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## Tolosani versus Copernicus : on Certain Appendix to the Treatise "On the Truth of Holy Scripture" from the Forties of the 16th Century

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Andrzej Kempfi (Poland)

### TOLOSANI VERSUS COPERNICUS

ON CERTAIN APPENDIX TO THE TREATISE  
ON THE TRUTH OF HOLY SCRIPTURE  
FROM THE FORTIES OF THE 16TH CENTURY

"Yesterday our main task was to discuss two different points of view [...] and to decide which one of them is more probable and justified: whether it be this one which assumes that the substance of the celestial spheres is non-formable, indestructible, invariable, immutable, that is in short, is not subject to any transformations [...], whether it be that second idea which rejects the variety of the elements of the universe and assumes that the Earth, endowed with the same perfections as the other component spheres of the universe, is, as a matter of fact, a globe movable and travelling, and this to a degree not less than the Moon, Jupiter, Venus, and the other planets."<sup>1</sup> The readers will easily guess that the passage quoted above is a fragment of Galileo's *Dialogue on the Two Supreme Systems of the Ptolemic and Copernican Universe*. It is a well-known fact that for his *Dialogue*, memorable in the history of the Copernican science, Galileo obtained at first an assent of the church censors, and in 1632 the book could be published in Florence. This initial approval of the church censorship did not stop, however, the well-known facts which were recently recalled by Pope John Paul II, that the work was next denounced and Galileo was summoned to appear before the tribunal of Sanctum Officium. There was also another less known fact that Galileo's *Dialogue on the Two Supreme Systems of the Ptolemic and Copernican Universe* remained on the Prohibitory Index for the time longer than Copernicus' *Revolutions*.

<sup>1</sup> Galileo Galilei, *Dialogo sopra i due massimi sistemi del mondo Tolemaico e Copernicano*.

While the restrictions concerning Copernicus' *Revolutions* were mitigated by Pope Benedict XIV and cancelled by Pope Pius VII, Galileo's *Dialogue* was not withdrawn from the Prohibitory Index till the year 1835, that is, in the pontificate of Pope Gregory XVI.

There are also other facts which have not been fully disclosed and which are closely connected with the veiled yet unmistakably expressed Galileo's defense of Copernicanism. And thus it becomes quite evident that during the pontificate of Paul V and Urban VIII the authors of anti-Copernican denouncements and treatises forcing the accusation of Galileo had their predecessor in the person of an anti-Copernican active during the pontificate of Paul III, that pope and mathematician to whom Copernicus applied with his work *De revolutionibus*.

This anti-Copernican, quite forgotten now and active still during the pontificate of Paul III, was a learned monk from the Dominican Friary of San Marco in Florence—Giovanni Maria Tolosani. Since long, the name of Tolosani had been familiar to the historians of the Church who knew him mainly as the author of the little treatise *De corectione Calendarii* and some other writings.<sup>2</sup> But somehow the work *De veritate S. Scripturae*, written in June 1544, escaped general notice. To this treatise Tolosani added several appendices, and in one of them he criticized the heliocentricism of Copernicus. As far as the time of the composition of this anti-Copernican appendix is concerned, it was written at a later date than the treatise *On the Truth of Holy Scripture*. Tolosani wrote it on the turn of the year 1546 and 1547.

This polemic dissertation, left in the form of manuscript, is a novum in Copernican studies. It was only in the sixties when it was discovered in the collection of Florence's National Central Library by a well-known historian of the Renaissance culture Eugenio Garin.<sup>3</sup> Quite recently, the text published by Garin has been analysed by an American Copernican Edward Rosen.<sup>4</sup> As a starting point for his analysis, Rosen accepted information included into the earliest biography of Copernicus written by Bernardino Baldi in 1588.<sup>5</sup> Namely, he asked the question: what

<sup>2</sup> Demetrio Marzi, *La questione della riforma del calendario nel Quinto Concilio Lateranense 1512-1517*, "Publicazioni del Regio Istituto di Studi Superiori in Firenze," sezione di filosofia, Vol. 27, Firenze, 1896, pp. 130-131; Demetrio Marzi, *Giovanni Maria Tolosani, Alessandro Piccolomini e Luigi Giglio*, "Miscellanea storica della Valdelsa" 5 (1897), 202, 204 and 208.

<sup>3</sup> Eugenio Garin, *Alle origini della polemica anticopernicana. Colloquia Copernicana*, Vol. 2, from the series *Studia Copernicana* VI, Wrocław, 1973, pp. 31-42.

