Cheiron: The International Journal of Equine and Equestrian History
Vol. 5, Special Issue/2025
© The Authors 2025
Available online at
http://trivent-publishing.eu/

From Manuscript to Modernity: New Perspectives in the Study of Girkʿ Vastakocʿ

Hasmik Paremuzyan

Abstract

This paper explores the Armenian agricultural text Girkʿ Vastakocʿ, focusing on its manuscript tradition, distinctive linguistic features, and complex transmission history. By tracing its connections to the Arabic Anatolius tradition and critically reviewing the main scholarly debates concerning authorship, place, and time of translation, the study reconsiders long-standing assumptions about the origins and development of the work. The analysis highlights the layered and multilingual nature of its transmission and situates the text within broader patterns of cultural exchange, adaptation, and intellectual activity in medieval Armenian scholarly life.

Keywords

Girkʿ Vastakocʿ, Anatolius, medieval agricultural treatises, veterinary medicine, Arabic-Armenian translation

DOI: 10.22618/TP.Cheiron.20255.SI.196003

CHEIRON is published by Trivent Publishing

This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC-BY-NC-ND 4.0) license, which permits others to copy or share the article, provided original work is properly cited and that this is not done for commercial purposes. Users may not remix, transform, or build upon the material and may not distribute the modified material (http://creativecommons.org/licenses/by-nc/4.0/)

From Manuscript to Modernity: New Perspectives in the Study of Girkʿ Vastakocʿ

Hasmik Paremuzyan*

Abstract

This paper explores the Armenian agricultural text Girkʿ Vastakocʿ, focusing on its manuscript tradition, distinctive linguistic features, and complex transmission history. By tracing its connections to the Arabic Anatolius tradition and critically reviewing the main scholarly debates concerning authorship, place, and time of translation, the study reconsiders long-standing assumptions about the origins and development of the work. The analysis highlights the layered and multilingual nature of its transmission and situates the text within broader patterns of cultural exchange, adaptation, and intellectual activity in medieval Armenian scholarly life.

Keywords

Girkʿ Vastakocʿ, Anatolius, medieval agricultural treatises, veterinary medicine, Arabic-Armenian translation

I. Girkʿ Vastakocʿ and the publication history

In 1877, Łewond Ališan – renowned Armenian scholar and member of the Armenian Catholic Mekhitarist Congregation – published an edition of *Girkʿ Vastakocʿ* ("Book of Agricultural Labours"), a compilation of agricultural works drawn from multiple sources.[1] For a long time, it was considered to be an abbreviated translation of famous Greek Geoponica that was compiled

* Chair of Arabic Studies, Yerevan State University, Armenia.

[1] Girkʻ Vastakocʻ, Γεωπονικά. Tʿargmanowtʿiwn naxneacʿ yarabacʿi lezowê [Book of labours. Geoponica. Translation of ancestors from Arabic] (Venetik, 1877).

during the tenth century and has a dedication to Emperor Constantine VII Porphyrogenitus (r. 913-959).[2]

Ališan's edition was based on three manuscripts preserved in the libraries of the Mekhitarist Congregation. Two of these are currently housed in Venice: Ms. V 1616, which was brought to the island of San Lazzaro in 1815 by Archbishop Sukias Somalean upon his return from abroad, and Ms. V 225, acquired in Constantinople in 1831 by members of the Congregation.[3] The third manuscript, MS W 281 (formerly 26), is now preserved in the Mekhitarist library in Vienna and served as the primary basis for Ališan's published edition.

MS W 281 consists of 118 folios. The translator's colophon has not been preserved; however, a note at the end of fol. 115r records the date January 10, 1768 – presumed to be the date of copying – followed by another line that is no longer legible. A second colophon notes that Father Anania Jambazean, a Mekhitarian monk of the Monastery of Trieste, paid 20 piastres (Turkish kuruş) for the copying of Girkʻ Vastakocʻ in May 1787.[4]

In the preface to *Girkʻ Vastasakocʻ*, Ališan attempts to address the fundamental questions surrounding the text's authorship, translation, and historical context. He notes that the two Venetian manuscripts are nearly identical in their language and style – likely copied from the same Vorlage – whereas the Vienna manuscript exhibits a purer form of Classical Armenian (*Grabar*) and a more polished linguistic quality beyond transcription, Grigor

[2] The prologue addressed to the emperor ("sweet scion of the purple") praises the monarch for a rekindling of philosophy, rhetoric, science, and art, and declares that agriculture, along with army and clergy, forms a tripod for the ideal state. So much for the esteem in which this branch of ancient learning was held, adequate to explain the genesis of a comprehensive encyclopedia devoted to agricultural matters. There are many parallels between the Geoponica and the collection of veterinary texts known as the Hippiatrica. Cf. Robert H. Rodgers, „Julius Africanus in the Constantinian Geoponica," Die griechische landwirtschaftliche Literatur in arabischer Überlieferung am Beispiel des Anatolius, Texte und Untersuchungen zur Geschichte der altchristlichen Literatur: *Archiv für die Ausgabe der Griechischen Christlichen Schriftsteller der ersten Jahrhunderte*, Band 165, Die Kestoi des Julius Africanus und ihre Überlieferung, (Berlin-New York, 2009), 197-211.

[3] Sahak Čemčemean, Mayr cʻowcʻak hayerên jeṙagracʻ matenadaranin Mxitʻarean i Venetik [Catalogue of Armenian Manuscripts of Mekhitarist Library in Venice]. Hator 6, (Venetik: Surb Łazar, 1996), D-Z.

