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ARTICLES

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[*]

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I. In the horse's stable: State of research

Armenian medieval and early modern horse medicine has never been explored by veterinarians, historians of science, philologists or medievalists. As Armenia represents both a geographical border and cultural corridor between Muslim East and Christian West, a consideration of its hippiatric texts and their integration into the general history of veterinary medicine can only lead to a deeper understanding of equine medicine from the medieval to the early modern period, and the paths of knowledge diffusion and transmission across political, linguistic and religious-cultural boundaries.

The present state of research does not cover aspects of the history of equine medicine in every area of medieval and early modern Eurasia with equal thoroughness. Starting from the thirteenth century, the Armenians in the Cilician kingdom experienced a striking acceleration of scholarly activity, taking over the role of centre for medical sciences and research from the former capital of the Armenian-Bagratid kingdom (destroyed in the eleventh century) and enjoying the patronage of the learned Armenian Rubenid and Het'umid noble houses.[1] This high tradition of medical sciences was even continued after the fall of the Cilician kingdom and the loss of Armenian sovereignty to the Ottomans in the fifteenth and sixteenth centuries. The fate and general history of Armenian manuscripts – in production, perception and provenance – is directly linked to the history of the Armenian people.

A. History at a gallop

The importance of socio-political developments in creating pre-conditions for the maintenance and diffusion of written knowledge is very evident from history.[2]

The Kingdom of Cilicia was an Armenian state that emerged in the eleventh century, as Armenian refugees sought refuge from the Seljuk

[1] Stella Vardanian, "Medieval Armenian medicine and its relations to Greek and Arabic Medicine," in *Veterinary Medicine. A guide to historical sources*, ed. Pamela Hunter (Hampshire: Ashgate, 2004), 199-210. Stella Vardanyan, *Hayastani bžškut'yan patmut'yun* [History of Armenian medicine] (Erewan: K'nnasēr hratarakč'ut'yun, 2000) Stella Vardanian, "Medieval Armenian Medicine and its relations to Greek and Arabic Medicine," in *The Diffusion of Greco-Roman Medicine into the Middle East and the Caucasus, ed. John Greppin* (Delmar, New York: Caravan Books, 1999), 199-209. Levon Oganesjan, *Istorija mediciny v Armenii v 5 tomax* [History of medicine in Armenia in five volumes] (Erevan: Izdatel'stvo Akademii Nauk Arm. SSR, 1946-7).

[2] Jürgen Renn, *The Globalization of Knowledge in history* (Max Planck Institute, 2012).

invasion of Armenia. This kingdom was located in the Cilicia region northwest of the Gulf of Alexandretta at the Mediterranean Sea. The origins of this kingdom can be traced to the principality founded around 1080 by the Rubenid dynasty. Cilicia cultivated a strong alliance with the European Crusaders and even the Roman Catholic Church and saw itself as a bastion of Christendom in the East. Furthermore, it served as a hub for Armenian both cultural and scientific production, given that Armenia proper was under foreign occupation at the time. In 1198, the Rubenid dynasty's Levon I (1150-1219) was crowned as the King of Armenia by consent of the European kings. After his death, the Het'umid dynasty in 1226, received the crown through the marriage of Levon's daughter Isabella to Het'um I (1213-1270). As the Mongols conquered vast territories in Central Asia and the Middle East, the Het'umid rulers sought to forge an Armeno-Mongol alliance against their common Muslim adversaries, particularly the Mamluks. The close relations with the Crusaders and European royal houses, facilitated by trade privileges and marital alliances, resulted in the Europeanisation of the Cilician royal house. On the one hand, the Cilician kings participated in battles alongside the European Crusader knights, while on the other hand, they bolstered the Mongol forces through military alliances. At the Cilician court, they employed the language of the Frankish royal house, freely utilised Arabic as a scholarly tongue, and negotiated with the Mongols in their own language. However, in the thirteenth and fourteenth centuries, the Crusader states and the Mongol Ilkhanate disintegrated, leaving the Armenian Kingdom of Cilicia without any regional allies. Ultimately, relentless attacks by the Mamluks in Egypt during the fourteenth century led to the fall of the Armenian Kingdom of Cilicia, which was then under the rule of the Lusignan dynasty and embroiled in internal religious conflicts.

At the end of the fourteenth century, three major Muslim powers ruled the Middle East: the Mamluks of Egypt and Syria, the Ottomans in western Anatolia and the Timurids in Iran. The Armenian kingdom of Cilicia was destroyed by the Mamluk invasion in 1375. After Tamerlane's invasions from 1387 to 1403, Turkmen tribes – the Black and White Sheep dynasties – became the undisputed and despotic rulers of the Armenian territories in the east, Georgia and Shirvan, northern Mesopotamia and Iraq for about a hundred years. While the Ottomans consolidated their power in the west and in Constantinople, the attack of the Safavid Ismail ended the rule of the Turkmens in the east. The two new superpowers, the Ottomans and the Safavids in Iran, now faced each other directly on Armenian-populated territory. Thus, in 1509, the region around the town of Sivas, previously

controlled by the Turkmen White Sheep, fell into the hands of the Safavids for a few years. Then, in 1514 through the conquests of Sultan Selim I, it was incorporated into the Ottoman Empire, as well as eastern Anatolia, i.e., western or Greater Armenia, and remained there until 1915. From 1514 onwards at least, there is the first division between eastern Armenia under Persian domination lasting until 1827 and western Armenia under Ottoman control until 1915.

B. Jousting and tilting between the Christian West and the Muslim East – in Armenian Cilicia?

In recent years, questions have been raised – in particular in equine medicine – about the role of medieval Islamic sciences both in the maintenance and further development of classical Greek and medieval Byzantine knowledge. According to the common notion, Greco-Roman and Byzantine traditions were lost in Europe in the Middle Ages, but were preserved through translations by Arab scholars and re-emerged during the European Renaissance, with a greater or lesser influence of the Arab knowledge on the European.[3] The detailed analyses of early Arabic translations of the Greek hippiatrists, such as Theomnestos by Saker 2008,[4] or even of compilations such as the ninth-century Ibn Aḫī Ḥizām al-Ḫuttalī *Kitāb al-Bayṭara* (*Book on Hippiatry*) by Heide in 2008,[5] twelfth-century Ibn Al-'Awwām's *Kitāb al-Filāḥa* (*Book on Agriculture*, chapter 16 of which is on horse diseases, twelfth century) by Clement-Mullet 1864-67,[6] Froehner 1930,[7] Georgoudi 1990[8] or Hemprich

[3] Veronika Goebel, Martin Heide, "Transmission of Greek and Arabic veterinary literature," in *La Veterinaria antica e medievale* (Lugano: Athenaion, 2009), 293-307. Veronika Weidenhöfer, Martin Heide, Joris Peters, "Zur Frage der Kontinuität des hippiatrischen Erbes der Antike," *Sudhoffs Archiv* 89 (2005): 55-95.

[4] Susanne Saker, *Die Pferdeheilkunde des Theomnest von Nikopolis* (Wiesbaden: Harrasowitz, 2008).

[5] Martin Heide, *Das Buch der Hippiatrie – Kitāb al-Bayṭara* (Wiesbaden: Harrassowitz Verlag, 2008). Hasmik Mkrtč'yan, "Farač Asoru Bžškaran jioy ew arḥasarak grastnoy erki arabakan ałbyurnerê" [Farač the Syrian's Medical book for horse and pack animal's Arabic sources], *Iran-namē* 24-25 (1997): 16-22.

