In the Greek transmission of Aristotle’s (384-322 BC) zoological works, in most of the surviving twenty-six manuscripts, books one to nine of the Historia animalium have been passed down as a unit. Only one manuscript and eight copies of it also contain the tenth book, which was included in the Arabic translation in the ninth century. All nineteen books of the Historia animalium (1-10), De partibus animalium (11-14) and De generatione animalium (15-19) were translated into Arabic; only the two short intermediate treatises De motu animalium and De incessu animalium were unknown in the Arabic tradition. At the beginning of the thirteenth century, Michael Scot (ca 1170 - ca 1235/6) translated this Arabic translation into Latin during his residence in Toledo. About fifteen years later, during his stay in Italy, he recast into Latin Ibn Sinā’s abridged version and extensive adaptation of this text.

Abū ‘Alī al-Ḥusayn ibn ‘Abd Allāh ibn al-Ḥasan ibn ʿAlī ibn Sinā (Afšāna near Buḥārā ca 370/980 - Hamadān ca 428/1037), Ibn Sinā (Avicenna)² for short, wrote his zoological work Al-Hayawān (On Animals) as the eighth, last and longest section of Ṭabī’ iyyāt (The Physics), the second part of his large encyclopedia Kitāb al-Ṣifā’ (Book of Healing), in which he discussed the philosophical and scientific achievements of the Greeks, in particular Aristotle. He probably produced it in 418/1027 on his journey to Šabūr-Ḥwāst in the company of ‘Alā’ al-Dawla³. In

1 I am very grateful to Amos Bertolacci for his willingness to include this article in Documenti e Studi, and to Remke Kruk, to Charles Burnett and to the peer-reviewers for several corrections and useful remarks.
3 Ibn Sinā was known in the Latin West under the name Avicenna, derived from the transliteration Avincenna via Hebrew Aven Sīna (see V. COURTOIS S. J., Avicenna Commemoration Volume, Iran Society, Calcutta 1956, Introduction p. ix). The latter form is sometimes also found in Latin manuscripts, e.g. Vat. Chis. E. VIII. 251.
doing so he used the knowledge that he had acquired via a ninth-century Arabic translation of Aristotle’s zoological works, the Kitāb al-Ḥayawān, attributed to (pseudo-) Ibn al-Bīṭrīq. That is to say, this translation is ascribed to Ibn al-Bīṭrīq in Arabic sources, but modern scholars doubt whether this is correct. Of the nineteen books transmitted in the Arabic tradition, Ibn Sinā followed with a fair degree of accuracy the first ten books of the Historia animalium, the comparative and narrative part of Aristotle’s zoology. As regards the contiguous parts, the treatise De partibus animalium that treats of the functions of the parts in a physiological and teleological way, and the treatise on reproduction, De generatione animalium, he left his own stamp on the text in many respects, using all kinds of information to modernize Aristotle’s text and adapt it to the requirements of his own age. Moreover, the focus of attention shifted towards man as the subject of inquiry rather than the animal world, and this inquiry became more medical — and above all anatomical — than biological. The influence of Galen and Ibn Sinā’s own Qānūn fil-Ṭibb is clearly present. Examples of this influence are Ibn Sinā’s attempts to combine Aristotle’s theory of the heart as the origin of physical functions with the as of then accepted discoveries of the arteriovenous system, the nervous system and the function of the liver, and his efforts to combine Aristotle’s theory of the soul and the role of male semen with the new discovery of the female ovaries and Galen’s doctrine of the equal, but not identical, contribution of male and female seed in reproduction. In the method that Ibn Sinā uses to discuss Aristotle’s zoology he mainly proceeds in three ways: he summarizes parts of Aristotle’s text, he tries to achieve new syntheses between Aristotle’s theories and more modern biological and medical insights and he substitutes considerable parts of Aristotle’s text with more recent material, mainly drawn from Galen and the Qānūn. He also adds material based on his own observations and third-party eyewitness reports.

4 See e.g. the Introduction of the editions of Brugman and Drossaert Lulofs 1971, pp. 1-3 and of Kruk 1979, p. 18ff. (note 7). Until now, the authorship of the translation has not been established with any certainty.