[4] According to Tašean, the manuscript was originally unpaginated; however, page and folio numbers have since been added and the entire manuscript is now paginated. See Yakovbos Tašean, *Cʻowcʻak hayerên jeṙagracʻ matenadaranin Mxitʻareancʻ i Vienna* [Catalogue of Armenian Manuscripts in the Mekhitarist Library in Vienna], Hator 1 (Vienna 1895), 705–706.

Dpir Palatʿacʿi – an eighteenth-century historian, lexicographer, and translator – also compiled a glossary of foreign terms (Arabic, Persian, and Turkish) found in the manuscript. Ališan drew heavily on both Grigor's careful copy of the text and his lexical annotations in preparing his edition. The glossary was later expanded and published alongside the main work,[5] further reflecting the importance of Grigor's contribution not only as a scribe but as a critical intermediary in preserving and elucidating the text's linguistic complexity.

Even prior to the 1877 edition, excerpts from the text had begun to circulate in scholarly circles, particularly through the pages of the Mekhitarist journal Bazmavēp. The first excerpt appeared in 1862 under the title "Kʿałowšacoy bankʿ i Vastakocʿ grocʿ" [Selected Sayings from *Girkʻ Vastakocʻ*], comprising chapters 220–233.[6] Additional selections were published in 1864,[7] 1867,[8] and 1874,[9] reflecting growing interest in this manuscript among Armenian scholars of the nineteenth century.

The question of the original authorship of the treatise is addressed in the manuscripts themselves. In the colophon of the Armenian manuscripts, a certain "Bonios Anatolios, from the city of Beruta," who divided it into 14 books, is mentioned as the author of the work. Ališan likens this author to Vindanius Anatolius Berytus,[10] mentioned in the Bibliotheca of the ninth-century Patriarch Photius I (Bibliotheca cod. 163), whose work (*Synagōgē geōrgikōn epitēdeumatōn,* "Collection of Agricultural Practices") consisted of 12 books.[11] Most scholars agree on Anatolius' identity. His compilation contained information on many different aspects of agriculture and rural life, including the care, breeding, and medical treatment of animals. The precise date of Anatolius' text remains uncertain. Anne McCabe proposes a *terminus post quem* based on Anatolius' reliance on the *Kestoi* of Julius Africanus, composed in the first half of the third century AD, and a *terminus ante quem* from the incorporation of Anatolius' material into Palladius' agricultural manual, likely dating to the mid-fifth century AD. Anatolius has been identified with the jurist Anatolius of Berytus, who held various high-ranking

[5] Girkʿ Vastakocʿ, ŽZ-ŽÊ.

[6] "Kʿałowšacoy bankʿ i Vastakocʿ grocʿ," [Selected Sayings from *Girkʻ Vastakocʻ*]. *Bazmavêp* 3 (1862), 93–95.

[7] I Vastakocʿ grocʿ, [From Girkʻ Vastakocʻ], *Bazmavêp* 22 (1864), 27.

[8] I Vastakocʿ grocʿ, [From Girkʻ Vastakocʻ], *Bazmavêp* 25 (1867), 358-359.

[9] Arsen Sukrean, "Girkʻ Vastakocʻ," *Bazmavêp* 32, (1874), 321-328.

[10] Girkʻ Vastakocʻ, 1.

[11] Ibid, Ə-Tʿ.

positions in the mid-fourth century.[12] The name *Bonios Anatolius*, preserved in the Armenian manuscript preface, as Carl Brockelmann suggested in his "Die armenische Übersetzung der Geoponica," is a corrupted version of Yūniyūs:[13] letter b in Arabic has 1 diacritical mark, while letter y has 2, hence the absence of one diacritical mark could lead to above mentioned misreading. The name Yūniyūs is associated with Anatolius in the Syriac and Arabic traditions, and according to Ullmann is a distorted rendering of *Vindanius*.[14] Anatolius' compilation was later incorporated into *Peri geōrgias eklogai* (*Selections on Agriculture*) by Cassianus Bassus the Scholasticus, a sixth-century compiler. In the tenth century, Cassianus' version was re-edited and presented as Constantinian Geoponica. With the exception of a few fragments, the original Greek text of Anatolius work has not survived.[15]

Ališan argued that the Armenian version derives not directly from the Greek, but from an intermediary Arabic translation of Anatolius' agricultural treatise. His argument is primarily based on the presence of Arabic lexicon within the Armenian text – particularly terms related to constellations, plants, and animals.[16] Łewond Hovnanean (1887-1890 editor-in-chief of the journal Handēs Amsôreay of the Mekhitarist Congregation in Vienna) likewise emphasized these features, pointing to the linguistic and structural evidence of an Arabic intermediary. A striking example is the use of the Armenian word duṛ ("door") to designate chapter divisions – a term not typically used for textual structuring in Armenian manuscripts. This choice strongly echoes the Arabic use of *bāb* ("gate" or "chapter"), suggesting that the translator modelled the organizational framework of the text on an Arabic source, even while rendering it in Armenian.[17] In addition, Sukrean also mentions the fact

[12] Anne McCabe, *A Byzantine Encyclopaedia of Horse Medicine: The Sources, Compilation, and Transmission of the Hippiatrica* (Oxford University Press, 2007), 71-72.

[13] Carl Brockelmann, "Die armenische Übersetzung der Geoponica," *Byzantinische Zeitschrift* Band 5, Heft 3 (1896): 385-409. DOI : https:// doi.org/10.1515/byzs.1896.5.3.385.

