TARANTINOS TEXTS THAT HAVE BEEN PRESERVED IN PALLADIUS WORK „OPUS AGRICULTURAE“ AND AGRICULTURAL ENCYCLOPEDIA – GEOPONIKA

Abstract

Tarantinos texts have left no small influence on economic thought in the agriculture of the Roman Empire and later the Byzantine Empire. Authors such as Palladius anonymous editors Geoponika was those who transmitted the ideas and solutions that tarantinos gave in their articles. His ideas are expressed in the texts of these authors are quoted integrally, or are recounted original solutions. In this way they extend the life of Tarantinos texts, which are now lost in the original.

In Palladius work is three texts that relate to improving the taste and quality of olive oil. In Geoponika of fourteen heads, which are thought to have been taken from Tarantinos work. Theme head is varied. Texts relating to agriculture, viticulture and winemaking, cultivation of olive trees, the grafting and planting of fruit and flowers, and on fisheries.

Studying Tarantinos these texts were published by the Palladius in his work “On agriculture” in the original “Opus Agriculturae” but in Geoponika we can conclude the following. If you werePalladius and anonymous editor Geoponika only known authors who have used the original Tarantinos work. Since we cannot have access to the original Tarantinoso work we cannot determine whether his work is directly quoted. Also we cannot determine the authenticity of some heads was the organizer Geoponika attributed tarantinos. Yet despite all that remained preserved some thoughts and ideas that tarantinos made in his lost work, primarily thanks to the Palladius and anonymous editors Geoponika.

Key words: Tarantinos, Palladius, Geoponika, agriculture, economic thought

JEL classification: B11, N01, N13, N53, N63
ТАРАНТИНОСОВИ ТЕКСТОВИ КОЈИ СУ САЧУВАНИ У ПАЛАДИЈЕВОМ ДЕЛУ „РАДОВИ У ПОЉОПРИВРЕДИ“ И У ПОЉОПРИВРЕДНОЈ ЕНЦИКЛОПЕДИЈИ - ГЕОПОНИЦИ

Apstrakt

Тарантиносови текстови су оставили не мали утицај на економску мисао у аграру Римског царства, а касније Византије. Аутори као што су Паладије и анонимни редактор Геопонике су били они који су преносили идеје и решења која је Тарантинос дао у својим текстовима. Његове идеје које су изказане у текстовима ови аутори су цитирали интегрално, или су препричавали оригинална решења. На овај начин они су продужили трајање Тарантиносових текстова, који су данас изгубљени у оригиналан облику.

У Паладијевом делу се налази три текста која се односе на поправљању укуса и квалитета маслиновог уља. У Геопоници се налази четрнаест глава, за које се сматра да су преузете из Тарантисовог дела. Тематика глава је разновида. Текстови се односе на земљорадњу, виноградарство и винарство, гајење маслина, о калемљењу и садњи воћа и цвећа и о рибарству.

Изучавањем Тарантиносових текстова који су објављени од стране Паладија у његовом делу „О пољопривреди“, у оригиналну „Opus Agriculturae“, али и у Геопоници можемо да закључимо следеће. Да су Паладије и приређивач Геопонике једини познати аутори који су користили оригинални Тарантиносов рад. Пошто ли не можемо да имамо увид у оригинални Тарантиносов рад не можемо да утврдимо да ли је његов рад директно цитиран. Такође не можемо да утврдимо веродостојност неких глава које је приређивач Геопонике присао Тарантиносу. Ипак и поред свега тога остале су сачуване неке мисли и идеје које је Тарантинос дао у свом изгубљеном раду, и то пре свега захваљујући Паладију и анонимном редактору Геопонике.

Кључне речи: Тарантинос, Паладије, Геопоника, пољопривреда, економска мисао

Introduction

The influence of Tarantinos texts on economic thought in the agriculture of the Roman Empire and later the Byzantine Empire was definitely there. Authors for whom we can safely say that they used Tarantinos work on agriculture were Palladius who worked in the fifth century and the anonymous editor of Byzantine encyclopedias on agriculture, which made the compilation of this part of the X century. These two authors have passed some ideas and solutions that Tarantinos wrote in his book that he wrote to us in its original form other losses. Agroeconomic thoughts that are expressed in Tarantinos work of these authors are quoted integrally, or are recounted his decision.

Tarantinos work together with the work of other agroeconomic writers that created since the time of ancient Greece and the Roman Empire downloaded and added by the text editor Byzantine agricultural encyclopedias Geoponika. Editor text has decided to
take part in Tarantinos 14 different items or quotations. Percentage terms compared to other author’s citations number of commitments to this author are solid.