The Latin translation by Michael Scot

In the thirteenth century there was available a Latin translation of Aristotle’s *Libri de animalibus*, which had been produced by Michael Scot in the famous translation centre in Toledo, possibly around or even before 1215. Scot came from Scotland and, probably as a child or young man, had departed for Toledo in the last quarter of the twelfth century, receiving further training there. As we mentioned, Scot used for his translation the Arabic version of (pseudo-) Ibn al-Bīṭrīq, which has been (partly) preserved in three manuscripts, with the individual parts having been edited. Scot’s Latin translation was widely disseminated — we still have 64 manuscripts from the thirteenth and fourteenth centuries, not including compendia, excerpts and fragments — and the text was certainly used up to the sixteenth century, despite the fact that William of Moerbeke had made a new, Greco-Latin translation in several stages from around 1260 onwards. An extant Spanish inventory of books from 1338 shows that the autograph of Scot’s translation was still in the possession of Cardinal-bishop Gudiel. In Toledo Scot produced many translations of philosophical texts and commentaries from Arabic into Latin, possibly quite often assisted by other, mostly Jewish, scholars, the majority of whom remain shrouded in mystery. Of these texts, only his translation of al-Bītrūǧī On the Movements of the Heavens, dedicated to the important Stephen of Provins, whose tasks included assessing the teaching material at the new universities, is dated: 18 August 1217 (made


«cum Abuteo levite»). Scot is credited with Aristotle’s *Physica* and *De animalibus*, Averroes’ commentaries on the *Physica*, *Metaphysica*, *De anima*, *De caelo et mundo*, *De generatione et corruptione* and *Meteora*, Avicenna’s *De motibus caelorum*, al-Bītrūǧī *De motibus caelorum* and many other larger and smaller works of which his authorship is often uncertain or which are certainly misattributed to him. «Almost all information about his life and work is uncertain ... Although imaginative scholars have established undocumented traditions, no satisfactory analysis — linguistic, stylistic, or doctrinal — of writings ascribed to him has been carried out. It is thus impossible to determine the accuracy of many attributions» (Lorenzo Minio-Paluello in *Dictionary of Scientific Biography* 1974). For all the recent studies of Scot’s work and translation method, not much progress has been made in this regard. Editing and studying his work is very time-consuming and it is difficult to find editors and funding. The wise words of Marie-Thérèse d’Alverny still apply: «nous craignons qu’ il ne faille attendre la publication de plusieurs éditions munies d’ index bilingues pour nous orienter sans trop de risques».

**The Latin manuscript tradition**

In 1215-6, in the retinue of Archbishop Rodrigo of Toledo, Master Michael Scot attended the fourth Lateran Council, in which the primacy of the archbishopric of Toledo was confirmed, Frederick II of Hohenstaufen was recognized as emperor, many decisions on canon law were taken and the bestowal of benefices was regulated. Around 1220 and in the following years until his probable death

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10 For instance, Dag Hasse questions his authorship of the *Meteora* commentary. See note 11.