[14] *Manfred Ullmann, "Die Natur und Geheimwissenschaften im Islam, " Handbuch der Orientalistik Bd. 6,1,2 (Leiden/Köln: E. J. Brill, 1972), 431-432.*

[15] Parisinus graecus 2313, fol. 49 v. cf. Hernricus Beckh, "De Geoponicorum codicibus manuscriptis," in *Acta seminarii philologici Erlangensis*, Vol. 4 (Universität Erlangen, 1886), 261-346, and P. Vindob. G 40302 cf. Amphilochios Papathomas: "Das erste Zeugnis für die veterinärmedizinische Exzerptensammlung des Anatolios von Berytos," *Wiener Studien* 113 (2000): 135-151.

[16] Girkʻ Vastakocʻ, ŽB-ŽD.

[17] Łewond Hovnanean, "Hetazōtutʻiwnkʻ naxneacʻ ŕamkōrēnin vray: Ŕamkōrēn matenagrowtʻiwn 13: G. Ponios Anatolios Peritʻacʻi: Girkʻ Vastakocʻ kam Erkravastakkʻ" [Studies on the Vernacular Language of ancestors, Bonios Anatolius Berytus, Girkʻ

that the knowledge of Greek among Armenians had declined after the ninth century.[18]

Łewond Ališan attributes the Armenian translation of the *Geoponica* to the Armenian Kingdom of Cilicia, situating its creation in the thirteenth century (earlier than that).[19] This view is supported by both the historical context of Armenian literary production in Cilicia and by references to Cilicia (Chapters 273, 274, 275) found in the manuscript tradition.[20] In addition, Ališan refers to a colophon from another Armenian manuscript – a compilation on alchemy – which states that King Hetʿum I of Cilicia (r. 1226–1270) commissioned the translation of three works: one on farriery (horse treatment), another on sword-making, and a third titled *On the Sun and the Moon* (on alchemy).[21] Based on this reference, Ališan speculated that *Girkʿ Vastakocʿ* may have belonged to a similar group of translated texts.[22]

Carl Brockelmann offered an alternative hypothesis regarding the origins of the Armenian translation of *Girkʿ Vastakocʿ*, arguing for a connection with Poland rather than Cilicia. He based this theory on the appearance of the toponym *Polonacʿikʿ/Poloniacʿikʿ* in the Armenian text, which he interpreted as a reference to Poland. Brockelmann suggested that historical interactions between Armenians and Poland – particularly following the migration of Armenians after the fall of Ani in 1060[23] – may have facilitated the translation. He further proposed that the Armenian version was translated from an Arabic source, and that phonetic shifts or misreadings may have led to erroneous

Vastakocʿ], *Handês Amsôreay* 1 (Yownowar 1889), 1-4 and *Handês Amsôreay* 2 (Pʿetrvar 1889), 21-24.

[18] Sukrean, Girkʻ Vastakocʻ, 323.

[19] Girkʻ Vastakocʻ, ŽE.

[20] Ibid, ŽD.

[21] This passage is taken from the colophon of an Armenian Alchemy book a copy of which is kept in the National Library of France, Arménien 248 (colophon is on fol. 98); cf. A. Ter-Stépanos Kévorkian, Manuscrits arméniens de la Bibliotèque nationale de France (Paris: Fondation Calouste Gulbenkian; 1998), 814-816. See also Jasmine Dum-Tragut, "Medieval Equine Medicine from Armenia," in *Equine Science*, ed. Catrin S. Rutland and Albert Rizvanov (2020), 1-13, DOI: http://dx.doi.org/10.5772/intechopen.91379. And Jasmine Dum-Tragut, "Meeting in the body of the horse: An interdisciplinary research project on knowledge transfer in equine medicine: Exploring our starting points, our current status, and charting our future direction," in this Issue.

[22]Girkʻ Vastakocʻ, ŽE.

[23]On Armenians migration to Poland see, Aršak Altʿownean, Tełekagrowtʿiwn hayocʿ gałtʿakanowtʿean orkʿ i Moltô-Valakʿia, Howngaria ew i Lehastan: owłeworowtʿiwn yʾamin 1876 [A Report on the Armenian Emigration to Moldavia-Wallachia, Hungary and Poland. Travel in 1876]. (Fokʿšan, 1877), 20-23.

associations. For example, he argued that the letter "P" in *Polonia* could have been rendered as "B" in Arabic, and the letter "l" potentially misread as a Greek "a," leading to a distorted interpretation of the place name. Based on these observations, Brockelmann tentatively dated the translation to the late Middle Ages.[24]

In contrast, Carlo Scardino firmly rejects the identification of *Polonacʿikʿ* with Poland. He contends that the term more accurately refers to the region of Bithynia[25] (*Bītūniyā* in Arabic) and that the Armenian translator likely misinterpreted the Arabic name due to missing diacritical marks or other orthographic ambiguities. Scardino supports his argument by noting that references to *Polonacʿikʿ* in the Armenian text consistently appear alongside mentions of Bithynia in the Arabic version of Anatolius. He further strengthens his claim by comparing the locations mentioned in several chapters of the Armenian text (e.g., chaps. 91, 94, 110) with their parallels in the Arabic version (e.g., chaps. 6, 3.6, 13), which clearly indicate a correspondence with Bithynia rather than Poland.[26]

Stepʿan Sarean has also responded critically to Brockelmann's theory. He emphasized that the first Armenians to settle in Poland were primarily merchants and pointed to the complete absence of Polish lexical influence in the text. He further argued that the problematic toponym *Bolonia* should be understood as a scribal error, undermining the hypothesis of a Polish origin.[27] Additionally, while acknowledging the value of Brockelmann's comparative analysis of chapters, Fehrle has noted that Brockelmann's conclusions contain a number of uncertainties and require further investigation.[28]

---

[24] Brockelmann, „Die armenische Übersetzung der Geoponica," 385-409.