<sup>4</sup> Edward Rosen, *Was Copernicus' Revolutions Approved by the Pope?* "Journal of the History of Ideas" 36 (July-September 1975), 3, pp. 531-542.

<sup>5</sup> Bronislaw Biliński, *Najstarszy życiorys Mikołaja Kopernika z roku 1588 pióra Bernardina Baldiego* [Life of Nicholas Copernicus written by Bernardino Baldi in 1588]. From the series *Studia Copernicana* IX, Wrocław, 1973. See also Erna Hilfstein, *Bernardino Baldi and his two biographies of Copernicus*, "The Polish Review" 2 (1979).

sort of relationship can we find between the dissertation of Tolosani, who was an evident opponent of the sage from Frombork, and the following remark in Baldi:

“‘Schönberg had Copernicus’ work; recognized its perfection and excellence; showed it to the pope, by *whose judgment it was approved*. The said Cardinal [Schönberg] addressed himself to Copernicus to ask him for many reasons to be willing to publish it.’ At his requests and entreaties [...] Copernicus let himself be persuaded to publish the work. And then, as he confesses, after keeping it in secret until the fourth turn of the nine-year period, he finally let it come out to the daylight dedicating it to Pope Paul III by *whose judgment*, as has been said, *it had been approved*.”<sup>6</sup>

The aforementioned question is fully justified. As a matter of fact, it is difficult to reconcile the negative character of Tolosani’s evaluation with the information that, as has been said, Pope Paul III spoke in favour of Copernicus’ work when it was presented to him and approved it. And the more so, since Tolosani, who lived in the years 1470–1549, participated in the discourse upon the question of reforming the calendar, raised during the Fifth Lateran Council, and therefore he was in close contacts with the circles of the Roman scholars attached to the papal court.<sup>7</sup> Moreover, we know that he was a friend of the Dominican Bartolomeo Spina, Master of the Sacred and Apostolic Palace of Pope Paul III and his man of confidence. And it was nothing else but an initiative of the said Spina that inspired Tolosani to refute Copernicus and his science.

Let us start with the fact that this anti-Copernican polemics started very early, as the date of its termination is distant by only about three years from that day on which a typographer from Nurnberg, Petreius, typed the work of Copernicus. In the shortened version Tolosani entitled his polemics *Heaven and the Elements (De caelo et elementis)*, while the full title reads as follows: *On the Heaven Supreme and Motionless and the Earth Inferior and Stable, and the other Moving Heavens and Intermediate Elements*.<sup>8</sup> “What we have explained so far—begins Tolosani<sup>9</sup> referring to previous parts of his argument—would be sufficient

<sup>6</sup> Biliński, *op. cit.*, p. 25. Here and further on, all italics in the cited fragments are mine—A. K.

<sup>7</sup> See S. Pallavicino, *Storia del Concilio di Trento*, Vol. 8, Torino, 1968, pp. 337–338. On the friendship between Tolosani and Spina see: Demetrio Marzi, *Giovanni Maria Tolosani e Giovanni Lucido Samoteo*, “Miscellanea storica della Valdelsa” 5 (1897), p. 51.

<sup>8</sup> *De caelo supremo immobili et terra infima stabili caeterisque caelis et elementis intermediis mobilibus*.

<sup>9</sup> This translation is based on the Garin’s edition. The first English translation of *De caelo et elementis* was done by Rosen.

to prove the thesis [scil. a thesis on the motionless Earth and moving Heavens], if not for the fact that we were handed *the book by Nicholas Copernicus of Toruń, which was printed not long ago and published in recent days*. In it he tries to revive the teaching of certain Pythagoreans concerning the earth's motion, a teaching which had died out in times long past. Nobody accepts it now except Copernicus. In my judgment, he does not regard that belief to be true. On the contrary, in this book of his he wanted to show others *the keenness of his mind rather than expound the truth of the matter.*"

The objection that he was trying to revive some of Pythagoreans' opinions would not in the least surprise Copernicus. It leaves no doubts, however, that he would react very violently to the objection which Tolosani formulates here for the first time, and which he is going to repeat once again, namely the accusation that when Copernicus put forth his theory of the moving earth, he was said not to bother so much about the truth of this statement as rather to be eager to show his ingenuity. It is enough to recall the remarks of Copernicus included into his *Dedication-Preface* to Paul III; the letter which was written in June 1542, that means, only four years before Tolosani's dissertation appeared.

