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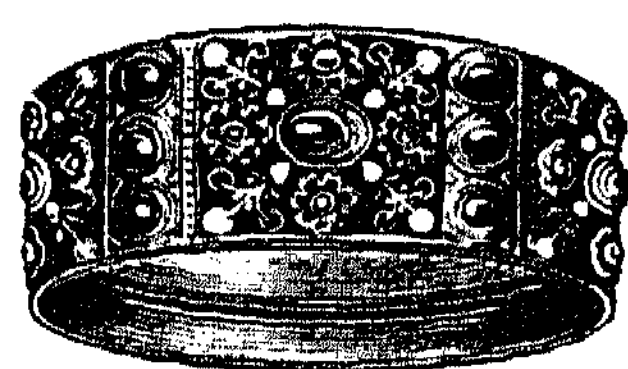
The „Reparationes librorum totius naturalis philosophiae“ (Cologne 1494) as a source for the late medieval debates between Albertistae and Thomistae

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## The 'Reparationes librorum totius naturalis philosophiae' (Cologne 1494) as a source for the late medieval debates between Albertistae and Thomistae \*

### I.

#### 1. INTRODUCTION

In the fifteenth century philosophical thinking continued to be influenced by the educational pursuit of the medieval universities, as it had been in the thirteenth and fourteenth centuries<sup>1</sup>. The program of the arts faculty, the basis for all higher education at the university, centered on the study of the works of Aristotle<sup>2</sup>. These texts were commented on in lectures which had to be attended by the students in order to fulfill the statutory requirements for passing the academic exams. Problems closely related to the texts were discussed in disputations which were also part of the curriculum<sup>3</sup>. As a result, the philosophical controversies and de-

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<sup>1</sup> On the medieval universities and their educational program, see among others A. B. COBBAN, *The Medieval Universities. Their Development and Organization*, London 1975 (with extensive bibliography); W. J. COURTENAY, *Schools and Scholars in Fourteenth-Century England*, Princeton, New Jersey 1987, and the contributions collected in *Philosophy and Learning. Universities in the Middle Ages*, ed. M. J. F. M. HOENEN, J. H. J. SCHNEIDER, G. WIELAND, Leiden 1994 (Education and Society in the Middle Ages and the Renaissance).

<sup>2</sup> For Aristotle in the Middle Ages, see *The Cambridge History of Later Medieval Philosophy*, ed. N. KRETZMANN, A. KENNY, J. PINBORG, Cambridge 1982, pp. 45-98, and A. DE LIBERA, *La philosophie médiévale*, Paris 1993 (Collection Premier Cycle), pp. 358-367.

<sup>3</sup> For the late medieval arts curriculum, see among others A.-D. V. DEN BRINCKEN, *Die Statuten der Kölner Artistenfakultät von 1398*, in *Die Kölner Universität im Mittelalter. Geistige Wurzeln und soziale Wirklichkeit*, ed. A. ZIMMERMANN (Miscellanea Mediaevalia, 20), Berlin-New York 1989, pp. 394-414.

bates of the period were shaped by the Aristotelian framework. In the majority of cases, the *corpus aristotelicum* was the point of departure for philosophical discourse and speculative thinking.

Consequently, the mapping of the late medieval philosophical landscape, to a large extent still *terra incognita*, must be based primarily on those texts which emerged from the intellectual activity of the arts faculty and illumine the different ways the works of Aristotle were studied and understood<sup>4</sup>. In drawing this map, however, one must remember that the exegesis of Aristotle was in no way uniform at the time. There were different schools of thought, each with its own understanding of Aristotle. The Thomist reading of the *corpus aristotelicum* was distinct from that of the Albertists. And the nominalist authors' interpretation departed from that of both Thomists and Albertists<sup>5</sup>.

The divergent readings of Aristotle left their own particular mark on the student's education from the very first years of his university training on. A clear example is afforded by Cologne, where the lectures of the arts curriculum were given almost exclusively in separate *bursae*, each with its own course of lectures that varied in accordance with the philosophical orientation of that *bursa*. In the *bursa laurentiana* the texts of the arts curriculum were studied with the help of the works of Albert the Great, whereas in the *bursa montana* the writings of Thomas Aquinas were used<sup>6</sup>. Partly because of this intimate connection with university education, the schools of thought that originated in the fifteenth century were able to last well into the modern period, up to Leibniz and Kant.

Consequently, for a thorough comprehension of the philosophical movements of the late medieval period one must examine not only the many

<sup>4</sup> The medieval Aristotle commentaries are listed by CH. LOHR, *Medieval Latin Aristotle Commentaries*, "Traditio", 23, 1967, pp. 313-413; 24, 1968, pp. 149-245; 26, 1970, pp. 135-216; 27, 1971, pp. 251-351; 28, 1972, pp. 281-396; 29, 1973, pp. 93-197; 30, 1974, pp. 119-144.

<sup>5</sup> I have dealt with this in my *Heymeric van de Velde. Eenheid in de tegendelen*, Baarn 1990 (Geschiedenis van de Wijsbegeerte in Nederland, 4) (with further bibliographical references). See also the important study by Z. KALUZA, *Les querelles doctrinales à Paris. Nominalistes et realistes aux confins du XIV<sup>e</sup> e et du XV<sup>e</sup> siècles*, Bergamo 1988 (Quodlibet, 2).

<sup>6</sup> On the *bursae* in Cologne, see E. MEUTHEN, *Die Artesfakultät der alten Kölner Universität*, in *Die Kölner Universität* cit., pp. 366-393; R. CH. SCHWINGES, *Sozialgeschichtliche Aspekte spätmittelalterlicher Studentenbursen in Deutschland*, in *Schulen und Studium im sozialen Wandel des hohen und späten Mittelalters*, ed. J. FRIED, Sigmaringen 1986 (Vorträge und Forschungen, 30), pp. 527-564, esp. pp. 545-564, and most recently G.-R. TEWES, *Die Bursen der Kölner Artisten-Fakultät bis zur Mitte des 16. Jahrhunderts*, Cologne 1993 (Studien zur Geschichte der Universität zu Köln, 13).



commentaries on Aristotle, but also those works which reveal how the writings of Aristotle were understood in the different schools of thought.

One of these works is the treatise printed by Ulrich Zell in Cologne in 1494 under the title *Reparationes librorum totius naturalis philosophiae secundum processum Albertistarum et Thomistarum*<sup>7</sup>. This anonymous commentary on the *libri naturales* gives valuable insight into how these texts were understood by Thomists and Albertists. The *Reparationes* have not previously been studied. Therefore, I will first summarize the nature of the treatise. Thereafter I will examine the text as a document for the late medieval exegesis of Aristotle by Albertists and Thomists and the debates which resulted from it.

## 2. THE REPARATIONES

The title 'reparationes' offers an important clue as to the nature of the treatise. In the Middle Ages, the word 'reparatio' meant the exercise of repeating the materials presented in the regular courses, so that students would gain a full picture and be able to recall relevant passages in disputations or exams<sup>8</sup>. These repetitions usually followed the regular courses and were held under the direction of a master<sup>9</sup>. As will be seen below, this meaning of the word 'reparatio' corresponds perfectly with the content of the treatise.

<sup>7</sup> E. VOULLIÈME, *Der Buchdruck Kölns bis zum Ende des fünfzehnten Jahrhunderts*, Bonn 1903, p. 443, n. 1016. The title page announces (Würzburg, Universitätsbibliothek, I.t.q.138): "Reparationes librorum totius naturalis philosophiae secundum processum Albertistarum et Thomistarum". The colophon at the end of the work reads: "Reparationes totius philosophiae naturalis tam pro dominis Albertistis quam etiam Thomistis". Unless otherwise indicated, in this study reference is made to the copy of the *Reparationes* as preserved in Wolfenbüttel, Herzog-August-Bibliothek, Sign. 22.6 Phys. This is a complete copy except for the title page and the *prologus*. On the history of printing in Cologne, see *500 Jahre Buch und Zeitung in Köln*, Köln 1956, and E. MEUTHEN, *Die alte Universität*, Cologne-Vienna 1988 (Kölner Universitätsgeschichte, 1), pp. 111f.

<sup>8</sup> Cf. *Glossarium mediae et infimae latinitatis*, ed. CH. DU CANGE, vol. 5, Paris 1845, pp. 705f., s.v. 'reparare'; *Lexicon manuale ad scriptores mediae et infimae latinitatis*, ed. W.-H. MAIGNE D'ARNIS, Paris 1866, p. 1914, s.v. 'reparare' and 'reparatio'. The term 'reparatio' is not included in the otherwise helpful studies by O. WEIJERS, *Terminologie des universités au XIII<sup>e</sup> siècle*, Rome 1987 (Lessico Intellettuale Europeo, 39), and EAD., *Dictionnaires et répertoires au moyen âge. Une étude du vocabulaire*, Turnhout 1991 (Études sur le vocabulaire intellectuel du moyen âge, 4).

<sup>9</sup> MEUTHEN, *Die alte Universität* cit., p. 96.

The title page and colophon of a number of printed school books from the late fifteenth century show that such repetitions were common practice in Cologne<sup>10</sup>. In most cases, the word 'reparatio' is accompanied by the synonymous 'epitoma', which is the usual term for an abridgment. Two examples may suffice. In 1496, two years after the printing of our treatise, a commentary on the *libri naturales* was published by the Alber-tist Gerard of Harderwijck<sup>11</sup>. In the colophon the terms 'reparatio' and 'epitoma' are used interchangeably. In addition, the colophon indicates that the work is designed for those who are trying to acquire a better understanding of Aristotle<sup>12</sup>:

Epitomata totius phylosophie naturalis que vulgato sermone Reparationes appel-lantur (...) ad utilitatem omnium textum Arestoteles [!] intelligere cupientium ela-borata.

The second example, a commentary on the old and new logic published in 1496 by Arnold of Tongeren, is even more interesting. The colophon of the commentary on the old logic reveals that the term 'reparatio' was not confined to the *libri naturales*, but also used for abridgments of other officially designated texts which were part of the curriculum, such as the *logica vetus*. Moreover, it indicates that the work is a 'reparatio' of the lectures and exercises, and a student aid; in other words, it is meant as a schoolbook<sup>13</sup>:

Epitomata (que communi vocabulo reparationes lectionum et exercitiorum vocantur) totius veteris artis ad profectum et utilitatem scolarium (...) finiunt.

There are also signs that the *Reparationes librorum totius naturalis philosophiae* is strongly tied to the regular courses of the curriculum. In two places, the terms 'legere' and 'reparare' are connected: only those writings of Aristotle are dealt with and repeated which are part of the actual arts program. Works of the *libri naturales* which are not formally (*formaliter*) lectured on, that is, those treatises which are not required for

<sup>10</sup> VOULLIÉME, *Der Buchdruck Kölns* cit., pp. 69-71, n. 164-167, and pp. 197f., n. 441.

<sup>11</sup> On Gerard of Harderwijck, who became regent master of the *bursa laurentiana* in 1473, see TEWES, *Die Bursen* cit., pp. 62f.

<sup>12</sup> VOULLIÉME, *Der Buchdruck Kölns* cit., p. 198, n. 441.

<sup>13</sup> VOULLIÉME, *Der Buchdruck Kölns* cit., p. 70, n. 164. Arnold of Tongeren became regent master of the *Laurentiana* in 1503, see TEWES, *Die Bursen* cit., p. 65.



the academic exams, are not included in the repetitions<sup>14</sup>. The two such passages read:

(fol. Niii<sup>v</sup>) <C>Irca initium tertii libri De caelo et mundo (...). Et quia in eo est modica utilitas, ergo in universitate Coloniensi non legitur formaliter neque reparatur.

(fol. Rv<sup>v</sup>) <C>Irca initium quarti Metheororum (...). Et quia in alma universitate Coloniensi non legitur formaliter neque reparatur, ideo illum pro nunc et brevitatis gratia dimittimus.

As these remarks show, the third book of *De caelo*, which treats the sublunary bodies, and the fourth book of the *Meteora*, which deals with chemical change, were not required in Cologne<sup>15</sup>. This information is confirmed in the previously mentioned *Epitoma* of Gerard of Harderwijk. He too mentions that these books are not included in the arts program<sup>16</sup>.

Besides the title, the text's design provides a second clue about the nature of the *Reparationes*, namely the way in which the treatise is designed. At the beginning of each of the works treated in the *Reparationes*, its place among the *libri naturales* is determined, as well as its subject matter. Next, the work under discussion is divided into books (*libri*) and treatises (*tractatus*). A considerable number of brief questions on the content of the work follow, always introduced by the words: 'quaeritur' or 'arguitur'. The answers to these questions are also very brief. They invariably begin with the word 'dicendum'. Nowhere the anonymous author does elaborate or expand his opinion in detail, as is for example the case in the commentaries on Aristotle by John Buridan or Marsilius of Inghen. Only now and then a larger discussion is included. The beginning of the commentary

<sup>14</sup> A similar picture is presented in an examination compendium of the thirteenth century, which only summarizes those treatises which are lectures *de forma*, see P. O. LEWRY, *Thirteenth-Century Examination Compendia from the Faculty of Arts*, in *Les genres littéraires dans les sources théologiques et philosophiques médiévales*, Louvain-La-Neuve 1982 (Publications de l'Institut d'Études Médiévales, 2/5), pp. 101-116, esp. p. 109, note 16 and 19. As for the use of the terms *formale*, *in forma*, or *libri formales* in Cologne, see MEUTHEN, *Die alte Universität* cit., p. 29.