[25] A division of Asia Minor, which occupied the eastern part of the coast of the Propontis, the east coast of the Thracian Bosporus, and a considerable part of the coast of the Euxine, cf. "Bithynia," *Dictionary of Greek and Roman Geography*, ed. William Smith (London: Walton & Maberly, 1854), https://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.04.0064:entry=bithynia-geo (accessed: June 29, 2025).

[26] Carlo Scardino, „Edition antiker landwirtschaftlicher Werke in arabischer Sprache," *Scientia Graeco-Arabica*, Band 1: Prolegomena (Boston/Berlin: de Gruyter, 2015), 74-79.

[27] Stepʿan Sarean, "K. Prōkʿelman ew Girkʿ Vastakocʿi hayeren tʿargmanuwtʿiwnn" [C. Brockelmann and the Armenian translation of Girkʿ Vastakocʿ], *Bazmavêp 1* (Yownowar 1900), 4-7 and *Bazmavêp 2* (Pʿetrvar 1900) 52-58. See also Hasmik Mkrtčʼyan, "Girkʿ vastakocʿi hayeren tʿargmanutʿyan bnagri šurǰ" [On the Original Text of the Translation of Girkʿ Vastakocʿ], *Iran-Namē* 4-5 (1996): 42-45.

[28] Eugen Fehrle, *Zur Geschichte der griechischen Geoponica*, Habilitationsschrift zur Erlangung der Venia legendi der hohen philosophischen Fakultät der Universität Heidelberg (Leipzig: B. A. Teubner, 1913), 3.

These broader debates concerning authorship, transmission routes, and geographic attribution converge on another pivotal issue: the identity of the Armenian translator of *Girkʿ Vastakocʿ*. This question has received particular attention from Nersēs Andrikean – a distinguished philologist, member of the Mekhitarist Congregation, and editor-in-chief of the journal Bazmavêp (1910–1912). In an article dedicated to the problem of authorship, Andrikean proposed that Mxitʿar Heracʿi – a prominent twelfth-century Armenian physician and scholar – may have been the translator. His attribution rests primarily on a comparative linguistic analysis of Mxitʿar Heracʿi's "J̌ermancʿ mxitʿarutʿiwn" [*Relief of Fevers*] and *Girkʿ Vastakocʿ*, both of which exhibit similar stylistic features, as well as on Heracʿi's known proficiency in Arabic – a necessary skill, if the Armenian text indeed derives from an Arabic intermediary.[29]

A similar view was put forward by Melik-Tevekel in an article published in the Constantinople-based newspaper *Arewelkʿ*, in which he also identified Heracʿi as the likely translator. His reasoning emphasized Heracʿi's mastery of *Grabar* and the structural and terminological parallels between *J̌ermancʿ mxitʿarutʿiwn* and *Girkʿ Vastakocʿ*.[30] Both authors, consequently, date the translation to the twelfth century. However, the hypothesis rests on limited evidence and lacks corroborating documentary sources. There is no surviving indication that Mxitʿar Heracʿi translated or compiled any works related to agriculture or veterinary science.

Moreover, it has been rightly noted that Mxitʿar Heracʿi was likely not the only Armenian in Cilicia at the time with knowledge of Arabic. Even if his linguistic skills were exceptional, the region was home to numerous Syrian translators and cultural intermediaries fluent in both Armenian and Arabic.[31] One such figure was the physician Farač Asori, whose name is associated with the Armenian treatise on equine medicine, "Bžškaran jioy ew aṙhasarak grastnoy" a thirteenth-century translation from Arabic.[32] These examples suggest that the pool of potential translators was broader than traditionally

[29]Nersēs Andrikean, "Vastakocʿ grkʿin tʿargmaničʿĕ" [The translator of Girkʿ Vastakocʿ], *Bazmavêp* 10 (1906): 435-439.

[30] Melik-Tevekel, "Girkʿ Vastakocʿi ancanōtʿ tʿargmaničʿĕ" [The unknown translator of Girk' Vastakocʿ], *Arewelkʿ* 6798 (K. Pôlis, 16 mayis 1908).

[31] Mkrtčʿyan, "Girkʿ vastakocʿi hayeren tʿargmanutʿyan bnagri šurǰ," 43.

[32] For more information about the identity of Farač Asori and his link to Armenian and Arabic horse treatises see Dum-Tragut. Jasmine Dum-Tragut, "Meeting in the body of the horse: An interdisciplinary research project on knowledge transfer in equine medicine: Exploring our starting points, our current status, and charting our future direction."

assumed and that cultural transmission in Cilician Armenia may have involved diverse channels and contributors beyond a single prominent figure.