"I can readily imagine, Holy Father—begins his letter Copernicus—that as soon as some people hear that in this volume, which I have written about the revolutions of the spheres of the universe, I ascribe certain motions to the terrestrial globe, they will shout that *I must be immediately repudiated together with this belief*. For I am not so enamored of my own opinions that I disregard what others may think of them."<sup>10</sup>

This alleged accusation that Copernicus was in pursuit of the sensational would certainly have been withdrawn immediately by Tolosani, otherwise a wild defensor of the Catholic orthodoxy, if only he had known that this objection had been raised earlier by Martin Luther. In Luther's *Table Speeches* from 1539 we can find, among others, the following ironical remark addressed to Copernicus: "But so it happens nowadays that he who wants to pass for a wise man must achieve something extraordinary and original, and he wants the others to think that the best way of getting it is just the way that he adopts."<sup>11</sup>

But let us now proceed with the reading and analysing of the next

<sup>10</sup> Here and further on the English quotations from the *Dedication-Preface* and *Revolutions* are taken from the text published in the Jubilee Edition of Państwowe Wydawnictwo Naukowe: *Nicholas Copernicus Complete Works* (NCCW), vol. 2, translated and commented by Edward Rosen, Warszawa-Kraków, 1978. For the above fragment see NCCW, 2, p. 3.

<sup>11</sup> See Aleksander Birkenmajer, in: *Odrodzenie w Polsce* [Renaissance in Poland], Vol. 2, part 2, Warszawa, 1956, p. 89.

passage of this controversial text: "As far as I could judge by reading his book—says Tolosani—he is a man with a keen mind. He understands Latin and Greek, and expresses himself eloquently in those languages, not however without an obscurity in his phraseology since he uses unfamiliar words too often. He is also an expert in mathematics and astronomy, but he is very deficient in physics and dialectics. Moreover he seems to be unfamiliar with Holy Scripture since he contradicts some of its principles, not without the risk to himself and to the readers of his book of straying from the faith."

The objection raised against Copernicus that he contradicts Holy Scripture is obviously a very grave one, and it will be reconsidered later on. At the moment it seems appropriate to note that Tolosani had to study very thoroughly the work under discussion, if he was not only able to appraise Copernicus' eloquence and skill in mathematics and astronomy, but also proved to be a very apt critic of the phraseology used in the text. Nobody who reads carefully enough Copernicus' *Revolutions* can deny the presence of rare and sophisticated expressions and the difficulties that one has inevitably to face when going over this work. Moreover, we can risk the statement that, whereas the charge that Copernicus was deficient in physics is absolutely ludicrous and absurd, the objection that he did not fully master dialectics is open for discussion.

Next, we come to these passages where the anti-Copernican polemics has reached its climax. "Hence, since Copernicus does not understand physics and dialectics, it is not surprising if he is mistaken in this opinion and accepts the false as true, through ignorance of those sciences. Summon men educated in all the sciences, and let them read Copernicus, Book I, on the moving earth and the motionless starry heaven. Surely they will find that *his arguments are not solid and can be very easily refuted*. For it is stupid to contradict a belief accepted by everyone over a very long time for extremely strong reason, unless the naysayer uses more powerful and incontrovertible proofs, and completely rebuts the opposed reasoning. Copernicus does not do this at all. For he does not undermine the proofs, establishing necessary conclusions, advanced by Aristotle the philosopher and Ptolemy the astronomer."

It seems that even those of the 16th-century readers of Copernicus' *Revolutions* who were most suspicious about the idea of the motion of the earth would not be delighted with such hasty refutations of the proofs of the sage of Frombork. On the other hand, there is certainly a particle of truth in the statement that when Copernicus was opposing arguments supporting the beliefs "accepted by everyone over a very

long time for extremely strong reasons," he was not able to find absolutely convincing counterarguments.

The historians of the Copernican ideas are concordant that such decisive counterarguments appeared only in the 17th century with the discovery of the phases of the planet Venus, the rings of Saturnus, and the moons of Jupiter.

"Then—continues Tolosani—let experts read Aristotle, *On the Heavens*, and the commentaries of those who have written about it, especially St. Thomas Aquinas, the eminent logician, philosopher and theologian, and they will find that Aristotle absolutely destroyed the arguments of the Pythagoreans. Yet this is not adduced by Copernicus in his ignorance of it, nor does he follow the Pythagoreans in all respects, since they put Fire in the middle near the center of the universe, where everybody else correctly and most convincingly prove that the earth is placed. Copernicus, however, puts the sun there, not Fire, and both are caught in a great error. For Copernicus puts the indestructible sun in a place subject to destruction. And since Fire naturally tends upward, it cannot, except through constraint, remain down near the center as its natural place, as the Pythagoreans falsely hold."

