

Kamila WOŹNICA* (Siedlce University, Poland)

Famine and poverty in the army during the reign of the House of Vasa in the light of reports and diaries

Keywords: House of Vasa, famine, cannibalism, food, army

The aim of the article is to present the phenomenon of famine in the army of the Crown and the Grand Duchy of Lithuania. The work is an attempt at answering the question how often and in what circumstances there was food shortage in the army, how it was prevented and what was the soldiers' diet in situations of food shortages. The author has consciously undertaken only one aspect of nutritional conditions in the army of the Crown and the Grand Duchy of Lithuania and limited her deliberations to the issue of extreme malnutrition of soldiers. It is necessary to remember the times of relative plentifulness or even abundance of food when the soldiers were living, according to Hieronim Christian Holsten "like young princes".¹ The chronological scope of the analysis was limited to the times of the reign of the House of Vasa, i.e. from the end of the 16th century to the 60s of the 17th century.

The source of study included memories, reports, correspondence and poetic works from the period. One has to mention here *Historia panowania Jana Kazimierza* by Wespazjan Kochowski,² diaries of e.g.: bishop Paweł Piasecki,³ Stanisław Oświęcim,⁴ Joachim Jerlicz⁵ and Hieronim Christian Holsten.⁶ Information concerning the subject of study is also included in reports and correspondence e.g. in *Księga pamiętnicza* by Jakub Michałowski,⁷ *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648–1651)*,⁸ or in the letters of Jan Sobieski to Marysieńka from the period 1665 – 1668⁹ and other. The subject of nutrition in the army and the manner of obtaining food was also mentioned in literary works of e.g. Jan Białobocki,¹⁰ Łukasz Opaliński,¹¹ Wacław Potocki,¹² Szymon Starowolski¹³ or Samuel Twardowski.¹⁴ Analysis of the 17th-century memories indicated that more details are included in the records created shortly after the described events, e.g. reports concerning the defence of Zbaraż in 1649, rather than written from the perspective of time and by some people not being direct witnesses but knowing the event only from accounts of others, as it was in the case of Natan Hannower. In the last case, it seems that the author uses a specific scheme emphasising the tragedy of famine identified with eating of horses, dogs, cats and rodents. Therefore, sources of this type do not contribute too much information on the subject of the studied issue. On the other hand, the trauma of famine is so strong

* Institute of History and International Relations, historia@muzeum.siedlce.art.pl

¹ HOLSTEN (1980) 70.

² KOCHOWSKI (1859).

³ PIASECKI (1870).

⁴ OŚWIĘCIM (1907).

⁵ JERLICZ (1853).

⁶ HOLSTEN (1980).

⁷ MICHAŁOWSKI (1864).

⁸ *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648–1651)*.

⁹ SOBIESKI (1962) 28-296.

¹⁰ BIAŁOBOCKI (2004).

¹¹ OPALIŃSKI (1953).

¹² POTOCKI (1987).

¹³ STAROWOLSKI (2005).

¹⁴ TWARDOWSKI (2005).

that the people who survived it describe the situation of food shortage quite faithfully, even several years after it occurred.

The problem of nutrition and food shortage within the period of study was the subject of works by Maria Bogucka,¹⁵ Bohdan Baranowski,¹⁶ Jarosław Dumanowski,¹⁷ Antonina Keckowa and Danuta Molenda,¹⁸ Zbigniew Kuchowicz,¹⁹ Tadeusz Sobczak²⁰ and Andrzej Wyczański. Also the works of Lesław Dudek²¹ and Tadeusz Srogosz²² were devoted to soldiers' nutrition.

Famine in the army was not constant. However, it was a frequent phenomenon during wars. Many memories are related to lack of food. The complaints of Bogusław Radziwiłł on the subject of his hunger during the trip from Bar to Kamieniec Podolski may be taken lightly.²³ However, the repeated statements in the diaries about "hunger and cold" and infantry "swaying in the wind"²⁴ must be considered reflections of the actual status.

The danger of famine most often appeared during sieges and marches through a desolate country.²⁵ In the first case, there was a shortage of food not only in the besieged fortresses and camps, but also in the besieging army, which managed to destroy the area with its long-term stay in one place.²⁶

The problems with feeding soldiers was a consequence of the manner of providing them with food. Systemic solutions ensuring supplies of food for the army were only undertaken incidentally. Such a situation occurred during the war with Sweden in the period 1626 - 1629²⁷ and during the siege of Toruń in 1658. In the latter case, the parliament appointed general supply masters whose task was to gather food for the army for two months. The food was to be supplied both from the royal domain as well as the property of the clergy and nobility in the specified amount per one fief (1.5 bushel of rye, 1.5 bushel of beer malt, 3 bushels of oats, ¼ bushel of peas and ¼ bushel of groats) and per 10 fiefs (a heifer and a chump of meat).²⁸ In 1649, there was also an attempt at preparation of a "top-down" supply for the army. The council of the Senate assigned this task to Andrzej Firlej. The attempt was probably unsuccessful due to problems with collecting taxes for this purpose and inability of the deputy hetman to act while being besieged in Zbaraż.²⁹

Some effort was made, with various results, to organise supplies of food in fortresses. The repeated orders in parliamentary constitutions to provide food for the crew of Kamieniec Podolski³⁰ as well as disputes as to whether, in Smoleńsk in 1654, there were enough supplies for defence or not³¹ prove that the problem was present in the awareness of the nobility.

According to Lesław Dudek, soldiers had three possibilities of providing themselves with food: individual, collective within the unit or collective within the subdivision. In the first case, everyone

¹⁵ BOGUCA (1994); BOGUCA 2013).

¹⁶ BARANOWSKI (1971); BARANOWSKI (1986).

¹⁷ CZERNIECKI (2010); *Moda bardzo dobra smażenia różnych konfektów i innych słodkości, a także przyrządzania wszelakich potraw, pieczenia chleba i inne sekreta gospodarskie i kuchenne; Księga szafarska dworu Jana III Sobieskiego 1695 – 1696.*

¹⁸ KECKOWA, MOLEND (1978).

¹⁹ KUHOWICZ (1975); KUHOWICZ (1992).

²⁰ SOBCZAK (1978).

²¹ DUDEK (1972); DUDEK (1973).

²² SROGOSZ (2010).

²³ RADZIWIŁŁ B. (1979) 133.

²⁴ KOCHOWSKI vol. 2 (1859) 83; *Pamiętniki o wojnach kozackich za Chmielnickiego*, 129; *Ojczyście spominki* vol. 2 (1845) 78.

²⁵ *Pamiętniki o wojnach kozackich za Chmielnickiego*, 91.

²⁶ This is what happened e.g. at Smoleńsk in 1633 and in Żuławy in 1659: PIASECKI (1870) 392; HOLSTEN (1980) 52.

²⁷ WIMMER (1964) 175; WIMMER (1965) 348; WIMMER (1977) 190.

²⁸ *VOLUMINA LEGUM* VOL. 4 (1859) 246-247; WIMMER (1964) 176; WIMMER (1965) 348; WIMMER (1977) 190; NOWAK (1936) 12, 21-22.

²⁹ WIMMER (1964) 176; WIMMER (1965) 348.

³⁰ *Volumina Legum* vol. 4 (1859) 172, 188, 235, 261, 290, 403.

³¹ *Volumina Legum* vol. 4 (1859) 221, 242-243.

provided for his own food from the soldier's pay and prepared his own meals. The second possibility was in the cavalry of companion enlistment. A companion bought food for the people included in his unit from the soldier's pay taken. The third system could be used in infantry divisions. The commander retained half of soldier's pay of the soldiers subject to him in exchange for organising their food.³² This manner of supplying food raised objections because food supplied by the commander was of poor quality and in too little amounts to satisfy the needs of the subordinates.³³ Criticism of this type of practice can also be found in literature of the period:

"A będąc oberszterem swego regimentu,
Ciesz się, że już głodem wyzdychał do szczętu,
[...]
Bo mu się żołąd dostanie po nim i hiberna".³⁴

In winter, soldiers also had the right to housing in the royal domain and clergy property and those who served in the cavalry also to food for themselves and their horses, i.e. hiberna. At first, it was collected in kind and from 1649 in cash.³⁵ The anonymous proposal of abandoning stations in exchange for adoption of a general station distributed by a general administrator as well as construction of storehouses in Ukraine was never implemented.³⁶ Lack of systemic solutions caused by fears of the nobility of centralisation and a strong army obedient to the king did not enable reforms proceeding in the direction indicated by the West European military affairs.

The cavalry soldiers took food for an expedition by hauling numerous wagons and cattle. Andrzej Maksymilian Fredro in his work *Nowe uważenie porządku wojennego...* proposed that the infantry should do in a similar way and each ten men should haul one wagon with food supplies.³⁷ Thanks to this, the danger of famine for this formation could be reduced significantly. Food could also be bought from market sellers who followed the army as well as from local inhabitants or companions.³⁸ Usually, this was done with one's own savings as the soldier's pay was given very irregularly and the state arrears in payment were several years long and worth several million zlotys.³⁹ Frequently, the army took food without paying for it.⁴⁰

Having consumed their own supplies, it was not always possible to buy or steal something due to destructions in the area where the army was staying. Shortage of food products influenced the increase in prices on the market. According to hetman articles of 1609, a "trzecinnik" of wheat was supposed to cost 20 - 30 groshes, a "trzecinnik" of rye: 16 - 20 groshes, for a chunk of meat: 20 groshes, for a hen: 1 grosh.⁴¹ In 1611 in Moscow, the price of a piece of pork fat was up to 900 groshes, a hen - 150 groshes, an egg - 60 groshes, whereas a magpie or a crow cost 15 groshes.⁴² In 1651, it was possible to buy 7 eggs for 1 grosh.⁴³ It is clearly visible how much the cost of food

³² DUDEK (1973) 62-63.

³³ *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza* vol. 2, 197; FREDRO (1856) 19-20; *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 147, 149, 224, 266; SROGOSZ (2010) 50; DUDEK (1973) 63, 128.

³⁴ POTOCKI vol. 2 (1987) 405.

³⁵ WIMMER (1964) 175-176.

³⁶ *Sposob jakoby wojska Rzeczypospol. mogły być w dobrym porządku zatrzymywane.*

³⁷ Fredro (1856) 19.

³⁸ Trading in food products by soldiers was prohibited by the law: *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 91, 180, 194, 201, 240, 250, 272, 330, 344.

³⁹ NOWAK, WIMMER (1981) 467-470; WIMMER (1977) 180; SROGOSZ (2010) 39. The example of Smoleńsk, where the crew were not paid for 16 years, is characteristic: *Dekret seymowy w sprawie na instancję Insygatora Koronnego z sukcesorami Filipa Obuchowicza Wojewody Smoleńskiego o poddanie Smoleńska, zapadły 10 czerwca 1658 r.*, 102, 110.

⁴⁰ *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza* vol. 2, 219.

⁴¹ *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 191. For an easier comparison, the author converted the prices of products to groshes. SZYMAŃSKI (1976) 485; HOSZOWSKI (1928) 57.

⁴² BUDZIŁO (1995) 478.

⁴³ *Wojna z Kozaki i Tatarzy*, 354.

could increase with little supplies. For example, the price of a chunk of meat was 45 times higher and the price of a hen even 150 times higher in Moscow than assumed in the hetman articles issued two years earlier.