Although this attribution remains speculative, it has found currency among several scholars. Fehrle and Vázquez de Benito have adopted the theory, referring to Mxitʿar Heracʿi as the translator of *Girkʿ Vastakocʿ* in their publications without sufficiently engaging with the tentative nature of the original Armenian scholarship on which the claim is based.[33]

In sum, while the Armenian version of *Girkʿ Vastakocʿ* can be confidently attributed to the Greek agronomist Anatolius – whose name and structure are preserved in the Armenian manuscripts – and while there is strong linguistic and contextual evidence pointing to an Arabic intermediary, many aspects of the text's transmission remain unresolved. The place of translation is most plausibly located in Cilician Armenia, though this too requires further substantiation. The identity of the translator, as well as the precise date of translation, continues to elude definitive attribution despite hypotheses linking the work to Mxitʿar Heracʿi and the twelfth century. These uncertainties underscore the importance of turning to the Arabic tradition itself.

II. The Arabic Manuscripts of Anatolius and their connection to Girkʿ Vastakocʿ

As noted above, *Girkʿ Vastakocʿ* is widely identified as a translation of Vindanius Anatolius' agricultural treatise. Jaakko Hämeen-Anttila has called this identification a breakthrough in the study of Anatolius' transmission.[34] The Arabic tradition of Anatolius survives in two traditions – commonly referred to as ***Anatolius A*** and ***Anatolius B***. These differ significantly in structure, content, and transmission history.

Anatolius A, also referred to as *Anatolius Arabicus*, is preserved in Arabic, Syriac, and Armenian manuscripts. The Syriac version, attributed to Sergios of Rēš ʿAinā or one of his students, survives in a single, contaminated

[33] See Eugen Fehrle, "Zur Geschichte der griechischen Geoponica," 3 and El manuscrito número XXX de la Colección Gayangos, folios 1–98, ed. Maria Concepción Vázquez de Benito, *Boletín de la Asociación de Orientalistas* 9 (1973): 73–124.

[34] Jaakko Hämeen-Anttila, "The Oriental Tradition of Vindanius Anatolius of Berytus' 'Synagōgē geōrgikōn epitēdeumatōn," *Wiener Zeitschrift für die Kunde des Morgenlandes*, Vol. 94 (Vienna: Department of Oriental Studies, University of Vienna, 2004), 73-108.

manuscript (British Museum, MS 14662) and was published by Paul de Lagarde in 1860.[35]

The Arabic version of *Anatolius A* came into sharper focus in 1971, when Fuat Sezgin identified two manuscripts: ***Mašhad Riḍāʾ 5762*** (dated 732 AH) held in the Imam Reza Library in Mashhad, Iran,[36] and a later copy (***Millī 796***, dated 1303 AH) in the National Library of Tehran.[37] According to Ullmann, this version was likely produced in the ninth century by translators from the circle of Yaḥyā al-Biṭrīq or Ḥunayn ibn Isḥāq.[38] It also served as a source for later agronomic works,[39] including the *al-Filāḥa an-Nabaṭiyya*,[40] and is echoed in texts by Andalusian scholars Ibn al-Ḥaǧǧāǧ[41] and Ibn al-ʿAwwām.[42]

The second tradition of Anatolius' text, ***Anatolius B***, is preserved in two known Arabic manuscripts,[43] found only in 2 Arabic witnesses. In 1931, the Syrian Catholic priest Paul Sbath announced that he had acquired a fifteenth-century Arabic translation of Anatolius titled *Kitāb Filāḥat al-arḍ li-Anatūliyūs*. He published the first six chapters of the first book and provided a detailed description of the manuscript. Exceptionally well-preserved, the manuscript originally comprised **171 numbered folios**, each containing fifteen lines of

---

[35] *Geoponicorum in sermonem Syriacum versorum quae supersunt*, ed. Paul de Lagarde (Leipzig, 1860).

[36] Fuat Sezgin, *Geschichte des Arabischen Schrifttums*, vol. 4 (Leiden, 1971), 315.

[37] Ibidem.

[38] *Yaḥyā al-Biṭrīq and Ḥunayn ibn Isḥāq 2 of most prominent translators and scholars of the Graeco-Arabic translation movement. For more information on translators of this movement, see Dimitri Gutas, Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early ʿAbbāsid Society (2nd–4th/8th–10th Centuries) (London: Routledge, 1998), 136-141.*

[39] *Ullmann, Die Natur- und Geheimwissenschaften im Islam, 432.*

[40] *The Nabatean Agriculture was compiled by Ibn Waḥshiyya in the tenth century, cf. Karl Butzer, "The Islamic Traditions of Agroecology: Crosscultural Experience, Ideas and Innovations," Ecumene Vol. 1, No. 1 (January 1994): 7-50.*

[41] *The first author of the Sevillian agronomic school, who completed an agricultural work in 1074, cf. Butzer, "The Islamic Traditions of Agroecology," 7-50.*

[42] *Ibn al-ʿAwwām of Sevilla is considered to be the most prominent Andalusian agricultural scientist. In his work Kitāb al -Filāḥa, the compilations of Anatolius and Cassianus are his major sources for Graeco-Roman materials; in the first half of his work, these were cited after Ibn al-Ḥaǧǧāǧ, but subsequently they are not, suggesting that Ibn al-ʿAwwām was eventually able to obtain copies of his own. In addition, in his work Ibn al-ʿAwwām added his own practical experience, cf. Butzer, "The Islamic Traditions of Agroecology," 7-50, John Harvey, "Gardening Books and Plant Lists of Moorish Spain," Garden History Vol. 3, No. 2 (Spring, 1975): 10-21. Also see Lois Olson and Helen Eddy, "Ibn-Al-Awam: A Soil Scientist of Moorish Spain," Geographical Review Vol. 33, No. 1 (January, 1943), 100-109.*

[43] Scardino, "Edition antiker landwirtschaftlicher Werke in arabischer Sprache," *113–130, and 327–328.*

clear, elegant script – what Sbath described as "very fine writing." According to the colophon, the copy was produced in the year **839 AH** (1436 AD).[44]

The **colophon** to this version diverges significantly from that of *Anatolius A*, both in content and attribution of sources. It states that the translation was made directly from Greek in the year **179 AH (795 AD)** by three translators: the Patriarch of Alexandria (identified as the physician Politianus),[45] the Metropolitan of Damascus, and the monk Eustathios – who is known from other translations. The translation was reportedly undertaken at the request of **Yaḥyā ibn Barmak**, vizier to Caliph Hārūn ar-Rašīd (r. 786–809). If this account is accurate, it would make *Anatolius B* one of the **earliest Greek–Arabic translations** known to us.