Was Copernicus really not aware of the dispute between Aristotle and the Pythagoreans in Book II of the treatise *On the Heavens*? Tolosani is right when he says that there is no evidence of this in Copernicus' *Revolutions*. But when writing his treatise, should not Tolosani have reached for Rheticus' *First Story* about the Books of *Revolutions*, the book published for the first time in 1540 and then again in 1541? And then, on the pages of that *Story* he would have found related the discussion in which Copernicus also took part and during which a reference was made expressis verbis to the Aristotelian controversy with the Pythagoreans in Chapters 13 and 14 of *De caelo*, Book II, and all the weak points of that contestation were emphasized.<sup>12</sup> Criticizing Tolosani for this oversight, we should immediately remember that, as it follows from the foregoing text and from the suggestions made by Rosen in his commentary on that text,<sup>13</sup> Tolosani managed to achieve something that the other anti-Copernicans were not able to attain, namely to see the difference between Copernicus' cosmology and that of the Pythagoreans.

"Hence Copernicus—proceeds Tolosani with his anti-Copernican tirade—copying the Pythagoreans in part, leans on a cane of fragile

<sup>12</sup> See Andrzej Kempfi, *Mikolaja Kopernika heliocentryczna budowa astronomii* [The Heliocentric Astronomical System of Nicholas Copernicus], "Komunikaty Mazursko-Warmińskie" 1/2 (1973).

<sup>13</sup> Rosen, *op. cit.*, p. 537.

reed which easily pierces his hand, or on an imaginary fabrication by which the truth cannot be proved. Therefore he is often mistaken. For *in his imagination he changes the order of God's creatures* in his system when, like the giant trying to pile Ossa on Pelion, he [seeks] to raise the earth, heavier than the other elements, from its lower place to the sphere where everybody by common consent correctly locates the sun's sphere, and to cast that sphere of the sun down to the place of the earth, *contravening the rational order and Holy Writ*, which declares that heaven is up, while the earth is down."

Let us now contrast this anti-Copernican tirade of Tolosani with two dialectic enunciations. Here is the first enunciation:

"To be sure, there is general agreement among the authorities that the earth is at rest in the middle of the universe. They hold the contrary view to be inconceivable or downright silly. Nevertheless, if we examine the matter more carefully, we shall see that this problem has not yet been solved, and is therefore by no means to be disregarded."<sup>14</sup>

And here we have the second enunciation included into the *Dedication-Preface* to the *Revolutions*:

"I have no doubt that acute and learned astronomers will agree with me if, as this discipline especially requires, they are willing to examine and consider, *not superficially but thoroughly*, what I adduce in this volume in proof of these matters."<sup>15</sup>

"Moreover—Tolosani spins out his polemic argument—Copernicus assumes certain hypotheses which he does not prove [...] when he says in Book I, Chapter 8: 'If anyone believes that the earth rotates, surely he will hold that its motion is natural, not violent.'<sup>16</sup> Copernicus assumes what he should previously have proved, namely, that the earth rotates. This proposition, however, is explicitly shown to be false. For, as far as a rotating earth is concerned, its motion cannot be called natural, but [must be called] coerced, since a simple body cannot have two natural motions opposed to each other. For we see the earth move naturally toward the center [of the universe] on account of its natural heaviness. But if it is said to rotate, its circular motion will be coerced, not natural. Therefore, it is false that the earth rotates with a natural motion. On the contrary, that motion is coerced, and thus Copernicus' hypothesis is completely overthrown.

Furthermore, in Book I, Chapter 10, this author falsely supposes that the 'first and the highest of all [the spheres] is the sphere of the fixed

<sup>14</sup> NCCW, 2, p. 11.

<sup>15</sup> Ibid., p. 5.

<sup>16</sup> Ibid., p. 15.



stars, which contains itself and everything, and is therefore immovable.'<sup>17</sup> This is shown to be false, since the sphere of the fixed stars has two opposite motions, one natural, the other coerced. This could not be the case unless above it is the First Movable, which moves with a single, simple, uniform motion, as all informed astronomers agree. By the action of the First Movable, the starry heaven is moved contrary to its natural and proper motion. Copernicus would have spoken correctly, had he agreed with the theologians that above the First Movable the highest sphere is immovable, the sphere called by the theologians the Empyrean Heaven. This contains, as in an immovable place containing itself, all the lower movable heavenly spheres which revolve around the center of the universe [...]."