The prices of alcohol also increased. A quart of beer during the fights for Smoleńsk in 1633 cost 0.75 groshes,⁴⁴ whereas at Piławice in 1648 - 1.5 groshes,⁴⁵ and at Biała Cerkiew on 24th August 1651 - 11.25 groshes.⁴⁶ The difference between the prices of beer in Smoleńsk in 1633 and the one in the camp at Piławice in 1648 may be considered the result of inflation. A huge increase of the price (by 2150%) of the drink at Biała Cerkiew, 3 years after Piławice, is a sign of difficulties in obtaining it in the camp after 1651.

A quart of booze was available at Piławice in 1648 for 20 groshes,⁴⁷ in Zbaraż the price increased in August 1649 from 300 to 540 - 600 groshes,⁴⁸ whereas at Biała Cerkiew on 24th August 1651, it was sold for 90 groshes⁴⁹ and in September for 240 groshes.⁵⁰ Unfortunately the memories contain too few details to enable a precise analysis. It might be suspected that the increase of prices was so typical for the situation in camps and during sieges that it did not evoke any emotions and the diary writers did not consider this information worth writing down.

Comparing the above prices with the prices from Krakow⁵¹ and Lviv,⁵² it is possible to notice that the differences seem to be a little bit accidental. This is the result of different factors influencing their amounts in camp trading than in towns. The decisive circumstances in determination of the prices could be the plentifulness of supplies in the supply train and availability of food in the area of the march-through and camping. An example might be the price of an ox. In Lviv in 1648, it cost 660 groshes,⁵³ in Krakow in 1647 - 1020 groshes, in 1650 - 778 groshes and in 1653 - 850 groshes.⁵⁴ On the other hand, in the camp at Piławice in 1648 - only 120 groshes⁵⁵ so 18% of the Lviv price. In the camp at Beresteczko in 1651, the price was much higher than in towns and amounted to 1200 - 1500 groshes,⁵⁶ so it was 10 to 12.5 times higher than at Piławice.

It is also difficult to find any regularities in shaping of alcohol prices. In 1648, a quart of booze cost 45 groshes⁵⁷ in Krakow, while in the camp at Piławice, as it has already been mentioned, only 20 groshes⁵⁸ (44% of the Krakow price). The prices of beer were shaped the other way round: in 1648 in Lviv, a quart of this drink cost 0.5 groshes,⁵⁹ whereas in the Piławice camp - 1.5 groshes⁶⁰ (300% of the Lviv price). A quart of mead was not much more expensive (by 14%) at Piławice (4 groshes)⁶¹ than the one in Lviv (3.5 groshes).⁶² In more difficult conditions in the camp at Biała Cerkiew in 1651, a quart of beer cost 11.25 groshes, booze - 90 groshes, whereas mead - 18.75 groshes.⁶³ At the same

⁴⁴ *Diariusz kampanii smoleńskiej*, 209.

⁴⁵ *Diariusz obozowy od 1 do 13 września 1648 roku*, 131.

⁴⁶ *Diariusz obozowy [rozpoczynający kampanię bialocerkiewską 1651 roku]*, 280; *Wojna z Kozaki i Tatary*, 288.

⁴⁷ *Diariusz obozowy od 1 do 13 września 1648 roku*, 131.

⁴⁸ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 150, 156.

⁴⁹ *Diariusz obozowy [rozpoczynający kampanię bialocerkiewską 1651 roku]*, 280; *Wojna z Kozaki i Tatary*, 288.

⁵⁰ OŚWIĘCIM (1907) 375.

⁵¹ TOMASZEWSKI (1934) 6-70.

⁵² HOSZOWSKI (1928) 163-183.

⁵³ HOSZOWSKI (1928) 180.

⁵⁴ TOMASZEWSKI (1934) 37-38.

⁵⁵ *Diariusz obozowy od 1 do 13 września 1648 roku*, 131.

⁵⁶ MICHAŁOWSKI (1864) 687.

⁵⁷ TOMASZEWSKI (1934) 63.

⁵⁸ *Diariusz obozowy od 1 do 13 września 1648 roku*, 131.

⁵⁹ HOSZOWSKI (1928) 176.

⁶⁰ *Diariusz obozowy od 1 do 13 września 1648 roku*, 131.

⁶¹ *Diariusz obozowy od 1 do 13 września 1648 roku*, 131.

⁶² HOSZOWSKI (1928) 178.

⁶³ *Diariusz obozowy [rozpoczynający kampanię bialocerkiewską 1651 roku]*, 280; *Wojna z Kozaki i Tatary*, 288.

time in Lviv, a quart of beer could still be bought for 0.5 groshes.⁶⁴ Due to lack of data, it is not possible to determine the price relations as regards the Lviv and Krakow prices of booze and mead.

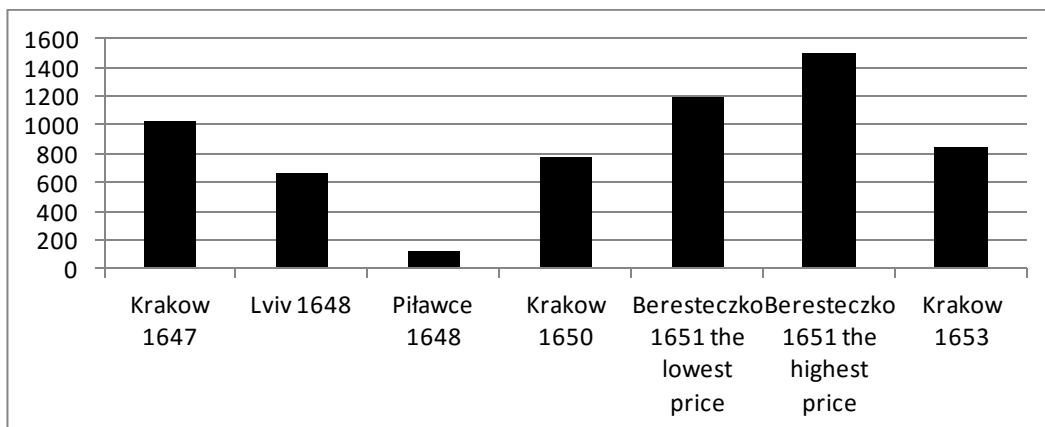
Table 1 Comparison of food product prices

		Products							
		beer		booze		mead		ox	
Place and time		price in groshes	%	price in groshes	%	price in groshes	%	price in groshes	%
	Krakow 1647	nd	nd	nd	nd	nd	nd	1020	nd
	Krakow 1648	nd	nd	45	100	nd	nd	nd	nd
	Lviv 1648	0.5	100	nd	nd	3.5	100	660	100
	Piławce 1648	1.5	300	20	44	4	114	120	18
	Zbaraż 1649	nd	nd	300 to 540 - 600	667 to 1200 - 1333	nd	nd	nd	nd
	Krakow 1650	nd	nd	nd	nd	nd	nd	778	nd
	Lviv 1651	0.5	100	nd	nd	nd	nd	nd	nd
	Beresteczko 1651	nd	nd	nd	nd	nd	nd	1200 to 1500	182 to 227
	Biała Cerkiew 1651	11.25	2250	90	200	18.75	536	nd	nd
	Krakow 1653	nd	nd	nd	nd	nd	nd	850	nd

nd - no data

⁶⁴ HOSZOWSKI (1928) 176.

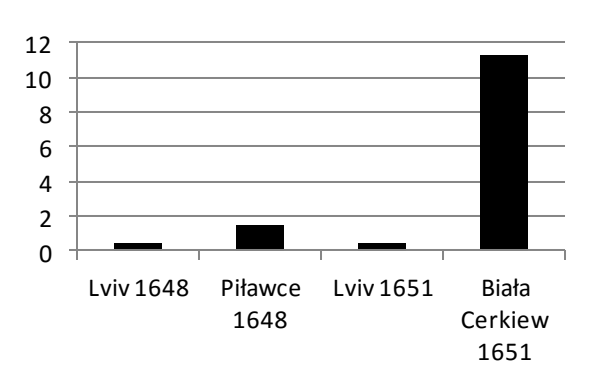
Graph 1. Comparison of ox prices (in groshes)



Graph 2. Comparison of booze prices (in groshes)



Graph 3. Comparison of beer prices (in groshes)



Due to excessive prices, many soldiers could not afford to buy from military market sellers. This concerned, most of all, the people of non-aristocratic background replenishing the infantry divisions who did not have any savings.

Cases of thoughtless destruction by soldiers of the food, which could later be used, were recorded in the sources. According to diary writers, the inglorious leadership in such actions was taken by the retinue. Such a situation occurred during the siege of Smoleńsk in the period 1633 - 1634. The first divisions of the army coming as relief forces to the fortress managed to desolate the areas, which were previously abundant in food in spite of the ongoing fights, to such an extent that a large part of the army suffered from hunger although it was not surrounded by the enemy.⁶⁵ The situation was improved many times by seizing the Moscow military storehouses.⁶⁶ However, in the last stage of the expedition, even Vladislav IV could feel the shortages. At Easter 1634, he only ate salted meat.⁶⁷ In the infantry, at this moment, even this was not available.⁶⁸

The phenomenon of destroying food was frequent, which is proven by repeated prohibitions of devastating apiaries⁶⁹ or fish ponds⁷⁰ in hetman articles. The legislation was unsuccessful in its fight against the proceedings. Among the soldiers, there was a dominant way of thinking to eat their fill at a given moment, whereas the surplus, which could not be eaten and drunk, was destroyed. Many times, it was recorded in the memories that beehives and wild beehives were destroyed while unguarded by the commanders. An interesting example is the event mentioned in several sources which took place after the agreement in Biała Cerkiew in 1651 when the Cossacks encountered the looting retinue:

"...kilkadziesiąt koni Kozaków zaskoczyli dziesiątek czeladzi naszej w pasiece jednej, poczęła uchodzić czeladź nasza; potym Kozak dopadłszy jednego czeladnika, zerwie tylko z niego kontusz, a zawoła: howoryte z nami Lachy i poczęli mówić: Kozacy: «Czemu to zemle psujecie, czemu pasieki łupiecie, a my wiemy, że u was otrębowano, abyście nie paleli, nie psowali i pasiek zaniechali». Poczęła się czeladź wymawiać, żeśmy o tym nie wiedzieli, a Kozacy replikowali: «Skazaliż to waszy starszy szczo mir budet, nie psujcie zemle». A interea obaczeli jednego Niemca między czeladzią i wzięwszy go poczęli go bić samopalami i włosy na nim rwać. «A ty Niemcze czemu zemle psujesz, insza Lachom, insza wam, boś ty pożyczany człowiek, niemiecka to zemla», i tak oberwawszy mu włosy na głowie puścili go".⁷¹

The motivation of the devastating people deserves attention as they explained their behaviour with lack of prohibition interpreted as approval of looting and destruction. If such activities were forbidden, insubordination made them deaf to orders.