Scardino, building on the earlier research of Sbath and Ullmann, argues for the early dating of this version based on a set of distinctive linguistic features. He notes, in particular, the use of full transliterations of Greek names – for example, *Arisūtālīs* for Aristotle instead of the later abbreviated form *Aristū*, and *Buqrātīs* for Hippocrates rather than *Buqrātī*. The text also employs the archaic term *muṣḥaf* for "book," instead of the more commonly used *maqāla*, found in later Arabic technical literature. Together, these features point to an early stage of translation activity, preceding the more standardized terminology and practices characteristic of the ninth and tenth centuries.[46]

Sbath described this version as an **abridged (*abrégé*)** version of the original Anatolian treatise. The manuscript was long considered lost and remained unexamined until **Carlo Scardino** successfully traced its whereabouts. It had entered the collections of the **Georges and Mathilde Salem Foundation in Aleppo**, catalogued as **MS Ar. 377**.[47] Scardino obtained a **nearly complete digitized copy**, now preserved at the **Hill Museum & Manuscript Library (HMML)** in the United States.[48]

---

[44] *Paul Sbath, "L'ouvrage géoponique d'Anatolius de Bérytos (iVe siècle),"* *Bulletin de l'Institut d'Égypte 13 (1931): 47-54.*

[45] Sbath, "*L'ouvrage géoponique d'Anatolius de Bérytos*," 47-54 and *Paul Sbath, Bibliothèque de manuscrits Paul Sbath, vol. 3 (Cairo, 1934).* See also Scardino, Edition antiker landwirtschaftlicher Werke in arabischer Sprache, 147-148.

[46] Scardino, "Edition antiker landwirtschaftlicher Werke in arabischer Sprache," 148 *and Ullmann, "Die Natur- und Geheimwissenschaften im Islam," 431.*

[47] Christophe Guignard, "L'agriculture en syriaque: l'Anatolius Syriacus ('Géoponiques syriaques')," in *Les sciences en syriaque* (Études syriaques 11), ed. Émilie Villey (Paris: Geuthner, 2014), 215-252.

[48] MS Sbath (Ar. 377) is available in Hill Museum and Manuscript Library online reading room https://www.vhmml.org/readingRoom/view/501747 (accessed June 25, 2025).

A **second witness** to *Anatolius B*, although of inferior quality, is found in the **Gayangos Collection in Madrid (MS No. XXX)**. This version, consisting of **98 folios**, was published by **Vázquez de Benito in 1973**. Interestingly, its prologue does not name Anatolius as the author but attributes the work to a certain **Balyās al-Ḥakīm**. Based on the close similarity of the opening chapters with those published by Sbath, Vázquez de Benito identified *Balyās* as another corrupted version for Anatolius' name.[49]

Prior to Scardino's systematic division of the Anatolius' corpus, Ullmann had already proposed an alternative theory regarding the origins of the second tradition. The Syriac translation of Anatolius' compendium attributes the work to a certain Yūniyūs, which Ullmann interprets as a corrupted form of Vindanius. On this basis, he argues that the second Arabic tradition may have been translated not directly from the Greek original, but from a Syriac intermediary, through which the distorted name Yūniyūs entered the Arabic textual tradition.[50]

This layered transmission history is further complicated by ongoing debates regarding the original structure of Anatolius' work. According to Scardino, it is possible that Photius, in his *Bibliotheca*, consulted a version that contained only the first twelve books – focused exclusively on agricultural knowledge – while the Oriental translations may stem from a recension that had already integrated a veterinary section into the corpus, assuming such a section ever existed as an independent work. Significantly, as Scardino mentions, Books 1–12 contain no references to Books 13 and 14, nor do the latter refer back to the earlier books. This internal discontinuity has led to hypothesize that Anatolius may have authored two separate works: a twelve-book agricultural treatise and a now-lost veterinary manual, fragments of which survive in the *Hippiatrica* and the *Geoponica*. These two bodies of material may have been combined at a later stage, with the veterinary content appended as Books 13 and 14.[51] In this context, Hämeen-Anttila points out that, if such a redacted version existed, it must have been completed before the emergence of the Oriental tradition, which consistently transmits the work in fourteen books.[52]

Considering the current state of research and the absence of more conclusive evidence, it remains difficult to determine with certainty whether Anatolius' original compilation consisted of twelve or fourteen books. What

[49] *El manuscrito número XXX de la Colección Gayangos*, ed. Vázquez de Benito, 73–75.
[50] *Ullmann, Die Natur- und Geheimwissenschaften im Islam,* 432
[51] Scardino, "Edition antiker landwirtschaftlicher Werke in arabischer Sprache," 129-130.
[52] Hämeen-Anttila, "The Oriental Tradition of Vindanius Anatolius of Berytus," 95.

is clear, however, is that the Armenian *Girkʿ Vastakocʿ* emerged from a transmission line already shaped by these layered textual histories and thus deserves closer examination in relation to the Arabic and Syriac versions.