[6] Jean-Jacques Clement-Mullet, *Le livre de l'agriculture d'Ibn-al-Awam* (Paris: A. Franck, 1864-1866; Reprint Tunis, 1977)

[7] Reinhard Froehner, "Die Tierheilkunde des Ibn al-Awam," *Veterinärhistorische Mitteilungen* 10 (1930): 25-58.

[8] Stella Georgoudi, *Des Chevaux et des bœufs dans le monde grec* (Paris, Athénes: Daedalus, 1990).

1999,[9] have also proved that, although the European hippiatrists served as important sources and even provided the basis of Arabic horse medical books, the Arabs also referred to Indian medicine and their own local practices.

The current state of research shows that in contrast to the human medical tradition, European equine medicine was affected only to a small degree by the Arab tradition. Since the mid-thirteenth century, European horse doctors seem to have relied on their own healing methods, as given in the hippological texts written by the royal farriers and equerries. There are, however, almost no reliable studies about how and where these traditions met, and whether there were any intermediaries. Fischer claimed in 1999 there would be no better area for contact between Arabic, Greek and Latin traditions than southern Italy and Sicily.[10] From the Crusades onwards, however, European princes negotiated with their Muslim counterparts with the help of interpreters and intermediaries, most commonly Byzantines or Syrian Christians. Relations with the Armenians were on different grounds. The Armenian princes and kings retained their aristocracy and even adopted European manners and "Frankish" language at their royal court. The social equality between the Armenian ruling class and the European kings was crucial for intermarriage but also for the exchange of literature and knowledge.[11]

Even less is known about the influence of Western or Christian equine medicine on the Arabic tradition in medieval and premodern times. Thus, the analysis of the alleged Arabic translation(s) of an Armenian horse book might prove that Armenian Christians also had a share in the development of Arab equine medicine.

II. Grooming the horse

In 1999 Fischer emphasized the need to make extensive and in-depth studies of the traditional veterinary literature of antiquity and the Middle Ages in specific regions.[12] However, the relevant literature on Armenian veterinary

[9] Michael Hemprich, *Das 33. Kapitel über Pferdeheilkunde aus der Kitab al filaha des Ibn al-Awwam 12. Jh*. (München: Universität München, 1999).

[10] Karl-Dieter Fischer, "'A horse! a horse! my kingdom for a horse!' Versions of Greek Horse Medicine in Medieval Italy," *Medizinhistorisches Journal* Bd. 34, H. 2 (1999), 123-138.

[11] Alan Murray, "Franks and Indigenous Communities in Palestine and Syria (1099-1198): A Hierarchical Model of Social interaction in the principalities of Outremer," in *East meets West in the Middle Ages and Early Modern Times,* ed. Albrecht Classen (Berlin: De Gruyter, 2013), 291-309.

[12] Fischer, "Greek Horse Medicine," 124.

treatises – even in some of the benchmark studies written in the 1970s or 1980s – is not up to date[13] and sometimes even based on speculation.[14] Studies that do not include the latest research findings cannot be considered a reliable basis for any current project. In addition, even in the recent related literature, one frequently encounters imprecise information regarding Armenia's veterinary medical heritage.[15] This out-dated and inaccurate literature underlined the need for an exact investigation of the existing Armenian material in order to formulate a new understanding of the contribution of Armenian horse medicine to late medieval and early modern veterinary medicine, and to recalibrate the world history of equine medicine.

A. Lost and found

Two Armenian manuscripts – one lost, the other found – form the thematic cornerstones of the project. The gap in time and space between them, which, strictly speaking, is extended to the translation of the latter into Georgian at the end of the eighteenth century, is bridged by the investigation of other equine treatises: first of all of other Armenian equine treatises written between the thirteenth and eighteenth centuries – among them the milestone of Armenian equine medicine, the *Horse book of King Smbat*,[16] codex M 10975 from the end of the thirteenth century, and second, with the help of alleged translations of Armenian treatises into Arabic in the thirteenth/fourteenth centuries as well as of the Georgian translation mentioned above.

[13] Susan Jones, Peter Koolmes, *A concise history of Veterinary medicine* (Cambridge: Cambridge University Press, 2022). Angela von den Driesch, Joris, Peters, *Geschichte der Tiermedizin* (Stuttgart, New York: Schattauer, 2003). Robert Dunlop, David Williams, *Veterinary medicine* (London: Mosby, 1996). Karl-Dieter Fischer, Johann Schäffer, "Tiermedizin," in *Lexikon des Mittelalters* Bd. 7, 1997, 774-780. Carl Brockelmann, *Geschichte der arabischen Literatur* (Leiden: Brill, 1996[2]). Fuat Sezgin, *Geschichte des Arabischen Schrifttums,* III (Leiden: Brill, 1970).

[14] Housni Shehada, *Mamluks and Animals. Veterinary Medicine in Medieval Islam* (Leiden, Boston: Brill, 2013), 101.

[15] Shehada Mamluks, 101.

[16] Smbat's horse book, M10975, 1296-1298 Sis (Cilicia) was the focus of the research project by Jasmine Dum-Tragut, "The Cilician Medical Book for Horses - Translation, Glossary and Commentary." This project is considered both a milestone and the stimulus for research on Armenian equine treatises/hippology, which has been continued by Jasmine Dum-Tragut since then. Jasmine Dum-Tragut, *Kilikische Heilkunst für Pferde. Das Vermächtnis der Armenier* (Hildesheim: Olms, 2005).

B. The lost manuscript

The main colophon of an Armenian chemistry and pharmacology treatise (*Girk' arvesti k'imiakan*), codex P248, kept in the Bibliothèque Nationale de Paris, provides on f. 98r information about an Armenian horse treatise commissioned by King Het'um after the siege of Baghdad.[17] According to the colophon, King Het'um had three books translated into Armenian by a polyglot Armenian deacon named Step'anos and took them back to his kingdom. One of these books was a medical book for horses.[18] This *Horse Book of King Het'um*, however, is lost; the only currently known information is given in the lines of the mentioned colophon and in another colophon, of a medical book, manuscript ANT 114.[19] This medical book ANT 114, preserved in the catholicosate of the Great House of Cilicia in Antelias, Lebanon, dated 1713 and, originating from Erzerum, contains a treatise on steel production, commencing on folio 49r with the statement "This is the beginning of the making of steel. The pious King Het'um brought this from Persia to Armenia in the year 1304 and had it translated." The colophon that follows on f. 51r is consistent with, but more linguistically correct than, the one from P 248. It discusses King Het'um, Baghdad, Step'anos, and the latter's translation of three Arabic works into Armenian. However, this information appears historically dubious, as the date of 1304 mentioned in the consistent colophon

[17] Raymond Kévorkian, Armen Ter-Stépanosian, *Manuscrits arméniens de la Bibliothèque nationale des France* (Paris: Fondation Calouste Gulbenkian, 1998), 814-816. The manuscript, a treatise of alchemy, was written in 1680; place and scribe are, however unknown.