in 1235/6, Scot’s life unfolds mainly in central and southern Italy and Sicily. Among other places, he stays in Bologna, where in 1220 he writes a celebrated gynaecological report on a case of a calcified fibroid tumor in his practice. It has survived in the margin of three Latin manuscripts of his translation of De generatione animalium as an annotation at the appropriate place, the discussion of the mola uteri. He had been ordained as a priest and uses the title Magister, enters the service of the papal Curia (1224-1227) and received benefices in England and Scotland on the recommendation of both Pope Honorius III and Pope Gregory IX. In this period he also frequented the court of Emperor Frederick II Hohenstaufen, who was deeply interested in anything to do with science and knowledge of nature and most certainly also in the Aristotelian treatise on zoology. For his day and age he possessed a large and famous zoo, was of course a passionate and proficient hunter and had great, above all practical, knowledge of birds of prey, by his own account even greater than that of Aristotle. Scot is noted as a scholar, translator, philosopher, physician, astrologer and later also as necromancer and magus. In this period he writes his most famous own works, including the Liber introductorius, dealing with many learned subjects and dedicated to Emperor Frederick, the Liber particularis, a supplementary work for advanced readers, concluding with a report of Scot’s answers to interesting questions from the emperor about all kinds of intellectual subjects, and the Liber fisionomie, on the human body and its influence on mind and character, as well as various works on alchemy and astrology. We know that meanwhile he was also involved in the organization of the curricula of the first universities and introduced there works by Aristotle and commentaries by Ibn Rušd (Averroes) on these texts in Latin translation, in any case in Italy, but also in Paris and Oxford and probably in other centres as well. It was probably at the emperor’s request that Scot translated Ibn Sīnā’s Liber de animalibus (Kitāb al-Ḥayawān), also referred to as Abbreviatio Avicennae, perhaps with the help of somebody like Jacob Anatolio, who worked together with Scot in Naples around 1230. In any case this translation was dedicated by Scot to Emperor Frederick. To this day thirty-three Latin manuscripts from the late thirteenth and early fourteenth century, mainly from Italy and Northern Europe, have been attested, of which twenty-eight were described in George Lacombe’s Aristoteles Latinus catalogue and four other manuscripts as well in Marie-Thérèse d’Alverny’s Avicenna


Latinus Codices, edited by Simone van Riet and Pierre Jodogne in 1994. Five of these are fragmentary, while the others contain the whole text. Manuscript collections often incorporate Avicenna's work together with texts by Aristotle and Averroes. Hence the frequent overlap between large manuscript catalogues like those of Lacombe and d'Alverny. In her 1971 article Les Traductions d'Avicenne Marie-Thérèse d'Alverny distinguishes five categories of manuscript collections with translations of Avicenna. (1) There is a group of manuscripts produced in Toledo at the end of the twelfth century; it is a colourful hotch-potch of works, including Avicenna's *Kitāb al-Šifā*, by well-known and anonymous translators and learned authors from this period. By the beginning of the thirteenth century these collections had become consolidated and much used. Some new collections of translations are disseminated by travelling scholars. (2) Towards the mid-thirteenth century many new combinations are formed, for instance thirteenth-century translations of Averroes are added to the existing twelfth-century collections. Michael Scot made a considerable contribution in this phase of the manuscript transmission, both in Toledo and in Italy. The collections formed in this period are externally plain, but their contents are crucial to the history of the spread of translations of Aristotle and Averroes and of chiefly Arabic philosophers (the so-called corpus vetustius). The number of manuscripts of Avicenna's texts increases explosively in the second half of the thirteenth century, and they are found either mixed with earlier collections or purposely combined with Aristotle's principal treatises. The surviving catalogue of Cardinal-bishop Garcia de Gudiel from 1338 offers a detailed picture of the wealth of manuscripts extant in the collection of prominent people in those days. (3) Special collections with Avicenna's work were formed in particular by the widely travelling Mendicants, Dominicans and Franciscans. (4) In the late thirteenth and early fourteenth century we see the development of mixed collections of Avicenna's work with scientific writings and works by learned


18 See note 9.

19 This environment produced for instance the three Latin manuscripts containing both Scot's translation of Aristotle's zoological works and that of Avicenna: Vat. Chisianus E. VIII. 251 olim Sacri Conventus S. Francisci Assisiensis cod. CLXIV ; Brugensis Bibl. Seminarii Maioris 99/112 olim monasterii S. Mariae de Dunis ; Florentinus Laurent. S. Crucis Plut. XIII sin. cod. 9 olim conventus Sanctae Crucis n. 545.
masters like Albertus Magnus or Thomas Aquinas. (5) From the second half of the fourteenth century Avicenna’s writings play a major role particularly in medical collections in Italy, obviously owing to Gerard of Cremona’s Latin translation of his Qānūn, although his Šīfā’ also remains of great importance.

