares) of vineyard.

⁷⁹ *Documente Iași*, I, 1999: no. 16, 28, 31, 60, 63, 67, 95, 104, 106, 113-116, 127, 145, 146, 160, 163, 181, 187, 191, 214, 223, 229, 246, 249, 250, 258, 279, 280, 286, 306, 358, 378, 421, 428, 454, 457, 492.

⁸⁰ ESARCU 1874: 92; *Călători străini*, I, 1968: 149, 192-199, 381; ALEXANDRESCU-DERSCA 1968: 860-861; GONȚA 1989: 47-48; G. Reichersdorffer, *Chorographia Moldovei*, in: PAPIU-ILARIAN, III, 1864: 125-144.

⁸¹ *Călători străini*, II, 1970: 380-381; *Călători străini*, III, 1971: 13-17, 368, 560; *Călători străini*, IV, 1972: 439, 574-575, 586-587; GONȚA 1989: 15, 48-49, 61-62, 64, 75, 87, 174, 180, 183, 186, 193, 202-203, 212.

charters it is clear that such a place extended to “how far a man could throw a stone, from the center to all directions”, or “40 steps all-around”.⁸² The prices at which these beekeeping plots and clearings were sold are quite high. Thus, according to the same expenditures register of the Galata monastery, in 1588, the price of a beekeeping enclosure was equivalent to that of a juger of vineyard or two oxen. The monastery owned 484 beehives.⁸³

The acts of the royal chancellery and the travel reports of the foreign travelers emphasize the high value of the tithe on beehives for the health of the royal treasury. The sources of the time indicate that the honey from Moldavia was “of the best quality”.⁸⁴ Honey was processed into mead, a drink highly appreciated by the inhabitants of Moldavia and by foreign guests.⁸⁵

Moreover, the written sources and the reports of the foreign travelers from the 16th to the 17th centuries praise the richness of the waters in Moldova. For example, the Genoese secretary of prince Petru Cercel, Franco Sivori, recorded in his reports the abundance of fishes and the value of the fish in commercial transactions. Even though Franco Sivori traveled only through Wallachia, in his descriptions he refers also to the hydrography of Moldavia and the significant financial contribution brought by the fish trade, harvested from the lagoons near the mouths of the Danube. He noted that “fishermen receive fish from the Danube” and “when the snow melts, it swells so that, spilling over the shores, it floods a large expanse of land, which remains like a sea.”⁸⁶ Further, the Venetian noted that “there is especially an abundance of carp, which are so big and heavy that they can weigh 80 pounds” and that “these fish, cut lengthwise, in four pieces, are salted and smoked and came out as good and fine as the ham.” Franco Sivori also recorded a fact well attested by other documentary sources, namely that the large share of Moldavia's foreign trade was focused on Constantinople, where “these are highly appreciated”.⁸⁷

As I have pointed out above, the internal acts include numerous mentions of lakes and ponds, specially set up by boyars and monasteries for pisciculture. Impressive quantities of fish were transported by cart in Poland and Transylvania, representing a considerable means of trade and revenue for the prince, boyars and monasteries (through the commercial taxes and high sale prices for various fishes). For example, the monasteries of Neamt, Bistrita and Galata possessed numerous lakes, ponds and pools, from which fish were harvested and sold in the ports of Chilia, Akkerman or Braila, or were transported across the mountains, to Transylvania, Poland, Hungary and even further. Sometimes, the charters mention pisciculture exploitations owned by free peasants, on the lakes or ponds within the borders of their villages, or within the monastery or boyar domains, in exchange for services or for money.⁸⁸

FINAL CONSIDERATIONS

The study of certain categories of documentary sources revealed that the agriculture and crafts activities, as well as the trade, were the fundamental fields of the economy of the Romanian medieval states. Technological innovations and advances in agricultural machinery have primarily supported the progress of demographic, economic and political factors. The agricultural and pastoral activities represented decisive endeavors for meeting the food and daily needs of the medieval communities. As a result, the most spectacular changes in the natural landscape were recorded during the 16th -18th centuries. Thus, according to needs,

⁸² DIR, A, MOLDOVA, veacul XVI, II, 1956: 153; DIR, A, MOLDOVA, veacul XVI, III, 1956: 103.