The first divisions entering a city during an assault, while looking for loot, frequently did not care about later possibility of using the supplies gathered by the enemy. Before a commander managed to prevent devastation, drinks from broken barrels had already sunk in the ground and the corn was scattered around the streets. An example is the situation that occurred in Pawłocz and Różyna conquered in 1651 during the Biała Cerkiew campaign. It is worth giving the floor to a historiographer being a witness to the events described in the following way:

"Sama Pawłocz mogła cztery takie wojska pożywić, a oni ją sami wyrabowali i komorom się dostało, ale najbardziej napojów nam żal, bo w samej jednej piwnicy 24 beczek wina, czego wypić nie mogli, rozsiekali, a po innych jako wiele miódów, gorzałek popsowano, końca i liczby nie masz. A my teraz w te gorąco łakniemy napojów [...] Już to jako obiecaną ziemię pełną zboża i pasiek zastaliśmy, lecz przez nieostrożność sług pana starosty kałuskiego [Jana Zamoyskiego], którzy ani sami załogi nie mieli, ani o nią pana krakowskiego [Mikołaja Potockiego] prosili; pacholikowie stronami bieżące wpadli w miasto, pełne zbóż starych i inszych żywności, piw i miódów, przytem komory i piwnice łupać poczęli [...] Skoczył [...] co prędzej pan wojewoda braclawski [Stanisław Lanckoroński] z znakiem hetmańskim w miasto; zastanie zboża wysypane, piwnice odbite i pszczoły porozbijane, a

⁶⁵ PIASECKI (1870) 392.

⁶⁶ *Diariusz kampanii smoleńskiej* (2006) 113, 120-121, 124, 228 204, 270. Destroying food and later starving was characteristic not only for the army of the Republic. The Cossacks had similar problems during their siege of Lviv in 1648. KOCHOWSKI vol. 1 (1859) 24.

⁶⁷ RADZIWIŁŁ A. S. vol. 1 (1980) 371.

⁶⁸ *Diariusz kampanii smoleńskiej*, 153; RADZIWIŁŁ A. S. vol. 1 (1980) 371.

⁶⁹ *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 166, 180, 193, 201, 334, 343.

⁷⁰ *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 166, 179, 193, 200, 240.

⁷¹ MIASKOWSKI (1999) 288; MALEWSKA (1977) 337; *Wojna z Kozaki i Tatarzy* (1840) 296-297.

do zamku, gdzie największa i najlepsza część mienia chłopów była, pacholików za przy wodem mnicha jednego szturmujących, a było i towarzystwo między nimi. Skoczy do pierwszego, temu i owemu buzdyganem dostało się, a jednemu towarzyszowi tak, że już chleba jeść nie będzie. Pacholików dwóch pryncypałów natychmiast obieszono. Drugich bito kijami w rynku...".⁷²

The behaviour presented above was completely different from the ideal of a thrifty host common in old Polish literature, who cared for the supplies for the future and respected the gifts from heaven.⁷³ It might have been influenced by the feeling of power that the conquerors had, lack of concerns about consequences, feeling of impunity, insubordination, low morale and, obviously, the alcohol drunk beforehand. The group phenomenon added to that as everyone was brave and full of ideas in a group and the responsibility for actions was blurred. It was extremely hard for commanders to control this destruction amok, even when they applied penalties directly on the battle field.⁷⁴

The subsequent divisions were not able to use the enemy's food supplies. The death penalty for perpetrators did not deter others from similar activities in another town.⁷⁵ Even capitulation and letting in a Polish crew did not protect from looting and destruction of food as it happened in February 1651 in Murchawa where the townsmen surrendered: "prosząc w ostatku P. Hetmana o załogę do zamku dla obrony od swawolnych; dla czego im zaraz przydał piechoty [...] czeladka luźna dla kupowania niektórych rzeczy do zamku zaszedzsy komory odbijać, miody i żywność brać i insze rzeczy żakować⁷⁶ poczęła...".⁷⁷ Sometimes, a lookout sent to fetch food, was involved in looting rather than its basic task and, what is more, they destroyed food and mills by the way as it happened in winter 1664 after the end of the siege of Głuchów.⁷⁸

The shortage of food was accelerated by sending it from camps to homes during the moments of temporary surplus. This happened e.g. during the fights for Smoleńsk in 1663.⁷⁹ A bad example was set by the commanders. Jan Sobieski sent vegetables, butter⁸⁰ and cherries⁸¹ to his wife. There were also accusations of selling the food to the enemy. Such charges were filed against the crew of Smoleńsk in 1654.⁸²

A remedy to hunger was sending "picownicy" and "furierzy" responsible for food supplies to the areas not destroyed with the war, often many kilometres away from the place of military operations. In connection with participation of cavalry in such hit and run actions, most of the seized and robbed food got to this formation instead of going to the market. Such manner of supplying facilitated quick feeling of hunger among the infantry.⁸³ This happened, for instance, in the summer of 1651, when the army were passing through the destroyed country behind Słucz. Due to lack of food, during a several-day stay in July of that year, there was a noticeable increase in death rates among this formation.⁸⁴ A similar situation occurred e.g. in 1653, during the Żwaniec campaign,⁸⁵ in February

⁷² *Diariusz obozowy [rozpoczynający kampanię białocerkiewską 1651 roku]*, 272-275; *Wojna z Kozaki i Tatary*, 278-281.

⁷³ KUCHOWICZ (1992) 159-160.

⁷⁴ *Wojna z Kozaki i Tatary*, 281.

⁷⁵ This happened for example while breaking into Pawołocz and Biała Cerkiew *Diariusz obozowy [rozpoczynający kampanię białocerkiewską 1651 roku]*, 272, 274-275; *Wojna z Kozaki i Tatary*, 280-281.

⁷⁶ To plunder, rob: LINDE (1814) 670.

⁷⁷ OŚWIĘCIM (1907) 263.

⁷⁸ KOCHOWSKI vol. 2 (1859) 260.

⁷⁹ PIASECKI (1870) 392; *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza*, 216; STAROWOLSKI (2005) 90.

⁸⁰ SOBIESKI (1962) 111.

⁸¹ SOBIESKI (1962) 32.

⁸² MICHAŁOWSKI (1864) 730.

⁸³ *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza*, 197. The call of Andrzej Maksymilian Fredro for common food supplies during famine did not really have any effect. FREDRO (1856) 29.

⁸⁴ OŚWIĘCIM (1907) 356; BIAŁOOCKI (2004) 132.

⁸⁵ KOCHOWSKI vol. 1 (1859) 159.

1655 during the military operations in Ukraine,⁸⁶ in 1633 during the fights with Moscow⁸⁷ and in 1666 during the Lubomirski's Rebellion.

In a situation of no possibility to buy food products, attempts were made at searching for products which could fill the stomach. Rhizomes, tree leaves, vegetables and herbs were collected, i.e. "radicels" as they were called then.⁸⁸ Also, carrion as well as ill and injured animals were eaten. A horse which got lost or was left by its owner was killed and eaten very quickly by the infantry troops.⁸⁹ A symbol of hunger was eating horse meat. This was done in Moscow in the years 1611 – 1612,⁹⁰ in Smoleńsk in 1633,⁹¹ in Zbaraż in 1649⁹² and during the fights with Moscow in 1664.⁹³ Dogs, cats, rats and mice were caught. Leather fragments of clothes and equipment were cooked and eaten while softened. Mouldy and worm-infested food was eaten. When there was no fire wood, it was cooked on bones.⁹⁴ Sometimes, food was softened by being soaked in water and kept in mouth.⁹⁵ In the times of greatest hunger, cannibalism occurred. The dead were consumed. It also happened that prisoners, enemies or even companions were killed.⁹⁶

An important aspect of provisioning was the supply of drinks. Water was drunk reluctantly,⁹⁷ e.g. due to fears of poisoning and diseases. Few people knew the methods of water treatment, e.g. by boiling or draining it.⁹⁸ It often came from sources contaminated with degrading human or animal bodies as it happened in besieged Zbaraż where access to potable water was obtained only after digging a new well.⁹⁹ Problems related to poisoned water were also faced by Polish soldiers in summer 1651.¹⁰⁰ For this reason, they complain in their memories and reports about expensive alcohol: beer, wine, mead and vodka.

Sometimes, there was not even enough water. A situation like this occurred in January 1646 when the field crown hetman Mikołaj Potocki tried to block the way of the Tatars coming back with loot from the Moscow territories so that they could not cross the borders of the Republic.¹⁰¹ A difficult situation as regards water supplies was also in October 1660 after the battle of Słobodyszcze when there was not even enough of it for the injured. Trying to help their injured companions, the Reiters finally brought dirty, muddy water in their own hats.¹⁰² Thus, there was no top-down organisation of drinks and it was necessary to resort to improvisation. Jan Florian Tuszyński has similar memories of the pursuit of the Cossacks on Dzikie Pola in 1664, where the distance between one intake of water and another one was one day of march.¹⁰³ Also Jan Sobieski complained about the problem of

⁸⁶ KOCHOWSKI vol. 1 (1859) 198.

⁸⁷ KOCHOWSKI vol. 2 (1859) 205.

⁸⁸ SOBIESKI (1962) 173.

⁸⁹ HOLSTEN (1980) 53. On the subject of starvation food in later times - Seven Year's War: SZPOTKOWSKI (2009) 121-129. Due to the fact that the knowledge of plants in human surrounding has not improved much since the times of the reign of the House of Vasa, it may be assumed that they also used these species.

⁹⁰ *Sprawy dzieł rycerskich i diariusz obozu spod Smoleńska*, 437.

⁹¹ BUDZIŁO (1995) 478.

⁹² *Diariusz kampanii smoleńskiej*, 153.

⁹³ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 156.

⁹⁴ CHRAPOWICKI (1978) 466.

⁹⁵ HOLSTEN (1980) 62. The method was not an invention of Polish or Lithuanian soldiers. It was known in the areas where there are no trees: TANNAHILL (2014) 270, 311. The Moscow soldiers, in the case of no firewood, ate raw horse meat: JERLICH vol. 2 (1853) 56; LESZCZYŃSKI (2006) 96.

⁹⁶ HOLSTEN (1980) 62.

⁹⁷ BUDZIŁO (1995) 504-505, 507-509; PALICYN (1955) 228.

⁹⁸ KOCHOWSKI vol. 1 (1859) 61.

⁹⁹ SCHNEEBERGER (2008) 133-141.

¹⁰⁰ KOCHOWSKI vol. 1 (1859) 55; KUCZWAREWICZ (2005) 179.

¹⁰¹ *Pamiętniki o wojnach kozackich za Chmielnickiego*, 91.

¹⁰² OŚWIĘCIM (1907) 109.

¹⁰³ HOLSTEN (1980) 60.

insufficient amount and quality of drinks, both alcohol and water, in his letter sent from Konin to Marysieńka in 1666.¹⁰⁴ To fool the thirst, saltpetre was sucked.¹⁰⁵

One of the results of hunger influencing the campaign was significant deterioration of morale and, as a consequence, reluctance to fight. This happened e.g. in July 1651 when "wojsko poczęło nędznieć, cudzoziemskie regimenty piesze i polskie dużo od głodu mrzeć, vigor et ardor militaris tepieć"¹⁰⁶ and during the war with Moscow in 1660.¹⁰⁷

Lack of food supplies was the justification used while surrendering a fortress e.g. in Smoleńsk in 1654¹⁰⁸ and withdrawing, like in April 1651 from Bar towards Kamieniec Podolski. In this way, a companion from the regiment of field crown hetman Stanisław "Rewera" Potocki explained the movements of the army to Łukasz Miaskowski.¹⁰⁹ According to the law, hunger was one of three possible reasons for surrendering a castle.¹¹⁰

During fights, attempts were made to prevent the enemy from finding out about the provisioning problems of the defence. Such type of information was among the most important ones given to the Cossacks in spite of the death penalty for those going over to the enemy, escaping from the besieged Zbaraż.¹¹¹ On the other hand, in 1651, great crown hetman Mikołaj Potocki ordered preparation of a feast for Cossack emissaries in spite of the hunger in the Polish camp.¹¹² The demonstratively sophisticated feast was supposed to mislead the opponent.