Besides the studies of Lacombe, d’Alverny and others, some valuable codicological work on the Latin text in the Vatican manuscript Chigi E. VIII. 251 has been done by Erik Kwakkel at Leiden University and previously at the University of Victoria in Canada. In an article for Viator in 2009, for instance, he analyzed three unusual correction techniques encountered in the Avicennan text: the use of a struck-out d to flag a mistake; the replacement of a quire containing faulty text with one containing an improved reading; and the filling in of lacunae left behind during the copying of the main text. This oldest surviving Latin manuscript, which holds both Scot’s translation of Aristotle’s zoological text and that of Avicenna (see note 16), also attests to Scot’s connection with the emperor and his court: this is borne out by two identical personal dedications and a concluding eulogistic hexameter in the four principal languages of Frederick’s empire. The codex once formed part of the library of the Sacro Convento in Assisi (no. CLXIV in the 1381 inventory); we know that brother Elias was on friendly terms with Michael Scot and a supporter of Frederick II. In 1232 Master Henricus of Cologne made a copy of this text, kindly made available by the emperor, in the house of his court physician Master Volmar in Melfi. Emperor Frederick himself also showed his credentials in the field of zoology: in later years he completed his treatise on birds and falconry De arte venandi cum avibus, thus fulfilling a long-cherished wish. The influence of Scot’s translation of Aristotle’s treatise on De arte venandi is demonstrable, but the possible influence of his translation of Avicenna’s Abbreviatio has not yet been studied in detail. Both within Aristotle’s oeuvre and within Avicenna’s Šīfā’ the nineteen zoological books take up by far the most space, indicating the importance that both philosopher-scholars attached to the subject.

22 D`Alverny, L’ Explicit du « De animalibus » cit., p. 34.
Apart from Michael Scot, no one has ever translated Ibn Sīnā’s Liber animalium into another contemporary or modern language. But it may be that one or more compendia of the text circulated. The clusters of quotations from Ibn Sīnā’s Hayawān occurring in other works, like Marwazi’s Kitāb ʿTabāʾ iʿal-Ḥayawān, could point in this direction. As Scot’s translation appears to render an abridged version of the text, the Abbreviatio Avicennae may be a Latin translation of an Arabic compendium of the text. This will have to be further investigated during work on the edition of the translation. Scot’s translation style is essentially as literal as possible, though he does regularly shorten the often elaborate Arabic paraphrases of the Greek text. However, it is unlikely that he independently omitted entire sections, as quite often seems to be the case in his translation of Avicenna’s text. In general, he aims to give the reader a clear Latin text and a good understanding of its contents. Sometimes, he therefore forgoes a literal translation and liberally renders the text on the basis of its content. Although scholars have conducted some research into Michael Scot’s translation method and his own works (among others, Francis Carmody, Dag Hasse and Aafke van Oppenraay), there is need for a systematic inquiry, preferably of course by means of critical editions of his translations and his own writings. Another desideratum is a translation of the Arabic text of his Ḥayawān into a modern language like English, French, German, Spanish or Italian, the more so because it is rather lengthy. As regards scientific commentaries on the text, the sole example we know of is Albertus Magnus’ great commentary on Aristotle’s zoology, in which he incorporated Scot’s Latin translations of both Aristotle’s and Avicenna’s text, since Scot had also translated Aristotle’s work from Arabic into Latin. Albertus’ commentary was published in 1916 by Hermann Stadler, who tried to provide a meticulous and also optical demarcation of the passages from Scot’s translations of both works as well as of Albertus’ own text and his quotations drawn from elsewhere. Albertus’ work on animals was ultimately

26 See note 12. For Scotus’ Liber introductorius (Liber quatuor distinctionum, Liber particularis, Liber physionomie) see i.a. BURNETT, Michael Scot and the Transmission of Scientific Culture cit.
printed six times, in Rome (1478), in Mantua (1479) and four times in Venice (1490-1519). Via this commentary of Albertus the zoological texts of Aristotle and Avicenna were disseminated and became widely known, particularly among the Mendicants. The rich Nachleben of the texts in the Middle Ages and the Renaissance has been extensively studied in the literature. Ample information on this can be found in for instance the detailed and richly documented article Le ‘De animalibus’ d’Aristote dans le monde latin: modalités de sa réception médiévale by Baudouin van den Abeele. In the Renaissance the translation by Theodorus Gaza, printed from 1476, made a great impact.