III. Conclusion

The Armenian *Girkʿ Vastakocʿ* stands as a significant testament to the transmission and transformation of agronomic knowledge in the medieval Armenian intellectual tradition. As the evidence demonstrates, the Armenian text derives from the Arabic Anatolius A tradition, and not directly from the Greek original. Linguistic and structural features confirm the use of an Arabic intermediary and reflect the translator's engagement with Arabic textual conventions.

The broader historical trajectory of the text – from Vindanius Anatolius to its Arabic adaptations and finally to the Armenian version – reveals a complex process of transmission shaped by evolving scholarly environments. The most plausible context for the translation remains Cilician Armenia during the thirteenth century, supported by internal references and stylistic features. However, the precise time, location, and identity of the translator remain unresolved. While the hypothesis linking the work to Mxitʿar Heracʿi remains compelling, it lacks direct documentary evidence and must be treated with caution.

This layered transmission – Greek into Arabic, and then into Armenian – helps to explain many of the structural and terminological peculiarities of the Armenian text. *Girkʿ Vastakocʿ* thus occupies a key position in the wider dissemination of Anatolius' agronomic knowledge, preserving not only core content but also linguistic and geographical ambiguities inherited from its intermediary sources. Understanding these transmission lines is essential for interpreting both the translation practices and the broader cultural contexts that shaped the Armenian version.

Additionally, the distinction between the twelve-book structure preserved in the Anatolius B tradition and the fourteen-book version found in Arabic, Syriac, and Armenian witnesses highlights the significance of the veterinary chapters (Books 13 and 14). These may represent either a separate treatise later appended to Anatolius' agronomic corpus or an expanded version that circulated in the Syriac and Arabic-speaking world. Their presence in the Armenian *Girkʿ Vastakocʿ* not only links the text to the Oriental tradition but also raises important questions about textual development, redactional layers, and the adaptation of veterinary knowledge in the medieval period.

Consequently, a comparative study of the veterinary chapters in *Girkʿ Vastakocʿ* (290–332) alongside the *Mašhad Riḍāʾ* manuscript and other Arabic works that preserve veterinary material from the Anatolius A tradition will deepen our understanding of the Armenian text's philological profile and clarify how veterinary knowledge was adapted and transmitted within Armenian and Armenian-Arabic contexts. Placing *Girkʿ Vastakocʿ* in conversation with texts such as *Bžškaran jioy* and other medico-agricultural compilations will, in turn, illuminate broader patterns of cultural and scientific continuity.

Ultimately, *Girkʿ Vastakocʿ* reflects a dynamic interplay of preservation and innovation. Its study enhances our understanding of how medieval Armenian scholars participated in the wider currents of knowledge exchange, translation, and adaptation across linguistic and cultural boundaries.

Bibliography

Altʿunean, Aršak. *Tełekaguowtʿiwn hayocʿ gałtʿakanutʿean orkʿ i Moltô-Valakʿia, Hungaria ew i Lehastan: Ułeworowtʿiun yamin 1876* [A Report on the Armenian Emigration to Moldavia-Wallachia, Hungary and Poland. Travel in 1876]. Fokʿšan, 1877.

Andrikean, Nersēs. "Vastakocʿ grkʿin tʿargmaničʿē" [The translator of Girkʿ Vastakocʿ]. *Bazmavēp* 10 (1906): 435-439.

Beckh, Henricus. "De Geoponicorum codicibus manuscriptis." In *Acta Seminarii Philologici Erlangensis*, Vol. 4, 261–346. Universität Erlangen, 1886.

Brockelmann, Carl. "Die armenische Übersetzung der Geoponica." *Byzantinische Zeitschrift* 5, no. 3 (1896): 385–409. https://doi.org/10.1515/byzs.1896.5.3.385.

Butzer, Karl. "The Islamic Traditions of Agroecology: Crosscultural Experience, Ideas and Innovations." *Ecumene* 1, no. 1 (January 1994): 7–50.

Čemčemean, Sahak. *Cʿuwcʿak hayerēn jerāgracʿ matenadaranin Mxitʿarean i Venetik* [Catalogue of Armenian Manuscripts of Mekhitarist Library in Venice]. Vol. 6. Venetik: Surb Łazar, 1996.

Dum-Tragut, Jasmine. "Medieval Equine Medicine from Armenia." In *Equine Science*, ed. Catrin S. Rutland and Albert Rizvanov, 1–13. 2020. https://doi.org/10.5772/intechopen.91379.

Dum-Tragut, Jasmine. "Meeting in the body of the horse: An interdisciplinary research project on knowledge transfer in equine medicine: Exploring our starting points, our current status, and charting our future direction." In this Issue.

Fehrle, Eugen. Zur Geschichte der griechischen Geoponica. Leipzig: B. A. Teubner, 1913.

Girkʻ Vastakocʻ. *Γεωπονικά. Tʿargmanutʿiwn naxneacʿ yarabacʿi lezuê* [Book of Labors. Geoponica. Translation of Ancestors from Arabic]. Venetik, 1877.

Guignard, Christophe. "L'agriculture en syriaque: l'Anatolius Syriacus ('Géoponiques syriaques')." In *Les sciences en syriaque (Études syriaques 11)*, ed. Émilie Villey, 215–252. Paris: Geuthner, 2014.