The result of hunger was letting the units home during intervals in military operations as well as arbitrary leaving of a regiment¹¹³ and escaping of the infantry troops.¹¹⁴ Such behaviour was a form of rescue from starvation. Even the companions less endangered by shortages of food than the retinue, resigned from a quarter of their soldier's money to avoid starvation:

"Czemuś z wojska wyjechał i zasług nie czekał?
«Ba, pieszom wyszedł; gorsza, ledwie nie uciekał.
Nie chciało mi się jeszcze głodem dawać gardła:
Konie powyzydchały i czeładź po marła[...]»".¹¹⁵

Some commanders, like e.g. Jan Sobieski, tried to rescue the situation paying for food with their own money. The future king, in this way, tried to solve the problem of food shortages in 1666 during the Lubomirski's Rebellion.¹¹⁶ It happened similarly at Podhajce in September 1667, which he mentioned in his letter to Marysieńka.¹¹⁷ These were, however, only short-term actions. One of the basic reasons for the occurrence of food shortage situations was a failure to give the soldier's pay on time.¹¹⁸ The infantry was the fastest to disappear. It was hunger and diseases, rather than death in a fight, that was the dominant cause of the largest reduction in the number of divisions.¹¹⁹

¹⁰⁴ DROBYSZ, TUSZYŃSKI (1954) 40.

¹⁰⁵ SOBIESKI (1962) 132.

¹⁰⁶ HAUR (1689) 457.

¹⁰⁷ OŚWIĘCIM (1907) 356. Similarly: OŚWIĘCIM (1907) 375; RUDAWSKI (1855) 150.

¹⁰⁸ LESZCZYŃSKI (2006) 62, 96.

¹⁰⁹ *Dekret seymowy w sprawie na instancję Insygatora Koronnego z sukcesorami Filipa Obuchowicza Wojewody Smoleńskiego o poddanie Smoleńska, zapadły 10 czerwca 1658 r.*, 103, 108.

¹¹⁰ MICHAŁOWSKI (1864) 631.

¹¹¹ *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 216.

¹¹² *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 156.

¹¹³ RUDAWSKI vol. 1 (1855) 164.

¹¹⁴ SOBIESKI (1962) 213; MICHAŁOWSKI (1864) 411.

¹¹⁵ *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza* vol. 2, 197-198.

¹¹⁶ POTOCKI vol. 3 (1987) 433.

¹¹⁷ SOBIESKI (1962) 127.

¹¹⁸ SOBIESKI (1962) 213-214.

¹¹⁹ SOBIESKI (1962) 157, 173; WIMMER (1977) 180.

The situation as regards food during sieges was extremely difficult. Efforts made to obtain food by the besieged through sending of jaunts and obtaining support from the army coming to relief were blocked by the enemy. What is more, attempts were made than at destroying of the supplies and intakes of water.¹²⁰ Starvation of the crew was reported in descriptions e.g. of the besieged Kremil in 1611-1612,¹²¹ Smoleńsk in 1633,¹²² Bar¹²³ and Lviv¹²⁴ in 1648, Zbaraż in 1649,¹²⁵ Krakow in 1655¹²⁶ and Lachowice in 1660.¹²⁷

The siege on the subject of which the information provided by the participants was preserved was the defence of Zbaraż. At the beginning, the food supplies were sufficient. However, the siege continued and shortages began. The defenders on the embankments were the first to receive food - mostly the companions from cavalry regiments. The infantry troops trying to obtain more food, robbed wagons with food at night and attacked the retinue carrying meals to the embankments. In this way, they tried to rescue themselves from starvation and unequal distribution of food. The cavalry ate their own horses and the infantry – dogs.¹²⁸ The consequence of famine may also be considered the illnesses and death among soldiers after the end of the siege when the hungry ones ate too much at once.¹²⁹ This was caused by weaning of the organism off the proper amount of food. It did not manage to digest a larger portion of food than before and the internal organs were destroyed.¹³⁰ On the other hand, in the accounts concerning the defence of Zbaraż, cases of cannibalism were reported. The consequences of an extremely harsh nutritional situation could be felt not only by simple soldiers but also by the magnates being among the top commanders of the fortress. Adam Hieronim Sieniawski fell in health during the siege. After leaving free Zbaraż, he was ill for a long time and died in January 1650.¹³¹

Once the siege had finished, the inhabitants of Zbaraż were left on their own as regards provisioning, which was the common practise at that time. A soldier had to provide food for himself. This, however, caused significant objection and agitation among the defenders of the fortress.¹³² This is completely understandable, but usually such attitudes were passed over in silence in memories. The intensity of displeasure and cursing of the commanders and king must have been so high that it

¹²⁰ SROGOSZ (2010) 67.

¹²¹ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 140; *Diariusz kampanii smoleńskiej*, 198; BIAŁOBOCKI (2004) 80.

¹²² BUDZIŁO (1995) 478, 502, 504-505, 507-509.

¹²³ *Diariusz kampanii smoleńskiej*, 18; *Samuel Sokoliński kapitan JKMci smoleński do księcia Krzysztofa Radziwiłła z oblężonego Smoleńska, 14 VI 1633 r.* in NAGIELSKI (2000) 300; *Samuel Sokoliński kapitan JKMci, Melcher Gudziejewski horodniczy smoleński, Jakub Piotr Wojewódzki do księcia Krzysztofa Radziwiłła, 30 VI 1633 r.* in NAGIELSKI (2000) 303.

¹²⁴ BIAŁOBOCKI (2004) 38.

¹²⁵ KOCHOWSKI vol. 1 (1859) 222; *Wojna z Kozaki i Tatory*, 277.

¹²⁶ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 156-158; *Diariusz ekspedycyjnej zborowskiej*, 178.

¹²⁷ KOCHOWSKI vol. 1 (1859) 232, 237.

¹²⁸ KOCHOWSKI vol. 2 (1859) 66.

¹²⁹ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 156-158.

¹³⁰ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 162; A mistaken mention about death following consumption of a huge amount of food can be found in: *Diariusz ekspedycyjnej zborowskiej*, 178. The soldier mentioned survived: *Diariusz kampanii smoleńskiej*, 214. The information about him could have been false, basically. It could have happened, however, that he fell ill so seriously that the author of this report considered him dead.

¹³¹ Russel (2011) 107, 133-134. In the 17th century, obviously, no one made experiments with hunger. Since a human being of the 20th century, as regards biological aspects, did not differ from the ancestors from the modern era, it is possible to use here the results of research conducted in the 20th century. The author would like to emphasise that it is not her intention to compare the situation of the defenders of Kremlin or Zbaraż in the 17th century to that of the victims of 20th-century concentration camps or the Warsaw ghetto. This is only about the biological aspects.

¹³² NAGIELSKI (1996) 102-105.

caught the attention of the diary writer. Aggressive behaviour, quarrelsomeness and inclination to a rebellion are characteristic for people returning to normal manner of eating after surviving famine.¹³³ Probably, in this way, a human being reacts to stress connected with shortages of food and getting used again to normal life. In this time, a human being reacts to other people's behaviour with impatience and a lower threshold of tolerance.

Cannibalism also occurred during the defence of Kremlin in 1611 - 1612. In spring 1611, food shortages began¹³⁴ and, at the end of the year, there was an increase in starvation and the beginnings of cannibalism.¹³⁵ People tried to rescue themselves by eating horses, dogs, cats, mice, rats, local plants and leather: straps and boots. Finally, they started eating other people. First, prisoners and excavated corpses were eaten and then also companions.¹³⁶ Human bodies were salted, smoked, roasted and boiled.¹³⁷ The decision on consumption of a human body and spreading of cannibalism was caused by many months of famine. It seems that it could have also been influenced by a threat of death from the hands of Moscow soldiers. A soldier weakened with hunger could not fight effectively and defend his life.¹³⁸ Józef Budziło, a witness and victim of the famine in Kremlin recorded in his diary: diseases caused by lack of nutrients, e.g. scurvy,¹³⁹ weakening, slowed-down movements¹⁴⁰, biting of one's own body and attempts at eating inedible objects.¹⁴¹ General weakness of the organism, slowing down, loss of control of the limbs are the physical consequences of hunger were observed also in other situations.¹⁴² It happens similarly in the case of considering various things as edible, seeing food everywhere, including one's own body, which is an attempt of the organism to defend itself from death.¹⁴³

There was a disintegration of social bonds, including family ties.¹⁴⁴ Famine and desire to obtain food in any way had a strong influence on the way of thinking. The thoughts were going in a single direction - towards food. The danger was not only the enemy army, but also the companions themselves. The food, at that moment, did not only mean bread, plants and animal meat, but also another human being. Lack of social bonds caused spreading of an egoistic attitude. Everyone took care only of themselves.¹⁴⁵ What is more, there was a life danger from the other people who one had daily contact with, including relatives. The famine of the defenders of Kremlin was known to such an extent that it later became a reference to the lack of food during other wars.¹⁴⁶ Knowledge of it was so widespread among the society that references to it can be found in picaresque literature. One of the characters of *Komedia rybaltowska nowa*, Confederate recollects:

"Wiec do stołu potrawy, niestetyż, mój Boże,
Jakie nam gotowano, kto wymówić może?
Dla niezmiernej brzydkości już nie powiadano,
Jeśli pies albo kotka, żarliś my, co dano.

¹³³ KOCHOWSKI vol. 1 (1859) 84.

¹³⁴ RUSSEL (2011) 131-132.

¹³⁵ MASKIEWICZ (1995) 201.

¹³⁶ *Wjazd K.J.M. Polskiego Zygmunta Trzeciego do Moskwy A.D.1610, the Central Archives of Historical Records in Warsaw (further AGAD), the Radziwiłł Family Archives, II, book 12, card. 639*

¹³⁷ BUDZIŁO (1995) 504-505, 507-509; *Wjazd K.J.M. Polskiego Zygmunta Trzeciego do Moskwy A.D.1610, AGAD, the Radziwiłł Family Archives, II, book 12, card. 639; KROCZAK (2006) 189; BOHUN (2013) 83-84.*

¹³⁸ PALICYN (1955) 228; KROCZAK (2006) 189.

¹³⁹ BUDZIŁO (1995) 493.

¹⁴⁰ BUDZIŁO (1995) 480.

¹⁴¹ BUDZIŁO (1995) 493.

¹⁴² BUDZIŁO (1995) 504-505.

¹⁴³ RUSSEL (2011) 124, 129; *Choroba głodowa*, 83, 85.

¹⁴⁴ RYN, KŁODZIŃSKI (1983) 37, 49-50, RAJCA (2005) 92-93.

¹⁴⁵ BUDZIŁO (1995) 504-505, 508-509.

¹⁴⁶ Such behaviour is typical for victims of the hunger disease: RAJCA (2005) 99.

Zjadł drugi udziec więźnia, jak najlepszej sarny”.¹⁴⁷

Anthropophagy appeared among the infantry during the famine at Głowa Gdańska in 1658. Hieronim Christian Holsten recalled that this happened as a result of cutting off the supply chain due to weather conditions and destruction of bridges by wind and ice jams. Stripping of Żuławy by the soldiers staying there for half a year and ceasing of food supplies from the other side of the Vistula River caused several days of hunger.¹⁴⁸ It affected in particular the infantry having lesser possibilities of provisioning.¹⁴⁹ It must also be remembered that the victims of starvation were the people who were previously undernourished, which resulted in more significant devastation of their organisms and undertaking of more drastic measures to protect themselves from death.