[18] Translation of colophon: "[…] Book on the art of chemistry. This instruction, along with others on the making of steel and hardening, was written by wise men from Persia. King Het'um of Armenia translated them when he led 18,000 horsemen to attack the enemy sultan, slaughtering and consuming everything. He then travelled with honour to Baghdad to meet the Caliph Nasir and returned with great rewards. Then a wise deacon named Step'anos, who had learnt the languages and scripts of many nations like the ancient scribes, approached the Emperor; there was no book he could not find. He gained the love of the king due to his profound learning. The king asked him and gave him three books to translate – on the healing of horses, the forging of swords, and the art of the sun and moon – and brought them to our Armenian homeland." (Translation by author)

[19] ANT 114, Medical book, written in 1713 in Erzerum, by T'eodos for Karapet Tirac'u T'ōxadec'i. *Mayr c'uc'ak hayerēn jeṛagrac' meci tann Kilikioy kat'ołikosut'ean* [Main catalogue of Armenian manuscripts of the Catholicosate of the Great House of Cilicia], ed. Anušavan Daniēlean (Ant'ilias: Tparan Kat'ołikosut'ean hayoc' meci tann Kilikioy, 1984), 369-371.

of ANT 114 is clearly corrupted,[20] and there are no other reliable accounts of King Het'um I's involvement in the Siege of Baghdad in 1258, which seems as dubious and perhaps even apocryphal as his presence at the fall of Damascus in 1260.[21] While the historical inconsistencies are notable, we have good reason to believe an Armenian treatise on horses existed before the Horse Book of King Smbat (1296-98).

C. The found manuscript

In 2008, the Institute for Ancient Armenian Manuscripts in Yerevan, Armenia (also known as Matenadaran) was gifted a voluminous, extensively damaged codex from the private collection of the Nazumlean family of Isfahan. M 11161 contains medical treatises and a treatise on the care of horses, which, nevertheless, includes a colophon mentioning the location of Sivas and the date of 1504. This remarkable medical compendium had been preserved and even utilised by the family for generations. As the manuscript lacks the names of the scribe, location, or date, we shall henceforth refer to it as *Nazli's Medical book*, after its documented first owner in the family.

At the outset of the project, it was assumed that the horse text contained in Nazli's medical book and dated 1504 in Sivas, constituted the missing link between the late thirteenth-century Smbat horse book and the Georgian translation produced towards the end of the eighteenth century, which was believed to have been based on an Armenian horse book copied in Sivas in the year 1504. This meant that a text copied some two centuries later potentially represented a very rich symbiosis of local and foreign veterinary and equine knowledge, combining the Armenian-Cilician tradition evident in Smbat's horse book with perhaps more recent knowledge. Consequently, it was highly anticipated that an analysis of the contents of the Sivas Horse Book in Nazli's medical book, alongside a comparison with treatises from

[20] The date 1304 may only refer to King Het'um II. (1266-1307), and would not align with the details regarding the book on making of steel provided in the subsequent colophon and that of P248, which rather reference the conquest of Baghdad and Het'um I.

[21] Peter Jackson, "Crisis in the Holy Land in 1260," *English Historical Review* 95, 07 (1980): 486. Reuven Amitai-Preiss, *Mongols and Mamluks, the Mamluk-Ilkhanid War, 1260-1281* (Cambridge, Cambridge Press, 2005), 31. Amitai, Reuven, "Mongol Raids into Palestine (A.D. 1260 and 1300)," *Journal of the Royal Asiatic Society of Great Britain & Ireland* 119, no. 2 (1987): 236–55.

surrounding cultures, would help to clarify the overall picture and most likely even address gaps in time and space.[22]

D. The Unread – Mystery of Armenian, Georgian and Arabic manuscripts

The rediscovered MS 11161 in the Matenadaran, which had been entirely unknown to the scholarly community prior to becoming the focus of the current research project, has never been edited, analysed or studied. It was in a raw, untouched state, akin to the only superficially examined Arabic translations of Armenian equine literature and the virtually untouched Georgian translation of an Armenian horse treatise. This starting point was certainly unusual, but also promising, as when working with a completely new source, one can essentially begin from scratch, presenting unique opportunities to redefine the nature of a historical tradition.

E. The Arabic manuscripts

At the outset of the project, we relied on the information provided by four "extant" Arabic manuscripts, in Cairo, in London,[23] Bethesda USA,[24] and Gotha, Germany.[25] The Cairo manuscript identified a certain Abū l-Faraǧ as the author of an Aqrābāḏīn *Treatise about horses*, which was reportedly held in the Dār-al-Kutub Library in Cairo. The introduction to this treatise states that it was translated from Arabic into Armenian by a certain Maḥbūb and his friend Abū l-Faraǧ. The translation was commissioned by Muḥammad b. al-Ḫalīfa Yaʿqūb Muḥammad b. al-Ḫalīfa Yaʿqūb and the philosopher Saʿd al-Dīn ibn al-Ẓāhir al-ʿAǧamī, during the reign of Sultan Baybars (1260-1277). Furthermore, the colophon indicates that the Armenian king had removed the Arabic original from the school of Baghdad during the reign of Sultan Baybars. The mentioned unedited and unstudied Arabic horse treatises

[22] Karl-Dieter Fischer, "Ancient Veterinary Medicine: A survey of Greek and Latin sources and some recent scholarship," *Medizinhistorisches Journal*, Bd. 23, H. 3/4 (1988): 191-209.
[23] Charles Rieu, *Supplement to the Catalogue of the Arabic manuscripts in the British Museum* (London: British Museum, 1894), 552-3.
[24] Dorothy Schullian, Francis Sommer, *A catalogue of incunabula and manuscripts in the Army Medical Library* (New York: Army Medical Library, 1950), 298. John Lee, *Oriental manuscripts purchased in Turkey* (London: British Library, 1840), 43-4.
[25] Wilhelm Pertsch, *Die orientalischen Handschriften der herzoglichen Bibliothek zu Gotha* (Wien: K.u.K. Hofdruckerei, 1883), 110-1.

seemed to be based on the translation from the lost Armenian horse book of King Het'um I.[26]

F. The Georgian Manuscript

The Korneli Kekelidze Georgian National Centre of Manuscripts in Tiflis holds the manuscript S 3467, a Georgian horse treatise copied in 1791.[27] The colophon narrates that, following the order of Prince Giorgi, Son of King Irakli, the High priest of Sioni in Tiflis, Ioane Ossesdze and the Armenian priest Ter-Petros translated an Armenian horse book titled "Medical book for horse and pack animal" written 1504 in Sebaste (Sivas) into Georgian. The translation was finished on August 23, 1791. This unedited and unstudied Georgian manuscript seemed to refer directly to the rediscovered Sivas Horse text.

III. Setting the scene – saddling the horse

A. The Armenian Manuscripts

The number of known and studied veterinary treatises from the Armenian tradition can currently be counted on one hand – add the fragments of some further folios and you need two hands. Even in fragments, these texts have been proven to represent authentic documents of historical horse medicine.

B. Tightening the saddle girth

The colophon at the beginning of the horse treatise contained in M 11161, on folio 220r, shows several lines in Middle Armenian which introduce the following text as a medical book for horses, stating that it was "made by the wise men and great philosophers of the Indians, of Baghdad and of the Egyptians." Surprisingly, the main colophon, f. 261r, clarifies that this text is

[26] Babken Č'ugaszyan, Aram Ter-Łevondyan, "Bžškaran jioy erkri norahayt araberen targmanut'yunĕ" [New discovered Arabic translations of the medical book for horses], *Lraber hasarakakan gitut'yunneri* 11 (1985): 63-68. Shehada *Mamluks*, 101. Paul Sbath, "Manuscript arabe sur la pharmacopée hippiatrique," *Bulletin de l'institut d'Egypte* (1931): 80-81. Shehada's lines, relying on Sayyid's information, obviously correspond to Sbath's description of a manuscript kept in Cairo.

[27] Ramaz Shengelia, *Catalogue of Georgian Medical manuscripts* (Tbilisi: Tbilisi medical university, 2017), 304-409.

actually a translation from Arabic into Armenian of a medical book for horse and pack animal, completed in 1504 in the province of Sebastia. This is followed by an abridged version of the colophon from the unique horse book of king Smbat, but only mentioning the learned physician Faraj as translator.