In what is called the ‘Syrian Renaissance’ of the twelfth and thirteenth centuries many scientific achievements of the Islamic Arab-speaking world are incorporated into the Christian Syrian community. Especially interesting here is the reception history of Ibn Sīnā’s writings in the Syriac-speaking world, particularly that of the Šifā. The most important representative here is Barhebraeus (Abū ʿI-Faraḡ Grigorios Bar ʿEḥrāyā, 1225/6-1286), who assumed the role of commentator, translator and compiler of Ibn Sīnā’s work within his own writings (in particular Discourse of Wisdom, Cream of Wisdom, Candelabrum).

He is also significant as a textual witness because certain Arabic readings of Ibn Sīnā can be corrected or indeed confirmed by means of the Syriac texts, just as in the case of a medieval Latin version. Moreover, he was an intermediary for the transmission of Ibn Sīnā’s body of thought within the community of Syrian Christians (West Syrians, East Syrians, Maronites) and Arab-speaking Copts. In many respects Barhebraeus’ voluminous encyclopedia Cream of Wisdom (Butyrum sapientiae) is modelled on Ibn Sīnā’s Šifā. Regrettably, no further research has yet been done into the part on zoology, although some parts of the Butyrum have been published in the Aristoteles Semitico-Latinus series (see note 38). It will undoubtedly be interesting to be able to compare the Aristotelian treatises of Ibn Sīnā and of Barhebraeus in due course.

Ibn Sīnā’s Arabic text was published by a team of scholars under the direction of Ibrahim Madkour in 1970, under the title Al-Šifā, La Physique VIII – Les Animaux (Fī Ṭabāʾ īʾ al-Ḥayawān). The introduction contains an extensive table...
of contents of the work and a comprehensive discussion of the treatise, with chapters on Aristotle as biologist and on the Arabic translation and its influence on Arabic literature\textsuperscript{32}, on Ibn Sīnā and his views and interests with regard to biology and the work of his illustrious predecessor, and on the composition of his treatise in four parts: comparative zoology, anatomy, physiology, and reproduction and embryology. Dr. Madkour stresses the originality of Ibn Sīnā’s work and of the way he utilizes his, mainly medical, sources, including his own Qānūn. The editors have made no attempt to correct the many corrupted animal names in the Arabic text on the basis of the Greek text of Aristotle’s zoological works, as Abdurrahmān Badawī has done for the edition of the Arabic translation of the Aristotelian text\textsuperscript{33}. Particularly in relation to lexis and translation technique there is still much research to be conducted, both on Ibn Sīnā’s text and on Michael Scot’s translation of it.

Michael Scot’s Latin translation of Ibn Sīnā’s biology was printed twice under different titles, \textit{Avicenna Liber De animalibus} and \textit{Avicenna Liber De natura animalium}, both times in Venice: (1) Avicenna, \textit{De Animalibus}, per magistrum Michaelem Scotum de arabico in latinum translatus, Venetiis, per Joh. et Gregorium de Gregoriiis (ca 1500), GW III (1928) no. 3112. And (2) Avicenna perhypatetici philosophi ... per canonicos emendate ... \textit{De Animalibus (De natura animalium)}, ff. 29-64, Venetiis, ... per Bonetum Locatellum Bergomensem presbyterum ... 1508. The different titles are mainly used above the columns of text, sometimes interchangeably. The results of the first findings of my study of the Latin text were published in \textit{Michael Scot’s Latin Translation of Avicenna’s Treatise on Animals: Some Preliminary Remarks on the Future Edition}\textsuperscript{34}. In the article, I describe a special branch of manuscripts from Venice. These manuscripts contain four passages, comprising approximately two printed columns, which appear to have fallen victim to an accidental re-ordering, probably because the correct order of the gatherings was compromised during copying of the text at the scriptorium. This discrepancy becomes apparent if one compares the Venice manuscripts to the original Arabic text and the text in the other Latin manuscripts. Unfortunately, manuscripts from this faulty branch were used for both early editions of Avicenna’s text. The restored order of the passages in question can be found at the end of the article just mentioned. The title \textit{Abbreviatio Avicenne} under which the treatise has also become known is derived from the way in which the work is sometimes referred to in the manuscripts, which provides an explanation

\textsuperscript{32} On this, see also the introductions in the editions of Brugman and Drossaert Lulofs (1971) and Kruk (1979) (see note 7).