It seems, however, that cannibalism happened relatively seldom and never to such an extent as in Kremlin towards the end of 1612, even taking into consideration that not all events were described and no one boasted about it in connection with an extremely negative attitude to eating human meat. J. Budziło, one of the Polish commanders in Moscow, emphasised in his letter to Sigismund III that, in connection with an extremely serious and long-lasting famine: "Nastąpiła zatem rzadko słyszana, a przynajmniej skryta, u nas prawie jawna samojeźdź".¹⁵⁰ Thus, a situation occurred in which a certain taboo was broken and the common customs of the culture were violated. It seems to have been connected with transformation of the temporary phenomenon into a long-term one and, probably, with the mentality of the starving people accustomed to death and killing, which made it easier for them to break the taboo. In Kremlin in 1611 - 1612, the starving people had weapons in their hands. There was no one to supervise their nutrition and to punish them for behaviour that did not comply with the social standards as regards the issue of feeding. On their way to cannibalism there was almost exclusively their learnt behaviour and customs. They are difficult to cross, but it is possible, especially in extreme conditions. The issue of whether such behaviour had any influence on further fate of the perpetrators and their behaviour remains for further studies.

In the letters of Józef Budziło from the Moscow captivity, what attracts attention is mentioning of the "samojeźdź" several times as well as short descriptions of hunger that the Kremlin crew were suffering from.¹⁵¹ It is particularly significant while comparing these letters with those written by the defenders of Moscow in the years 1611 - 1612, where people asked for rescue and supplies of food. They only mention shortages, poverty and famine without describing the phenomenon, let alone any information about cannibal practices.¹⁵² Probably, a change in the manner of reporting and official acknowledgement of the fact that there was cannibalism in Moscow were caused not only by an attempt at being released faster or justification of surrendering the fortress,¹⁵³ but externalisation of the processes occurring in the mentality of the soldier, an attempt at overcoming the trauma of hunger and cannibalism and reaching a balance after these experiences. Especially that, in connection with the negative reception by the society of the type of this type of behaviour and its punishability, admitting it could have an opposite effect than the intended one - instead of mercy, disgust.

A description of the appearance of a starving soldier was included by Hieronim Christian Holster in his diary: "...byliśmy podobni do zabalsamowanych gerydonów. Nasze żołądki i ręce pokurczone były zupełnie jak puste dudy, dym z gnatów końskich zabalsamował nas całkowicie".¹⁵⁴ Reduction of the size of internal organs, including the digestive system, is characteristic for people suffering from hunger.¹⁵⁵ This could be felt as hunger pangs by Hieronim Christian Holsten and his companions rescued from Moscow captivity. Muscle cramps are also a feature of strong starvation.

¹⁴⁷ *Diariusz kampanii smoleńskiej*, 271.

¹⁴⁸ *Komedia rybałtowska nowa*, 103.

¹⁴⁹ HOLSTEN (1980) 53.

¹⁵⁰ KOCHOWSKI vol. 2 (1859) 241.

¹⁵¹ BUDZIŁO (1995) 205.

¹⁵² BUDZIŁO (1995) 508-509; KROCZAK (2006) 188-198.

¹⁵³ BUDZIŁO (1995) 471-474, 485-490.

¹⁵⁴ KROCZAK (2006) 188-191.

¹⁵⁵ HOLSTEN (1980) 63.

A human being avoids excessive burning of calories and assumes a pose with bent limbs, not changing it for a long time. In this period, the muscle atrophy and destruction of flexors develop.¹⁵⁶ On the other hand, the association with embalming, mentioned twice, brings into mind changes in skin pigmentation, which, frequently although not always, becomes darker due to long-term shortages of food.¹⁵⁷ The authors of memories also report hunger oedema.¹⁵⁸ Comparing the remarks of seventeenth-century diary writers with the research results of twentieth-century doctors, it may be considered that the former ones convey the actual observations made during the famine.

In the accounts and memories, there is no precise data enabling estimation of death rates in individual divisions, not only as regards starvation. The mentions in diary sources on this subject are only a proof that the losses were significant. Most casualties were infantry troops. In 45 diaries examined by the author, 18 publications of correspondence and reports as well as 140 pieces of poetry, there were 193 mentions of hunger, 32 of which referred to infantry and only 6 to cavalry. It must be added that remarks concerning starvation in infantry units never mentioned any number of dead people. The terms used "piechota z głodu umierała",¹⁵⁹ "piechoty siła ubyło, część z głodu",¹⁶⁰ "po sto człowieka na jedną noc wymierało"¹⁶¹ are a proof that the problem concerned a large group of people. On the other hand, information about death of companions caused by hunger and war difficulties contained data on the number of dead people. Even based on such imprecise information, it is possible to conclude that starvation of infantry troops was much more common than among cavalry, especially companies. The authors of that time considered that when companions were dying, the food shortage must have been really serious.¹⁶² The hunger of the Polish crew of Kremlin is mentioned most frequently - 36 times, out of which 19 times were mentioned in his diary by Józef Budziło. Shortages of food were also reported many times in besieged Zbaraż - 23 times. Also hunger was mentioned e.g. in the years 1633 - 1634 during the fights for Smoleńsk, in 1648 in Bar, in the summer 1651 during the fights in Ukraine, in 1653 during the Żwaniec campaign, in February 1655 in Ukraine, in 1658 at Głowa Gdańska, in 1663 during the war with Moscow, in 1666 during the Lubomirski's Rebellion, etc.

Usually, a soldier died in a camp or during a march. Then, a soldier, still alive or dead, was removed off the way of the supply train. The march route, like for instance from Jampol to Lubar in July 1651, was covered with dying people and dead bodies.¹⁶³

Malnutrition and hunger in the army of the Republic of Both Nations was not anything unusual compared to other European armies. Memories of diary writers show that hunger was common many times in the Moscow army¹⁶⁴ and among the Cossacks.¹⁶⁵ Diary writers consider them even more accustomed to food shortages and more resistant to their consequences than soldiers from Western Europe.¹⁶⁶ During sieges, e.g. of the Moscow camp at Smoleńsk in 1633 - 1644, or during fights in 1660, the Moscow soldiers used starvation food such as horse meat (due to lack of fire wood, eaten raw), dogs, cats, rodents, carrion and various species of plants.¹⁶⁷

On the other hand, as regards the West European armies, during the Thirty Years' War, there were significant changes there as regards provisioning. In connection with huge destruction of the territories of German states due to contribution, robbery, destruction of local towns and killing of civilians by the passing armies, it became impossible to maintain previous methods of provisioning.

¹⁵⁶ *Choroba głodowa*, 25, 28, 38

¹⁵⁷ *Choroba głodowa*, 179

¹⁵⁸ *Choroba głodowa*, 37, 76, 85-87.

¹⁵⁹ *Wojna z Kozaki i Tatary*, 335.

¹⁶⁰ KOCHOWSKI vol. 1 (1859) 160.

¹⁶¹ MICHAŁOWSKI (1864) 740.

¹⁶² *Wojna z Kozaki i Tatary*, 352.

¹⁶³ *Wojna z Kozaki i Tatary*, 336.

¹⁶⁴ *Wojna z Kozaki i Tatary*, 335; KOCHOWSKI vol. 2 (1859) 105.

¹⁶⁵ *Diariusz kampanii smoleńskiej*, 131, 140, 150, 155, 158, 161, 173-174, 228, 233-236, 238, 251-253, 255, 257, 264, 267, 269, 271, 277, HOLSTEN (1980) 62-63.

¹⁶⁶ KOCHOWSKI vol. 1 (1859) 24.

¹⁶⁷ BEAUPLAN (1822) 340; PIASECKI (1870) 393.

After the Swedish reform of Gustav Adolf, also adopted to various extents by other countries participating in the conflict, a huge role began to be played by food storehouses on the areas of army operations.¹⁶⁸ They reduced the risk of hunger, but did not get rid of it completely.¹⁶⁹ Some anonymous soldier recalled in 1638 in his diary: "Haben Weihnachten gehalten bei Donauwasser und haben kein Bissen Brot gehabt".¹⁷⁰

Soldiers were not isolated from the society and their social background, property and habits taken from their life before enrolment in the army had a strong influence on nutritional habits and probability of starvation. While studying poverty in the army, it is necessary to examine briefly the situation of civilians from among whom the soldiers came as well as their influence on nutrition in the armed forces.

Representatives of magnate families were used to numerous and sophisticated dishes.¹⁷¹ Even fasts common in the 17th century did not cause serious limitations in the quality of food eaten. Cooks of the magnates were able to prepare meatless dishes in such a way that they were as opulent and caloric as meat dishes.¹⁷² Thus, a magnate did not suffer from food shortages, but rather its surplus and the diseases related to it, e.g. podagra.¹⁷³ According to calculations of Andrzej Wilczyński, the amount of calories consumed by a representative of aristocracy was about 6500.¹⁷⁴ Taking into consideration the level of life and the nutritional manner of the richest classes of the society, a certain reduction of the standard in the army may be noticed. However, it was far from real hunger. On the camp tables, there were definitely no certain dishes the preparation of which was too complicated as for the field conditions such as the Polish pike, which, according to the recipe, had a fried head, a boiled body and a baked tail.¹⁷⁵ Sometimes, there was not enough wine¹⁷⁶ and it was necessary to satisfy oneself with salted meat or even vegetarian dishes.¹⁷⁷ In extreme situations among army commanders coming from among aristocracy, food shortages became serious, an example of which may be a banquet held by Aleksander Gosiewski and Aleksander Zborowski in Kremlin where guests were treated with mouldy crackers with horseradish, groats with pepper, water and leaven.¹⁷⁸ However, numerous banquets¹⁷⁹ as well as information about desserts,¹⁸⁰ cinnamon,¹⁸¹ citrus fruit,¹⁸² chocolate,¹⁸³ coffee¹⁸⁴ and orange flower jam¹⁸⁵ as well as memories of the wealth taken to the war, like for instance to Piławce,¹⁸⁶ prove that magnates tried to retain a high standard of life also in war conditions.

¹⁶⁸ *Diariusz kampanii smoleńskiej*, 269; HOLSTEN (1980) 62; JERLICZ vol. 1 (1853) 56.

¹⁶⁹ WIMMER (1964) 172-174.

¹⁷⁰ *Ein Söldnerleben im Dreißigjährigen Krieg. Eine Quelle zur Sozialgeschichte*, 136, 151, 162, 223-224; BURSCHEL (1999) 188.

¹⁷¹ *Ein Söldnerleben im Dreißigjährigen Krieg. Eine Quelle zur Sozialgeschichte*, 162.

¹⁷² CZERNIECKI (2010); *Moda bardzo dobra smażenia różnych konfektów i innych słodkości, a także przyrządzania wszelakich potraw, pieczenia chleba i inne sekreta gospodarskie i kuchenne...*; *Księga szafarska dworu Jana III Sobieskiego 1695 – 1696...* The problem was studied by e.g. CZAPLIŃSKI, DŁUGOSZ (1976) 113-128; KUCHOWICZ (1975) 17-22, 26-28, 39-43; KUCHOWICZ (1992) 28-38; ŁOZIŃSKI (1974) 220-225.

¹⁷³ CZERNIECKI (2010) 133-152. Fish could be prepared in such a way that it tasted like the meat of mammals and birds, e.g.: "partridge from salty water fish": CZERNIECKI (2010) 148.