About Tarantinos

We in our further studies are particularly interested Agroeconomic thought of one of the author whose quotes included in Geoponika. The author is Tarantinos (Tarantinos) or Tarantinus. He was of Greek origin. He has been nothing really know, except that his name was linked with the southern Italian city of Taranto, Taras today. It is assumed that the author lived in this city and that it had created. The older authors that have studied the problem Geoponika or originating author whose quotes is taken for this famous encyclopedia could not determine who actually Tarantinos was. For example, an author who has published Geoponika early eighteenth century, points out that tarantinos maybe I Varro with his name in Geoponica1 written in many different ways. (Needham, 1704) The aforementioned author continues in the same spirit to speculate that perhaps tarentinos Columella or Heraklidis or Tarrant who actually practiced medicine and whose work is taken over by the famous physician Gallienne. This only confirms that Tarantinos had not been known since the time of the Middle Ages, and that his work is probably lost.

What is important and what we want particularly to mention is that the Tarantinos works any source other later authors, who have written on the subject of agriculture. This primarily refers to the Palladius, the author who created the V century. Palladius from Tarantinos work took four citations, related to olives and olive oil. These quotes were subsequently taken over anonymous editor of the famous Byzantine encyclopedia Geoponika. This gives us a clear manner indicates that Tarantinos was the real author and his work is there and that it was known Palladius, and later probably Byzantine anonymous editor’s agricultural encyclopedia.

About Palladius

Rutilius Taurus Aemilianus Palladius known as Palladius Rutilius Taurus Aemilianus or frequently as Palladius was the Roman authors who has worked in the second half of the fourth century or the first half of the fifth century AD. He is known for his book on agriculture, Opus Agriculture, and in some editions of the act known as De re rustica. We know little about him beyond what he tells us himself, namely that he had farms on Sardinia and in Italy near Rome. His date is much debated, but he probably wrote in the fourth or fifth century AD. The manuscripts call him “Vir inlustris”, a title which began to be employed in the second half of the fourth century, initially for men of the highest rank in the Roman Senate, and later more widely. (Fitch, 2013, p. II)

Since the Middle Ages, this author who specializes in writing about agriculture is often referred to as part of Palladius. He was a prominent representative of Gallic families. Information pertaining to his life are scarce and few. In his work Palladius a lot depended on agricultural earlier authors, mainly Columella and Quintus Gargilius Martialis, he also wrote the texts that have been incurred as a result of his own knowledge
of the agricultural production of Italy and Sardinia, as well as from personal experience he gained as an owner land. (Fitch, 2013, p. 12-13)

**About Geponika**

Geponika presents the work in the field of agricultural economics which was created as part of a major encyclopedic project of Byzantine Emperor Constantine VII Porphyrogenitus (913-959). The emperor is devoted to the introduction in this part, but not, as in earlier times, it was thought, was his work. It is believed that the encyclopedia edited in his name for us unknown editor who points out that the car did a lot of charity to his subjects, had destroyed their enemies, but to be consecrated, and many other jobs that have entered the order in everyday life. Below anonymous editor points out the emperor’s special merit. It gives him recognition for his generous support in the development of science, culture, art and economy with the following words: “First, I draw your attention to philosophy and rhetoric, which have already inflammation in decadence, plunged into wordless depths of the river of forgetfulness in the underworld; they are now good and reasonably organized and developed your control hand. Then, all other sciences and arts’ restored. Then, having learned about the three spheres, which vary from national life, and the military, the clergy and farming skills and behavior. Then you’re with characteristic size and depth of thought, he ordered the use of the experiences of the writers on agriculture and plant cultivation, time, character and place that suits them, and the places seeking water, and prepare for the work that you’ll do and with what slope as well as any other big, you collected in one useful for all work.” (Dalby, 2011, p. 53-54)

Anonymous has helped to m long, points out in the introduction that is related, among other areas of daily life in the car and Agriculture “has brought a lot of passion.” Agriculture as a sector of the economy has had a major impact on the economy of the then Empire. It is no wonder Caesar interest in it. For this reason Constantine VII ordered to be found all the texts of ancient writers that have written on the topic of Agriculture. That their work identifies, collect, translate and publish in one place. (Koutava-Delivoria, 2002, p.367-370) With that introduces us to the compiler “Geponika” I pointed out that his work is not an original work but a compilation, which is made using other sources, including those that existed as compilations of various other compilations, such as for example „Συναγωγή γεωργικών ἐπιτηδευμάτων“/ Pictures from agricultural practices Vindanija Anatolia in 12 books.