The strong relationship between the Sivas Horse Book contained in Nazli's Medical Book and the Smbat's Horse Book could be confirmed by an in-depth analysis of both texts. The comparison of the lists of contents reveals that, in contrast to the Smbat's Horse Book, the horse text in Nazli's medical book contains 194 chapters and shows prevalently completely identical, very few deviating (in language, contents, explanation, terminology) and completely new chapters. The text analysis reinforced the belief that the treatise in M 11161 is an apograph of Smbat's horse book. However, the most striking finding of the research is that the horse text in M 11161 is not the original apograph from Sivas in 1504, as hoped, but a later copy of the Sivas apograph, potentially dating to the late seventeenth or even eighteenth century, and possibly copied in Nor Juła, i.e., Isfahan.[28]

Furthermore, the closer textual comparison, codicological and provenance analysis of a fragmentary text, V 2385, "Copied from the Medical book for pack animal," has uncovered unexpected results. While it was assumed that this was in direct relation to Smbat's Horse Book, due to textual and, above all, linguistic similarities, the research into the provenance of the manuscript has revealed that this fragment, which was bound separately, was extracted from a medical book. This medical book, in turn, Venice V 1281,[29] was written according to the colophon in the year 1294, commissioned by Het'um, Lord of Korikos (1230/45 – after 1309), and represents the second Cilician redaction of the so-called Gagik-Het'umian Medical Book.[30] This, in turn, points to a

[28] For details see Jasmine Dum-Tragut, Ovsanna Khachatryan, "The 'Nazlum family medical book' Codex M 11161 and its medical book for horses," *Matendaran: Medieval and Early Modern Armenian Studies* 2.1, 2025, 115-139.

[29] V 1281, Medical Book, 1294, Sis?, Skewṛa?, Scribe: Ceruni Vard Mrtišc'i; commissioner: King Het'um, Lord of Korikos (1295). *Mayr c'uc'ak hayerēn jeṛagrac' matenadaranin Mxit'areanc' i Venetik*, VIII, (1998), 709-722.

[30] Studies on problems of pathology, therapy, and pharmacology in medical books first emerged in Ani, the capital of Bagratid Armenia (880s-1045). Regrettably, the author's name of the renowned "Medical Book" composed during the rule of King Gagik (990-1020) of the Bagratuni dynasty has not been preserved. This medical book was later edited twice in Cilician Armenia and titled the "Gagik-Het'umian medical book," after its commissioners. Stella Vardanyan, "The medical heritage of Cilician Armenia," in *Armenian Cilicia*, ed. Richard Hovannisian, Simon Payaslian (Costa Mesa: Mazda Publishers, 2008), 276-279.

predecessor text to Smbat, possibly a fragmented copy of the lost Het'um horse book. The fact raises further questions regarding the history of the horse text, as the first Cilician redaction was undertaken at the beginning of the thirteenth century by Het'um Labronac'i (Het'um II. Sebastos, 1151-1218), son of Ōšin II and brother of the famous Nerses Lambronac'i, and for the second time in 1294 by the aforementioned Het'um of Korikos.

Moreover, it becomes even more perplexing when it is revealed that Nazli's medical book exhibits striking similarities to manuscript M 9837,[31] a medical compilation, which, however, lacks the horse text, and this manuscript is in turn considered a Nor Juła recension of the Gagik-Het'umian medical compendium.[32] This means that our manuscript M 11161 can now be identified perhaps fifth recension of the Gagik-Het'umian medical book and also containing the perhaps third or fourth recension of the Smbat horse book – thereby making it an exceptionally significant manuscript.

At the current stage of research, it is not possible to definitively identify the source, the *Vorlage*, used for Smbat's remarkable horse book. However, the evidence strongly suggests that it was based on a predecessor text from the reign of King Het'um I, drawn mainly on the Armenian translation of an Arabic horse book – or perhaps on an Arabic back-translations?

M. Yavrumyan's research has identified that the Arabic translation of the Armenian horse book features two variants of the original colophon – a comprehensive version in the Kairo group and an abbreviated version in the Levante group.[33]

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[31] M 9837 Medical book, 1676, place unknown but perhaps Nor Juła, scribe: Azaria dpir; commissioner unknown. A compilation of the a) works of Amirdovlat'; b) "About wild vegetables"; d) Writings of Galen; e) Asar Sebastac'i's "Book on the Art of medicine"; f) anonymous medical book and remedies. C*'uc'ak jeṛagrac' Maštoc'i anvan Matenadarani [Catalogue of manuscripts of the Mashtots' Matenadaran], vol. 2, ed. Levon Xač'ikyan, Asatur Mnac'akanyan (Yerevan: ASSR Academy of Science publication, 1970), 1001.*

[32] Stella Vardanyan, "Gagik-Het'umyan bžškaraně ew nra xmbagrakan tarberaknerě" [The Gagik-Het'umian Medical book and its versions], *Patma-banasirakan handes* (1985): 146-160. M 9837 bears a striking resemblance to the medical manuscript P 245, 1682, Nor Juła, commissioned by the physician Yakob Jułayec'i. Kevorkian, *Catalogue* 1998, 809-812. Stella Vardanyan, *Hayastani Bžškut'yan patmut'yun*. [History of Medicine in Armenia]. (Yerevan, K'nnasēr, 2000), 199. In view of the fact that the manuscript P 245 was produced in Nor Juła in 1682, it is assumed that the manuscript M 9837, dated 1676, most probably served as a source. According to the current state of research on the Gagik-Het'umian medical book, four codices of this famous medieval medical book have survived and are known. And Nazli's medical book can be considered the fifth one.

[33] For details on the manuscripts and groups, see below.

The first part of the colophon, which appears in the first chapter of the Aqrābāḏīn, is identical across all the manuscripts observed by Yavrumyan. It states, as mentioned above, that this veterinary treatise had piqued the interest of the wise Muḥammad b. al-Ḫalīfa Yaʿqūb and the philosopher Saʿd al-Dīn ibn al-Ẓāhir al-ʿAǧamī, and was translated into Armenian[34] by an Armenian named Maḥbūb and his colleague Abū l-Faraǧ, who was proficient in Arabic and other languages. The Armenian King Het'um had taken this Arabic book from the library of the Caliph in Baghdad during the reign of Sultan Baybars.

The second colophon, contained in the preface, delves into the translation of the Armenian horse book into Arabic, and is considered complete only in the Cairene recension.[35] The Cairene colophon provides additional details about the Arabic translation of the Armenian horse manual. It states that the translation was based on an Armenian equine text, which the Governor of Damascus and later Mamluk Sultan Ḥusām al-Dīn Lāǧīn al-Manṣūrī (r. 696/1296-698/1299) had seized as spoils of war from the possession of the Armenian King during the Second Battle of Homs in October 1281. This can only have been King Levon II (r.1269-1289), the son of Het'um I, who had fought as an ally of the Mongols in the conquest of Syria and was also present at the Battle of Homs. The individual tasked with translating the work from Armenian, with the assistance of Armenian prisoner(s), and to whom the captured book was sent to Cairo, was "the poor slave Ibrahim" known as the Army Secretary, while he was imprisoned in the so-called flag chamber, a well-known prison in the Mamluk capital.

The Aqrābāḏīn appears to be based on a pre-Smbat horse treatise. Yavrumyan's analyses suggest that the very literal translation is more comprehensive in certain passages than the younger Smbat text. Additionally, some sections of this Aqrābāḏīn are incorporated as scholia on "Armenian tradition" in Tāǧ al-Dīn's horse manual, dated to July-August 1287.[36]

It can be reasonably inferred that Het'um's horse treatise was translated into Arabic in Cairo between 1281 and 1287, and then meticulously revised by authorities proficient in both language and equine medicine.