¹⁷⁴ KUCHOWICZ (1992) 29, 93-94.

¹⁷⁵ WYCZAŃSKI (1969) 47-51.

¹⁷⁶ CZERNIECKI (2010) 152.

¹⁷⁷ SOBIESKI (1962) 132; *Diariusz obozowy [rozpoczynający kampanię białocerkiewską 1651 roku]*, 274.

¹⁷⁸ *Diariusz kampanii smoleńskiej*, 154.

¹⁷⁹ *Wjazd K.J.M. Polskiego Zygmunta Trzeciego do Moskwy A.D.1610, AGAD, the Radziwiłł Family Archives*, II, book 12, card. 639.

¹⁸⁰ SOBIESKI (1962) 136; MICHAŁOWSKI (1864) 187, 191; RADZIWIŁŁ A. S. vol. 3 (1980) 112; POZOBUT ODLANICKI (1987) 150, 185; OSSOLIŃSKI (1976) 63; SAPIEHA (1995) 271, 376.

¹⁸¹ MICHAŁOWSKI (1864) 475; TWARDOWSKI (2005) 115.

¹⁸² MICHAŁOWSKI (1864) 475.

¹⁸³ SOBIESKI (1962) 50.

¹⁸⁴ SOBIESKI (1962) 49-50, 60.

¹⁸⁵ SOBIESKI (1962) 214.

¹⁸⁶ SOBIESKI (1962) 49, 161.

Wealthy nobility and rich townsmen also ate abundantly normally (the number of calories consumed daily was about 5300).¹⁸⁷ Only extreme conditions like e.g. escaping from home due to fights, caused, usually temporary, shortages of food. According to Zbigniew Kuchowicz, wealthy nobility was the best nourished group of the society, both as regards the number of calories and nutrients.¹⁸⁸ When going to a war, they tried to retain the same level by taking wagons with food supplies.¹⁸⁹ According to the list of things lost by Jakub Michałowski at Zborów, this nobleman of medium wealth took the following things to the expedition: spices, 60 old Polish gallons of wine, a barrel of "percymment" (a kind of Spanish wine), champagne and Rhine wine, a "puzdro" of Malvasia wine, a flask of lemon and violet juice, a "puzdro" of vodka, two barrels of booze, ginger breads, biscuits and other sweets as well as 6 pieces of ham, more than ten pieces of brawn and numerous "leguminy", i.e. common, less valuable food products. Only staying in a camp for a longer time or a siege caused a significant deterioration of life quality, including nutrition. There were even fights for turnip and cabbage stumps.¹⁹⁰

The situation of poorer people was different. Their meals were much more frugal than in higher social classes.¹⁹¹ Writers emphasised poverty and bad quality of peasant food.¹⁹² The number of calories eaten changed depending on a period and situation, but, on average it was 3500 calories.¹⁹³ Poorer nobility, let alone the peasants and lower classes of townsmen, happened to feel food shortages both as regards quantity as well as nutrients, e.g. fats and calcium, which was scarce in peasant diet even in times of relative abundance.¹⁹⁴ Especially the inhabitants of villages and poor townsmen suffered as a result of repeated crop failures in the 17th century.¹⁹⁵ Even in the years of good crops, the nutrition of rural population was not sufficient. In certain periods, the famine was so serious that it led to starvation and, what is more, to cannibalism.¹⁹⁶ J. Jerlicz recalled: "...wszędzie drogość zboża była wielka [...] Zaczem ubóstwa niemało pomarło; tamże pod Torczynem we wsi Smolikowie niewiasta dwoje własnych swoich dzieci synów porznęła i piekąc onych zjadła; która i trzeciego zarznąć chciała, ale ten uciekłszy powiedział sąsiadom, poczem pojмали ją i ukarana została".¹⁹⁷

Crop failure was not the only reason of famine among the population. Another reason was the war and the passing armies.¹⁹⁸ Soldiers seized livestock not caring whether those were the last animals on the farm or working cattle needed for field work. Also grains for sewing were taken. Food they did not manage to take was destroyed. They could even let horses go into a field covered with corn.¹⁹⁹ The nobility claimed their rights before courts. The peasants were often left crying out for vengeance, which is emphasised in the literature paraphrasing their complaints:

"...Boże, nie daj
Im zdrowo powrócić! Boże, podaj w ręce
Pohańcowi dostatki ich, które złupili
Z nas ubogich! Napój krwią ich pola tatarskie,

¹⁸⁷ MICHAŁOWSKI (1864) 201, 207, 473-476; ŁOŚ (2000) 58; *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza* vol. 2, 12.

¹⁸⁸ WYCZAŃSKI (1969) 129.

¹⁸⁹ KUCHOWICZ (1992) 38.

¹⁹⁰ *Regestr rzeczy porabowanych pod Zborowem, potraconych pod Beresteczkiem i pokradzionych w domu jmp. Jakuba Michałowskiego*, 357-358.

¹⁹¹ JERLICZ vol. 1 (1853) 153.

¹⁹² KUCHOWICZ (1975) 36-39; KUCHOWICZ (1992) 22-28.

¹⁹³ HAUR (1689) 507.

¹⁹⁴ WYCZAŃSKI (1969) 147-149.

¹⁹⁵ WYCZAŃSKI (1969) 71-94, 125, 146-149.

¹⁹⁶ KECKOWA, MOLENDĄ (1978) 311; BRAUDEL (1992) 67-71; NAMACZYŃSKA (1937) 55-64.

¹⁹⁷ JERLICZ vol. 1 (1853) 113, 120; WIERZBOWSKI (1858) 116; KOCHOWSKI vol. 3 (1859) 48; CEDROWSKI (1954) 11.

¹⁹⁸ JERLICZ vol. 1 (1853) 120.

¹⁹⁹ *Pomniki do dziejów Polski wieku siedemnastego*, 52; KOCHOWSKI vol. 1 (1859) 201; KOCHOWSKI vol. 2 (1859) 208.

Którą w domu przelali niewinnie, okrutnie!"²⁰⁰

The civilians also suffered during sieges. People escaping to besieged fortresses had much lesser chances of surviving famine than soldiers. This referred not only to peasants and townsmen, but also nobility.²⁰¹ Defenders, especially officers and companions, had priority in access to food. Not much could be hidden from soldiers robbing market stalls and breaking into chambers.²⁰² People who escaped to fortresses from surrounding villages usually had little supplies. They were at the very bottom of the feeding hierarchy, as not needed for defence. They were also the first to die. Poor townsmen starved in October 1648 in Kamieniec Podolski surrounded by the Cossacks in October 1648.²⁰³ A similar situation occurred in besieged Zbaraż in 1649. The local inhabitants hid in the fortress. Their supplies finished very quickly. Cases of starvation become more and more frequent. The peasants who could not stand the hunger, asked duke Jeremi Wiśniowiecki for his consent to leave the fortress and rely on the mercy of the Cossacks. He did not want to agree at first, but finally gave his consent. The people who left Zbaraż were murdered by the Tatars.²⁰⁴

It is noticed that the situation of soldiers coming from a given social group did not differ much from the situations of others in the same social class. Famine, which was the greatest danger for plebeian infantry, also threatened the people from this social group in their life outside the army. Fear of hunger was among the most significant ones in modern times next to fear of infectious diseases.²⁰⁵ Both of these dangers occurred then with high frequency.²⁰⁶ One might wonder how much the people of those times were accustomed to food shortages and whether it influenced their chances of survival. Knowledge of edible plants occurring in the surrounding and techniques of poaching land and water animals was still helpful in the 20th century, although it gradually disappeared over time.²⁰⁷ The noble diary writers emphasise the resistance of retinue to food shortages.²⁰⁸ On the other hand, in the light of twentieth-century research on hunger disease, it is the underfed people who stand the least chances of survival already before the advent of famine.²⁰⁹ It seems that whether individual people died and how they behaved when faced with extreme malnutrition, depended not only on their health and the period of food shortages, but also their mental predispositions: the will to fight and disagree with the existing situation. Moreover, it is difficult to assess how the organism of an individual would behave in an extreme situation.

Soldiers who survived the times of famine, tried to make up for it by extorting as much as possible from the people who were supposed to feed them. Food was taken above the standards set²¹⁰ and not paid for as the soldier's pay was not received for a long time.²¹¹ If peasants, townsmen and nobility protested, it was taken by force, not worrying that the civilians had nothing to eat later on.²¹²

It is justified to ask a question on whether people joining the army knew what to expect, especially whether they were aware of the real threat of food shortages. A magnate or a nobleman who

²⁰⁰ *Polskie ustawy i artykuły wojskowe od XV do XVIII wieku*, 155, 161, 187, 197, 204, 271, 348. It was done similarly by e.g. the Swedish: KOCHOWSKI vol. 1 (1859) 216.

²⁰¹ OPALIŃSKI (1953) 163.

²⁰² *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 155.

²⁰³ An example of this was the events in besieged Krakow in 1655: KOCHOWSKI vol. 1 (1859) 232, 237.

²⁰⁴ MICHAŁOWSKI (1864) 211.

²⁰⁵ *Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja...*, 158; KOCHOWSKI t. 1 (1859) 61.

²⁰⁶ KUCHOWICZ (1992) 202-204.

²⁰⁷ NAMACZYŃSKA (1937) 55-64.

²⁰⁸ TYSZKIEWICZ (2013) 69-77; SZPOTKOWSKI (2009) 121-131.

²⁰⁹ KOCHOWSKI (1859) 134.

²¹⁰ RYN, KŁODZIŃSKI (1983) 30-33, 36, 40, 44-56.

²¹¹ It is presented in a humorous way in a poetic discussion of companions from the regiment of his Majesty whose lieutenant was Aleksander Hilary Połubiński with nobility from the Nowogródzkie Province. NAGIELSKI (2001) 223-230.

²¹² *Komedia rybaltowska nowa*, 115; WIMMER (1965) 245.

had little education and was interested in the situation of his country and its history²¹³ had a certain idea of the conditions in the army. Frequently his brother, father or further relative had already been a soldier.²¹⁴ Thus, he could have drawn certain conclusions from their stories. In connection with high death rate in the infantry, a possibility of advancement to the nobility thanks to war merits or, on the other hand, joining various bands, soldiers from this formation seldom returned to their homeland. A plebeian had fewer chances of obtaining information from a soldier related to him. At the same time, he saw the passing divisions taking what they wanted and eating better than himself. Joining the army could be perceived by him as a possibility of changing his fate or at least greater opportunity for his family to eat to their fill rather than leading their lives in the countryside or among the poor townsmen.²¹⁵ The skills of recruiters were often worth admiring²¹⁶ and the spectre of famine disappeared with the hope of getting rich in a war.

It seems, nevertheless, that famine in the army differed from food shortages in the country. The latter one was recurrent and expectable. It could have been expected after poor crops, especially in the time before the harvest²¹⁷. On the other hand, in the army, there is the principle of changeability.²¹⁸ The times of affluence and sufficient food intertwine with hunger changing places in a manner not completely possible to expect. Marching through desolated country and sieges increased the risk of hunger, but not each such situation finished with it. Similarly, staying in the area which was, at first, abundant in food did not mean certainty that there would be enough of it until the end.²¹⁹

Bibliography

Sources

Akta Anni 1649 pod Zbarażem Nowym albo raczej diariusz w miesiącu lipcu za regimentu jm. pana Andrzeja z Dąbrowice Firleja... (1999), [in:] *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)*, M. NAGIELSKI (ed.), Warszawa, 135-167.