\textsuperscript{33} Badawī, \textit{Aristotle, History of Animals}, Arabic cit.

for the variations at the beginning of the text in the manuscript from Bruges 161: *Incipit abreviatio avicenne libri animalium* and in Pommersfelden 159: *Incipit abreviatio avicenne super librum animalium aristotilis*.

The committee of the *Aristoteles Latinus* decided from the outset that an edition of Michael Scot’s Latin translation of Ibn Sīnā’s *Liber de animalibus* should be included in the *Corpus Philosophorum Medii Aevi*36. The treatise forms part of the edition of the *Kitāb al-Šifāʾ* and belongs in the *Avicenna Latinus* series founded by Simone van Riet37. However, because of the expertise present in the sister project *Aristoteles Semitico-Latinus* concerning the zoological treatises and the translator Michael Scot, the edition of this part was entrusted by Van Riet to the ASL and incorporated as a central volume in this series38.

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35 Brugge, Bibliotheek van het Groot Seminarie 99/112; Pommersfelden, Schlossbibliothek 159.
36 *Aristoteles Latinus, Pars prior, Praefatio: Libri de animalibus* cit., p. 81 n. 2.
37 *AIBER*, *Bibliography of Islamic Philosophy* cit.
38 See *brill.com/asl* for a list of volumes.
APPENDIX

Avicenna’s Liber de animalibus. The beginning of Michael Scot’s Arabic-Latin translation transcribed from the oldest ms. Vaticanus Chisi E. VIII. 251 F. 109r. The reader may compare the text of the translation with the beginning of the Arabic text from the edition of İbrâhîm Madkour et.al. of 1970. The abbreviating style of Scot and his focus on the content is already clearly visible in this first part of the translation.39

Fen octava de summa naturarum et est in natura animalium.

Frederice Romanorum Imperator domine mundi. suscipe devote hunc laborem Michaelis Scoti. ut sit gratia capiti tuo. et torques collo tuo.

Incipit abreviatio Avincenne super librum animalium Aristotilis.

Et animalia quedam communicant in membris sicut equus et homo in nervo et in carne et quedam discrepant in membris consimilibus vel in habitudine membrorum. Et que discrepant in membro, discrepant in membro vel quia membrum est simplex vel compositum. Exemplum secundi est quia equus habet caudam et homo non, exemplum primi est quod testudo habet concas et irricius spinas et homo non et pisces squamas.

In habitudine autem aut quantitate aut qualitate aut situ aut actione aut passione. Quantitate ut os oculi nicticoracis magnum et os oculi aquile parvum, aut numero ut in araneis quorum pedes in aliquibus sunt octo in aliquibus sunt decem et quardum sex. Qualitate colore et figura aut mollicie aut duricie. Diversitas in situ ut in mamillis elefantis et eque et diversitas in actione ut in aurribus elefantis cum quibus pugnat et suis naribus quibus accipit, diversitas in passione ut in oculis vespertilionis qui sunt debiles et esse oculi irundinis econtrario.

Partes vero animalis aut sunt humide ut sanguis pinguedo medulla aut sperma et humores, aut dure ut nervi venes ossa capilli et cartilagines et cornua.

Et quia sic diversantur animalia quod etiam quedam illorum sunt aquae et quedam agrestia. Et aquae sunt multis modis quia quedam in nutrimento et habitacione sunt aquae et quedam inspantium aquam et recipiunt in ventre et evomunt eam et non vivunt extra eam, et quedam sunt quorum habitatio et nutrimentum sunt aquae, verumtamen cum hoc inspierant aeren tantum et ita faciunt nutrita in aqua sive ea quae egrediantur ab aqua sicut tortuca. Et quedam sunt tantum in aqua habitantia sicut quedam conche et halzun que non apparent aeri et non intrat aqua in ventres eorum nisi secundum viam acquirendi nutrimentum, non secundum viam inspirationis sed quod via inspirationis est ut inspiret, deinde evomet ipsam ad eventationem caloris naturalis ut expellat superfium calidum. Et aquae que

vivunt in aqua et non solum ex aqua licet illud animal quod vivit solum ex aqua non habet locum nisi aquam.