[34] An unusual detail is that while the Cairo texts state that the horse book was translated from Arabic into Armenian by Maḥbūb and Abū l-Faraǧ, the Levantine version claims it was translated from Armenian. Yavrumyan attributes this to a common "Trennfehler" within the Levantine group.

[35] Mss. NLM A4, KhBOPL HL 2204/1, Gotha orient. A 2087.

[36] Ms. Dār al-kutub Ṭibb 1219-2.

Consequently, it is prudent to refrain from making hasty inferences, and it is also challenging to directly link the Syrian physician, educated in Baghdad, who identifies himself as Faraj the Syrian in the colophon included in Smbat's horse book, with the Abū-l Farağ of the Arabic translation of an Armenian horse book and, as has occasionally been claimed, with the renowned polymath and regional primate of the Syrian church, Bar Hebraeus (1226-1286).[37] Furthermore, the roles played by the "translator," Deacon Step'anos in Baghdad, and the scribe, Priest T'oros in Sis, remain unclear in the absence of additional sources or reliable information from other manuscripts or colophons. One can speculate and assume various possibilities, but nothing can be scientifically proven, at least not yet.

In summary, Smbat's book is thus considered the *antigraph*, with its unpreserved copy from Sivas dated 1504 serving as an apograph. From this apograph, a Georgian translation and an unpreserved *hyparchetype* were derived, which likely formed the basis for the seventeenth- or eighteenth-century compilations found in Nor Juła.

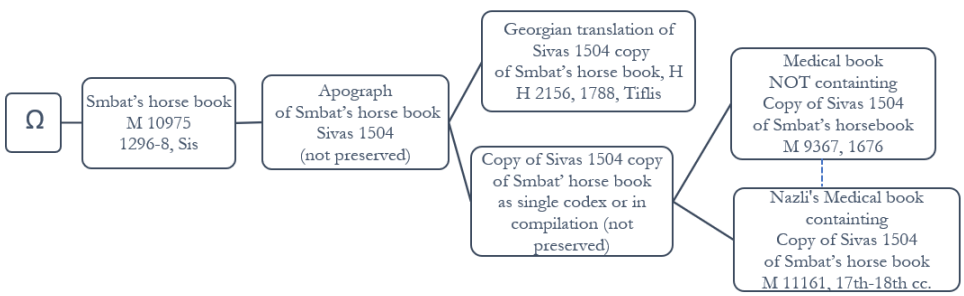

Fig. 1. Simplified stemma of Smbat's Horse book

The Venetian fragment V 2835 is now confirmed to be the oldest extant Armenian equine text, from which we can infer the existence of an unpreserved horse book before Smbat! This presumed original likely served as the source for the abbreviated version in V 1281 and had some unclear relationship to the Smbat text. In turn, the Smbat text directly underlies the lost apograph, Sivas 1504, which then flows into our Nazumlean codex through an unattested intermediary copy. Further investigation is still required to determine whether Sivas 1504 was an independent codex or had

[37] Gregory Bar Hebraeus is called by his *kunya* Abū'l-Farağ in Arabic sources, i.e. a teknonym, the name of an adult derived from his eldest son. In Armenian sources he is also named Abul Faraj.

already been compiled into a medical miscellany by the sixteenth century, the original of which may have served as a source for both M 9837 and the Nazli's medical book. And perhaps also for the Georgian tradition?

Thus, the preserved Armenian horse treatises and text fragments can be divided into two groups, based on their historical setting:

1. Cilician group

these manuscripts appear to be attributable to the hippiatric literature commissioned by Cilician Kings in the thirteenth century, and also as later "copies" of these texts or based on the transmitted Cilician knowledge.

Secondary textual witnesses (1260s):

1. The colophons of manuscript P 248, *Girk' arvesti k'imiakan* "Book on the art of chemistry," folio 98r, housed in the Bibliothèque Nationale de France in Paris, and of manuscript ANT 114, *Bžškaran*, "Medical book," folio 51v, preserved in the Catholicosate of the Great House of Cilicia in Antelias, both provide details about the translation of an Arabic horse book that was commissioned by King Het'um I. This translation was carried out by a deacon named Ste'panos, following the siege of Baghdad. The Armenian version of the text was subsequently brought to Cilicia.

Direct textual witnesses (after 1290)

2. V 2385, Venice Mekhitarist Library, Fragment. *I grastu bžškaranēn p'oxac* "Copied from a medical book for pack animal." Scribe: Ceruni Vardapet Mrtišc'i, 1294-1295. Location: unknown, likely Sis. Commissioned by Het'um of Korikos. Most likely abridged copy of a not preserved Armenian horse book of King Het'um I.
3. M 10975, Matenadaran Yerevan, *Bžškaran jioy ew arḥasarak grastnoy* "Medical book for horse and pack animal," 1296-1298; Sis; Scribe/Translator: Faraǰ the Syrian horse doctor and Priest T'oros.
4. M 11161, Matenadaran Yerevan, <u>*Bžškaran*</u> "Medical book," containing "Medical book for horses" on folios ff. 218v-261v, which colophon gives Sebastia 1504. Medical book: two different, anonymous scribes, commissioner unknown. Date and place unknown, most likely Nor Juła, seventeenth-eighteenth centuries.

2. Ottoman group (later than sixteenth century)

This group contains complete but concise treatises, as well as very short passages of horse medicine, some prescriptions, and even some magical

rituals and incantations for the most common horse ailments, all written after the fall of the Cilician kingdom and during the Ottoman Armenian period, i.e., 1453-1922 (ordered chronologically).

1. M 679, Matenadaran Yerevan, *Žołovacu* "Miscellany." 1625, place unknown. Scribe: a certain deacon, f. 272r. "Another remedy for a horse that is coughing"
2. M 2147, Matenadaran Yerevan, *Žołovacu* "Miscellany." 1627, place unknown. Scribe: Minas. f. 219r "Remedy against glanders in horses"
3. V 1983, Venice Mekhitarist Library, *Bžškaran* "Medical book." 1654-1657, Surat'. Scribe: Deacon Margar. f. 478r "On hoof cracks in horses"; f. 480r "On remedies for horse ailments," "Remedy against white-eye in horses and cattle"
4. M 713, Matenadaran Yerevan, *Žołovacu* "Miscellany." 1687, Šatał. Scribe Barseł. Commissioner Malik' Hałnazar, f. 135v "On a horse disease"
5. M 459, Matenadaran Yerevan, *Bžškaran* "Medical Book." 1696, Hogac' Vank', Scribe: Łazar Amt'ec'i. ff. 104v-114v *Bžškaran vasn jioy ew joroy ew kam išu*. "Medical book for horse, mule and donkey."
6. M 550, Matenadaran Yerevan, *Žołovacu* "Miscellany." 1710?, place and scribe unknown. Ff. 18v-19r *Yałags jioy marazi ew urec'k'i* "On ulcer and swelling in a horse"
7. M 551, Matenadaran Yerevan, *Žołovacu* "Miscellany." 1650, f. 48r "On cough in horses," f 64r "Another disease in horses"
8. M 1102, Matenadaran, Yerevan, *Žołovacu* "Miscellany." 1727, Jerusalem, Scribe: Margar Abeła. f. 197r "A remedy against *Saxar* in horses"
9. M 462, Matenadaran Yerevan, *Žołovacu* "Miscellany." Eighteenth century, location unknown. Łazar Vardapet, 271r-272r. "Some remedies for horses."
10. V 2156, Venice Mekhitarist Library, *Bžškaran*, "Medical book." Eighteenth century, place and scribe unknown; ff. 167-185. *Jiadarmanut'iwn* "Healing of horses"
11. J 2525, Jerusalem, Armenian Patriarchate, *Bžškaran* "Medical Book." Nineteenth century, place and scribe unknown. ff. 301-302 "Swellings in horses."