<sup>15</sup> It needs to be noted here that book IV of the *Meteora*, whose authenticity has been debated by scholars, has no direct connection with books I-III; it is a separate treatise, which may explain why it was left out in Cologne.

<sup>16</sup> Cf. VOULLIÈME, *Der Buchdruck Kölns* cit., p. 197f., n. 441: "(...) Sed quia iste quartus liber Metheororum in hoc famosissimo universali sancte ciuitatis Coloniensis studio non legitur, nec a magistrandis eius auditio requiritur ideo de eius materia hic non est latior facienda mentio".

on the second book of *De generatione et corruptione* may illustrate this standard procedure:

(Ov<sup>r</sup>) <C>Ircā initium secundi libri De generatione et corruptione quaeritur primo: De quo determinatur in hoc secundo libro.

Dicendum quod de generabili et corruptibili, vel de natura generatorum et corruptorum. Natura enim generatorum et corruptorum dicitur esse materia et forma. Vel ut alii dicunt: Hic determinatur de principiis transmutationis elementorum.

Et habet iste liber tres tractatus. In primo determinatur de natura primorum corporum, scilicet elementorum. In secundo de transmutatione eorum. Et in tertio de causa perpetuitatis transmutationis eorum.

Quaeritur. Quid est principium materiale omnium elementorum.

Dicendum quod ens sensibile in potentia, id est materia prima. Et ratio est, quia omnia elementa sunt contraria. Sed contraria communicant in materia. Ergo elementa communicant in materia.

Arguitur (...).

A design very much similar to that of the *Reparationes* is to be found in the so-called *Student's Guide*, a work of the thirteenth century which has been preserved in the manuscript Barcelona, Arxiu de la Corona d'Aragó, Ripoll 109, fol. 134<sup>ra</sup>-158<sup>va</sup> <sup>17</sup>. Penned anonymously, it was an examination compendium to help students answer questions which might occur during the exams. The similarity of the two works suggests that the *Reparationes* was probably compiled for the same purpose. Such compendia were

<sup>17</sup> On this work, see most recently LEWRY, *Thirteenth-Century Examination Compendia* cit., pp. 101-106; C. LAFLEUR, *Logique et théorie de l'argumentation dans le 'Guide de l'étudiant' (c. 1230-1240) du ms. Ripoll 109, "Dialogue"*, 29, 1990, pp. 335-355, and LAFLEUR & J. CARRIER, *Le 'Guide de l'étudiant' d'un maître anonyme de la Faculté des Arts de Paris au XIII<sup>e</sup> siècle*, Québec 1992 (Publications du Laboratoire de Philosophie Ancienne et Médiévale de la Faculté de Philosophie de l'Université Laval, 1). The following passage, taken from the treatment of *De generatione et corruptione*, illustrates the method employed by the *Student's Guide*. The similarity of design in the *Reparationes* can easily be noticed (ed. C. LAFLEUR & J. CARRIER, in: *Le 'Guide de l'étudiant' cit.*, p. 48): "§ 64 Est autem aliud corpus generabile et corruptibile, et hoc dupliciter, quia quoddam est simplex, sicut est elementum, et de tali agitur in libro *De generatione et corruptione* continente duos libros partiales: in quorum primo agitur de principiis uniuersalibus que requiruntur ad generationem et corruptionem, sicut de agere et pati et multitudine et huiusmodi; in secundo enim agitur de transmutatione elementorum secundum se in speciali et secundum quod ueniunt in mixtum. § 65 Sed queritur quare elementa sunt transmutabilia et quid in ipsis est principium transmutandi. — Solutio. Dicimus quod hoc est quia communicant in materia et sunt diuersa secundum speciem. Solum enim talibus debetur agere et pati ad inuicem, sicut habetur ibidem, quia nec omnino similium est agere nec omnino dissimilium."



in use not only in the thirteenth but also in the fifteenth century. This can be gathered from a number of contemporary manuscripts which contain (parts of) analogous works<sup>18</sup>.

It seems safe to conclude that the treatise under review was composed for the repetition and study of the works of Aristotle which officially formed part of the arts curriculum and were lecture topics in Cologne. As such, the treatise is to be regarded as a fifteenth-century examination compendium.

### 3. AUTHORSHIP

As remarked above, the *Reparationes* is of anonymous authorship. Since at least the eighteenth century, however, some have attributed the treatise to Heymericus de Campo, others to Gerard of Harderwijck<sup>19</sup>. The treatise itself, it should be noted, contains no indication of its author.

The attribution to Gerard of Harderwijck needs no further consideration. It is based on a confusion of the *Reparationes* with the *Epitomata totius phylosophie naturalis* already mentioned<sup>20</sup>.

<sup>18</sup> See J. B. KOROLEC, *Polonica w rekopisie Archiwum Panstwowego w Brnie 111 (117a)*, "Materialy i studia zakladu historii filozofii starozytnej i sredniowiecznej", 7, 1967, pp. 51-76, and my *Speculum Philosophiae Medii Aevi. Die Handschriftensammlung des Dominikaners Georg Schwartz († nach 1484)*, Amsterdam 1994 (Bochumer Studien zur Philosophie, 22), p. 138 (zweiter Anhang). For the thirteenth century, cf. M. GRABMANN, *Mittelalterliches Geistesleben. Abhandlungen zur Geschichte der Scholastik und Mystik*, vol. 2, München 1936, pp. 183-199. See also WEIJERS, *Dictionnaires et répertoires cit.*

<sup>19</sup> The treatise is attributed to Heymericus by, e.g., J. HARTZHEIM, *Bibliotheca Coloniensis*, Cologne 1747, fol. 111a: "3. *Reparationes naturalis Philosophiae secundum processum Albertistarum & Thomistarum*, in 4to, Coloniae 1492. Hi duo libri (sc. the *Reparationes* and the *Promptuarium* mentioned earlier by Hartzheim) nonnisi hoc anno, quod sciam, typo vulgati fuêre: sed videntur ejusdem Heimerici & 60 aut 70 annis ante scripti.", and L. BURIE, *Proeve tot inventarisatie van de in handschrift of in druk bewaarde werken van de Leuvense theologieprofessoren uit de XV<sup>e</sup> eeuw*, in *Facultas S. Theologiae Lovaniensis 1432-1797*, ed. E. J. M. VAN EIJL, Leuven 1977 (Bibliotheca Ephemeridum Theologicarum Lovaniensium, 45), pp. 215-272, esp. p. 236. Gerard of Harderwijck is mentioned as the author in H. L. PH. LEEUWENBERG, *Lambertus van 's-Heerenbergh (de Monte Domini) († 1499), een Nederlands geleerde aan de Universiteit van Keulen*, "Tijdschrift voor Geschiedenis", 85, 1972, pp. 325-349, esp. p. 339, n. 50, and MEUTHEN, *Die alte Universität cit.*, p. 190.

<sup>20</sup> The two treatises are very similar in subject and methodological design and may therefore easily be confused. It should be noted in this connection that while the *Epitomata* are listed under the works of Gerard of Harderwijck in the *Gesamtkatalog der Wiegendrucke*, vol. 9, Berlin 1991, pp. 394-404, n. 10673-10680, the *Reparationes* are not.

For the authorship of Heymericus de Campo, the case is more complicated, but still not convincing. On several occasions, the treatise follows a line of reasoning which is very similar to that found in the writings of Heymericus. Also, there are a number of passages which are borrowed verbatim from his *Tractatus problematicus*<sup>21</sup>. Nonetheless, this does not constitute proof that Heymericus is the author. Heymericus was an esteemed professor at Cologne and regent master of the Albertist *bursa laurentiana*<sup>22</sup>. His *Tractatus problematicus* was very influential, especially in Cologne, but also elsewhere. It has survived in a number of manuscripts, and was printed in Cologne in 1496<sup>23</sup>. It is not surprising, therefore, that the anonymous author of the *Reparationes*, who according to the colophon intended to summarize Aristotle 'secundum processum Albertistarum et Thomistarum', was using the writings of Heymericus as a source for the treatise, since Heymericus was among the most celebrated Albertists of his time.

More importantly, there is no attribution of the treatise to Heymericus in contemporary sources or in the earliest catalogue to list the writings of Heymericus, the so-called Rooklooster-Catalogue<sup>24</sup>.

Regarding the authorship of the treatise, it should also be pointed out that books compiled for educational purposes like the *Reparationes* were not usually written by a single author, at least not in Cologne. They were edited and reworked by the regent professors and masters of a *bursa* on the basis of materials gathered together by one of them, or else they were written by several masters in collaboration, as indicated in the colophons of a number of these works<sup>25</sup>. This means that they ought to be regard-

<sup>21</sup> See note 113, 116, 119, 120, 123, 127 below.

<sup>22</sup> Heymericus' intellectual biography is treated in TEWES, *Die Bursen* cit., pp. 48f., and my *Academics and Intellectual Life in the Low Countries. The University Career of Heymeric de Campo* († 1460), "Recherches de Théologie ancienne et médiévale", 61, 1994, pp. 173-209.

<sup>23</sup> See most recently my *Speculum Philosophiae Medii Aevi* cit., p. 62 (with further bibliographical references).

<sup>24</sup> For the Rooklooster-Catalogue, see Z. KALUZA, *Trois listes des œuvres de Heimeric de Campo dans le Catalogue du Couvent Rouge (Rouge Cloître)*, "Mediaevalia Philosophica Polonorum", 17, 1973, pp. 3-20.

<sup>25</sup> See for example the colophon of the aforementioned *Epitomata sive reparationes* by Arnold of Tongeren (VOULLIÈME, *Der Buchdruck Kölns* cit., p. 70, n. 164), representative of the first situation: "Reparationes (...) per venerabilem virum Arnoldum de Tungeri artium magistrum et sacre theologie bacalaurium [!] formatum in eadem bursa laurentii actu regentem summo studio elaborate Per aliosque sacre theologie professores licentiatos ac bacalaurios et artium magistros eiusdem burse regentes reuise". The second case



ed as the combined effort of a particular *bursa* rather than the product of a single author. This may also explain why the *Reparationes* was printed without listing the author. In our case, the *bursa* is without any doubt the Albertist *bursa laurentiana*, since the *libri naturales* were almost always commented upon according to the writings of Albert the Great<sup>26</sup>.

#### 4. DATING

Since there is no exact proof about the authorship, dating the treatise becomes a difficult task. Nevertheless, there are some hints that can help postulate a date of composition. First there is the use of Heymericus' *Tractatus problematicus* throughout the treatise<sup>27</sup>. In most cases, the *Tractatus* is cited in passages which deal specifically with the opposition between the Albertists and Thomists. Because of the length and number of arguments, these passages interrupt the normal flow of the treatise and are not organically connected with the rest. In one instance the author uses the personal 'nobis', which is perfectly appropriate for the setting of the *Tractatus* but is rather unusual in the *Reparationes*<sup>28</sup>. It is quite plausible then that the *Reparationes* echoes the *Tractatus* and not vice versa. Consequently, the *terminus a quo* of the treatise must be 1428, the year in which the *Tractatus* was published<sup>29</sup>.

Secondly, the treatise refers to the opinion of master Johannes of Mechelen (*magister Joannes de Mechelinia*), who is the only contemporary thinker mentioned by name<sup>30</sup>. Johannes of Mechelen became master in Cologne

in point is illustrated by the *Epitomata sive reparationes* of Gerard of Harderwijck referred to above (VOULLIÉME, p. 198, n. 441): "Epitomata (...) per Magistrum gerardum herderwicensem sacre theologie licentiatum, quo ad octo libros physicorum, duos de anima et primum paruorum naturalium, et quo ad reliquos omnes per reuerendum virum artium liberalium magistrum et sacre theologie bacculaurium [!] Burse laurencii famosissimi agrippinensis Colonie gymnasii cum aliis sacre theologie professoribus et licentiatis regentes emendatissime (...) elaborata".

<sup>26</sup> Although the title announces the treatise is written 'secundum processum Albertistarum et Thomistarum', the references to Albert the Great and the *Albertistae* by far outnumber those to Thomas Aquinas and the *Thomistae*.

<sup>27</sup> Some examples will be discussed below at p. 337.

<sup>28</sup> *Reparationes, Physica*, 2, fol. Ciii<sup>r</sup>. Cf. HEYMERICUS DE CAMPO, *Tractatus problematicus*, Cologne 1496 (\*Hain 4302), Probl. 7, fol. 20<sup>v</sup>.

<sup>29</sup> I follow the date as given by G. MEERSSEMAN, *Geschichte des Albertismus*, Heft II: *Die ersten Kölner Kontroversen*, Rome 1935 (Dissertationes historicae, 5), p. 24.

<sup>30</sup> *Reparationes, De anima*, 3, fol. Zir: "(...) ut dicit magister noster Joannes de Mechelinia (...)".



in 1426; succeeded Heymericus, who left the city in 1435, as regent master of the *bursa laurentiana*, and was professor of theology from 1440 until his death in 1475. He is the author of a number of commentaries on Aristotle. His reputation in Cologne is underscored by the fact that he was vice-chancellor of the University in the period 1440-1461<sup>31</sup>. It seems not unlikely that he is mentioned in the *Reparationes* because of his office as regent master of the *laurentiana*, the *bursa* where the *Reparationes* was composed. This means that the *terminus a quo* of the treatise is possibly 1435, the year in which Johannes of Mechelen became regent master.