⁸³ DIR, A, MOLDOVA, veacul XVI, III, 1956: 409-410; *Documente Iași*, I, 1999: 47-54, no. 31.

⁸⁴ IORGA, I, 1910: 416; The document relates the story of Francesco Pastis from Candia, who visited Moldavia at the end of the 16th century, being pleasantly impressed by the richness of these places; see also ALEXANDRESCU-DERSCA 1968: 859.

⁸⁵ IORGA, I, 1910: 169.

⁸⁶ *Călători străini*, III, 1971: 15-17.

⁸⁷ *Călători străini*, III, 1971: 16-17; PASCU 1944: 177.

⁸⁸ DIR, A, MOLDOVA, veacul XIV-XV, I (1384-1475), 1954: 347; GONȚA 1989: 62-64, 100, 116, 134, 150, 207; GONȚA 2004: 200-201.

agriculture has contributed decisively to the transformation of the environment, with decisive effects on all ecosystems.

The political and military context of the time created the defining environment of the economic evolution in the Carpathian-Dnestr area. Repeated invasions, contacts with Turkish populations and military confrontations with the armies of neighboring states, climate change, plagues and natural disasters have all influenced the pace of development of the Moldavian state's economic life. In other words, the dynamics of the agrarian economy under the impact of the mentioned factors underwent stages of involution but also of real progress, when the Moldavian territory became both a retail market and a warehousing area for most of the neighboring states, as well as a supplier of goods.

Thus, with the organization of the Moldavian internal market, with the intensification of the commercial relations with the other Romanian regions and with the neighboring states, with the establishment of trading routes and with the regulation of the transit of goods, the rural space and the agrarian economy have become the main production pillars of the medieval Romanian states. The domains of the monastery and boyars, as well as the peasant freeholds were the owners of a significant number of cattle, oxen and horses, used as traction animals for field work, forestry or transport. Also, the farms raised a series of animals such as pigs, sheep and goats, to provide the necessary foodstuffs as well as other goods (meat, milk, cheese, whey or fat, hides, wool and so on) for household consumption and for trade.

From the documents we find that in times of political and military crisis or natural calamities, caused by various plagues, the Moldavian princes instituted anti-social prohibitive measures, which also caused the stagnation of trade. For example, such methods were taken by Stephen the Great in the years of great battles with the armies of Hungary, Poland, Tatars or the Ottoman Empire. He resorted to drastic gestures to punish all Moldavian or foreign merchants who take out of the country the wheat, weapons, hides and horses needed to equip and maintain his armies.⁸⁹ The economy of Moldavia will also suffer in the coming years, as the trade continues to stagnate due to the increasing demands of the Ottoman Porte, which increased the burden to "10,000 *mierts* (5,000 metric tons) of grain, 3,000 sheep and 2,000 oxen".⁹⁰

However, in order to highlight the wealth of Moldavia (unaffected by the political and military crises), a brief analysis of the documents of the time is necessary, which records for the 15th century a series of transactions with amounts of over 35,000 ducats each, under the conditions of which the annual tribute of Moldova rises to about 2,000 ducats.⁹¹ Moreover, after the economic and political crisis of the first part of the 16th century, during the reign of Alexandru Lăpușneanu the trade resumed, even though he had committed to send to Constantinople, in addition to the annual tribute of 30,000 ducats, still 12,000 heads of oxen annually.⁹² In the second part of the 16th century the capital of the Ottoman Empire arrived not less than 100,000 kg of barley per year, necessary for the maintenance of the Turkish soldiers garrisoned in Constantinople and Belgrade. In 1566 the Turkish monopoly was established, with serious repercussions on the Moldavian trade, a situation arising from the powerful political and economic crisis that hit both Moldavia and Wallachia.⁹³ The internal documents give evidence about this unfortunate moment in the history of Moldavia, especially when in 1547-1548 the food shortages due to the poverty of the country's treasury, were compounded by a terrible winter, which destroyed crops, trees, vineyards and killed livestock.⁹⁴ The decrease of livestock, products and food on Moldavian markets was doubled by the insecurity of roads⁹⁵, factors that caused the immediate collapse of the country's economy and the freezing of trade. Two other documents speak about the food crisis, in the

⁸⁹ NEAMȚU 1951: 4-6, 7-9.