BEAUPLAN G. (1822), *Ciekawe opisanie Ukrainy Polskiej...*, Warszawa.

BIAŁOBOCKI J. (2004), *Poematy rycerskie*, P. BOREK (ed.), Kraków.

BUDZIŁO J. (1995), *Historia Dmitra fałszywego*, [in:] *Moskwa w rękach Polaków. Pamiętniki dowódców i oficerów garnizonu polskiego w Moskwie w latach 1610 – 1612*, M. KUBALA, T. ŚCIEŻOR (ed.), Kryspinów, 395-510.

CEDROWSKI J. (1954), *Pamiętnik*, [in:] *Dwa pamiętniki z XVII wieku Jana Cedrowskiego i Jana Floriana Drobysza Tuszyńskiego*, A. PRZYBOŚ (ed.), Wrocław/Kraków, 3-20.

CHRAPOWICKI J. A. (1978), *Diariusz*, vol. 1, T. WASILEWSKI (ed.), Warszawa.

²¹³ Such behaviour was against the law: *Volumina Legum* vol. 4 (1859) 276-277; yet very frequent: OŚWIĘCIM (1907) 378; *Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza*, 219; *Pomniki do dziejów Polski wieku siedemnastego*, 52; STAROWOLSKI (2005) 89; POTOCKI vol. 3 (1987) 90; *Komedia rybałtowska nowa*, 303. The works of the following authors were devoted to the issues of soldiers' discipline and morale as well as their influence on the behaviour of the serviceman while taking food: CZEKAJ (2002) 85-101; NAGIELSKI (2015) 135-154; SZUL-SKJOELDKRONA (2002) 103-114 and ŁOPATECKI (2012). The latter one, in his research on the military law, presents differences between reality and theory as well as difficulties with implementing the principles included in military articles: ŁOPATECKI (2012) e.g. 285-286, 622, 624-628, 665, 675.

²¹⁴ KUCHOWICZ (1975) 23-25.

²¹⁵ POTOCKI (1987) 206; MICHAŁOWSKI (1864) 35; SROGOSZ (2010) 26. An example of magnate families connected with the army was the Sobieski family: Jan Sobieski (1518–1564): PLEWCZYŃSKI (2000) 496-497; Marek Sobieski (1549–1605): GMITEREK (2000) 502-504; Jakub Sobieski (1590–1646): DŁUGOSZ (2000) 483-490; Marek Sobieski (1628–1652): DŁUGOSZ (2000) 504-506; LEPSZY (1962-1964) 413-422.

²¹⁶ Usually thanks to stealing and robbing of the population where they came from: *Komedia rybałtowska nowa*, 115; SROGOSZ (2010) 33.

²¹⁷ The picaresque literature notices this in a mocking manner: *Wyprawa plebańska*, 9. The Prussian recruiters in the late 18th century were able to entangle the potential recruits in such a way that they did not believe Polish soldiers who caught the gang and rescued them from the Prussian army. BARANOWSKI (1986) 184-185. It may be suspected that the seventeenth century recruiters had similar skills: BARANOWSKI (1986) 181-183.

²¹⁸ BARANOWSKI (1971) 141-142, 147-150; KUCHOWICZ (1975) 37-38.

²¹⁹ *Ein Söldnerleben im Dreißigjährigen Krieg. Eine Quelle zur Sozialgeschichte*, 223; BURSCHEL (1999) 188.

- CZERNIECKI S. (2010), *Compendium ferculorum albo zebranie potraw*, J. DUMANOWSKI, M. SPYCHA (ed.), Warszawa.
- Dekret seymowy w sprawie na instancją Insygatora Koronnego z sukcesorami Filipa Obuchowicza Wojewody Smoleńskiego o poddanie Smoleńska, zapadły 10 czerwca 1658 r.* (1858), [in:] *Zbiór dyplomatów rządowych i aktów prywatnych posługujących do rozjaśnienia dziejów Litwy i złączonych z nią krajów (od 1387 do 1710 r.)*, M. KRUPOWICZ (ed.), Vilnius, 100-115.
- Diariusz ekspedycyjnej zborowskiej* (1999) [in:] *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)*, M. NAGIELSKI (ed.), Warszawa, 175-220.
- Diariusz kampanii smoleńskiej Władysława IV 1633 – 1634* (2006), M. NAGIELSKI (ed.), Warszawa.
- Diariusz obozowy [rozpoczynający kampanię białocerkiewską 1651 roku]* (1999), [in:] *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)*, M. NAGIELSKI (ed.), Warszawa, 269-285.
- Diariusz obozowy od 1 do 13 września 1648 roku* (1999), [in:] *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)*, M. NAGIELSKI (ed.), Warszawa, 125-134.
- DROBYSZ TUSZYŃSKI J. F. (1954), *Pamiętnik*, [in:] *Dwa pamiętniki z XVII wieku Jana Cedrowskiego i Jana Floriana Drobysza Tuszyńskiego*, A. PRZYBOŚ (ed.), Wrocław/Kraków, 21-108.
- Ein Söldnerleben im Dreißigjährigen Krieg. Eine Quelle zur Sozialgeschichte* (1993), J. PETERS (hrs g.), Berlin.
- FREDRO A. M. (1856), *O porządku wojennym i o pospolitem ruszeniu małym [...]*, (wyimek z *Zwierzynica Jednorożców*, wyd. przez Franciszka Glinkę 1670 r. w Lwowie), Sanok.
- HANNOWER N. (1914), *Jawein Mecula t.j. bagno głębokie*, [in:] *Sprawy i rzeczy ukraińskie. Materyały do dziejów Kozaczyzny i Hajdamaczyzny* (1914), F. RAWITA-GAWROŃSKI (ed.), Lviv, 1-76.
- HAUR J. K. (1689), *Skład albo skarbiec znakomitych sekretów oekonomiej ziemiańskiej...*, Kraków.
- HOLSTEN H. CH. (1980), *Przygody wojenne 1655-1666*, T. WASILEWSKI (ed.), Warszawa.
- JERLICH J. vol. 1 – 2 (1853), *Latopisiec albo kroniczka Joachima Jerlicza*, K. W. WOJCICKI (ed.), Warszawa.
- KOCHOWSKI W. vol. 1 – 3 (1859), *Historia panowania Jana Kazimierza z klimakterów...*, Poznań.
- Komedia rybaltowska nowa* (1985), [in:] *Antologia literatury sowizdrzalskiej XVI i XVII wieku* (1985), S. GRZESZCZUK (ed.), Wrocław/ Warszawa /Kraków/Gdańsk/Łódź, 91-122.
- Księga szafarska dworu Jana III Sobieskiego 1695 – 1696*, J. DUMANOWSKI, Ł TRUŚCIŃSKI (ed.), Warszawa 2013.
- KUCZWAREWICZ M. (2005), *Relacja ekspedycyjnej zbaraskiej w roku pańskim 1649...* [in:] *Arma cosacica. Poezja okolicznościowa o wojnie polsko – kozackiej 1648 – 1649*, P. BOREK (ed.), Kraków, 171-202.
- LESZCZYŃSKI S. (2006), *Potrzeba z Szeremetem, hetmanem moskiewskim i Kozakami w roku Pańskim 1660 od Polaków wygrana*, P. BOREK (ed.), Kraków.
- ŁOŚ J. (2000), *Pamiętnik towarzysza chorągwi panczernej*, R. ŚRENIAWA-SZCZYPIOWSKI (ed.), Warszawa.
- MALEWSKA H. (1977), *Listy staropolskie z epoki Wazów*, Warszawa.
- MASKIEWICZ S. (1995), *Dyjariusz Samuela Maskiewicza. Początek swój bierze od roku 1594 w lata po sobie idące*, [in:] *Moskwa w rękach Polaków. Pamiętniki dowódców i oficerów garnizonu polskiego w Moskwie w latach 1610 – 1612*, M. KUBAŁA, T. ŚCIEŻOR (ed.), Kryninów, 139-236.
- MIASKOWSKI A. (1999), *Sekretny a prawdziwy diariusz, od jm. pana Miaskowskiego stolnika halickiego jm. księdzu kanclerzowi [Andrzejowi Leszczyńskiemu] posłany, ekspedycyjnej kontynuowanej kozackiej spod Beresteczka pod Białą Cerkiew*, [in:] *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)*, M. NAGIELSKI (ed.), Warszawa, 286-310.
- MICHAŁOWSKI J. (1864), *Księga pamiętnicza*, Kraków.
- Moda bardzo dobra smażenia różnych konfektów i innych słodkości, a także przyrządzenia wszelakich potraw, pieczenia chleba i inne sekreta gospodarskie i kuchenne*, J. DUMANOWSKI, R. JANKOWSKI (eds.), Warszawa 2011.
- Ojczyście spominki* vol. 1 – 2 (1845), A. GRABOWSKI (ed.), Kraków.
- OPALIŃSKI Ł. (1953), *Satyry*, L. EUSTACHIEWICZ (ed.), Wrocław.
- OSOLIŃSKI J. (1976), *Pamiętnik*, W. CZAPLIŃSKI (ed.), Warszawa.
- OŚWIĘCIM S. (1907), *Dyaryusz*, W. CZERMAK (ed.), Kraków.
- PALICYN A. (1955), *Skazanie Awraamija Palicyna*, O. DZIERŻAWINA, J. KOSOŁOWA (eds.), Moscow/Lenin grad.
- Pamiętniki do panowania Zygmunta III, Władysława IV i Jana Kazimierza* vol. 1 – 2 (1846), K. W. WOJCICKI (ed.), Warszawa.
- Pamiętniki o wojnach kozackich za Chmielnickiego* (1840), Z. SCHLETTER (ed.), Wrocław.
- PIASECKI P. (1870), *Kronika Pawła Piaseckiego biskupa przemyskiego*, Kraków.