The *Reparationes* was published in 1494, which is thereby the *terminus ad quem*. Combining this with the facts of the *terminus a quo*, the treatise was compiled most probably in the period 1435-1494. However, since the *bursae* in Cologne became well-established in the second half of the fifteenth century in particular and the debates between the Albertists and Thomists then reached their peak, it seems reasonable to suppose that the work was written no earlier than the mid-fifteenth century<sup>32</sup>. This would point to a possible date of composition of the treatise somewhere between 1450 and 1494<sup>33</sup>.

## 5. THE WORKS INCLUDED

The treatise under scrutiny is a commentary on the different *libri naturales* (works on natural philosophy) of Aristotle. These books are not handled in an arbitrary order. The sequence is according to a certain logic which is revealed in the treatise itself and begins with the *Physics*<sup>34</sup>. The ordering is pressed and explained by the author in the following way<sup>35</sup>:

<sup>31</sup> On Johannes of Mechelen, see A. PATTIN, *Jan van Hulshout (1405-1475). Vlaams wijsgeer en theoloog van de universiteit te Keulen*, "Tijdschrift voor Filosofie", 38, 1976, pp. 104-128 (contains a list of his writings), and TEWES, *Die Bursen* cit., pp. 49f.

<sup>32</sup> For the process of establishing the *bursae* in Cologne, see TEWES, *Die Bursen* cit., esp. pp. 121-219.

<sup>33</sup> The mention of 'Papa Petrus' in the treatise is of no value for the dating (*Reparationes, De anima*, 3, fol. [Yiii<sup>v</sup>]: "sicut patet in imagine Papae Petri vel alicuius regis"). There is no Pope by that name who reigned in the fifteenth century. Apparently, the name was chosen only by way of example.

<sup>34</sup> *Reparationes, Physica*, 1, fol. [Avir<sup>v</sup>]. Information on the ordering of the treatises is also given in the introduction to each of them.

<sup>35</sup> For a discussion of the division of the sciences in the middle ages, see most recently C. LAFLEUR, *Quatre introductions à la philosophie au XIII<sup>e</sup> siècle. Textes critiques et étude historique*, Paris 1988 (Université de Montréal. Publications de l'Institut d'Études

1. By way of reference to the first chapter of the *Physics*, it is claimed that the procedure for gaining scientific knowledge is to go from what is most general to what is more concrete and specific<sup>36</sup>. Now, the treatise that deals with natural philosophy in the most abstract way is the *Physics*, since it discusses the general principles that constitute the natural realm, such as motion and causation. Therefore, it is argued, the *Reparationes* should begin with a treatment of the *Physics*<sup>37</sup>.

2. After a general treatment, the different types of motion are to be considered, the first of which is local motion. The author here follows a line of thinking of Aristotle, who regarded local motion as the first and primary category of change<sup>38</sup>. Moreover, local motion is more encompassing than all the other motions, which concern qualitative change, generation and corruption, since the heavenly bodies are subject to the former kind of motion, but not to the latter. The rest of the realm of nature, however, is governed by both<sup>39</sup>. The treatise which covers this most general species of change, the motion *ad ubi*, distinctively present in the

Médiévales, 23); S. J. LIVESY, *Theology and Science in the Fourteenth Century*, Leiden 1989 (Studien und Texte zur Geistesgeschichte des Mittelalters, 25), esp. pp. 20-53; R. IMBACH, *Einführungen in die Philosophie aus dem XIII. Jahrhundert. Marginalien, Materialien und Hinweise im Zusammenhang mit einer Studie van Claude Lafleur*, "Freiburger Zeitschrift für Philosophie und Theologie", 38, 1991, pp. 471-493. It should be noted, however, that much of what has been written on this subject concerns the division between the main parts of philosophy, *philosophia rationalis*, *naturalis*, and *moralis*, rather than the division of *philosophia naturalis* itself.

<sup>36</sup> *Reparationes, Physica*, 1, fol. [Av<sup>v</sup>]: "Quaeritur quae est secunda conclusio partis prooemialis. Dicendum quod ista: In physica procedendum est a magis confusis et universalibus ad minus confusa et minus universalia. Et probat eam Philosophus sic (...)". The reference is to *Physics*, 1, cap. 1, 184a23f. This general rule for proceeding in the natural sciences and for their division is also maintained by Avicenna, see his *Liber primus naturalium. Tractatus primus de causis et principiis naturalium*, ed. S. VAN RIET, Leiden 1992 (Avicenna Latinus), Tract. 1, cap. 1, p. 8. The same can be found in THOMAS AQUINAS, *Sentencia libri de sensu et sensato*, Prohemium, Rome 1985 (ed. Leon., 45/2), pp. 3b-4a: "Et quia uniuersalia sunt magis a materia separata, ideo in sciencia naturali ab uniuersalibus ad minus uniuersalia proceditur, sicut Philosophus docet in I Phisicorum. Vnde et scienciam naturalem incepit tradere ab hiis que sunt communissima omnibus naturalibus, que sunt motus et principia motus, et deinde processit per modum concretionis siue applicationis principiorum communium ad quedam determinata mobilia, quorum quedam sunt corpora uiuencia".

<sup>37</sup> Cf. *Reparationes, Physica*, 1, fol. [Avi<sup>v</sup>].

<sup>38</sup> ARISTOTLE, *Physics*, 8, cap. 7, 260b5-7; *Metaphysics*, 12, cap. 7, 1072b8f.

<sup>39</sup> *Reparationes, De generatione et corruptione*, 1, fol. [Nvi<sup>r</sup>]: "(...) omne corpus mobile ad formam est etiam mobile ad ubi, sed non econverso. Corpus enim caeleste est mobile ad ubi, tamen non est mobile ad formam".



heavenly bodies, is covered by *De caelo et mundo*, the second treatise in the *Reparationes*<sup>40</sup>.

3. Next comes the movement *ad formam*, which covers changes concerning the internal form of a moveable body, whether this is the accidental form, such as the color, or the substantial form, which comes into being when the body does and perishes with it. The book which treats this kind of movement, to which all bodies of the sublunary region are susceptible, is *De generatione et corruptione*. It deals particularly with the coming into being and passing away of the primary constituents of every changeable body, namely the four elements or simple bodies: earth, water, air, and fire<sup>41</sup>.

4. Having addressed the simple bodies, the next treatise covers those bodies which are no longer simple or elementary, but still not perfectly mixed (these will be treated in the subsequent books). Included are meteorological processes and astronomical phenomena, such as rain, thunder and lightning, meteors, and comets, but also rivers and earthquakes. The book on these phenomena is Aristotle's *Meteorologica*<sup>42</sup>.

5. The *Meteorologica* are followed by the *Mineralia*, a work which discusses the lowest species of mixed bodies, that is, stones and minerals. As this subject is not covered by any of the works of Aristotle, it is argued in the *Reparationes*, a book on this topic was composed by Albert the Great, which was included in the *libri naturales* as its fifth treatise for sake of completeness<sup>43</sup>.

<sup>40</sup> *Reparationes, De caelo et mundo*, 1, fol. Liiir: "Quaeritur primo, quotus est iste liber in ordine inter libros naturalis philosophiae. Dicendum quod est secundus in ordine. Cuius ratio est, quia in hoc libro determinatur de corpore mobili ad ubi. Sed corpus mobile ad ubi proxime continetur sub corpore mobili in communi, de quo determinatur in primo libro, scilicet in libro Physicorum. Ergo iste liber ponitur secundo loco. Minor patet, quia inter omnia mobilia contracta ad motum specialem, mobile ad ubi est simplicius et prius".

<sup>41</sup> *Reparationes, De generatione et corruptione*, 1, fol. [Nvir].

<sup>42</sup> *Reparationes, Meteora (Meteorologica)*, 1, fol. Piiir.

<sup>43</sup> *Reparationes, Physica*, 1, fol. [Avir]: "Octo sunt libri totius naturalis philosophiae, scilicet (1) Physicorum (...) (5) De mineralibus, qui pulchre est ab Alberto editus, ne naturalis philosophia videretur diminuta (...)". Cf. ALBERT THE GREAT, *Mineralia*, ed. BORGNET, vol. 5, Paris 1890, pp. 1-116. On this treatise, see J. A. WEISHEIPL, *Albert's Works on Natural Science (libri naturales) in Probable Chronological Order*, in *Albertus Magnus and the Sciences. Commemorative Essays 1980*, ed. ID., Toronto 1980 (Studies and Texts, 49), pp. 565-577, esp. p. 568. Avicenna also wrote a treatise on the same subject as part of his *libri naturalium*, which was used by Albert.



6. The next in line is the *De anima*. This work deals with mixed bodies with soul, higher than the stones and minerals as such. The treatment of the soul is a part of natural philosophy, since the soul is part of a living and moveable body<sup>44</sup>.

7-8. The soul as the cause of movement of a living body discussed, the specific aspects of the soul as mover of the body are now examined. The nutritive soul is treated in *De vegetabilibus et plantis*, the sensitive soul in *De animalibus*<sup>45</sup>.

When the division of the *libri naturales* stated in the *Reparationes* is compared with the actual order in the treatise, there is a difference. Up to the sixth work, the *De anima*, the actual sequence runs parallel to what has been professed<sup>46</sup>. After the *De anima*, however, it is not the *De animalibus* which follows but the *Parva naturalia*, a group of minor works which are not mentioned in the theoretical delineation discussed above<sup>47</sup>. This divergence is alluded to by the final line of the *Parva naturalia*, where the author refers to the *De animalibus* as one of the next treatises for review<sup>48</sup>. Apparently, the *Parva naturalia* is to be classified between *De anima* and *De animalibus*.

This arrangement is also insisted upon by the author of the *Reparationes* in his discussion of the *Parva naturalia*. It deals with the qualities which are common to the soul and body but depend on only the body.

<sup>44</sup> *Reparationes, De anima*, 1, fol. [Rvi<sup>r</sup>]: "Circa initium primi libri De anima. Iste est sextus liber naturalis philosophiae (...). Quaeritur utrum scientia de anima sit physicalis. Dicendum quod sic. Et ratio est, quia illa scientia est physicalis in qua determinatur de corpore mobili vel de aliqua parte corporis mobilis. Sed ista scientia tractat de anima, quae est pars corporis mobilis, scilicet corporis animati. Ergo ista scientia est physicalis".

<sup>45</sup> *Reparationes, Physica*, 1, fol. [Avi<sup>v</sup>]: "Nam in tota naturali philosophia agitur de corpore mobili. Vel ergo hoc est (1) incontracte, et sic est liber Physicorum, (...) vel (7) anima vegetativa, et sic est liber De vegetabilibus et plantis, vel (8) anima sensitiva, et sic est liber De animalibus". *De vegetabilibus et plantis* is Pseudo-Aristotelian. On this treatise, see recently R. J. LONG, *The Reception and Interpretation of the Pseudo-Aristotelian 'De plantis' at Oxford in the Thirteenth Century*, in *Knowledge and the Sciences in Medieval Philosophy*, vol. 3, ed. R. TYÖRINOJA e.a., Helsinki 1990 (Annals of the Finnish Society for Missiology and Ecumenics, 55), pp. 111-123. The treatise *De animalibus*, however, includes the following authentic works: *History of animals*, *Progression of animals*, *On movement of animals*, *Parts of animals*, *Generation of animals*.

<sup>46</sup> Cf. *Reparationes, Physica*, 1, fol. [Avi<sup>r</sup>], where the eight books of the *libri naturales* are listed in the order discussed.

<sup>47</sup> *Reparationes, Parva naturalia*, fol. [AAi<sup>v</sup>]-[CCvi<sup>r</sup>].

<sup>48</sup> Ibid., fol. [CCvi<sup>r</sup>]: "(...) a sumptione nutrimenti, donec a calido digeratur et humidum vincatur, de quo prolixius determinare spectat ad librum De animalibus".

The body is of a lower rank than the soul. Therefore the *Parva naturalia* follows the *De anima*. Yet it itself is followed by the *De animalibus*, since here the subject matter, being both soul and body, is more general<sup>49</sup>. The order of the *Parva naturalia* is as follows: *De sensu et sensato*, *De memoria et reminiscentia*, *De somno et vigilia*, *De longitudine et brevitae vitae*.

The sequence of the books of Aristotle as presented in the *Reparationes* corresponds to the division of the *libri naturales* in the medieval Latin tradition, as found in the works of Albert the Great and Thomas Aquinas. In the first treatise of his commentary on the *Physics*, Albert investigates into what different parts the study of natural philosophy can be divided and what the sequential arrangement of these parts is. Some of the notions he employs, such as the distinction between the *mobile ad situm* and the *mobile ad formam*, are also used in the *Reparationes*<sup>50</sup>. Thomas delineates the books of the *scientia naturalis* in the first *lectio* of his *Physics* much more concisely than Albert does. His ordering agrees with that in the *Reparationes*, even as to the inclusion of the *Mineralia*<sup>51</sup>.