⁹⁰ VERESS 1927: 157-158.

⁹¹ GONȚA 1989: 87.

⁹² GONȚA 1989: 141.

⁹³ GUBOGLU, II, 1965: 40, no. 114.

⁹⁴ URECHE 1958: 156; GONȚA 1989: 134.

⁹⁵ *Documente Hurmuzaki*, XV₁, 1911: 464-465, no. 863.

mining center of Rodna and in Iasi, when the prince requests the support of the merchants from Bistrita to supply with wheat both the miners and the inhabitants of the capital of the Moldavian state. The burghers of Bistrita did not send the requested goods because they also suffered from the harsh winter, which destroyed their crops, vineyards and orchards.⁹⁶

Internal documents from the second half of the 16th century and the first part of the next one record an increasing demand for cattle and their scarcity on the domestic market. Internal wars and battles for the throne, the exaggerated financial claims and the commercial monopoly imposed by the Ottoman Empire on the Romanian Countries, natural calamities, diseases, epidemics, the plague and invasions of locusts or other pests have marked the evolution of the Moldavian economy and trade. As a result, the documents very rarely mention sales of cattle, most often the business being replaced by exchanges in kind, of lands traded for cattle or other large animals. Thus, for the horses needed for work or for equipping the princely cavalry, for the traction cattle, for the dairy cows, for the sheep, goats or pigs, the peasants guarantee with or event sell their own lands, their shares of the fields, gardens, the vineyards and even their whole household.⁹⁷

From the end of the sixteenth century and the beginning of the seventeenth century, we also find data regarding the value of basic foodstuff or of the most sought-after merchandise. Thus, the expenditures registers of Brasov and Bistrita fixed in 1602 the price of a *kubel* (~100 kg) of wheat at two florins, then to 6 florins, so that in 1604, in Cluj would be appreciated at 12 florins, and in other towns in Transylvania even at 14 florins.⁹⁸ One bread was priced at about 80 pfennigs, one chicken at 60 pfennigs, one egg at 4 pfennigs, one measure of wine at 20 pfennigs, and one of beer at no less than 16 pfennigs.⁹⁹

In conclusion, we can affirm that the interpretation of the data transmitted by these documentary sources will reveal to the scholar a fascinating medieval society. In this context, the documentary sources have increased their potential for utilization precisely due to the diversification of the fields of research involved in the study of the Romanian medieval economic phenomenon. The call for interdisciplinarity will propel the research of the medieval economy into the category of the priority objectives of the Romanian culture, because agriculture, crafts and trade have been the driving forces of the medieval societies within the Romanian historical space.

⁹⁶ *Documente Hurmuzaki*, XV₁, 1911: 482, no. 895; URECHE 1958: 156. In this document Alexandru Lăpușneanu, located in Iași at the time, requested of the merchants from Bistrita grain for the miners of the Rodna center, and for him a transport of “200 wheat kubels” (p. 482) to ensure the necessities of the inhabitants of the city of Iasi.

⁹⁷ COSTĂCHEL, PANAITESCU, CAZACU 1957: 384-385, 392, 394, 397-401.

⁹⁸ *Documente Hurmuzaki*, XV₂, 1913: 811-812, no. 1656.

⁹⁹ VERESS, VII, 1931: 204-205; GONȚA 1989: 176.