To our knowledge right from the Encyclopedia of Agriculture, or Reader or Ekloga wrote Cassian Bass in the sixth century, from which the anonymous editor of the X century took texts he then devoted himself emperor Constantine VII. As we have already pointed out for us today is this text unfortunately completely lost. (Lipšic, 1960). Other are saved only some versions of texts that have occurred in the eastern part of the Byzantine Empire. Texts can qualify for less valuable resources. But besides that, the texts give us a good chance that we can use to try to determine how an anonymous text editor directly dependent on the model of writing that were applied in late antiquity. What would be the case Geponika represents the result of audit work and modernization by the new compilers or editors. (Amato, 2006, p. 1-6)

Text Geponika is a modified version of the Greek text Vindonius Anatolia from Beirut that originated in the fourth century BC. The article is entitled “Synagogue
Georgikon epitheumaton” (Collection of agricultural practices). Author Anatoli probably be identified as well-known lawyer from the fourth century, who was prefect of Illyria and friends Libanius. His work is based on earlier works of Roman authors like Columella and Gaius Plinius Secundus. On the basis of the work of these authors we can see that they took over the works of some older authors. Firstly we think of the discussion Maga from Carthage (whose work is translated into Latin in the II BC by order of the Roman Senate). This article is adapted VII century, Cassian Bas (Cassianus Bassus Scholasticus). The work is entitled “Peri Georgias eklogai” (Selected Issues of crop), and survived only in Arabic, in slightly modified form.

Anatolia text synagogue had a dubious significance because it is apprehended directly or through Cassian Basa, the Syriac and Pahlavi (Persian) language, and then translated as we have written in Arabic. There are several translations of the Arabic version of the text. (Carrara, 2006, p. 108-110) The text was translated into Armenian language. (Greppin, 1987, p. 46-48) Patriarch Photius I of Constantinople (810-893) had access to the Greek text in the late ninth century. He argued that it was used for practical purposes of his property. Today, only half a page of text that is used Patriarch Photius survived. (Littlewood, 2012)

Text “Geoponika”, was the main source of information related to agriculture that was used in the East, just as it was Latin manual of palladium from the fifth century to the west all the way to the unification of these two sources is by Peter Crescentia (Pietro de ‘Crescenzi) from XIV century “Liber rurialium Commodorum.” (Crescenzi, 1486).

List authors whose quotations are listed in Geoponika are quite large. The origin of the authors varied. They are mostly Greeks and the Romans followed them. In Geoponici are states and the Persian Zoroaster. If we look at the authors of Roman origin we see that they are represented by name Varro, which can be considered for agrarian thinkers and the poet Vergil (Rodgers, R. H. 2011). In addition to these authors there are also quotes other Roman authors such as Apulej. (Rodgers, R. H. 1978). On the whole texts of senior authors who were Roman origin were taking younger authors who were also Roman origin. In this respect we differentiate between two champions downloading texts. The first line begins with the downloading of texts not roman such as Mago from Carthage and the Greek Pseudo-Democritus. These two authors have created from the third to the first century BC. Their work was taken over by Pliny the Elder in the first century BC. From his texts on agriculture copied and elaborated somewhat, Quintillus, Apuleius and Apollonius they are all created in the second century. The second branch starts Columella who worked in the second century. His work takes directly through Gargilius Martialis in the third century. This author takes the works of Pliny the Elder and Quintilian. Africanus author of the third century also undertakes work Quintilius and Apuleius but also works Gargiliius Martialis, and the works of all these authors of the fourth century take Vindonius Anatolia. Palladius author of the fifth century undertakes work Vindonius Anatolia, Gargilius Martialis, Columella. At the end, the authors whose works have served as a source of work Cassian Basa who worked in the sixth century were Vindonius Anataolia, Palladius and Didymus Young. From these authors editor Geoponika directly take over texts, which is included in Geoponika.