Among these, two texts stand out for their textual completeness as well as their content and use of terminology from other languages than Arabic, which can largely be traced back to sources other than the Cilician group – M 459 and V 2156. This group, particularly the two aforementioned treatises, are still

subject to ongoing textual processing, analysis, and translation. Moreover, the Ottoman group obviously contains fragments without any indication of their location or date of production. Some of these may have been associated with the medical school of Nor Juła, which saw a revival of former Armenian medical literature starting in the late seventeenth century, where many medical texts underwent new editorial revisions.

IV. Bridling the horse - The translations of Armenian horse books

A. Arabic tradition

When starting the project, we thought that a meticulous comparison of the four copies of alleged Arabic translations of King Het'um's horse book with the text of Smbat's Horse Book could possibly reveal similarities and textual parallels. Moreover, we thought that we could scientifically prove in course of text analyses that Smbat's Horse Book could even have been compiled on the basis of an Arabic translation of Het'um's horse book. M. Yavrumyan's meticulous work has led to the discovery of additional, previously unknown Arabic manuscripts that are either translations from Armenian or contain scholarly annotations, scholia,[38] referring to the Armenian hippiatric tradition. This has provided new insights that not only contribute to a better understanding of the corpus of equine literature in Arabic, but also significantly enhance our comprehension of the history of the Armenian equine tradition and the historical background of the exchange of knowledge and manuscripts between Arabs, Mamluks, and Armenians.

According to M. Yavrumyan, the following manuscripts are of importance:'

(Back) Translations from Armenian into Arabic

I. Cairene Text Family

I.1. Primary Transmission

1. Ms. A4, The United States National Library of Medicine, Bethesda, Maryland, USA, *Kitāb ʾAqrābāḏīn al-ḫayl* "Formulary (pharmacopoeia) for the Horse"; incomplete, contains only the first, hippological part of the book; undated, attributed to the twelfth/i.e., eighteenth century.
2. HL 2204/1, Khuda Bakhsh Oriental Public Library, Patna, India, *Kitāb ʾAqrābāḏīn al-ḫayl* "Formulary (pharmacopoeia) for the Horse";

[38] See Yavrumyan this issue, 104 et passim.

Miscellany, fol. 3r-88r, the copying finished on 5 Ǧumādā l-ʾawwal 1146/14 October 1773, by Muḥammad al-Nuwayhī.

3. Ms. orient. A 2087, Research Library of the University of Erfurt, Gotha, Germany, *Kitāb ʾAqrābāḏīn al-ḫayl* "Formulary (pharmacopoeia) for the Horse"; without colophon, undated, likely twelfth/eighteenth century; note on the purchase of the manuscript: "Cairo 1809. № 1664, U. J. Seetzen."

I.2. Cairene Text Family, Secondary Transmission

As marginalia or scholiae following an "anonymous formula" *wa-qāla l-ʾarman* "as the Armenian says" in the *Kitāb al-bayṭara*, attributed to al-Ṣāḥib Tāǧ al-Dīn:

4. Ṭibb 1219-1, Egyptian National Library, Cairo, Egypt, *Kitāb al-bayṭara*; without colophon, undated, likely towards the end of 686/1287.
5. Ṭibb 1219-2, Egyptian National Library, Cairo, Egypt, *Kitāb al-bayṭara*; end of the transcript in Ǧumādā l-āḫira 686/Jul.-Aug. 1287 by ʿAbd al-Raḥmān b. ʿAlī al-Šāfiʿī al-Kanānī.
6. Fatih 3608, Süleymaniye Library, Fatih collection, Istanbul, Turkey, *Kitāb al-bayṭara*; undated, terminus post quem 703/1303.
7. Arabe 2812, Bibliothèque nationale de France, Paris, *Kitāb al-bayṭara*; without colophon, undated, the second part of Ms. Fatih 3608.

II. Levantine Text Family

II.1. Ottoman Subfamily with the Title: *Kitāb al-durr al-muṭābiq fī ḫawwāṣ al-sawābiq* "Corresponding Treasures in the Innate Qualities of Noble Horses"

8. Ms. 1500, Süleymaniye Library, Bağdatlı Vehbi Efendi Collection, Istanbul, Turkey; dated 13 Shawwal 799/10 July 1397.
9. Ms. 5-7702/9, National Library and Archives of Iran, Tehran, Hasan Atefi Collection; Composite volume, fol. 140v-209v, incomplete at the end, without colophon, undated, likely nineteenth century.
10. Ms. 796: R161sA/4, American University of Beirut Library, Beirut, Lebanon; Composite volume, fol. 29r-105v, copy from an old manuscript dated 7 Rajab 862/20 May 1458. Note of ownership from 1244/1828, the AUB manuscript is a copy by Dr. Asad Rustum, between 1923-1943.
11. Ms. 1201, Bibliothèque de manuscrits Paul Sbath, Aleppo; *ʾAqrābāḏīn fī ʿilm ṭibb al-ḫayl* "Pharmacopoeia Hippiatrica"; twelfth/eighteenth century.

12. Ms. 1202, Bibliothèque de manuscrits Paul Sbath, Aleppo; *ʾAqrābāḏīn fī ʿilm ṭibb al-ḥayl* "Pharmacopoeia Hippiatrica", Composite volume, fol. 108r-149r, incomplete at the end, copied in Aleppo from the private collection of Yaqub al-Manadili, thirteenth/eighteenth century.
13. Or. 3133, British Library, Oriental Manuscripts, London, UK; completed on 11 Ǧumādā l-ʾawwal 1270/8 February 1854.
14. Kh 1888, Imam Mohammad Ibn Saud Islamic University Library, Riyadh, Saudi Arabia; completed on 19 Safar 1035/20 November 1625, a contaminated apograph from a manuscript dated 26 Ǧumādā l-ṯānī 826/6 June 1423.

II.2. Lebanese Manuscript Family with the Title: *Kitāb al-durr al-mutāḫbiq fī ʿilm al-sawābiq* "Corresponding Treasures in the Knowledge of Noble Horses"

15. Or. 9823, British Library, Oriental Manuscripts, London, UK; incomplete at the end, undated, likely eighth/fourteenth century.
16. Ar. 3889, Chester Beatty Library, Dublin, Ireland; incomplete at the end, undated, likely eighth/fourteenth century, erroneously attributed to Ibn Aḫī Ḥizām al-Ḫuttalī
17. Fe 1370, Millet Library of Manuscripts, Feyzullah Efendi collection, Istanbul, Turkey, incomplete at the end, undated, likely eleventh/seventeenth century (terminus ante quem 1112/1700-1701).
18. Ms. L5758, Egyptian National Library, Cairo, Egypt; incomplete at the end, between 1910-1934.