Et quedam animalia sunt in pelago et quedam in stagno, quedam in mari, stagno ut rane. Et quedam agrestia inspirant per os et nares et quedam non inspirant ita sed per poros tantum, ut apes et musce et vespe et animalia anulosa. Et quedam animalia sunt aquea et postea fiunt agrestia sicut grece medemeiezdez et vivit in fluminibus, deinde alteratur ea forma et fit astaraz et egreditur ad agrum. Et animalia aquea quedam que sunt undosa et quedam in ripa et quedam cenosa et quedam manent in petris. Et animalia que semper sunt in uno loco sunt sicut species concarum et quedam sunt libera corpore, ut multi pisces et quedam adherent conchis in principio et post liberantur, ut querant melius nutrimentum, quando non offert eis aqua nutrimentum sufficiens.
الطعن الثامن من جملة الطبيعية
وهو في طبائع الحيوان

إن الحيوان قد يشترك في أعضاء، وقد يتباين بأعضاء. أما الشركة، فمثل اشتراك الإنسان والقرس في أن لهما أذان ونفخا وعضواً وعظمياً، وإن كان المشترك فيه واحداً بالجنس للاختلاف. أما البتاين فعلى وجهين: لأنه إذا ما يكون البتاين في نفس العضو، وإذا أن يكون في حال العضو، والبتاين في نفس العضو، فإنه يكون من حيث هو مركب، وإن أن يكون من حيث هو بسيط أيضاً. مثلما الحال الأول افتراق الإنسان والقرس في أن للقرس ذنب وليس للإنسان، وإن كان أجزاء الذنب البسيطة، الذي للقرس وهي العظم والأعضاء والجلد، والحم والشعر موجودة له بالجنس.

ومثال الثاني افتراق الإنسان والسلحفاة في أن للسلحفاة صدفاً يحيط بها وليس للإنسان. وكذلك للمسك فلوض، ولفناند شوك، وليس له شيء كبير.

أما الشركة، فمثل اشتراك الإنسان والقرس في أن لهما لحما وعصباً وعظماً، وإن كان المشترك فيه واحداً بالنوع.

وأما البتاين في حال العضو، فإنه أن يكون من باب الكبد، وإن أن يكون من باب الفعل، وإن أن يكون من باب الالتفاف. أما الذي من باب الكبد، فإنه أن يتعلق بالعظم، مثل كون عين البوم كبيرة، وأرجل ضرب عين العقاب من باب الكيف، والذي من العناكب ستة، وأرجل ضرب آخر ثمانية أو عشرة، والذي من باب الكيف فكاختلافهما في اللون، أو في الشكل والصلاة، أو في الجنس.

وأما الاختلاف في الوضع، فمثل اختلاف وضع ثدى الفيل والقرس، فإن ثدى الفيل عند قرب الصدر، وثدى القرس عند السرة. وأما الاختلاف في الفعل، فإنه كون أذن الفيل صالحة للذب، مع كونه آلة للسمع، وليس كذلك للإنسان؛ وكون أنفه آلة للقبض دون أنف غيره. وأما الاختلاف في الاحتكار في أن الفيل، كما كون عين الخطاف بالضد، وعين الخشاف النقيقة، وتكون لامع في الضوء، وكون عين الخشاف النقيقة.

وأما الاختلاف في فئاضة، فإنه أن ثدى الفيل يبيّن، وإن تناضح في الثدى الفيل، والقرس، فإن ثدى الفيل عند قرب الصدر، وثدى القرس عند السرة. وأما اختلاف في الوضع، فإنه كون أذن الفيل صالحة للذب، مع كونه آلة للسمع، وليس كذلك للإنسان.