A division of the *libri naturales* also very similar to that of the *Repara-*

<sup>49</sup> Ibid., fol. [AAi<sup>v</sup>]: "Quaeritur, quare isti libri Parvorum naturalium sequuntur librum De anima. Dicendum quod ideo, quia anima est dignior corpore. Sed in libro De anima agitur de istis potentiis principaliter ab anima dependentibus, et in istis libris agitur de ipsis secundum quod principaliter a corpore dependent. Ergo isti libri sequuntur librum De anima. — Quaeritur, quare isti libri praecedunt sequentes, scilicet De animalibus et De vegetabilibus et plantis. Dicendum quod ideo, quia communiora sunt priora. Sed in istis libris agitur de communioribus, quia agitur de passionibus communibus animae et corporis secundum quod principaliter tamen a corpore dependent, sed in libris sequentibus agitur de singulis speciebus ipsius corporis animati, ergo etc.". It should be noted that contrary to what is stated here, in the passage referred to in note 45 above *De vegetabilibus et plantis* is followed by *De animalibus*, which seems to be the standard fifteenth-century sequence, as can be gathered from the texts quoted below on pp. 321-22.

<sup>50</sup> ALBERT THE GREAT, *Physica*, Lib. 1, tract. 1, cap. 4, ed. P. HOSSFELD, Münster 1987 (ed. Col. 4/1), pp. 6f.

<sup>51</sup> THOMAS AQUINAS, *In octo libros Physicorum Aristotelis expositio*, Lib. 1, lect. 1, n. 4, ed. P. M. MAGGILO, Rome 1954, p. 4: "Sequuntur autem ad hunc librum (sc. the *Physics*) alii libri scientiae naturalis, in quibus tractatur de speciebus mobilium: puta in libro *de Caelo* de mobili secundum motum localem, qui est prima species motus; in libro autem *de Generatione*, de motu ad formam et primis mobilibus, scilicet elementis, quantum ad transmutationes eorum in communi; quantum vero ad speciales eorum transmutationes, in libro *Meteororum*; de mobilibus vero mixtis inanimatis, in libro *de Mineralibus*; de animatis vero, in libro *de Anima* et consequentibus ad ipsum". For a discussion, see THOMAS VON AQUIN, *Prologe zu den Aristoteles-Kommentaren*, ed. F. CHENEVAL and R. IMBACH, Frankfurt am Main 1993 (Klostermann Texte Philosophie), pp. lxvi-lxviii. — The medieval Latin tradition goes back to at least Avicenna, who divides his *libri naturalium* in a similar fashion.



*tiones* is found in an *Abbreviatio* preserved in a manuscript from the fifteenth century and attributed to John of Paris. As in the *Reparationes*, the author of this text indicates that the *Mineralia* is composed by Albert the Great and included in the *libri naturales*, as there was no equivalent available among the Latin works of Aristotle<sup>52</sup>.

In many fifteenth-century commentaries on the works of Aristotle as well, the numbering of the treatises as it appears in the *Reparationes* is conserved. The following examples may suffice:

1. physicorum 2. de celo et mundo 3. de generatione et corrupcione 4. de motu terminorum (= meteororum) 5. de mineralibus 6. de anima 7. de plantis 8. de animalibus — Anonymous note in ms. Praha, Universitní knihovna, Cod. I F 25 (1455-1459), fol. 283<sup>r</sup>.

Non solum liber de generatione et corrupcione Aristotelis congrue tercium locum inter philosophie naturalis tenet. — Anonymous note in ms. Strasbourg, Bibliothèque Municipale, Cod. 55, 226<sup>v</sup> (1423)<sup>53</sup>.

De primis quidem. Iste est liber Meteororum Aristotelis quartus in ordine librorum philosophiae naturalis in quo determinatur de corpore mobili simplici (...). — Incipit of Jacobus Tymanni de Amersfordia, *Aristotelis Meteororum secundum processum Albertistarum*<sup>54</sup>.

Bonorum honorabilium. Iste est sextus liber naturalis philosophiae in quo Philosophus incipit determinare de corporibus animatis quorum cognitio ab anima dependit (...). — Incipit of Johannes of Mechelen, *Commentaria librorum de anima*<sup>55</sup>.

Notandum quod scientia libri De anima est una scientia naturalis quae licet ordine obtineat sextum gradum inter scientias naturales, tamen ratione dignitatis (...). — Incipit of Siburdus de Lippia (Herbordus de Lippia?), *Quaestiones super libros De anima* (Berlin, SB lat. qu. 97, s. XV, 198<sup>r</sup>)<sup>56</sup>.

<sup>52</sup> The relevant passage is published in M. GRABMANN, *Gesammelte Akademieabhandlungen*, vol. 2, Paderborn 1979, pp. 1519-1521 (73-75). For the *Mineralia* *ibid.*, p. 1520 (74): "Quinta pars philosophie naturalis est de corpore mobili contracto inanimato sicut de mineralibus ut de lapidibus metallis, que venis terre nascuntur et de hiis est scientia mineralium, quam tamen a Philosopho in latinum traditam non habemus, ad (= at?, MH) quidam egregius doctor Albertus de hiis librum pulchrum composuit". A fourteenth-century example is the prologue to Buridan's commentary on *De generatione et corruptione*, edited in J. M. M. H. THIJSEN, *Johannes Buridanus over het oneindige*, vol. 2, Nijmegen 1988 (Diss.), pp. 118-121, esp. p. 120.

<sup>53</sup> *Catalogue général des manuscrits des bibliothèques publiques de France, Départements*, vol. 47, Paris 1927, p. 40.

<sup>54</sup> LOHR, *Medieval Latin Aristotle Commentaries. Authors: Jacobus-Johannes Juff*, "Traditio", 26, 1970, p. 148.

<sup>55</sup> *Ibid.*, p. 206.

<sup>56</sup> LOHR, *Medieval Latin Aristotle Commentaries. Authors: Robertus-Wilgelmus*, "Traditio", 29, 1973, p. 126.



Quoniam autem de anima. Iste est liber De sensu et sensato qui primus est inter eos qui dicuntur De parvis naturalibus, qui et annexi sunt libro De anima, disponentes ad ea, quae dicenda sunt in libris De vegetabilibus et plantis et De animalibus (...). — Incipit of Johannes of Mechelen, *Commentarium librorum parvorum naturalium*<sup>57</sup>.

There is no doubt then that our author does not follow the traditional medieval division of the *libri naturales*, which fits perfectly the character of the *Reparationes* as a schoolbook. For him, natural philosophy concerns motion and change in all their different aspects. It covers the motion of the heavenly bodies as well as the movements in the sublunar region, those of animals and human beings included.

The title of the book promotes it as a discussion of the complete *libri naturales* (*Reparationes totius philosophiae naturalis*). This, however, is not entirely true, since the last two *libri*, the *De vegetabilibus et plantis* and *De animalibus*, are not included. The reason for this is unclear. Yet it may have been common practice in Cologne, since these two books are also omitted from the *Epitoma* of Gerard of Harderwijck, a treatise very similar to the one under review<sup>58</sup>.

Having investigated the nature of the treatise, we are now well equipped to turn to a discussion of its content.

## II.

As has been pointed out at the beginning of this paper, the *Reparationes* are an important source for our knowledge of how the thinking of Albert the Great and Thomas Aquinas shaped the reading of Aristotle at the University of Cologne toward the end of the medieval period. As such the treatise provides insight into the background of the debates between the Thomists and Albertists. It can assist in finding the origins of the divergent interpretation of Aristotle in these schools.

Throughout the book, there are more than 100 references to Albert and Thomas. The bulk of them pertains to Albert, which clearly shows that the author has a preference for the Albertist tradition, despite the

<sup>57</sup> LOHR, *Medieval Latin Aristotle Commentaries. Authors: Jacobus-Johannes Juff* cit., p. 206.

<sup>58</sup> See the description of the treatise in *Gesamtkatalog der Wiegendrucke*, vol. 9, Berlin 1991, pp. 397-399, n. 10674. In general, there is not much of a commentary tradition on *De vegetabilibus et plantis* and *De animalibus* in the Latin West, see LONG, *The Reception and Interpretation of the Pseudo-Aristotelian 'De plantis'* cit., p. 121.

suggestion in the colophon that the treatise is impartially devoted to Albertism and Thomism<sup>59</sup>.

The references to Albert and Thomas are not equally distributed among the *libri naturales*. They are mentioned more often in some works than in others. The works that stand out in this respect are the *Physics* (book I), the *Meteorologica* (books I-III), and the *De anima* (books II-III). This may indicate that they include material commonly debated at the time.

Three different types of references can be distinguished. First, the commentaries of Albert and Thomas are used in order to shed light on a difficult passage or to answer questions that are posed but left open by Aristotle.

Secondly, there are passages in which the author compares the different interpretations of Aristotle put forward by Albert and Thomas. Usually, he adds a brief exposition of their views.

Finally, in a number of places the opinions of Albert and Thomas are juxtaposed according to the recognized form of a *quaestio disputata*. These passages are the most elaborate of the three. Generally, they begin by listing the arguments for one view, then follow with those for the other. Next, the author explains which of the two opinions is superior and why. Also, now and again he reconciles the opposing views, showing that they are not as divergent as they might seem at first.

One or two examples of each of these types of references will be considered. They should offer a clear picture of the content of the treatise and of the general outline of the Albertist position upheld by its author.

## 1. THE APPETITE OF MATTER AND THE ACTIVE MIND

The writings of Aristotle are notorious for the many difficult passages which render the commenting of his work a difficult task<sup>60</sup>. It is therefore not surprising that in composing his text our author used the commentaries of Albert, who was counted among the most famous expositores of Aristotle at that time<sup>61</sup>. That the works of Albert were renowned in

<sup>59</sup> *Reparationes*, fol. CCvii: "Finiunt felici numine Reparationes totius philosophiae naturalis tam pro dominis Albertistis quam etiam Thomistis (...)"

<sup>60</sup> This difficulty is caused by the commonly known fact that his surviving works are frequently revised and reworked school papers which were not intended for publication. Cf. W. K. C. GUTHRIE, *Aristotle: An Encounter*, Cambridge 1981 (A History of Greek Philosophy, 6), pp. 49-65.

<sup>61</sup> Information on the use of Albert in the late Middle Ages is given in K. PARK, *Albert's Influence on Late Medieval Psychology*, in *Albertus Magnus and the Sciences. Com-*



Cologne when the *Reparationes* was compiled is documented by the catalogue of the arts library in 1474. More than ten percent of the books listed were written by Albert<sup>62</sup>.

In the following pages I will discuss two examples demonstrating how the commentary of Albert was used to explain difficult passages in Aristotle. The first concerns matter's desire for form (*appetitus materiae*); the second, the characteristics of the human active mind (*intellectus agens*).

In the first book of the *Physics*, Aristotle distinguishes three principles of change or movement: matter (ἡ ὕλη), deficiency or absence of form (ἡ στέρησις), and form (τὸ εἶδος). Every movement presupposes the requisite existence of some underlying object as its 'seat', namely, matter. It also needs a *terminus a quo*, the movement's point of departure, which is the absence of the form that will be acquired. Finally, the movement is completed when it reaches or obtains the *terminus ad quem*, the form desired. According to Aristotle, these three principles need to be carefully distinguished for an accurate account of change. He therefore criticizes the Platonists, who in his opinion equated matter with deficiency. To demonstrate that these must not be confused, he advances some arguments, one of which is that matter desires form, but deficiency cannot do so. Moreover, deficiency and form are mutually exclusive, since they are the components of an antithesis, namely 'deficiency of form' and 'form'. Therefore they cannot desire each other. Deficiency thus has no desire for form. As a result, matter, which does have a desire for form, must be distinguished from deficiency<sup>63</sup>.

The question which may arise and is in fact posed in the *Reparationes* is the nature of matter's desire for form. Aristotle does not provide an answer here. Albert the Great, on the other hand, discusses the problem at length in his commentary on the *Physics*<sup>64</sup>. His elaborate dealing with

*memorative Essays* 1980, ed. J. A. WEISHEIPL, Toronto, Canada 1980, pp. 501-535, esp. pp. 510-522, and in my *Die Intellektlehre des Johannes Buridan - Ihre Quellen und historisch-doktrinären Bezüge*, in *John Buridan: A Master of Arts. Some Aspects of His Philosophy*, ed. E. P. Bos and H. A. KROP, Nijmegen 1993 (Artistarium Supplementa, 8), pp. 89-106, esp. p. 93f.

<sup>62</sup> H. KEUSSEN, *Die alte Kölner Universitätsbibliothek*, "Jahrbuch des Kölnischen Geschichtsvereins", 11, 1929, pp. 138-190, esp. pp. 163-189 (Appendix 1). On the library in Cologne, see also MEUTHEN, *Die alte Universität* cit., pp. 76f, and J. STOHLMANN, 'Insignis illic bibliotheca asservatur'. *Die Kölner Professoren und ihre Bibliothek in der Frühzeit der Universität*, in *Die Kölner Universität* cit., pp. 433-466.

<sup>63</sup> ARISTOTLE, *Physics*, 1, cap. 9, 191b35-192a34.

<sup>64</sup> ALBERT THE GREAT, *Physica* cit., Lib. 1, tract. 3, cap. 17 (ed. Col. 4/1), pp. 73a-75a.



the issue undoubtedly is the reason why the *Reparationes* includes a treatment of the problem here.

As Albert sees it, the difficulty with posing an 'appetitus materiae' is that matter has no sensitive or rational soul and consequently can have no desire or appetite<sup>65</sup>. This obstacle notwithstanding, he keeps to the notion of 'appetitus materiae', yet interprets the appetite in such a way that it is no longer regarded as a property of matter itself, but rather of the principal creator, the first cause. Unlike matter, the first cause is of an intellectual nature and thus can have desire<sup>66</sup>.