BIBLIOGRAPHY

- ALEXANDRESCU-DERSCA 1968 Alexandrescu-Dersca, M. M., *Economia agrară a Țării Românești și Moldovei descrisă de călători străini (secolele XV-XVII)*, in: RdI, XXI, 5, 838-867.
- BĂLAN 1933-1934, 1937 Bălan, T., *Documente bucovinene*, vol. I-III, Institutul de Arte grafice și Editura "Glasul Bucovinei", Cernăuți.
- BELDICEANU 1964 Beldiceanu, N., *La conquete des cités marchandes de Kilia et de Cetatea Albă par Bayazid II*, in: *Südost-Forschungen*, XXIII, München, 87-90.
- BILAVSCHI 2013 Bilavschi, G. A., *Dinamica economiei agricole din Moldova oglindită în izvoarele veacurilor XIV-XVII*, in: *ArhMold*, XXXVI, 119-151.
- BOGDAN 1913 Bogdan, I., *Documentele lui Ștefan cel Mare*, vol. I-II, Ed. Socec, București.
- BOGDAN 1909 Bogdan, I., *Letopisețul lui Azarie*, Institutul de Arte Grafice „Carol Göbl” S-sor Ioan St. Rasidescu, București.
- BOGDAN 1905 Bogdan, I., *Relațiile Țării Românești cu Brașovul și cu Țara Ungurească*, vol. I, București.
- BOGDAN 1905A *Documentele moldovenesti din secolele XV și XVI în Arhiva Brașovului*, Ed. Socec, București.
- BOGDAN 1891 Bogdan, I., *Vechile cronice moldovenesti până la Urechia*, Lito-Tipografia Carol Göbl, București.
- BRĂTIANU 1929 Brătianu, G. I., *Recherches sur le commerce génois dans la Mer Noire au XIII^e siècle*, Éd. Paul Geuthner, Paris.
- BRĂTIANU 1927 Brătianu, G. I., *Actes des notaires génois de Pera et Caffa de la fin du XIII^e siècle (1281-1290)*, in series "Académie Roumanie, Études et Recherches" II, Cultura Națională, Bucarest.
- BRĂTIANU 1922 Brătianu, G. I., *Le commerce sur le Danube à la fin du XIII^e siècle*, in: *Buletin de l'Institute pour l'étude de l'Europe sud-orientale*, an IX, 5-6, București, 50-54.
- BUTURĂ 1978 Butură, V., *Etnografia poporului român. Cultura materială*, Ed. „Dacia”, Cluj-Napoca.
- CANTEMIR 1973 Cantemir, Dimitrie, *Descrierea Moldovei*, (translation after the Latin original by Gh. Guțu, Introduction by M. Holban, Historical commentary by N. Stoicescu, cartographic study by V. Mihăilescu, Index by I. Constantinescu, Note on the edition by D. M. Pippidi), Ed. Academiei R.S.R., București.
- Călători străini*, VIII, 1983 *Călători străini despre Țările Române*, vol. VIII, ed. Maria Holban, M. M. Alexandrescu Dersca-Bulgaru, P. Cernovodeanu, Ed. Științifică și Enciclopedică, București.
- Călători străini*, VII, 1982 *Călători străini despre Țările Române*, vol. VII, ed. Maria Holban, M. M. Alexandrescu Dersca-Bulgaru, P. Cernovodeanu, Ed. Științifică și Enciclopedică, București.
- Călători străini*, VI/2, 1976 *Călători străini despre Țările Române*, vol. VI, partea a II-a, ed. M. A. Mehmet, Ed. Științifică și Enciclopedică, București.
- Călători străini*, VI/1, 1976 *Călători străini despre Țările Române*, vol. VI, partea a I-a, ed. M. M. Alexandrescu Dersca-Bulgaru, Ed. Științifică și Enciclopedică, București.
- Călători străini*, V, 1973 *Călători străini despre Țările Române*, vol. V, ed. Maria Holban, M. M. Alexandrescu Dersca-Bulgaru, P. Cernovodeanu, Ed. Științifică și Enciclopedică, București.
- Călători străini*, IV, 1972 *Călători străini despre Țările Române*, vol. IV, ed. Maria Holban, M. M. Alexandrescu Dersca-Bulgaru, P. Cernovodeanu, Ed. Științifică și Enciclopedică, București.
- Călători străini*, III, 1971 *Călători străini despre Țările Române*, vol. III, ed. Maria Holban, M. M. Alexandrescu Dersca-Bulgaru, P. Cernovodeanu, Ed. Științifică și Enciclopedică, București.
- Călători străini*, II, 1970 *Călători străini despre Țările Române*, vol. II, ed. Maria Holban, M. M. Alexandrescu Dersca-Bulgaru, P. Cernovodeanu, Ed. Științifică și Enciclopedică, București.
- Călători străini*, I, 1968 *Călători străini despre Țările Române*, vol. I, ed. Maria Holban, Ed. Științifică și Enciclopedică, București.
- CÂMPINA 1953 Cămpina, B. T., *Despre rolul genovezilor la gurile Dunării în sec. XIII-XIV*, in: *Studii*, VI, 3, 79-119.
- CÂMPINA 1953A Cămpina, B. T., *Despre rolul genovezilor la gurile Dunării în sec. XIII-XIV*, in: *Studii*, VI, 1, 191-236.