وأما الاختلاف في فئاضة، فإنه أن ثدى الفيل يبيّن، وإن تناضح في الثدى الفيل، والقرس، فإن ثدى الفيل عند قرب الصدر، وثدى القرس عند السرة. وأما اختلاف في الوضع، فإنه كون أذن الفيل صالحة للذب، مع كونه آلة للسمع، وليس كذلك للإنسان.

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وأما الاختلاف في فئاضة، فإنه أن ثدى الفيل يبيّن، وإن تناضح في الثدى الفيل، والقرس، فإن ثدى الفيل عند قرب الصدر، وثدى القرس عند السرة. وأما اختلاف في الوضع، فإنه كون أذن الفيل صالحة للذب، مع كونه آلة للسمع، وليس كذلك للإنسان.
الغذاء لا على سبيل التنفس. وسبيل التنفس أن يستنشقه ثم يرده ليروح الحار الباطن، وليدفع الفضول الحارة، التي إذا احتسبت في الحار الغريزي فسد لها الحار الغريزي. فإذا يكون الحيوان مائيًا، لأن مكانه الطبيعي ماء، وليس يكون مائيًا لأنه لا يغتذى إلا من الماء فقط، ولا يتنفس إلا من الماء فقط.

كما أن الحيوان البري ليس يكون بريًا إلا لأن مكانه الطبيعي بري، وليس لأنه لا يغتذى من الماء وما فيه. ومعلوم أن الحيوان الذي لا يستنشق إلا من الماء فليس مكانه الطبيعي إلا الماء، ولا غذاً إلا في الماء؛ وأن الحيوان الذي لا يغتذى إلا في الماء، فإن مكانه الطبيعي الماء؛ ولا يتعكس. والحيوانات المائية أيضًا تختلف، في الماء، فإن مكانه الطبيعي الماء؛ ولا يتعكس. والحيوانات المائية أيضًا تختلف، فبعضها ما يغتذى من الماء، وبعضها ما يغتذى من الماء المفترق. والحيوان البري مثل الضفادع، والحيوان المائي يتنفس من طرق واحد كالنمل والحشر، ومنه ما لا يتنفس كذلك، بل على نحو آخر من مساحته. مثل المخلصات، كالنمل والحشر. ومن الحيوانات ما تكون مائية ثم تستحيل برية، مثل حيوان يسمى بالبوناتي ما دام مائيًا أسدياس وهو يعيش في الأنهار، ثم أنه تستحيل صورته ويعيد أسدياس ويربط إلى البحر. والحيوانات المائية منها الجافة، ومنها طيبي، ومنها طيبي، ومنها صخرية. والحيوانات المائية منها ذات ملاصق تلزمها كأنها من الأصناف، ومنها منصورة الأجنحة مثل السمك والضفادع. واللاصقة منها ما لا يزال يلتصق ولا يبرح ملصقا مثل أصناف من الصدف، والإسفنج؛ ومنها ما يلتصق ثم يبترا، وبين المنصورة لطلب الغذاء، إذ لا يكون غذاً الكافى ما يؤديه إليه الماء، أو يتصلبه.
ABSTRACT

Avicenna’s Liber de animalibus (‘Abbreviatio Avicennae’). Preliminaries and State of Affairs

In this article, I provide an overview of the status quaestionis and the current research agenda of Michael Scot’s Arabo-Latin translation of Ibn Sīnā’s (Avicenna’s) Kitāb al-Ḥayawān, or Liber de animalibus (Book on Animals), as part of the Latin translation of the encyclopedia Kitāb al-Šifā’. I describe what has been ascertained so far on this topic in an explicit and documented way, opening up paths for future research. I deal with Ibn Sīnā’s contribution to the transmission of Aristotle’s zoology in the Arab world, with Michael Scot, the author of the Latin translation, and his Arabic model, and with the relationship between Scot’s translation and Avicenna’s Arabic version — as well as with the original Greek text by Aristotle —, with his style and with the Latin manuscript tradition and its dissemination. I outline the Nachleben of the treatise in commentaries, both incunable printings and its reception in the medieval period. In conclusion, I discuss the planned edition of the work, and provide as a sample, in an appendix, the beginning of both the Arabic and the Latin texts.

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