The first cause, Albert argues, moves all things in such a way that they tend, within the limits of their being, toward the likeness of the divine. Consequently, every being has a propensity for the divine, which is the first principle of creation. In matter, the lowest form of being, this tendency expresses itself in the longing for form. As soon as matter is moved by an agent to the reception of form, it is at its peak of perfection and tends toward the divine likeness<sup>67</sup>.

Albert labels this appetite of matter 'appetitus intellectualis', since it is rooted primarily in the intellectual activity of the first mover who orders all things to their ends. He criticizes Averroes, who considers the desire of matter not as intellectual, but as an 'appetitus naturalis', which it shares with plant life. If this were true, Albert remarks, the appetite of plant life would be similar to that of matter; this is clearly not the case. The

<sup>65</sup> Ibid., p. 73a: "Cum enim appetitus vel desiderium sint animatorum anima sensibili vel rationabili et materia non sit huiusmodi animatum, videbitur forte alicui materiam non habere appetitum". Problems connected with the notion of 'appetitus materiae' are also discussed in AVICENNA, *Liber primus naturalium* cit., Tract. 1, cap. 2 (Avicenna Latinus), pp. 32-34.

<sup>66</sup> ALBERT THE GREAT, ibid., p. 74a: "Dicendum igitur est, quod omne mobile ut a primo motore movetur a causa prima, quae per intellectum movet, et intendit per motum moveri in aliquid, quod est esse divinum per modum, per quem potest aliquo modo assimilari. Et ideo appetitus intellectualis est, quo appetit materia similari primo in esse divino. Sed appetitus ille cum dicitur esse materiae, duplex est locutio; potest enim esse materiae sicut subiecti, et hoc modo materia non habet appetitum, et potest esse sicut moti a motore, qui habet appetitum, a quo procedens motus est actus mobilis. Et sic materia habet appetitum et hoc modo praeordinat sibi finem, in quem directe movetur, quia hoc modo dictum est ab Aristotele, quod opus naturae est opus intelligentiae". As to the sources and the significance of this 'dictum', see J. A. WEISHEIPL, *The Axiom 'Opus naturae est opus intelligentiae' and its Origin*, in *Albertus Magnus Doctor Universalis 1280/1980*, ed. G. MEYER and A. ZIMMERMANN, Mainz 1980 (Walberger Studien, Philosophische Reihe, 6), pp. 441-463.

<sup>67</sup> ALBERT THE GREAT, ibid.

appetite of matter is to receive a form, while that of plant life is to keep the species in existence. They need to be distinguished<sup>68</sup>.

Turning now to the *Reparationes*, the argument advanced by Albert to explain Aristotle is repeated, including even the reference to Averroes:

(Ci.<sup>v</sup>) Quaeritur: Qualis est iste appetitus in materia.

Dicendum quod venerabilis dominus Albertus dicit quod sit intellectualis, quia est a natura. Sed opus naturae est opus intelligentiae. Commentator tamen dicit quod ille appetitus sit naturalis inquantum consequitur privationem seu formae inchoationem.

Although the author of the *Reparationes* does not refer to Thomas Aquinas here, it is worth taking a look at the opinion of the *sanctus doctor*. Thomas espouses the idea of the *appetitus naturalis*. It is in the nature of matter to be informed by its form; the appetite is therefore natural<sup>69</sup>. Thomas' opinion thus corresponds to that of Averroes. This means that in juxtaposing the views of Albert with Averroes, the author of the *Reparationes* likens and compares Albert with Thomas.

Another example of how the author uses the writings of Albert to explain the works of Aristotle can be found in the section of the *Reparationes* devoted to the *De anima*. This passage is especially interesting because it shows how the *Reparationes* borrowed Neoplatonic elements present in the thinking of Albert<sup>70</sup>.

In the third book of *De anima*, Aristotle discusses the properties of the active principle of human thinking, the active mind. This mind is separable from body, unmixed, impassive, and always active by itself<sup>71</sup>. These four properties are mentioned in the *Reparationes*. In addition, a fifth quality is presented, which according to the author does not originate in

<sup>68</sup> Ibid., p. 73b. Averroes identifies the appetite of matter and of plant life because, in his view, they are not dependent on the senses, while the appetite of other living beings is. Cf. AVERROES, *In Physicam*, Lib. 1, com. 81, ed. Iuntina, vol. 4, Venice 1562, reprint Frankfurt am Main 1962, fol. 46rbD: "Appetitus enim alius est naturalis sine sensu, ut in plantis ad nutrimentum, et alius est cum sensu, ut appetitus animalium ad nutrimentum. In materia igitur est appetitus naturalis ad recipiendum omnes formas".

<sup>69</sup> THOMAS AQUINAS, *In octo libros Physicorum Aristotelis expositio* cit., Lib. 1, lect. 15, n. 138, p. 68: "Nihil est igitur aliud appetitus naturalis quam ordinatio aliquorum secundum propriam naturam in suum finem. (...) Nihil igitur est aliud materiam appetere formam, quam eam ordinari ad formam ut potentia ad actum".

<sup>70</sup> The Neoplatonic elements in the thinking of Albert the Great are carefully worked out in A. DE LIBERA, *Albert le Grand et la philosophie*, Paris 1990 (A la recherche de la vérité).

<sup>71</sup> ARISTOTLE, *De anima*, 3, cap. 5, 430a17f.



Aristotle but in Albert. It is the notion that the thinking of the active mind simply materializes from its intellectual light<sup>72</sup>. It is stated explicitly that this is Albert's addition, not only in order to identify the source, it seems, but to convince the reader of its importance: because Albert defined the active intellect in this way, it cannot be ignored. The explanation of this fifth property corresponds completely to Neoplatonic lines: the active mind is always active and thus always emanates its thoughts<sup>73</sup>. The passage reads as follows:

(Zii<sup>r-v</sup>) Quaeritur: Quot sunt proprietates intellectus agentis.

Dicendum quod quinque. Prima est quod intellectus agens est separatus ab organo corporeo et a materia. Secunda quod intellectus agens est immixtus, quia non est commixtus ex qualitatibus primis. Tertia quod intellectus agens est impassibilis simpliciter, et per hoc differt ab intellectu possibili, qui aliquo modo patitur. Quarta est quod intellectus agens non est hoc aliquid, sed est substantia actu ens, et per hanc proprietatem simpliciter differt ab intellectu possibili, quia ille est in potentia. Quinta est quod intelligere intellectus agentis nihil aliud est quam suum lumen de se emittere. Et istam Philosophus non ponit in textu, sed additur ab Alberto, ex quo intellectus agens semper est in actu, et semper intelligit, id est: semper intelligentias de se emanat.

As these two examples show, the students who studied the *Reparationes* became well acquainted with the thinking of Albert, even without ever having studied his writings. This seems to have an important consequence for our understanding of the dissemination of Albertism. Students absorbed theories that derived from Albert while they prepared for the academic

<sup>72</sup> Cf. ALBERT THE GREAT, *De anima*, Lib. 3, tract. 2, cap. 18, ed. C. STROICK, Münster 1968 (ed. Col. 7/1), p. 204a. Albert here develops the Aristotelian comparison (430a12 and 430a15) of the active mind to an art or skill (ἡ τέχνη) and to light (τὸ φῶς). A valuable account of Albert's theory of the agent intellect is that by A. SCHNEIDER, *Die Psychologie Alberts des Großen*, vol. 1-2, Münster 1903-1906 (Beiträge zur Geschichte der Philosophie des Mittelalters, 4/5-6), esp. vol. 2, pp. 342-349. Schneider is especially interested in the Neoplatonic elements of Albert's theory. A more recent exposition can be found in DE LIBERA, *Albert le Grand* cit., pp. 215-266.

<sup>73</sup> Cf. ALBERT THE GREAT, *De intellectu et intelligibili*, Lib. 2, cap. 3, ed. BORGNET, vol. 9, Paris 1890, p. 506b: "Dicamus igitur cum dicitur quod intellectus agens est sicut lux, tria in ipsa attenduntur similitudine, quorum et primum est, quod sit primum agens esse intellectuale. Secundum est quod est universaliter agens intellectuale. Tertium autem quod est incessanter agens esse intelligibile". For the history of the Aristotelian analogy of light, especially in Neoplatonism (Plotinus), see among others F. M. SCHROEDER, *Light and the Active Intellect in Alexander and Plotinus*, "Hermes", 112, 1984, pp. 115-125.

exams. The same holds for the opposition between Albert and Thomas. Students learned about the differences between these two thinkers without seeing the texts themselves, as is apparent from the following two examples as well.

## 2. THE NATURE OF THE INTERMEDIATE SCIENCES AND HUMAN KNOWLEDGE OF THE SEPARATE SUBSTANCES

In the writings of the most significant Albertist of the fifteenth century, Heymericus de Campo, there is a strong tendency toward the thinking of Proclus. This is not only manifest in his theory of intellect, which borrows some concepts directly from Proclus, but also in his mathematical approach to reality. According to Heymericus, the methodology of mathematics presents the ideal *mathesis* for a metaphysical description of creation in all its aspects<sup>74</sup>. This preference for mathematics and the mathematical sciences also seems to be at the root of a passage in the *Reparationes* which deals with the second book of the *Physics*, where the author favors the mathematical procedure over Aristotle's proposal.

In the second book of the *Physics*, Aristotle treats the difference between mathematics and physics. The latter is concerned with forms completely immersed in matter, while the former has as its object forms existing in matter, although they are studied *in abstracto*. In this regard, Aristotle also deals with the place of the intermediate sciences such as astronomy, optics and harmonics. Are they mathematical, or are they a subcategory of physics<sup>75</sup>?

According to Aristotle, who on this point argues against Plato, disciplines such as astronomy, optics and harmonics do not study their objects *in abstracto*, as mathematics does, despite the fact that these objects clearly have mathematical properties. Rather they consider them in a way comparable to physics. Optics, for example, deals with mathematical lines, yet in a physical but not in a mathematical sense, because these lines

<sup>74</sup> The indebtedness of Heymericus to Proclus is discussed in E. COLOMER, *Nikolaus von Kues und Raimund Llull*, Berlin 1961 (Quellen und Studien zur Geschichte der Philosophie, 11), esp. pp. 11 and 16, n. 72; J. B. KOROLEC, 'Compendium divinorum' Heymerica de Campo w rkp. BJ 695. *Studia nad dziejami albertyzmu kolonskiego*, "Studia Mediewistyczne", 8, 1967, pp. 19-75.

<sup>75</sup> ARISTOTLE, *Physics*, 2, cap. 2, 193b22-194a15. Aristotle's view on the ranking of the sciences is dealt with in LIVESEY, *Theology and Science* cit., pp. 22-29.



are not abstracted from their physical conditions. Therefore, Aristotle concludes, these sciences are physical rather than mathematical<sup>76</sup>.

Thomas Aquinas, in his commentary on the *Physics*, follows Aristotle's reasoning. The intermediate sciences take their principles from mathematics and apply them to physical objects. They are to be considered as natural or physical sciences, not mathematical, because for the determination of the species to which a science belongs, the last part of the definition is the most important. In this case that is the application to physical objects<sup>77</sup>.

A different approach is forwarded by Albert the Great. Although in the beginning he follows Aristotle, in the further course of his investigation he explains that the intermediate sciences deal with physical objects, but they are nonetheless studied according to their mathematical properties. Consequently, Albert argues, the intermediate sciences fall under mathematics more than they do under physics<sup>78</sup>.

Albert's reasoning that the intermediate sciences are in fact more mathematical than physical is echoed in the *Reparationes*. First the author juxtaposes the views of Thomas and Albert. He then adds some arguments in support of Albert's position. Interestingly, the first of these, which underscores that the intermediate sciences are part of the *artes liberales* and thus are more mathematical than physical, does not seem to have its basis in the account of Albert but in the fact that the author is compiling a schoolbook for the arts faculty<sup>79</sup>.

<sup>76</sup> ARISTOTLE, *ibid.*, 194a7-12.

<sup>77</sup> THOMAS AQUINAS, *In octo libros Physicorum Aristotelis expositio* cit., Lib. 2, lect. 3, n. 164, p. 84: "Huiusmodi autem scientiae, licet sint mediae inter scientiam naturalem et mathematicam, tamen dicuntur hic a Philosopho esse magis naturales quam mathematicae, quia unumquodque denominatur et speciem habet a termino: unde, quia harum scientiarum consideratio terminatur ad materiam naturalem, licet per principia mathematica procedant, magis sunt naturales quam mathematicae". For a discussion of Thomas' theory, cf. LIVESY, *Theology and Science* cit., pp. 34-38.

<sup>78</sup> ALBERT THE GREAT, *Physica* cit., 2, tract. 1, cap. 8 (ed. Col. 4/1), p. 91a: "Omnes enim scientiae disciplinales, quae in quaestionibus suis subiecta habent physica, passionem mathematicas circa ea inquirunt per causas mathematicas, et ideo etiam mathematicae potius quam physicae sunt subalternatae". On Albert's view, see also J. A. WEISHEIPL, *Classification of the Sciences in Medieval Thought*, "Medieval Studies", 27, 1965, pp. 54-90, esp. pp. 84f.

<sup>79</sup> Traditionally, the *artes liberales* were comprised of the *artes sermocinales* or *trivium* (grammar, rhetoric, dialectics) and the *artes reales* or *quadrivium* (mathematics, geometry, astronomy, music). The intermediate sciences discussed here thus belonged to the *quadrivium*.