- CERNOVODEANU 1973 Cernovodeanu, P., *Societatea feudală românească văzută de călători străini (sec. XV-XVIII)*, Ed. Academiei R.S.R., București.
- COSTĂCHEL, PANAITESCU, CAZACU 1957 Costăchel, V., Panaitescu, P. P., Cazacu, A., *Viața feudală în Țara Românească și Moldova (sec. XIV-XVII)*, Ed. Științifică, București.
- COSTĂCHESCU 1943 Costăchescu, M., *Documente moldovenești de la Ștefăniță Voevod (1517-1527)*, Iași.
- COSTĂCHESCU 1933 Costăchescu, M., *Documente moldovenești de la Ștefan cel Mare*, (Supliment la „Documentele lui Ștefan cel Mare” de I. Bogdan), Ed. Brawo, Iași.
- COSTĂCHESCU 1932 Costăchescu, M., *Documente moldovenești înainte de Ștefan cel Mare*, vol. II, *Documente externe, acte de împrumut, de omagiu, tractate, solii, privilegii comerciale, scrisori 1387-1458*, Ed. Viața românească, Iași.
- COSTĂCHESCU 1931 Costăchescu, M., *Documente moldovenești înainte de Ștefan cel Mare*, vol. I, *Urice (ispisoace), surete, regeste, traduceri 1438-1456*, Ed. Viața românească, Iași.
- COSTIN 1958 Costin, Miron, *Letopisețul Țării Moldovei*, in *Opere*, P. P. Panaitescu' edition, Ed. de Stat pentru Literatură și Artă, București.
- COSTIN 1976 Costin, Nicolae, *Letopisețul Țării Moldovei de la zidirea lumii până la 1601 și de la 1709 la 1711*, edition with an introductory study, notes, comments, index and glossary by Const. A. Stoide and I. Lăzărescu; with preface by G. Ivănescu, Ed. Junimea, Iași.
- DA LEZZE 1909 Da Lezze, Donado, *Historia Turchesa (1300-1514)*, I. Ursu (ed.), Ed. Academiei Române, București.
- DIR, A, MOLDOVA, 1951-1957 *Documente privind istoria României, A, Moldova, veacul XIV, XV*, vol. I (1384-1475), 1954; *veacul XV*, vol. II (1476-1500), 1954; *veacul XVI*, vol. I (1501-1550); vol. II (1551-1570); vol. III (1571-1590); vol. IV (1591-1600); *veacul XVII*, vol. I (1601-1605); vol. II (1606-1610); vol. III (1611-1615); vol. IV (1616-1620); vol. V (1621-1625), Ed. Academiei R.P.R., București.
- Documente Hurmuzaki, I-XX, 1876-1940 Documente privind istoria românilor*, collected by Eudoxiu de Hurmuzaki and published after the copies of the Romanian Academy by I. Slavici, C. Esarcu, N. Denusușianu, D. A. Sturdza, D. C. Sturdza, O. Lugoșianu, N. Iorga, N. Hodoș, I. Nestor etc., vol. I-XX + supplements, Ed. Socecu & Teclu, București.
- Documente Iași, I-X, 1999-2007 Documente privitoare la istoria orașului Iași*, vol. I, *Acte interne (1408-1660)*, I. Caproșu, P. Zahariuc (eds.), Ed. „Dosoftei”, Iași, 1999; vol. II-X, *Acte interne (1661-1800)*, I. Caproșu (ed.), Iași, 2000-2007.
- DRH, A, MOLDOVA, 1969-2014 *Documenta Romaniae Historica, A, Moldova*, vol. I (1384-1448) (edited by C. Cihodaru, I. Caproșu, L. Șimanschi), Ed. Academiei R.S.R., București, 1975; vol. II (1449-1486) (edited by L. Șimanschi in collaboration with G. Ignat și D. Agache), 1976; vol. III (1487-1504) (edited by C. Cihodaru, I. Caproșu and I. Ciocan), 1980; vol. IX (1593-1598) (edited by P. Zahariuc, M. Chelcu, S. Văcaru), 2014; vol. XIX (1626-1628) (edited by H. Chirca), 1969; vol. XXI (1632-1633) (edited by C. Cihodaru, I. Caproșu and L. Șimanschi), 1971; vol. XXII (1634) (edited by C. Cihodaru, I. Caproșu and L. Șimanschi), 1974; vol. XXIII (1635-1636) (edited by C. Cihodaru, I. Caproșu), 1994; vol. XXIV (1637-1638) (edited by C. Cihodaru, I. Caproșu), 1998.
- DUBY, MANDROU 1958 Duby, G., Mandrou, R., *Histoire de la civilisation française (Moyen Âge – XVI^e siècle)*, vol. I, Ed. Armand Colin.
- EDROIU, GYULAI 1966 Edroiu, N., Gyulai, P., *Evoluția plugului în țările române în epoca feudală*, in: AMN, II, 307-344.
- ESARCU 1874 Esarcu, C., *Ștefan cel Mare. Documente descoperite în Arhivele Veneției*, Ed. Dacia, București.
- FISCHER 1911 Fischer, E., *Die Kulturarbeit des Deutschtums im Rumänien*, Gedruckt und in Kommission bei W. Krafft, Hermannstadt.