Gutas, Dimitri. Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early ʿAbbāsid Society (2nd–4th/8th–10th Centuries). London: Routledge, 1998.

Harvey, John. "Gardening Books and Plant Lists of Moorish Spain." *Garden History* 3, no. 2 (Spring 1975): 10–21.

Hämeen-Anttila, Jaakko. "The Oriental Tradition of Vindanius Anatolius of Berytus." *Synagōgē geōrgikōn epitēdeumatōn*. *Wiener Zeitschrift für die Kunde des Morgenlandes* 94 (2004): 73–108.

Hovnanean, Łewond. "Hetaztutʿiwunkʿ naxneacʿ ṙamkōrênin vray: Ṙamkōrēn matenagrutʿiwn 13: G. Ponios Anatolios Peritʿacʿi: Girkʿ Vastakocʿ kam Erkravastakkʿ" [Studies on the Vernacular Language of ancestors, Bonios Anatolius Berytus, Girkʿ Vastakocʿ]. *Handēs Amsōreay* 1 (Yunowar 1889): 1–4, and *Handēs Amsōreay* 2 (Pʿetrowar 1889): 21–24.

"I Vastakocʿ grocʿ" [From *Girkʻ Vastakocʻ*]. *Bazmavēp* 22 (1864): 27.

"I Vastakocʿ grocʿ" [From *Girkʻ Vastakocʻ*]. *Bazmavēp* 25 (1867): 358–359.

"Kʿałušacoy bankʿ i Vastakocʿ grocʿ" [Selected Sayings from *Girkʻ Vastakocʻ*]. *Bazmavêp* 3 (1862): 93–95.

Kévorkian, Ter-Stépanos. *Manuscrits arméniens de la Bibliothèque nationale de France*. Paris: Fondation Calouste Gulbenkian, 1998.

Lagarde, Paul de, ed. *Geoponicorum in sermonem Syriacum versorum quae supersunt*. Leipzig: 1860.

McCabe, Anne. *A Byzantine Encyclopaedia of Horse Medicine: The Sources, Compilation, and Transmission of the Hippiatrica*. Oxford: Oxford University Press, 2007.

Melik-Tevekel. "Girkʿ Vastakocʿi ancanōtʿ tʿargmaničʿē" [The Unknown Translator of *Girkʻ Vastakocʻ*]. *Arewelkʿ* 6798 (K. Polis, May 16, 1908).

Mkrtčʻyan, Hasmik. "Girkʿ vastakocʿi hayeren tʿargmanutʿyan bnagri šurǰ" [On the Original Text of the Translation of *Girkʿ Vastakocʿ*]. *Iran-Namê* 4–5 (1996): 42–45.

Olson, Lois, and Helen Eddy. "Ibn-Al-Awam: A Soil Scientist of Moorish Spain." *Geographical Review* 33, no. 1 (January 1943): 100–109.

Papathomas, Amphilochios. "Das erste Zeugnis für die veterinärmedizinische Exzerptensammlung des Anatolios von Berytos." *Wiener Studien* 113 (2000): 135–151.

Rodgers, Robert H. "Julius Africanus in the Constantinian Geoponica." In *Die griechische landwirtschaftliche Literatur in arabischer Überlieferung am Beispiel des Anatolius*, *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur*, vol. 165. *Die Kestoi des Julius Africanus und ihre Überlieferung*, 197–211. Berlin–New York: 2009.

Sarean, Stepʿan. "K. Prōkʿēlman ew Girkʿ Vastakocʿin hayerēn tʿargmanowtʿiwnn" [C. Brockelmann and the Armenian Translation of u*Girkʿ Vastakocʿ*]. *Bazmavēp* 1 (Yunwar 1900), 4-7 and *Bazmavēp* 2 (Pʿetrvar 1900): 52–58.

Scardino, Carlo. *Edition antiker landwirtschaftlicher Werke in arabischer Sprache*. Scientia Graeco-Arabica, vol. 1: *Prolegomena*. Boston/Berlin: de Gruyter, 2015.

Sbath, Paul. "L'ouvrage géoponique d'Anatolius de Bérytos (IVe siècle)." *Bulletin de l'Institut d'Égypte* 13 (1931): 47–54.

——. *Bibliothèque de manuscrits Paul Sbath*. Tome III. Cairo, 1934.

Smith, William, ed. *Dictionary of Greek and Roman Geography*. London: Walton & Maberly, 1854. https://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.04.0064:entry=bithynia-geo. Accessed June 29, 2025.

Sukrean, Arsen. "Girkʻ Vastakocʻ." *Bazmavēp* 32 (1874): 321–328.

Tašean, Yakovbos. Cʿucʿak hayerēn jeṙagracʿ matenadaranin Mxitʿareancʿ i Vienna [Catalogue of Armenian Manuscripts in the Mekhitarist Library in Vienna], Hator 1. Vienna 1895.

Ullmann, Manfred. *Die Natur und Geheimwissenschaften im Islam*. Handbuch der Orientalistik Bd. 6,1,2. Leiden/Köln: E. J. Brill, 1972.

Vázquez de Benito, Maria Concepción, ed. "El manuscrito número XXX de la Colección Gayangos." *Boletín de la Asociación de Orientalistas* 9 (1973): 73–124.

Web Resource

Hill Museum and Manuscript Library. "MS Sbath (Ar. 377)." https://www.vhmml.org/readingRoom/view/501747. Accessed June 25, 2025.