From the remarks of anonymous editors get a chance to learn some things from his biography. Objections we therefore make it possible to determine the social class to which he belonged to the editor and ask the question, what kind of land he describes the techniques he practiced in agriculture.
As mentioned above, in many manuscripts and the compilations “Geoponika” Cassian Bas scholar ascribes authorship. This trend determination Cassian Basa as the author is present in the Middle Ages. In favor of authorship Cassian Basa had chosen and many later researchers, even those who have written on this subject in the 21st century. For example: Bassus K. Mikolajczyk, I., (2012). Geoponika Bizantynska Encyclopedia Rolnicza, Widawinictwo Naukowe, universities Mikola Copernicus, Torun. However, it should be noted that we have no evidence that would fully confirm the correctness of this assertion. In the literature many times it emphasized, and we fundamentally believe in it that the term scholar or scientist (σχολαστικος) is not an adequate terminology that is used in the X century. Furthermore, if we accept this argument, it remains unclear why still figures as the author Cassian Bas. Maybe because the name Bas as “the son of Bas” directly mentioned in the introduction to the book VII, VIII and IX where he is cited as the author.

We do not yet have enough information that we cannot say for sure what the name of the author or editor of “Geoponika.” For this reason we have chosen to believe the author of this work as the anonymous author. However, if we can fully argue and we agree with that attitude to most researchers that have studied this theme, and considered that “Geoponika” did author unknown time will tell.

So we can conclude that the encyclopedia is a compilation of information on agriculture that emerged from the Greek and Roman world through different experiences acquired by experimenting with an emphasis on good practice, but the highlight awareness of aesthetics, as the debate on housing and arrangement of the natural environment around the village. Many of the guidelines contained herein are, however, more fanciful than real and in practice are more the result of thinking that is adjacent to the unreality, like for example a recipe that creates a barren tree fertile, thus prevents them cut down, creating hybrid mulberry by grafting on a white poplars, production of white berries or placing special labels on fruit caused by engraving on the seeds from which the tree grows. But despite these guidelines we thank Geoponika yet have a comprehensive overview of the agrarian thought of the ancient world, which is collected in one place. Also thanks to this encyclopedia of us had been preserved many economic thoughts pertaining to agriculture and in their original versions remained lost for today’s science. Also thanks Geoponika for us have been preserved many economic thought pertaining to agriculture, and in their original versions remained lost for today’s science.

**Tarantinos texts contained in Palladius**

Texts that are considered that by Palladius taken from Tarantinos books relating to olive oil. Or to be more precise refer to retrieve the taste and quality of olive oil. Those are:

- 12.19, Cleaning dirty oil.
- 12.20, Foul-smelling oil.
- 12.21, Curing rancid oil.
**Tarantinos text contained in the Geoponika**

The texts that are related to Tarantinos situated in Geoponika refer to the following topics:

- 2.12, What seeds to sow in rich soil, what in middling and what in thinner soil?
- 2.27, On the granary or horreum and the storage of wheat;
- 4.4, The myrtle-grafted grape;
- 4.5, The early grape;
- 4.6, The late grape;
- 7.16, Treating wine that has begun to turn to vinegar;
- 9.21, How to make olive oil clean;
- 9.22, Treating rancid oil;
- 9.23, Treating bad-smelling olive oil;
- 9.24, Settling cloudy olive oil;
- 10.24, Cleft-grafting pears;
- 11.23, Growing violets;
- 12.41, Growing mushrooms;
- 20.6, Fishing.

**Analysis Tarantinos texts**

If we look carefully at the verses that are downloadable from Tarantinos they are varied. It starts with the text relating to the processing of fields and land to use. If you look at the texts which relate to the most important works in the field, we note the presence of a complex system of field crops, whose treatment has been used relatively intensive plowing using techniques that were known in ancient times and the Middle Ages, and contribute to increasing crops yield. Arable farming in the early Middle Ages had an extensive character. During this period there was an abandonment of the methods that have been effective against agriculture during the existence of the Roman Empire. The reasons for this should be sought in reducing the population of the country has been much exhausted the country is leaving without treatment because she could handle another country. Due to this way of land yields were small.

It continues with the text relating to the storage and preservation of wheat in storage areas or granary.