B. Georgian Tradition

Regarding the Georgian translation known as S 3467, we initially hypothesised that it might be derived from a stratum within the voluminous manuscript transferred to the Matenadaran in 2008, namely the rediscovered Sivas Horse Book of 1504. This assumption has been corroborated by Nino Sakvarelidze's research, which established that the Armenian source text for the Georgian translation was indeed the 1504 Sivas copy. However, as Dum-Tragut's findings have demonstrated, it could not have been the manuscript catalogued as MS 11161, which we had initially believed to be the authentic Sivas copy. Rather, the authentic Sivas copy, which unfortunately is no longer extant, at least based on current knowledge, appears to have been a likely

identical copy of Smbat's Horse Book.[39] Moreover, Sakvarelidze's research has revealed that not only is the "well-known" S 3467 not the oldest surviving translation of Smbat's Horse Book based on the 1504 Sivas manuscript, but H 2156, and that there are further text witnesses. Crucially, she found out that the Georgian treatise is an exceptionally complex compilation drawn from three distinct sources, which Sakvarelidze has now analysed and traced through the other, equally unstudied Georgian equine texts.

Translation and Compilation by Ioane Ossesdze, Armenian source "Medical book for horse and pack animal"
"Qarabadin"

1. H 2156, K. Kekelidze Manuscript Centre Tbilisi; 18.05.1788, Ioane Ossesdze, 83f.
2. A 652, K. Kekelidze Manuscript Centre Tbilisi; 1788, Ioane Ossesdze, 93f.
3. S 3467 K. Kekelidze Manuscript Centre Tbilisi; 23.08.1791, Ioane Ossesdze, 66f.
4. Q 1135, K. Kekelidze Manuscript Centre Tbilisi; 1791/1789-1791, Ioane Ossesdze, 71f.
5. M 37:1, Russian Academy of Sciences, Manuscript Department of the Institute of Oriental Studies, St. Petersburg; 1789-1791/2, Ioane Ossesdze, 4-98 f.
6. S 106, Museum of Regional Studies of the National Library of Georgia; 23.08.1791, Ioane Ossesdze, Copyist: T'ornike Eristavi, 161/170f.
7. 200, State Historical Museum Kutaisi; 14.06.1815, Ioane Ossesdze, Copyist: Osse Gabaoni/Gabašvili.

The following group provides auxiliary materials, particularly translations of King Vakhtang's horse treatises from Persian sources.

8. H 414, K. Kekelidze Manuscript Centre, Tiflis, miscellany, sixteenth c. first half of seventeenth c., 4 f., 91r-94v.
9. S 14, K. Kekelidze Manuscript Centre, Tiflis, miscellany, 1826, pages 317-318, 1r-46r.
10. Q 281, K. Kekelidze Manuscript Centre, Tiflis, miscellany, 1834. Copyist: Nikoloz Moses Dze Baginov; 31f., Horse book 27f., 291r-317r.
11. N 816, Georgian National Archives, 1730-1820, 64-65 f.
12. Q 1606, K. Kekelidze Manuscript Centre, Tiflis, miscellany, 1839, 1r-51r.
13. N 46,4, Museum of the History of Georgian Medicine, 1846, 71r-122r.
14. K 716, State Historical Museum, Kutaisi, eighteenth century, 70 f.

[39] Dum-Tragut, Khachatryan, Nazlum medical book, 115-139.

IV. Mounting the horse

The production of a manuscript cannot be separated from its underlying sources – whether they are other written documents or local oral tradition – and must be embedded into the socio-historical circumstances.

A. Sources

The current state of research reflects a geographical divergence in horse medicine, largely beginning at the second half of the thirteenth century with the rise in the West of the European equerries and their well-documented hippological texts, led by the pioneering treatise of Jordanus Ruffus,[40] whereas in the East the fourteenth-century zenith of Arabic horse medicine was reached in the unrivalled treatise of Ibn Bakr Al-Mundīr's *Nāsirī* – known in the West as *El Nacéri*[41]– followed by something of a decline. The textual analysis of Smbat's Book has revealed no influence in medical knowledge that can be traced back to European equerries, but some in the equestrian arts, particularly in medieval horse games, and in some "Frankish" terminology. Research has shown us that the various traditions are closely intertwined, and this has been achieved primarily through mutual translations.

If we now examine the reception of Armenian horse texts in both the native and foreign traditions, in order to trace the path and development of equine knowledge within a specific space and time, we must also carefully investigate the knowledge contained within the Armenian texts and its origins and sources. This has already led, in Dum-Tragut's initial source studies during the translation and editing of the Smbat Horse Book, to an examination of the Arabic sources, particularly the one attributed to Abī

[40] Brigitte Prévot, *La science du cheval au moyen age. Le Traité d'hippiatrie de Jordanus Rufus* (Paris: Éditions Klincksieck, 1991). Thomas Hiepe, *Das „Buch über Die Stallmeisterei der Pferde" von Jordanus Ruffus aus dem 13. Jahrhundert* (München: Universität München, 1999). Lieselotte Klein, *Studien zur „medicina equorum" des Jordanus Ruffus 1250* (Hannover: Universität Hannover, 1969). Robert Roth, *Die Pferdeheilkunde des Jordanus Rufus* (Berlin: Universität Berlin, 1925).

[41] Muhammed Hakimi, *Hippologie et médecine du cheval en terre d'Islam au 14e siècle: le traité des deux arts en médecine vétérinaire dit Le Nâceri,* (Paris: Ed. Errance, 2006). Reinhard Froehner, *Die Tierheilkunde des Abu Bekr ibn Bedr* (Leipzig 1931). Reinhard Froehner, "Das Nacerische Buch des Abu Bekr ibn Bedr," *Archiv für wissenschaftliche Tierheilkunde* 60 (1929): 362-275. M. Perron, *Le Nacéri. La perfection des deux arts ou Traité complet d'hippologie et d'hippiatrie arabe. Traduit de l'arabe d'Abou Bekr Ibn Bedr,* 3 vols (Paris: Bouchard-Huzard: 1859-1860).

Yūsuf (=Aḫī Ḥizām). M. Yavrumyan has likewise amassed and researched an incredible amount in this direction, in order to demonstrate which text could have served as the basis for the unfortunately lost Het'um Horse Book, and thereby indirectly or even directly influenced the compilation of Smbat's Horse Book. Certain textual elements in the Armenian text clearly point back to the Indian tradition of the Arthašastra of Čāṇakya Kauṭīliya,[42] which in turn could have found its way into Armenian through Persian and then Arabic translations. Particularly striking, however, is the evidently diversified source material in the Georgian compendium, which even includes direct incorporation of Indian tradition through the adoption of textual passages from the Persian sources translated by King Vaxtang.

It appears to be well-established that the underlying Arabic tradition of the Armenian texts predominantly drew upon the work of Aḫī Ḥizām. Furthermore, it is important to note that the frequent use of literal translation techniques and even complete imitation, as well as unreflective replication (e.g., sketches of horses, brand marks, cauterization marks, magical numbers and symbols), prove beneficial for modern researchers. This is because they consistently identify distinct Arabic influences in the Armenian language, as well as Armenian influences in the Arabic and Georgian languages, and Armenianised Arabic elements in Georgian.

V. Riding the horse

This project aims to combine the most up-to-date scholarship from philological, linguistic, historical and veterinary disciplines to gain the necessary breadth of knowledge to explore the concrete knowledge compiled from foreign and local sources in Armenian treatises. It traces possible ways of both disseminating and developing knowledge in equine medicine and hippology in a specific geographical and temporal space.

[42] Cāṇakya Kauṭilīya, a renowned scholar and statesman who lived during the reign of the Indian emperor Candragupta (321-298 BC), was highly esteemed among the Arabs under the name Šanaq-al Hindi. His name is specifically mentioned in Smbat's horse book in the shortened Armenian form "Čna." He deliberately divided his works into five categories, with the first being known as the "Poison Book" and the second being on veterinary medicine. It is known from various sources that his works were translated into Persian by an Indian named Manaka at the behest of the famous Caliph Hārūn al-Rašīd (763-809), and then into Arabic in the ninth century. A further translation of Cāṇakya's writings, including those on veterinary medicine, was undertaken by Al-'Abbās ibn Sa'īd al-Jawharī on the order of Caliph Al-Ma'mūni (813-33).