The only proof offered for the Thomistic counter position is a simple reference to Aristotle, quoting that the intermediate sciences are more physical. In response, the author of the *Reparationes* again argues according to Albert: although the intermediate sciences concern things that belong to physical reality, the properties they study and their method of investigation are mathematical. Thus they are more mathematical than physical in character.

(Cv<sup>v</sup>) Quaeritur: Utrum simpliciter loquendo istae scientiae mediae (sc. astronomy, optics, and harmonics) sint plus physicae quam mathematicae dicendae.

Dicendum secundum dominum Albertum: simpliciter loquendo sunt plus mathematicae. Thomistae dicunt contrarium.

Et ratio est, quia si istae scientiae mediae essent principaliter physicae, tunc non essent inter artes liberales computandae, quia nulla scientia physica computatur inter artes liberales.

Praeterea, licet subiectum contrahatur per differentiam physicam, non tamen sunt ex eo magis dicendae physicae, quia illa differentia contrahens non consideratur in eis nisi secundum rationem contracti, sicut exempli gratia musicus non considerat sonum ut sonus est, sed considerat sonum ut consequitur legem numeri, ut patet ex condicionibus iam positis.

Arguitur: Sunt simpliciter plus dicendae physicae. Probatur, quia dicit Philosophus in textu quod sunt plus physicae.

Dicendum quod probat bene quod sunt plus physicae ex parte subiecti aliquo modo, sicut etiam vult Philosophus in textu. Sed tamen simpliciter quoad principia, scilicet passionem et modum doctrinandi, sunt magis mathematicae.

Another example of the discussion of the disparate opinions of Albert and Thomas in the *Reparationes* is the issue of whether the human intellect can come to understand the separate substances and God. This problem is dealt with on several occasions in the treatise<sup>80</sup>.

In the third book of the *De anima*, Aristotle investigates the functions of the human intellect. After he has discussed how the human mind gains knowledge of physical and mathematical objects, he adds that later he will consider whether the human mind can ponder immaterial, unextended objects<sup>81</sup>. Yet nowhere in the *De anima* he does pursue this issue.

This prompted the debate about whether or not humans are able to have intellectual knowledge of immaterial substances in commentaries on

<sup>80</sup> *Reparationes*, *De anima*, 3, fol. [Yvi<sup>v</sup>]-Zi<sup>r</sup>; [Ziii<sup>v</sup>]-Ziv<sup>r</sup>.

<sup>81</sup> ARISTOTLE, *De anima*, 3, cap. 7, 431b17-19.



the *De anima*. Albert the Great, who discussed the issue in many of his writings, is fairly clear on this point. Although the human intellect at first can only understand by turning to the material phantasms (*phantasmata*), once it is trained in acquiring knowledge it can understand immaterial substances directly and without material experience by reflecting upon itself. This occurs when the active intellect becomes the complete form of the possible intellect, which is then called *intellectus adeptus*. Then the active intellect, which can make every being intelligible, takes complete possession of the possible intellect, which in turn can understand every being. In this state of divine happiness, man knows all that can be known, God and the other immaterial substances included<sup>82</sup>. In the *Tractatus problematicus* of Heymericus de Campo, this view is advertised as the genuine Albertist position<sup>83</sup>.

Thomas Aquinas, on the other hand, deals with the issue completely differently. The human soul is united with the body as its form and thus in the present life can extend its understanding only to material things, whose images furnish knowledge. Consequently, man can have no direct understanding of the immaterial substances in and of themselves. By reflecting on the material effects caused by God and by the separate substances, he may gain some knowledge of them, but only indirectly. This empiricist approach, which is also discussed in the *Tractatus* of Heymericus, contradicts Albert's position in the *Reparationes*<sup>84</sup>.

<sup>82</sup> Cf. ALBERT THE GREAT, *De intellectu et intelligibili* cit., Lib. 2, cap. 8-12, pp. 514b-521b, and ID., *De anima* cit., Lib. 3, tract. 3, cap. 11 (ed. Col. 7/1), pp. 221a-223b. For a discussion, see B. MOJSISCH, *Grundlinien der Philosophie Alberts des Großen*, "Freiburger Zeitschrift für Philosophie und Theologie", 32, 1985, pp. 27-44, esp. pp. 40-42. The theory of the active intellect becoming the form of the possible intellect, which is called the theory of the *intellectus adeptus*, has its origin in the Greek and Arabian commentators on Aristotle such as Alexander of Aphrodisias, Al-Kindi, Al-Farabi, Avicenna, and Averroes. For the Latin West, the most important account was that of AVERROES, *Commentarium magnum in Aristotelis De anima libros*, Lib. 3, comm. 5 and 36, ed. F. S. CRAWFORD, Cambridge, Massachusetts 1953 (The Medieval Academy of America, 59), p. 411 and pp. 481-485.

<sup>83</sup> I have dealt with Heymeric's account of the Albertist's view in my *Heymeric van de Velde († 1460) und die Geschichte des Albertismus: Auf der Suche nach den Quellen der albertistischen Intellektlehre des Tractatus Problematicus*, in *L'empreinte de la pensée. Cultures et philosophies de l'Allemagne médiévale. Sources, développement, diffusion. Actes du Colloque de Strasbourg 1989*, ed. A. DE LIBERA, Bergamo 1992 (Quodlibet), pp. 323-352.

<sup>84</sup> THOMAS AQUINAS, *Summa theologiae*, I, q. 84, art. 7; q. 88, art. 1. Cf. HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 13, fol. 40<sup>v</sup>; Probl. 14, fol. 45<sup>r-v</sup>. A recent account of Thomas' theory of knowledge is given by A. KENNY, *Aquinas on Mind*, London 1993 (Topics in Medieval Philosophy).

The author of our treatise does not immediately solve the controversy, which may be an indication as to the difficulty and precariousness of the issue, especially since some thinkers considered the Albertist view against Scripture<sup>85</sup>. In the further course of his commentary, however, the author unambiguously accepts the position of Albert. There he defends the theory that the human intellect has two parts. The lower part is directed toward material things, while the higher has as its object eternal and immaterial beings. This latter has no need of phantasms and thus can have direct knowledge of the separate substances. A very similar theory is propounded by Albert, who bases himself on Augustine and Pseudo-Dionysius<sup>86</sup>. For Albert, the theory of the two-part human intellect lies at the base of his claim that man can come to understand the separate substances in themselves. This is the case as well in the *Reparationes*. As with the properties of the active mind, here likewise the reading of Aristotle in the *Reparationes* takes on a Neoplatonic shape because of Albertist influence.

(Ziii<sup>v</sup>) Quaeritur: Utrum intellectus noster potest in hac vita intelligere substantias separatas sine conversione ad phantasmata.

Dicendum, ut dicit dominus Albertus, quod intellectus noster possibilis in statu adeptionis existens potest naturaliter in hac vita cognoscere substantias separatas sine aliqua conversione ad phantasmata per modum tamen raptus et extasis, quia si aliquandiu duraret huiusmodi operatio, propter nimiam delectationem anima negligeret corpus et sic corpus destrueretur.

Santus Thomas tamen dicit quod intellectus noster possibilis in hac vita non potest elevari naturaliter pro quocumque statu ad intuitum suiipsius nisi a posteriori, sicut causa cognoscitur per suum effectum, sicut prius patuit.

(...)

<sup>85</sup> Important in this connection is Johannes Wenck of Herrenberg's criticism of Nicholas of Cusa. See R. HAUBST, *Studien zu Nikolaus von Kues und Johannes Wenck. Aus Handschriften der Vatikanischen Bibliothek*, Münster 1955, pp. 83-136; PARK, *Albert's Influence* cit., pp. 530-533; K. FLASCH, *Einführung in die Philosophie des Mittelalters*, Darmstadt 1987 (Die Philosophie), pp. 181-195. Cf. also M. L. FÜHRER, *The Theory of Intellect in Albert the Great and its Influence on Nicholas of Cusa*, in *Nicholas of Cusa in Search of God and Wisdom*, ed. G. CHRISTIANSON and TH. M. IZBICKI, Leiden 1991 (Studies in the History of Christian Thought, 45), pp. 45-56.

<sup>86</sup> ALBERT THE GREAT, *Super Dionysii Epistulas*, Ep. 9, ed. P. SIMON, Münster 1978 (ed. Col. 37/2), p. 539a: "Aliter potest dici, quod in anima sunt duae partes, quaedam quae accipit ipsa simplicia secundum se, ut intellectus simplex, quaedam vero quae accipit a phantasmatibus". For further references to the pertinent sources, see SCHNEIDER, *Die Psychologie* cit., vol. 2, pp. 446-455.



(Ziv<sup>f</sup>) Arguitur: Oportet quemcumque intelligentem phantasmata speculari, ergo non contingit aliquid intelligere sine conversione ad phantasmata.

Dicendum quod dupliciter contingit intelligere secundum quod est duplex portio nostri intellectus. Uno modo secundum portionem inferiorem, et sic nihil contingit intelligere nisi per conversionem ad phantasmata, quia hoc modo intellectus stat naturaliter ad phantasmata conversus. Alio modo secundum portionem superiorem, et hoc modo intellectus intelligit sine phantasmate, quia ut sic intellectus est aversus a phantasmatibus, et non eget illis. Et sic patet quod oporteat intellectum secundum portionem inferiorem phantasmata speculari, non autem secundum portionem superiorem.

### 3. THE SUBJECT MATTER OF THE NATURAL SCIENCES

As a final illustration I would like to discuss the debate between Albertists and Thomists on the subject matter of the treatises which form the *libri naturales*. Exploring the details of this discussion will provide some insight into the metaphysical background of Albertist and Thomistic thought, especially with regard to the notion of being<sup>87</sup>.

According to the Albertists the subject matter of the natural sciences is changeable body (*corpus mobile*), while the Thomists consider it to be changeable being (*ens mobile*). The discussion might seem trivial at first, but it must have been a heated topic, since it is worked out in great detail in the *Reparationes* at the beginning of the *Physics*, and is then taken up again in the other treatises.

The format of the question, as it is dealt with in the part devoted to the *Physics*, is similar to that of a *quaestio disputata*<sup>88</sup>. As such it differs from the other examples treated above. First the author presents the arguments of the Albertists, then those of the Thomists<sup>89</sup>. The arguments are advanced without any remarks or commentary by the author, except for

<sup>87</sup> I have treated some aspects of the metaphysical background of Albertist and Thomistic thought in my *Late Medieval Schools of Thought in the Mirror of University Textbooks. The Promptuarium Argumentorum* (Cologne 1492), in *Philosophy and Learning* cit., pp. 329-369. For a discussion of the medieval debate on the subject matter of the natural sciences, see S. DONATI, *Una questione controversa per i commentatori di Aristotele: il problema del soggetto della fisica*, in *Die Kölner Universität* cit., pp. 111-127.

<sup>88</sup> For the structure of the *quaestio disputata*, see among others WEIJERS, *Terminologie* cit., pp. 336-347 (with further bibliographical references).

<sup>89</sup> Cf. the text given below at pp. 339-341.

the introductory phrase, whereby it is clear that he intends to criticize the Thomists<sup>90</sup>.

Next four *dubia* are added which deal with the issue as well. Again, the author criticizes the Thomists and sides with the Albertists. The first two *dubia* are linked with the previous arguments in the similarity of their ideas. The other *dubia* approach the subject from a different perspective, namely, that of motion<sup>91</sup>.

The arguments submitted by the Albertists are to a large extent negative in character, insofar as they try to show that the Thomistic position, whereby the *ens mobile* is the subject matter of the *Physics*, is untenable. Their criticism is based on the theory that the subject matter of a science needs to be of one whole. This is not the case with the *ens mobile*, since 'being' and 'changeable' are not necessarily connected. There is only an accidental link between the two. Not all beings are changeable. Therefore, 'being' and 'changeable' do not form a unity which can serve as the subject matter of the natural sciences. Also, 'being' cannot be further determined by any such difference (*differentia*) as 'changeable', since the difference should be outside the genus, which is impossible here because 'being' is all-embracing<sup>92</sup>. The Albertists thus claim that only *corpus mobile*, not *ens mobile*, can be the subject matter. 'Body' and 'changeable' are necessarily connected, since each and every body is subject to change. Thus, in the *corpus mobile* the unity of the subject matter is safeguarded.

The Thomists, on the other hand, claim a different approach. They base themselves on the Aristotelian theory that the science of metaphysics treats being as being, while the other disciplines, such as physics or mathematics, all consider a distinct part of being<sup>93</sup>. Physics, for that matter, concerns being that is changeable. In determining the subject matter of any discipline, therefore, the notion of being must first be given before it is further specified. Moreover, the criticism is leveled against the Albertists that not all things studied in physics are corporeal, but they may still involve change, as is the case with the unmoved mover and the human

<sup>90</sup> *Reparationes, Physica*, 1, fol. [Aiii<sup>v</sup>]: "Quaeritur: Quare non potest dici quod ens mobile sit subiectum, sicut dicunt Thomistae". Earlier, the author already defended the position that the subject of physics is the 'corpus mobile', but without any reference to the Albertists and Thomists. Ibid., fol. [Aii<sup>v</sup>]: "Quaeritur: Quid est subiectum istius scientiae. Dicendum quod corpus mobile. (...)".

<sup>91</sup> Cf. the text below at pp. 341-43.

<sup>92</sup> This argument heralds back to the notion of 'differentia' as developed in Aristotle's *Categories* and Porphyrius' *Isagoge*.

<sup>93</sup> Cf. ARISTOTLE, *Metaphysics*, 6, cap. 1, 1025b3-1026a32.



soul. Therefore, the notion of body should not be constituted a part of the subject matter of physics.