- FISCHER 1971 Fischer, Fr., *Die Sensenausfuhr aus Österreich nach dem Norden und Osten 1450-1650*, in: Bog, Ingomar (Herausgegeben), *Der Aussehandel Ostmitteleuropas 1450-1650. Die ostmitteleuropäischen Volkswirtschaften in ihren Beziehungen zu Mitteleuropa*), Verlag Böhlau, Köln-Wien, 286-319.
- Ghibănescu 1906-1930 Ghibănescu, Gh., *Surete și izvoade (Documente slavo-române)*, vol. I-XXIV, Ed. Dacia, Iași.
- GIURESCU 1965 Giurescu, C. C., *Le commerce sur la territoire de la Moldavie pendant la domination tatare (1241-1352)*, in: *Nouvelles études d'histoire*, III, 55-70.
- GOLDENBERG 1958 Goldenberg, S., *Clujul în sec. XVI. Producția și schimbul de mărfuri*, Ed. Științifică, București.
- GONȚA 2004 Gonța, Al. I., *Domeniile feudale și privilegiile mănăstirilor moldovenești în timpul domniei lui Ștefan cel Mare*, in: Gorovei, Șt. S. (ed.), *Ștefan cel Mare și Sfânt (1504-2004). Biserica. O lecție de istorie*, Ed. Mușatinii, Putna, 197-220.
- GONȚA 1989 Gonța, Al. I., *Legăturile economice dintre Moldova și Transilvania în secolele XIII-XVII*, Ed. Științifică și Enciclopedică, București.
- GUBOGLU 1965 Guboglu, M., *Catalogul documentelor turcești*, vol. I-II, Ed. Științifică, București.
- IORGA 1937 Iorga, N., *Istoria românilor*, vol. VI, *Vitejii*, Ed. Datina Românească, Vălenii-de-Munte.
- IORGA 1936-1937 Iorga, N., *Istoria românilor*, vol. I-II, Ed. Socec, București.
- IORGA 1925 Iorga, N., *Istoria comerțului românesc. Epoca veche*, Tipografia "Tiparul Românesc", București.
- IORGA 1915 Iorga, N., *Istoria comerțului românesc: drumuri, mărfuri, negustori și orașe*, vol. I, *Epoca veche*, first edition, Ed. „Neamul Românesc”, Vălenii de Munte.
- IORGA 1899 Iorga, N., *Studii istorice asupra Chilieii și Cetății Albe*, Institutul de Arte Grafice Carol Göbl, București.
- ISTRATI 1973 Istrati, C., *Dimitrie Cantemir despre agricultura Moldovei*, in: *Cercetări Agronomice în Moldova*, VI, 4, 143-148.
- LAZĂR 1978 Lazăr, M., *Călători străini despre creșterea animalelor în Moldova în sec. XV-XVIII*, in: *Hierasus*, I, 361-372.
- LE GOFF 1970 Le Goff, J., *Civilizația Occidentului medieval*, M. Berza (ed.), transl. and notes by M. Holban, Ed. Științifică, București.
- MANOLESCU 1968 Manolescu, R., *Unitatea economică a țărilor române în evul mediu (secolele XIV-XVI)*, in: *Unitate și continuitate în istoria poporului român*, (red. D. Berciu), Ed. Științifică, București.
- MANOLESCU 1965 Manolescu, R., *Comerțul Țării Românești și Moldovei cu Brașovul (Secolele XIV-XVI)*, Ed. Științifică, București.
- MIHĂILESCU 1927 Mihăilescu, V., *O hartă a principalelor tipuri de așezări rurale din România*, in: *Buletinul Societății Regale Române de Geografie*, XLVI, 62-75.
- NECULCE 1959 Neculce, Ion, *Letopisețul Țării Moldovei și O samă de cuvinte*, ediția a II-a, Ed. de Stat pentru Literatură și Artă, București.
- NISTOR 1912 I. Nistor, *Handel und Wandel in der Moldau bis zum Ende des 16. Jahrhunderts*, Ed. H. Pardini, Cernăuți.
- OLTEANU 1969 Olteanu, Șt., *Comerțul pe teritoriul Moldovei și Țării Românești în secolele X-XIV*, in: *RdI*, 22, 5, 849-874.
- OLTEANU, ȘERBAN 1969 Olteanu, Șt., Șerban, C., *Meșteșugurile din Țara Românească și Moldova în evul mediu*, Ed. Academiei R.S.R., București.
- PAP 1995 Pap, F., *Unelte agricole în comerțul extern clujean (prima jumătate a sec. XVII)*, in: *AMN*, 31/II, 33-40.
- PAPIU-ILARIAN, I-III, 1862-1864 Papiu-Ilarian, Al., *Tesauru de monumente istorice pentru Romania: atât din vechiu tiparite cât și manuscripte: cea mai mare parte straine*, vol. I-III, Tipografia Națională a lui Ștefanu Rassidescu, București.