The first goal is the comprehensive study, analysis, translation and veterinary discussion of the Sivas Horse Book. The structure, contents and terminological inventory of the text shall be used to divide the knowledge compiled in the text into local and foreign traditions and to observe possible changes, improvements, or innovations in diagnosis, symptoms, and treatment of diseases. Furthermore, this may answer the crucial question as to whether compilation really meant uncritically adopting sources from previous centuries or also correcting, re-arranging, or polishing them.

The second goal is to explain and follow the geographic diffusion of veterinary knowledge from the very centres of the fading (Arabic-Persian) Eastern traditions to the emerging European Renaissance of equine medicine at the transition between the medieval and early modern periods. This diffusion took place at the periphery of the Crusaders' states, the Cilician Armenian Kingdom, the later Ottoman Empire and in the southern Caucasus. This goal concentrates first on the encounter of local Armenian knowledge with the "globalized" knowledge of European antiquity and the Muslim Middle Ages, and thus on the **input** or integration of "foreign" knowledge into local. Its second focus is the perception and the history of perception of Armenian horse treatises, or the **output** of new, compiled local and globalized knowledge and its possible impact on later treatises. This will not only introduce the thus far completely unknown role of Armenian equine medicine in general, and in particular in Arabic tradition, but also provide a new approach to the history of equine medicine at the crossroads and encounter between Occident and Orient.

The two main research foci therefore allow theoretical claims to be evaluated with reference first to outstanding historical Armenian manuscripts in which both local and "globalized" knowledge are compiled, and second to a historical (thirteenth to eighteenth centuries) and geographical layer (the Christian Middle East), in which knowledge production, transmission, and transformation seem to be crucial for the progress of intercultural transmission and the development of equine medicine.

Thus, the regarding possible sources, the Armenian text(s) are compared with relevant literature from the local tradition, from adjacent geographical and cultural regions of the East, particularly with the medieval Arabic[43] and

[43] Saker, *Die Pferdeheilkunde des Theomnest von Nikopolis*, 2008. Zsuzsanna Kutasi, "The horse as seen by a medieval Arab scholar Abū ᶜUbayda," in *Essays in Honour of Alexander Fodor on his Sixtieth Birthday*. Ed. Kinga Dévényi, Tamás Iványi, *The Arabist*, (2001), 57-69. August Haffner, Das Kitab al-Chail von Al'-Aṣmai, *Sitzungsberichte Akademie der Wissenschaften, Wien*. Phil.-hist. Klasse, (1895). Heide, Das Buch der Hippiatrie, 2008. Hemprich, *Ibn Al-*

Persian,[44] but also the West, including antique Greco-Roman (late antiquity third-seventh centuries), medieval and pre-modern European equerry traditions (1250–1762).[45]

The ancient Indian tradition has been shown to be an important factor, as it was transmitted through translations into Persian and then into Arabic, and is reflected in the hippological writings of the South Caucasus, specifically in the Cilician tradition and especially in the Persian-influenced tradition of Georgia. This, admittedly, presents a complex picture of the interaction.

The research project on horse books and texts in Armenian, Georgian, and medieval Arabic, as well as their stemmata and interrelationships, will not only provide unexpected and detailed contributions to the respective philological and linguistic studies, but also offer deep insights into the history of veterinary medicine. It will illuminate how knowledge was transferred, who were the carriers and exchangers of this knowledge, and the extent to which specific individuals played a role.

Furthermore, the close interconnection between the equine medicine of this region and period with the foundations and methods of human medicine will be revealed, thereby shedding light on the history of human medicine as well.

A substantial additional outcome of this research project is the compilation of the specialised hippiatric, hippological, and pharmaceutical terminology, including loanwords and foreign terms, used in our studied treatises, and an examination of how much of this vocabulary is still in use today or has become obsolete.

"Meeting in the body of the horse" points the way towards a much broader and necessary undertaking. The diligent work of ancient Greek and Byzantine

Awwam, 1999. Shehada, *Mamluks and Animals*, 2013. Hakimi, Naceri 2006. Froehner 1930, 1931. Perron, Naceri, I, 1859-60.

[44] Compare: Lutz Richter-Bernburg, "Iran's contribution to medicine and Veterinary Science in Islam AH 100-900/AD 700-1500," in *Veterinary Medicine,* ed. Pamela Hunter (Hampshire: Ashgate, 2004), 139-68. Hassan Tadjbakhsh, "Veterinary medicine in Iran," in *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures*, ed. Helaine Selin (Springer, Berlin 2008[2]), 2189–2193. Eva Shirzadian, *Faras-Nameh. Ein persischer Text über Pferdeheilkunde aus dem 11.-13. Jahrhundert* (München: Universität München, 1991).

[45] Von den Driesch, Peters, *Geschichte der Tiermedizin;* Fischer, Schäffer, "Tiermedizin." Johann Schäffer, "Die Pferdeheilkunde in der Spätantike – zum Stand der Bearbeitung des Corpus Hippiatricorum Graecorum," in *Pferdeheilkunde* (1985), 1, 75-94. Anne MacCabe, *A Byzantine Encyclopedia of Horse Medicine* (Oxford: Oxford University Press, 2007). Prévot, *La science du cheval au moyen age*.

scholars in compiling a *Corpus Hippiatricorum Graecorum*, which significantly shaped the history of veterinary science, can be seen as comparable to examining the various, but heavily interrelated traditions between the medieval Armenia, the Near and Middle East and the Southern Caucasus. It is now time to consider compiling a *Corpus Hippiatricorum Orientale*.

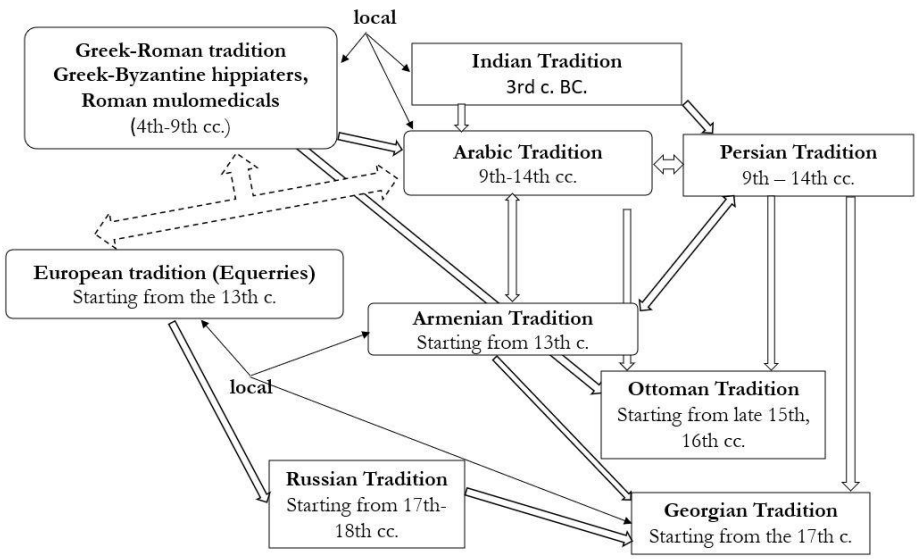

Fig. 2. Knowledge transfer

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