The same discussion reappears, *mutatis mutandis*, in the opening sections of the other books treated in the *Reparationes*. The Albertists defend the theory that the *corpus mobile ad ubi* is the subject of *De caelo*, the second book of the treatise, whereas for the Thomists it is the *esse mobile ad ubi*. Similarly, the Albertists argue for the *corpus mobile ad formam simplicem* as the subject of the third book, *De generatione et corruptione*, while the Thomists claim it to be the *esse mobile ad formam simplicem*.

In summarizing the essence of both positions, one could say that according to the Albertists the subject matter is the 'corpus mobile', because 'mobile' is the most intimate determining cause (*contrahens proximum*) of 'corpus'. The Thomists, however, insist upon the 'esse mobile', since the natural sciences have extracted from the whole range of being changeable being as their subject. 'Being' is understood by the Thomists in the concrete — not general — sense, but specified already as 'changeable'. The Albertists, criticizing this position, consider 'being' in its most universal and abstract sense, as something that cannot further be determined. Subsequent to this belief they cannot accept the Thomistic view.

The disagreement between the two factions is thus rooted in a more general problem: the concept of being. In another fifteenth century treatise on the opposition between Albertists and Thomists, the *Promptuarium argumentorum*, conflicting notions of being lie at the bottom of much disagreement among the parties as well. Our discussion on the subject of the natural sciences is not an isolated case<sup>94</sup>.

But it is not just the theory of being that may have provoked the debate. It seems that Albert the Great and Thomas Aquinas' treatment of the issue also contributed to its development. Albert underscores in the first book of the commentary on the *Physics* that the subject matter is the *corpus mobile* — not corporeal beings in general, but those which are subject to change, since physics studies the aspect of change<sup>95</sup>. Albert

<sup>94</sup> See note 87 above.

<sup>95</sup> ALBERT THE GREAT, *Physica* cit., Lib. 1, tract. 1, cap. 3 (ed. Col. 4/1), p. 5a-b: "(...) Omnis enim scientia est alicuius generis subiecti, de quo probantur passionem et cuius considerat partes et differentias. Hoc autem in omni scientia naturali absque dubio est corpus mobile. (...) Quia ergo non in quantum corpus, sed in quantum corpus mobile subicitur scientiae naturali, ideo dicimus, quod non corpus tantum, sed corpus mobile est subiectum scientiae naturalis".

is rather determined to forward this position, but does not seem aware of any problems connected with it.

A different picture emerges from Thomas' work. Thomas criticizes Albert's opinion that the subject of physics is the *corpus mobile* by way of reason that in physics, it is proven that every changeable thing is a body. Now since no science can prove its own subject, the subject matter of physics cannot be the *corpus mobile*. Hence, he concludes, it must be the *esse mobile*<sup>96</sup>.

Assessing to what extent the treatment of the issue by Albert and Thomas influenced the debate, two things need to be taken into account. First of all, it is only in the commentary on the *Physics* that Thomas takes the position just described. In the other works dealing with natural philosophy he steers a different course, conforming much more to Albert. In his commentary on *De caelo* he claims the subject to be not the *esse mobile*, but the *corpus mobile*<sup>97</sup>. In *De generatione et corruptione* he also adheres to the notion of *corpus mobile*<sup>98</sup>. This contradicts the claim at the beginning of the parallel treatises in the *Reparationes*. At every turn, the author asserts that it is Thomas' position that the subject matter is the *esse mobile*, which in fact is true only for the *Physics* and not for the other commentaries<sup>99</sup>.

Secondly, the rationale that no science can prove its own subject is not mentioned anywhere among the Thomistic arguments in the *Reparationes*. Apparently, the argument was not considered very important<sup>100</sup>. Conversely, the rationale quoted by the author of the *Reparationes* in support of the Thomistic view, namely that physics covers only a part of being, is not to be found anywhere in Thomas' criticism of Albert.

<sup>96</sup> THOMAS AQUINAS, *In octo libros Physicorum Aristotelis expositio* cit., Lib. 1, lect. 1, n. 4, pp. 3-4: "Hic autem est liber *Physicorum* (...) cuius subiectum est *ens mobile* simpliciter. Non dico autem *corpus mobile*, quia omne mobile esse corpus probatur in isto libro; nulla autem scientia probat suum subiectum".

<sup>97</sup> Cf. THOMAS AQUINAS, *In Aristotelis De caelo et mundo expositio*, Prooemium, ed. Fr. R. M. SPIAZZI, Rome 1952, n. 3, p. 2: "Nam primo determinantur communia naturae in libro *Physicorum*, in quo agitur de mobili inquantum est mobile. Unde restat in aliis libris scientiae naturalis huiusmodi communia applicare ad propria subiecta. Subiectum autem motus est magnitudo et corpus: quia nihil movetur nisi *quantum*".

<sup>98</sup> Cf. THOMAS AQUINAS, *In librum primum Aristotelis De generatione et corruptione expositio*, Prooemium, ed. Fr. R. M. SPIAZZI, Rome 1952, n. 1f., pp. 315f.

<sup>99</sup> See the relevant passages cited below on p. 343.

<sup>100</sup> It should be noted, however, that a similar argument appears earlier in the treatise, but without any reference to Thomas or the Thomists. See *Reparationes, Physics*, 1, fol. Aiii<sup>r-v</sup>.



From the above it may be plausibly concluded that the debate derived from the contradictory statements in the commentaries of Albert and Thomas, but that it only became a contentious issue because of the different concept of being among the Thomists and Albertists.

As in a number of cases, the discussion in the *Reparationes* can also be found in the *Tractatus* of Heymericus de Campo. Most of the arguments for the Thomistic position, except those from the *dubia*, appear word for word and in the same order in both treatises<sup>101</sup>. Importantly, Heymericus provides a clue as to the origin of these arguments. In his words, they stem partly from the works of Thomas and were partly prepared by himself in accordance with what Thomas claimed<sup>102</sup>. This means that the reasoning behind the Thomistic position in the *Tractatus* and the *Reparationes* has no complete Thomistic origin and was compiled by an Albertist, namely Heymericus<sup>103</sup>.

Contrary to what one would expect, the arguments presented in the *Reparationes* for the Albertist position have no counterpart in Heymericus. The same can be said for the *Promptuarium*, which also borrowed Thomistic arguments from the *Tractatus*, but not those of the Albertists. It seems safe to assume that the authors of the *Reparationes* and the *Promptuarium*, which were both compiled at the Albertist *bursa laurentiana*, provided their own summary of the Albertist position, whereas for the Thomistic position they had to rely on some other source.

Another treatise that is of importance for the account of the Thomistic position in the *Reparationes* is the *Tractatus concordiae* of Gerard of 's-Heerenbergh. This book, written in 1456 as a Thomistic response to the *Tractatus problematicus*, addresses the same issue. Gerard adds to the

<sup>101</sup> The references to Heymericus' treatise are given below at pp. 340-41.

<sup>102</sup> Cf. HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 6, fol. 17<sup>r</sup> and 19<sup>r</sup>: "Ad rationes inductas pro via sancti Thomae, quarum quaedam sunt beati Thomae in forma, quaedam vero a me pro confirmatione apparentiae veri similiori illius opinionis adiectae (...)"

<sup>103</sup> As far as I have been able to see, there is only one argument taken directly from Thomas (HEYMERICUS, *ibid.*, fol. 17<sup>r</sup>, tertio). Strangely enough, this argument, which is a description of Thomas' reasoning in the *Physics*, is left out in the *Reparationes*. According to Gerard of 's-Heerenbergh, none of the arguments given by Heymericus come from Thomas. This is an exaggeration, but nonetheless underscores that the presentation of the Thomistic view was compiled by Heymericus. See GERARD'S *Tractatus concordiae*, Cologne ca. 1485 (cf. VOULLIÈME, *Der Buchdruck Kölns* cit., p. 447), fol. 5<sup>vb</sup>-6<sup>ra</sup>: "(...) illae (sc. the arguments reported by Heymericus) non sunt rationes sancti Thomae pro ente mobili (...). Hic tractatus (sc. Heymericus' *Tractatus*) pandit quod rationem sancti Thomae non iuxta eius mentem intellexit".

discussion five reflections or *considerationes*, a fairly high number compared to those appended elsewhere in the treatise, thereby showing how serious the debate was for him<sup>104</sup>. Interestingly, in his exposition of Thomas' view he applies a concept also found in the *Reparationes*: Thomas considers the *esse mobile* as the subject and not *the corpus mobile*, Gerard remarks, because of the subject's state (*condicio subiecti attributionis*). The attribute 'mobile' cannot be joined to the subject 'corpus', because there is no necessary and reciprocal connection between the two<sup>105</sup>. The same concept of 'condicio attributionis subiecti' appears in the *Reparationes*<sup>106</sup>. To be sure, it cannot be determined conclusively whether or not Gerard is the source, since we have no exact date for the *Reparationes*. Nonetheless, in Gerard's treatise a concept is found which does not come up in Thomas nor in the *Tractatus problematicus*, yet plays a significant role in the *Reparationes*.

Let us now return to the Albertist position. The arguments advanced in the *Reparationes* to support the Albertist view cannot be traced back to Albert the Great, nor do they occur in the *Tractatus problematicus* of Heymericus. Albert does not engage in a defence of his opinion, while Heymericus uses arguments different from those in the *Reparationes*.

Yet, there does seem to be a source for the Albertist logic, namely the commentary on the *Physics* by Giles of Rome. In this commentary, Giles criticizes the Thomistic view that the subject of natural philosophy is the *esse mobile*<sup>107</sup>. The arguments he employs are similar to those put forward in the *Reparationes*, and there are also some conceptual parallels. The Augustinian friar notes, for instance, that the difference which determines the genus should fall outside the scope of the genus, which cannot be the case if the genus is 'being' and the difference 'changeable'<sup>108</sup>. He also observes, like the author of the *Reparationes*, that there

<sup>104</sup> GERARD OF 'S-HEERENBERGH, *Tractatus concordiae* cit., fol. 4<sup>va</sup>-6<sup>ra</sup>. On this treatise, see MEERSSEMAN, *Geschichte des Albertismus* cit., vol. 2, pp. 67-85.

<sup>105</sup> Ibid., fol. 4<sup>vb</sup>: "(...) sanctus Thomas non intendit asserere quod corpus mobile nequaquam possit poni subiectum physicae, sed quod convenientius ponitur ens mobile et non corpus mobile propter quandam subiecti attributionis condicionem (...)". See also ibid., fol. 5<sup>ra</sup>, where the same notion is further explained.

<sup>106</sup> See the text below at p. 343.

<sup>107</sup> GILES OF ROME, *Commentaria in octo libros Physicorum Aristotelis*, Lib. 1, Prologus, Venice 1502, reprint Frankfurt am Main 1968, fol. 3<sup>rb</sup>-3<sup>vb</sup>.

<sup>108</sup> Ibid., fol. 3<sup>rb</sup>: "(...) in tali enim additione (sc. of the difference to the genus) additum est extra rationem eius cui fit additio. Differentia enim est extra rationem generis".



is no *per se* connection between 'being' and 'changeable'. Therefore, the subject of physics cannot be changeable being (*esse mobile*)<sup>109</sup>.

With the commentary of Giles, the origin of the Albertist line of reasoning may have been identified. As is well-known, the writings of Giles had a considerable impact on late medieval thinking<sup>110</sup>. There is no reason to believe that this influence did not include Cologne, where the *Reparationes* was compiled. That the Albertist used other sources in addition to the works of Albert the Great can be noticed on a number of other occasions<sup>111</sup>. The *Reparationes* would be no exception to this rule.

The passages from the *Reparationes* discussed above are given here below.

(Physica, fol. Aiii<sup>v</sup>-Aiiii<sup>v</sup>) Quaeritur: Quare non potest dici quod ens mobile sit subiectum, sicut dicunt Thomistae.

Dicendum quod hoc probatur quinque rationibus quod ens mobile non potest esse subiectum huius scientiae.

⟨Quod ens mobile non potest esse subiectum physicae scientiae⟩

Prima ratio, quia nullum ens per accidens potest poni subiectum alicuius scientiae. Sed ens mobile est ens per accidens. Ergo non potest poni subiectum in physica. Maior est nota. Minor probatur, quia mobile non est proprie entis determinatio, sed ipsius corporis. Sed quando determinatio non additur suo determinabili, facit cum eo unum ens per accidens.

Secunda ratio est, quia esse contrahens debet adiungi immediate suo contrahibili proximo. Sed proximum contrahibile ipsius mobilis est corpus et non ens. Ergo potius corpus mobile dicitur subiectum quam ens mobile.

Tertia ratio est, quia nullum transcendens potest poni pro subiecto alicuius scientiae. Sed ens est transcendens. Ergo non potest poni pro subiecto. Nec valet consequentia, si dicatur quod ens contrahitur per illam differentiam quae est mobile, quia omnis differentia debet esse extra intellectum generis, et genus extra intellectum differentiae, ut patet tertio Metaphysicae<sup>112</sup>. Cum ergo nihil sit quod sit extra rationem entis, non potest dici quod mobile sit differentia contrahens ipsum.

<sup>109</sup> Ibid.: "Item, cum haec passio quae est motus non fluat a re in eo quod ens, de ente mobili in eo quod mobile non poterit esse scientia per se".