- PASCU 1956 Pascu, Șt., *Relațiile economice dintre Moldova și Transilvania în timpul lui Ștefan cel Mare*, în *Studii cu privire la Ștefan cel Mare*, Ed. Academiei R.P.R., București.
- PASCU 1954 Pascu, Șt., *Meșteșugurile din Transilvania până în secolul al XVI-lea*, Ed. Academiei R.P.R., București.
- PASCU 1944 Pascu, Șt., *Petru Cercel și Țara Românească la sfârșitul secolului XVI*, Tipografia "Cartea Românească din Cluj", Sibiu.
- PRODAN 1968 Prodan, D., *Iobăgia în Transilvania în secolul al XVI-lea*, vol. II, Ed. Științifică, București.
- STAHL, I-III, 1958-1965 Stahl, H. H., *Contribuții la studiul satelor devălmașe românești*, vol. I-III, Ed. Academiei R.P.R., București.
- URECHE 1958 Ureche, Grigore, *Letopisețul Țării Moldovei, de când s-au descălecat țara și de cursul anilor și de viața domnilor carea scrie de la Dragoș Vodă până la Aron Vodă*, second edition, P. P. Panaitescu (ed.), Ed. de Stat pentru Literatură și Artă, București.
- URSU 1925 Ursu, I., *Ștefan cel Mare, domn al Moldovei de la 12 aprilie 1457 până la 2 iulie 1504*, Ed. Institutul de Arte Grafice "Antonescu", București.
- VERESS 1927 Veress, A., *Păstoritul ardelenilor în Moldova și Țara Românească (până la 1821)*, in: *Analele Academiei Române, Memoriile secțiunii istorice*, seria III, tom VII, 127-230.
- VERESS 1922-1934 Veress, A., *Documente privitoare la istoria Ardealului, Moldovei și Țării Românești*, vol. I-IX, Ed. „Cartea Românească”, București.
- ZIENTARA 1971 Zientara, B., *Eisenproduktion und Eisenhandel in Polen im 16. und 17. Jahrhundert*, in *Der Aussehandel Ostmitteleuropas 1450-1650, die ostmitteleuropäischen Volkswirtschaften in ihren Beziehungen zu Mitteleuropa*, (ed. Ingomar Bog), Böhlau Verlag, Köln-Wien.