In book four, which is dedicated to grapes and grape processing permeated the three texts. Other texts also apply to wine and wine production is also included and can be found in the following sections Geoponika. As can be seen in the whole Geoponika growing grapes has been very important for the Roman and the Byzantine Empire. (Gaulin, 1984, p. 111-115) From these few texts we can read that there myrtle grapes, early and late varieties of grapes, as well as the technique of sour wine is wine of good quality. The knowledge that there are different grape varieties and techniques for improving the quality of the wine is the subject of constant interest of various researchers. (Anagnostakis, 2014, p. 38)

Book Nine Geoponika is dedicated to olive trees and has been producing olive oil. Use olive oil was the most widespread, feel free to be said that the diet of the Byzantine
Empire was based on three main elements, namely: bread, wine and olive oil. It follows that the olive oil constitutes an important element in the diet of the population. Climate and nervier complicated way of olives and olive oil have led to a large Then use. In addition to using nutrition olive oil has been used in the preparation of various medicinal potions. Palladius and editor Geoponika as their predecessors agronomists from ancient times, have written a lot about this activity. It is interesting to point out that both the author and the Palladius and anonymous editor Geoponika download the text relating to the processing of rancid, frosted and olive oil that smells bad. In this regard, in Table 1 we can comparative to see which texts were retrieved.

Table 1. Comparative review texts about by olive oil taken from Tarantinos

<table>
<thead>
<tr>
<th>Palladius</th>
<th>Geoponika</th>
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<tr>
<td>12.19, Cleaning dirty oil.</td>
<td>9.21, How to make olive oil clean.</td>
</tr>
<tr>
<td>12.20, Foul-smelling oil.</td>
<td>9.23, Treating bad-smelling olive oil</td>
</tr>
<tr>
<td>12.21, Curing rancid oil.</td>
<td>9.22, Treating rancid oil</td>
</tr>
<tr>
<td>/</td>
<td>9.24, Settling cloudy olive oil;</td>
</tr>
</tbody>
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Other books include the cultivation of fruits such as citrus fruit, pears, peaches, plums and so on. Editor Geoponika shows great interest in fruit growing. He writes about this issue with particular care. The shows great knowledge of the matter relating to the planting and grafting on fruit. He shows great knowledge of the matter relating to the planting and grafting of fruit.

Book twelve as it can be seen is important to research that is focused on the production of vegetables and theory of cultivation land, which is very important to gardening in the city Constantinople’s. (Koder, 1993) Garlic, onion, lettuce, mushrooms, mint, cabbage, basil were the main products are referred to as agricultural crops that are cultivated citizens Constantinople that time. An important place in the economy of Constantinople occupies gardening. In earlier times, however, showed great interests in this branch of agriculture. In ancient times it was shown great interest in this branch of agriculture. Thus, in Justinian’s novella 64, describing the rights and duties of course, dealing with gardening and horticulture. (Auth. LXV; Ep. Theod. 64; Ath. 21, 1; Iul. const. LVIII.)

Last text deals with fishing. This article contains information about fish that live in the sea and rivers, their reproduction and devouring each other. The names of some fish species are not listed. List the names of fish could give us a more detailed picture of which species is the most hunted. Unfortunately, in this Tarantinos text does not give out any details about the types of fish, assuming that it is obvious that all these species were known then readers.
Conclusion

By studying Tarantinos texts that have been published by the Palladius but also in Geoponika we can conclude the following. Palladius and anonymous editor Geoponika are only for our famous authors who have used the original Tarantinos work. Since we cannot have access to the original Tarantinos work we cannot determine whether his work is directly quoted. Also we cannot determine the authenticity of some heads was the anonymous editor Geoponika attributed Tarantinos. Yet despite all that remained preserved some thoughts and ideas that tarantinos made in his lost work, primarily thanks to the Palladius and anonymous editors Geoponika.

Agriculture is the time of the Roman Empire, and later the Byzantine Empire was and remains the main economic activity. However its share in the overall economy has been changing into later periods to the benefit mainly urban economy in a period of economic growth received more and more important. This statement should not be understood as a principle, for the whole history of Byzantium marked by cyclical ups and downs in the economic production.

The measures agricultural production of the Roman Empire came into a phase when it comes to the rationalization of farm work, which is increasingly modernized. Agricultural techniques are developed to a high degree: watering, fertilizing, selecting precious species. From the third century comes to a halt in the development of agriculture. Notice the first signs of decline. To re-growth of agricultural production comes only in the ninth century. That is why there is a need to move forward with collecting written materials that can be used to create encyclopedias on agriculture or Geoponika. Content Geoponika shows us that the Byzantine feudal agricultural production and craft techniques were not going backwards, as it is believed. In the Byzantine Empire in the ninth century and remained in use ancient agronomic techniques, which continues to be carefully studied and tested in practice, but there have been innovations that have arisen due to changes in lifestyle.

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*Auth. LXV ; Ep. Theod. 64 ; Ath. 21, 1 ; Iul. const. LVIII. http://droitromain.upmf-grenoble.fr/Corpus/Nov64.htm*

**Literature**