<sup>110</sup> On Giles of Rome and his influence, see A. ZUMKELLER, *Die Augustinerschule des Mittelalters. Vertreter und philosophisch-theologische Lehre*, "Analecta Augustiniana", 27, 1964, pp. 167-262, esp. pp. 176-195.

<sup>111</sup> See my *Heymeric van de Velde († 1460) und die Geschichte des Albertismus* cit., pp. 323-352.

<sup>112</sup> Cf. ARISTOTLE, *Metaphysics*, 3, cap. 3, 998a20-999a23.

Quarta ratio est, quia omne contrahens debet esse extra rationem contracti, quia idem non potest seipsum contrahere. Sed nihil est quod subterfugiat rationem entis, et quod sit extra rationem eius. Ergo nihil erit quo ens poterit contrahi, et per consequens non potest ens mobile poni pro subiecto.

Quinta ratio est, qua ratione ens mobile poneretur subiectum huius scientiae, eadem ratione ens imaginabile poneretur subiectum mathematicae, et ens intelligibile subiectum metaphysicae. Etiam eadem ratione poneretur ens mobile ad ubi subiectum in libro De caelo et mundo et ens mobile ad formam in libro De generatione et corruptione.

⟨Rationes Thomistarum ponentium  
ens mobile subiectum physicae scientiae⟩

Iam ponuntur rationes Thomistarum ponentium ens mobile subiectum physicae scientiae.

« Prima <sup>113</sup> ratio haec est secundum Philosophum sexto Metaphysicae <sup>114</sup>: Sicut prima philosophia est de ente simpliciter non contracto, ita secundae seu particulares scientiae sunt de ente in parte et circumscripto, puta mathematica de ente sola quantitate determinato <sup>115</sup>, et physica de ente motu et sensibilibus qualitatibus distincto ».

« Secunda <sup>116</sup> ratio est: Qualis est ordo scientiae ad scientiam, talis scibilis ad scibile, primo Posteriorum <sup>117</sup>. Sed metaphysica et physica habent se sicut universale et particulare. Ergo scibile metaphysicum, quod est ens inquantum ens, quinto Metaphysicae <sup>118</sup>, habet se ad scibile physicum sicut universale ad particulare. Sed proprium particulare entis est aliquod ens, puta mobile vel sensibile vel aliquod huiusmodi. Ergo potius de tali inquit philosophus naturalis quam de (Aiiii<sup>f</sup>) corpore mobili, quod non est particulare proprium entis ».

Tertia ratio: « Ens <sup>119</sup> mobile est primo notum in scientia naturali ad quod sine ambiguitate reducuntur cetera, quod non convenit corpori mobili, ex quo dubium est de quo corpore intelligatur id, an scilicet de genere substantiae, an de genere quantitatis, nec primo notum nisi accipiatur sub ratione entis ».

Quarta ratio est: « Physica <sup>120</sup> est de substantia sensibili, duodecimo Metaphysi-

<sup>113</sup> HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 6, fol. 17<sup>r</sup> (prima ratio).

<sup>114</sup> Cf. ARISTOTLE, *Metaphysics*, 6, cap. 1, 1025b3-1026a32.

<sup>115</sup> determinato] determinata ed.

<sup>116</sup> HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 6, fol. 17<sup>r</sup> (secunda ratio).

<sup>117</sup> Cf. ARISTOTLE, *Analytica posteriora*, 1, cap. 7, 75b14-17.

<sup>118</sup> Cf. ID., *Metaphysics*, 5, cap. 7, 1017a7-1017b9.

<sup>119</sup> HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 6, fol. 17<sup>r-v</sup> (quarta ratio, insuper: ens mobile).

<sup>120</sup> Ibid., fol. 17<sup>v</sup> (quarta ratio, insuper: philosophia (!) est).



cae<sup>121</sup>. Sed substantia certius et perfectius dicitur nomine entis quam accidens, ex quo dicit Philosophus septimo Metaphysicae<sup>122</sup>: 'Accidens non esse ens sed entis'. Inde sic: Corpus est nomen substantiae et accidentis, aut cum ponitur subiectum tenetur aequivoce pro utroque, aut univoce pro substantia corporea tantum, aut pro dimensione corporea de genere quantitatis. Sed primum repugnat unitati scientiae, ex quo scientia accipit unitatem a subiecto. Secundum et tertium sunt ambigua et non adeo nota sicut est illud quod intelligitur et significatur nomine entis. Ergo idem quod prius ».

Quinta ratio est: « Ens<sup>123</sup> est primum obiectum, ut videtur sentire Philosophus secundo Metaphysicae<sup>124</sup>, cum dicit 'unumquodque sic se habere ad veritatem ut ad esse'. Sed primum in unoquoque genere est mensura, cuius ratio replicatur in secundo<sup>125</sup>, et quod sit causa eorum, ut habetur in eodem secundo et quarto eiusdem<sup>126</sup>. Ergo cum idem sit obiectum intellectus et scientiae, ut videtur quod nedum physica, sed quaelibet scientia versetur primo et essentialiter circa ens licet determinatum secundum modum sui generis, videtur ergo quod primum et formalius subiectum physicae est ens mobile et non corpus mobile ».

Sexta ratio est: « Multa<sup>127</sup> contenta in scientia physica sunt entia quae subterfugiant nomen et rationem corporis, puta primus motor, anima et natura et huiusmodi. Ergo videtur quod ens mobile sit communius et principalius subiectum physicae. Hae et similes rationes possunt adduci pro opinione sancti Thomae ».

#### ⟨Dubium primum⟩

Arguitur: Ens mobile est subiectum. Ergo non corpus mobile, quia omnes scientiae particulares dividunt quandam partem entis. Sicut ergo metaphysica versatur circa totum ens [mobile], sic physica versatur circa partem entis.

Dicendum quod quaelibet particularis scientia versatur circa quandam partem entis, et hanc partem convenientius nominat corpus mobile quam ens mobile, quia ens et corpus mobile ⟨non?⟩ habent se convertibiliter. Sed quod dicit ens mobile imperfecte et improprie, hoc corpus mobile dicit perfecte et proprie. Ens mobile est unum per accidens aggregatum ex determina(bi)li et determinatione non propria. Corpus mo-

<sup>121</sup> ARISTOTLE, *Metaphysics*, 12, cap. 1, 1069a36-1069b1.

<sup>122</sup> Ibid., 7, cap. 1, 1028a18-20.

<sup>123</sup> HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 6, fol. 17<sup>v</sup> (quarta ratio, insuper: ens est).

<sup>124</sup> ARISTOTLE, *Metaphysics*, 2, cap. 1, 993b30-31.

<sup>125</sup> Cf. ibid., 993b23-31.

<sup>126</sup> Cf. ibid., 993b23-31 and ibid., 4, cap. 2, 1003b16-17.

<sup>127</sup> HEYMERICUS DE CAMPO, *Tractatus problematicus* cit., Probl. 6, fol. 17<sup>v</sup> (quarta ratio, insuper: multa contenta).

bile autem est unum per se ex determinabili et determinatione propria. Mobile enim est propria determinatio corporis et non entis. Habent enim se sicut substantia rationalis et animal rationale. Convenientius enim dicimus animal rationale quam substantia rationalis<sup>128</sup>.

⟨Dubium secundum⟩

Arguitur: Ens mobile est in plus quam corpus mobile et non est convertibile cum corpore mobili. Ergo videtur convenientius ens mobile poni subiectum quam corpus mobile. Probatur, quia ens mobile verificatur de materia prima quod non convenit corpori mobili.

Dicendum quod ens mobile (Aiiii<sup>v</sup>) non verificatur de materia prima. Non est enim materia prima ens mobile, sed est principium entis mobilis. Licet enim materia contineatur sub analogia entis et possit aliquo modo dici ens, mobilitas tamen sibi non competit. Non enim est mobilis materia aliquo motu. Unde primo Physicorum<sup>129</sup> definitur quod materia prima sit ingenerabilis et incorruptibilis. Totum autem compositum generatur et corrumpitur. Et propterea sexto Physicorum<sup>130</sup> dicitur quod nihil movetur nisi corpus. Manifestum ergo est ex dictis, quod corpus mobile sit subiectum.

⟨Dubium tertium⟩

Arguitur: Propria passio definitur per suum subiectum proprium. Sed motus definitur, tertio Physicorum<sup>131</sup>, per ens et non per corpus, cum dicit 'motus est actus entis in potentia', et non dicit quod motus est actus corporis in potentia, ergo.

Dicendum quod motus non definitur per ens sicut per subiectum, sed sicut per principium formale. Unde dicit venerabilis dominus Albertus<sup>132</sup> quod definitio illa sic debet exponi: motus est actus entis, id est formae fluentis, et non: id est subiecti mobilis.

⟨Dubium quartum⟩

Arguitur: Motus est in genere accidentis, ergo debet definiri per subiectum.

Dicendum quod motus in communi transcendens est, non solum ad tria genera accidentium, sed etiam ad genus substantiae. Et ideo non oportet quod definiatur

<sup>128</sup> Cf. *ibid.*, fol. 18<sup>v</sup> (septima ratio, tertio sic): "(...) diffinientes hominem dicimus 'animal rationale' et non 'substantia rationalis'."

<sup>129</sup> Cf. ARISTOTLE, *Physics*, 1, cap. 9, 192a25-a34.

<sup>130</sup> Cf. *ibid.*, 6, cap. 4, 234b10.

<sup>131</sup> *Ibid.*, *Physics*, 3, cap. 1, 201a10-11.

<sup>132</sup> ALBERT THE GREAT, *Physica* cit., Lib. 3, tract. 1, cap. 3 and cap. 4 (ed. Col. 4/1), pp. 153a and 157a-b.



per subiectum, quia est quandoque de genere substantiae, sicut generatio, corruptio et nutritio. Nec concludat argumentum, si dicatur quod definiatur motus per ens tamquam per subiectum, quia ens non est subiectum motus, sed ens mobile. Oporteret ergo dicere quod motus est actus entis mobilis in potentia secundum quod in potentia. Et non debet definiri propria passio per subiectum quaecumque, sed per subiectum proprium. Etiam definitur ibi motus in ratione speciei sui praedicamenti. Et ergo debet definitio sic exponi: Motus est actus entis, supple formaliter, in motu fluentis. Sed forma fluens acquirit essentiam a termino ad quem, ergo etiam definitur ibi sicut species in ordine ad terminum ad quem a quo speciem accipit.

(De caelo, fol. Liii<sup>v</sup>) Quaeritur: Quid est subiectum huius libri.

Dicendum quod corpus mobile ad ubi secundum dominum Albertum. Secundum sanctum Thomam vero ens mobile ad ubi. Cuius ratio est, quia omnes condiciones subiecti attributionis sibi conveniunt, ergo.

(De generatione, fol. Nvi<sup>f</sup>) Quaeritur primo: De quo determinatur in hoc libro.

Dicendum quod de corpore mobili ad formam simplicis elementi secundum dominum Albertum. Secundum doctorem sanctum vero de ente mobili ad formam simplicis elementi.

### III.

To summarize the results of the investigation, the following conclusions can be made:

1. The *Reparationes* is a school book compiled by an anonymous author (or authors) as an aid for students preparing their exams at the arts faculty. As such the book mirrors what students had to study in order to acquire their degree and how they were trained in reading the books of Aristotle which were part of the curriculum. Still, the treatise conveys more. It was written at the Albertist *bursa laurentiana* and thereby provides insight into the Albertist exegesis of Aristotle and how the books of Albert were used to explain the *libri naturales*. Also, it provides information about the points of dissent between Albertists and Thomists. Thus, the *Reparationes* is an important and rich source for the study of the history of fifteenth-century philosophy as taught at the university.

2. Because for interpreting Aristotle the writings of Albert were employed, the students at the arts faculty *nolens volens* learned much of the thinking of this thirteenth-century philosopher. This circumstance is of considerable historical importance for our understanding of the impact

of the thought of Albert and Albertism and its solidification. The thinking of Albert was absorbed together with that of Aristotle. This may explain why Albertism was able to develop itself into a philosophical movement which dominated much of the philosophical landscape in the fifteenth century.

3. A strong tendency for using the works of Albert in the *Reparationes* does not mean that the author slavishly imitates the reasoning of Albert. On several occasions, he seems to emphasize different aspects or to base himself on different sources, as in the case of the discussion on the subject of the natural sciences, where the Albertist position seems to have been drawn from the works of Giles of Rome. The same applies to the author's presentation of Thomas Aquinas' position. What is attributed to Thomas is sometimes at odds with the thought of the *doctor sanctus* himself. Apparently, there is no exact correspondence between the philosophical schools of the fifteenth century and the thinking of their thirteenth century authorities.

4. Having arrived at some insight into the significance of Albertism at the late medieval university as well as the origins of the debates between Albertists and Thomists, the following problem presents itself for further investigation: what precisely is the impact of schoolbooks such as the *Reparationes* on the student's reading of Aristotle? Is there any indication that students educated at the *bursa laurentiana* in the further course of their career adhere to for example the mathematical approach in the sciences, or to the view that humans can have intellectual knowledge of all being, divine being included — that is, theories which are advanced in the *Reparationes* and point to the metaphysical speculations of the Modern Age? This problem certainly goes beyond the scope of the present inquiry and needs to be treated on another occasion<sup>133</sup>.

<sup>133</sup> I will address this problem in my *From Scholasticism to Rationalism. Late Medieval and Early Modern Albertists and Albertism*, which is currently under preparation.



## SOMMARIO

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