- POCZOBUT ODLANICKI J. W. (1987), *Pamiętnik*, A. RACHUBA (ed.), Warszawa.
- Polskie ustawy i artykuły wojskowe od XV do XVIII wieku* (1937), S. KUTRZEBA (ed.), Kraków.
- Pomniki do dziejów Polski wieku siedemnastego* (1840), vol 1., A. PODGÓRSKI (ed.), Wrocław.
- POTOCKI W. vol. 1 – 3 (1987), *Dzieła*, L. KUKULSKI (ed.), Warszawa.
- RADZIWIŁŁ A. S. vol. 1 – 3 (1980), *Pamiętnik o dziejach w Polsce*, A. PRZYBOŚ, R. ŻELEWSKI (ed.), Warszawa.
- RADZIWIŁŁ B. (1979), *Autobiografia*, T. WASILEWSKI (ed.), Warszawa.
- Regestr rzeczy porabowanych pod Zborowem, potraconych pod Beresteczkiem i pokradzionych w domu jmp. Jakuba Michałowskiego*, [in:] *Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)*, M. NAGIELSKI (ed.), Warszawa, 356-359.
- Relacje wojenne z pierwszych lat walk polsko – kozackich powstania Bohdana Chmielnickiego okresu „Ogniem i mieczem” (1648 – 1651)* (1999), M. NAGIELSKI (ed.), Warszawa.
- RUDAWSKI W. J. (1855), *Historia Polski od śmierci Władysława IV aż do pokoju oliwskiego czyli dzieje panowania Jana Kazimierza od 1648 do 1660 r.*, W. SPASOWICZ (ed.), Petersburg/Mohylew.
- M. NAGIELSKI (2000), *Szyfrowane depesze Samuela Sokolińskiego ze Smoleńska z 1633 r.*, „Miscellanea Historico-Archivistica”, 11, 278-304.
- SAPIEHA J. P. (1995), *Dzieje Marsa krwawego*, [in:] *Moskwa w rękach Polaków. Pamiętniki dowódców i oficerów garnizonu polskiego w Moskwie w latach 1610 – 1612*, M. KUBALA, T. ŚCIEŻOR (ed.), Kryspinów, 237-392.
- SCHNEEBERGER A. (2008), *De bona militum valetudine conserwanda liber. Księga o zachowaniu dobrego zdrowia żołnierzy*, S. ILNICKI (ed.), Warszawa.
- SOBIESKI J. (1962), *Listy do Marysienki*, L. KUKULSKI (ed.), Warszawa.
- Sposob jakoby wojska Rzeczypospol. mogły być w dobrym porządku zatrzymywane*, Warszawa 1652.
- Sprawy dzieł rycerskich i diariusz obozu spod Smoleńska*, [in:] *Pamiętniki o Konięcpolskich. Przyczynek do dziejów Polski XVII wieku*, S. PRZYŁĘCKI (ed.), Lviv 1842, ???
- STAROWOLSKI S. (2005), *Nowy satyr polski...*, [in:] *Arma cosacica. Poezja okolicznościowa o wojnie polsko – kozackiej 1648 – 1649*, P. BOREK (ed.), Kraków, 84-97.
- TWARDOWSKI S. (2005), *Pobudka wychodzącemu wojsku pod Ohykę pro 1 mai anno 1649*, [in:] *Arma cosacica. Poezja okolicznościowa o wojnie polsko – kozackiej 1648 – 1649*, P. BOREK (ed.), Kraków, 114-120.
- Volumina Legum* vol. 4 (1859), Petersburg.
- WIERZBOWSKI S. (1858), *Konnotata wypadków w domu i kraju zaszłych od 1634 do 1689 r.*, J. K. ZAŁUSKI (ed.), Lipsk.
- Wojna z Kozaki i Tatary* (1840), [in:] *Starożytności historyczne polskie* vol. 1, A. GRABOWSKI (ed.), Kraków.
- Wyprawa plebańska* (1985), [in:] *Antologia literatury sowizdrzalskiej XVI i XVII wieku*, S. GRZESZCZUK (ed.), Wrocław/ Warszawa /Kraków/Gdańsk/Łódź, 4-40.

Literature

- BARANOWSKI B. (1971), *Kultura ludowa XVII i XVIII w. na ziemiach Polski Środkowej*, Łódź.
- BARANOWSKI B. (1986), *Ludzie gościńca w XVII – XVIII w.*, Łódź.
- BOGUCKA M. (1994), *Staropolskie obyczaje w XVI – XVII wieku*, Warszawa.
- BOGUCKA M. (2013), *Między obyczajem a prawem. Kultura Sarmatyzmu w Polsce XVI – XVIII wieku*, Warszawa.
- BOHUN T. (2013), *Polacy na Kremlu. Fakty i mity*, „Sensus Historiae”, 11.2, 71-85.
- BRAUDEL F. (1992), *Kultura materialna, gospodarka i kapitalizm XV – XVIII wiek, vol. 1, Struktury codzienności. Możliwe i niemożliwe*, Warszawa.
- BURSCHEL P. (1999), *Himmelreich und Hölle. Ein Söldner, sein Tagebuch und die Ordnung des Krieges*, [in:] *Zwischen Alltag und Katastrophe. Der Dreißigjährige Krieg aus der Nähe*, B. von KRUSENSTJERN, H. MEDICK (hrsg.), Göttingen, 181-194.
- Choroba głodowa. Badania kliniczne nad głodem wykonane w getcie warszawskim z roku 1942*, E. APFELBAUM, D. GUZIK (eds.), Warszawa 1946.
- CZAPLIŃSKI W., DŁUGOSZ J. (1976), *Życie codzienne magnaterii polskiej w XVII wieku*, Warszawa.
- CZEKAJ A. (2002), *Obywatele czy kondotierzy? Postawy obywatelskie i moralne żołnierzy narodowego autoramentu wojsk Rzeczypospolitej w pierwszej połowie XVII w.*, [in:] *Staropolska sztuka wojenna XVI – XVII wieku*, M. NAGIELSKI (ed.), Warszawa, 85-101.
- DŁUGOSZ J. (2000), *Jakub Sobieski (1590 –1646)*, [in:] *Polski Słownik Biograficzny*, H. MARKIEWICZ (ed.), Warszawa /Kraków, 483-490.
- DŁUGOSZ J. (2000), *Marek Sobieski (1628–1652)*, [in:] *Polski Słownik Biograficzny*, H. MARKIEWICZ (ed.), Warszawa /Kraków, 504-506.

- DUDEK L. (1972), *Rozmieszczenie i zakwaterowanie wojsk w dawnej Polsce*, „Przegląd Kwatermistrzowski”, 1, 111-125.
- DUDEK L. (1973), *Zaopatrzenie wojsk w dawnej Polsce (do 1864 r.)*, Poznań.
- GMITEREK J. (2000), *Marek Sobieski (1549–1605)*, [in:] *Polski Słownik Biograficzny*, H. MARKIEWICZ (ed.), Warszawa /Kraków, 502-504.
- HOSZOWSKI S. (1928), *Ceny we Lwowie w XVI i XVII wieku*, Lwiv.
- KECKOWA A., MOLENDĄ D. (1978), *Wyżywienie*, [in:] *Historia kultury materialnej Polski w zarysie* vol. 3, A. KECKOWA, D. MOLENDĄ (eds.), Wrocław.Warszawa/Kraków/Gdańsk, 301-323.
- KROCZAK J. (2006), *Ludożercy na Kremlu (we współczesnych opisach i własnych relacjach)*, „Napis”, 12, 183-195.
- KUCHOWICZ Z. (1975), *Obyczaje staropolskie*, Łódź.
- KUCHOWICZ Z. (1992), *Człowiek polskiego baroku*, Łódź.
- LEPSZY K. and others (1962-1964), *Jan III Sobieski*, [in:] *Polski Słownik Biograficzny*, H. LEPSZY (ed.), Warszawa/Kraków, 413-422.
- LINDE S. B. (1814), *Słownik języka polskiego*, vol. 6, Warszawa.
- ŁOPATECKI K. (2012), „*Disciplina militaris*” w wojskach Rzeczypospolitej do połowy XVII wieku, Białystok.
- ŁOZIŃSKI W. (1974), *Życie polskie w dawnych wiekach*, Kraków.
- NAGIELSKI M. (1996), *Adam Hieronim Sieniawski z Granowa h. Leliwa*, [in:] *Polski Słownik Biograficzny*, H. MARKIEWICZ (ed.), Warszawa /Kraków, 102-105.
- NAGIELSKI M. (2001), *Stosunki wojska ze społeczeństwem Wielkiego Księstwa Litewskiego w połowie XVII wieku w świetle poezji okolicznościowej*, „Napis”, 7, 219-233.
- NAGIELSKI M. (2015), *Żołnierz koronny w XVII wieku. Wybawca i bohater czy ciemiężyciel – w świetle zachowanych rejestrów szkód w księgach grodzkich i ziemskich Rzeczypospolitej*, [in:] *Społeczeństwo a wojsko. Społeczeństwo Staropolskie. Seria nowa, vol. 4*, I. M. DACKA-GÓRZYŃSKA, A. KARPÍŃSKI, M. NAGIELSKI (eds.), Warszawa, 135-154.
- NAMACZYŃSKA S. (1937), *Kronika klęsk elementarnych w Polsce i w krajach sąsiednich w latach 1649 – 1696*, Lwiv.
- NOWAK T. (1936), *Oblężenie Torunia w roku 1658*, Toruń.
- NOWAK T., WIMMER J. (1981), *Historia oręża polskiego*, Warszawa.
- PLEWCZYŃSKI M. (2000), *Jan Sobieski (1518 – 1564)*, [in:] *Polski Słownik Biograficzny*, H. MARKIEWICZ (ed.), Warszawa /Kraków, 496-497.
- RAJCA C. (2005), *Głód na Ukrainie*, Lublin.
- RUSSEL S. A. (2011), *Głód. Historia nienaturalna*, Warszawa.
- RYN Z. KŁODZIŃSKI S. (1983), *Na granicy życia i śmierci: studium obozowego „muzułmaństwa”*, „Przegląd Lekarski”, 40. 1, 27-73.
- SOBCZAK T. (1978), *Wyżywienie*, [in:] *Historia kultury materialnej Polski w zarysie* vol. 4, Z. KAMIENSKA, B. BARANOWSKI (eds.), Wrocław/ Warszawa /Kraków/Gdańsk, 329-337.
- SROGOSZ T. (2010), *Żołnierz swawolny*, Warszawa.
- SZPOTKOWSKI K. (2009), *Pożywienie wojenne ludności cywilnej i wojsk w okresie wojny siedmioletniej*, [in:] *250 rocznica bitwy pod Kijami. Materiały z konferencji naukowej zorganizowanej 20 listopada 2009 roku w Sulechowie*, M. Nowacki (ed.), Sulechów/Świebodzin, 101-131.
- SZUL-SKJOELDKRONA T. (2002), *Dyscyplina i morale armii koronnej w okresie pomiędzy Piławcami a kampanią zborowską 1649 r.*, [in:] *Staropolska sztuka wojenna XVI – XVII wieku*, M. NAGIELSKI (ed.), Warszawa, 103-114.
- SZYMAŃSKI J. (1976), *Nauki pomocnicze historii*, Warszawa.
- TANNAHILL R. (2014), *Historia kuchni*, Warszawa.
- TOMASZEWSKI E. (1934), *Ceny w Krakowie w latach 1601 – 1795*, Lwiv.
- WIMMER J. (1964), *Z problemów zaopatrzenia wojska w 2 połowie XVII wieku*, [in:] *Z dziejów wojny i polityki. Księga pamiątkowa ku uczczeniu siedemdziesiątej rocznicy urodzin prof. dra Janusza Wolińskiego*, S. HERBST (ed.), Warszawa, 172-178.
- WIMMER J. (1965), *Wojsko polskie w 2 połowie XVII wieku*, Warszawa.
- WIMMER J. (1977), *Wojsko*, [in:] *Polska XVII wieku. Państwo, społeczeństwo, kultura*, J. TAZBIR (ed.), Warszawa, 162-211.
- WYCZAŃSKI A. (1969), *Studia nad konsumpcją żywności w Polsce w XVI i pierwszej połowie XVII w.*, Warszawa.

Summary:

Famine and poverty in the army during the reign of the House of Vasa in the light of reports and diaries

The aim of the article is to present the phenomenon of famine in the army of the Crown and the Grand Duchy of Lithuania during the reign of the House of Vasa. Shortages of food were not present in the army constantly. Nevertheless, they were a frequent phenomenon during wars. It was not always possible to buy or steal something due to destructions in the area where the army was staying. In situations of no possibility to purchase food products, people tried to look for things that could fill their stomachs in the nearest surrounding. They would pick rhizomes, tree leaves, vegetables and herbs. Carrion as well as ill and injured animals were eaten. A symbol of famine was eating horse meat. The last resort was cannibalism.

Keywords: House of Vasa, famine, cannibalism, food, army