In the two above mentioned paragraphs of *Heaven and the Elements*, the author literally quoted two remarks taken from Copernicus' *Revolutions*. And it is very significant that the first of these quotations was taken from Chapter 8 of Book I. It is one of the two chapters (apart from Chapter 9 of the same Book) where the attention is focussed on a profound discussion with Aristotle firmly sustaining the thesis on the immobility of the earth. This discussion was very vividly commented by the 16th-century readers of the treatise *De revolutionibus*, and it was exposed in the first translation of this work into a modern language. This refers to the fragmentary English translation which was published by Thomas Digges in 1576 under the title: *A perfect description of the celestial spheres after the ancient doctrine of the Pythagoreans revived and confirmed with geometrical proofs by Copernicus*.<sup>18</sup>

"The first and the highest of all is the sphere of the fixed stars, which contains itself and everything, and is therefore immovable. It is unquestionably the place of the universe, to which the motion and position of all the other heavenly bodies are compared." This is in full reading the second quotation from Copernicus' *Revolutions*, cited in short in *Heaven and the Elements*. The sage from Frombork did not even dream that the sphere of the fixed stars might have two motions, one natural, and the other coerced, and the whole paragraph has an entirely antischolastic and antitomistic significance. On the other hand, however, as marked by Aleksander Birkenmajer<sup>19</sup> who also took that text under consideration, this is also one of the fragments which clearly

<sup>17</sup> *Ibid.*, p. 21.

<sup>18</sup> Henryk Zins, *M. Kopernik w angielskiej kulturze umysłowej epoki Szekspira* [N. Copernicus in the English Intellectual Culture in Shakespeare's Time], Wrocław, 1972, p. 78.

<sup>19</sup> Aleksander Birkenmajer, *Kopernik jako filozof* [Copernicus the philosopher], "Studia i materiały z dziejów nauki polskiej" 1963, series C, No. 7.

demonstrate that the author of the *Revolutions* accepted Perypathetics' theory of the "place" and, as a matter of fact, based his arguments on the Stagirite's "physical" ideas.

The insinuation recurring in *Heaven and the Elements* that Copernicus was unfamiliar with Aristotle and Ptolemy is just ludicrous. In reality, Copernicus altered the scientific theories of these two philosophers only inasmuch as he found it indispensable for the acceptance of his rule of the moving earth. It sometimes happens so, however, that Copernicus assumes an antischolastic attitude and in this, among others, we can see one of the traits of Copernicus the philosopher. Is not the voice of Tolosani, a scholastic and a tomist whom he undoubtedly was, sufficiently meaningful in this respect?

And at this point it is appropriate to express our surprise that Tolosani reprehended Copernicus on account of the alleged offences against Holy Scripture, passing in silence over the passus where it was Copernicus himself who forestalled this reproach. Of course, this regards the passage in which there is a reference to the *mataiologoi*, that is, "babblers" or, after another translation, "vain talkers,"<sup>20</sup> and who, notwithstanding their ignorance of mathematical sciences, claim to be capable of giving their opinions, and in order to assail somebody misinterpret and distort the meaning of Holy Scripture. It is very significant that in the word "babblers" the author of the *Revolutions* alludes just to the Bible. In the Letter to Titus,<sup>21</sup> *mataiologoi* were people who said idle and inappropriate things, and that epithet was imputed to the Christians of the Jewish origin who were making a lot of confusion in the communities.<sup>22</sup>

Next, the polemic reaches a new climax, the climax which was originally meant to form a conclusion. "Almost all the hypotheses of this author [Copernicus] contain something false, and very many absurdities follow from them. Hence that writer, whose name is not indicated there, and who speaks *To the Reader Concerning the Hypotheses of this Work*, although in the earlier part he flatters Copernicus, nevertheless toward the end of his remarks, viewing the truth of the matter, correctly and without any adulation, he says: 'So far as hypotheses are concerned, let no one expect anything certain from astronomy, which cannot furnish it, lest he accepts as the truth ideas conceived for another purpose, and depart from this study a greater fool

<sup>20</sup> NCCW, 2, p. 5.

<sup>21</sup> A Letter to Titus 1, 10-11.

<sup>22</sup> See Leszek Kuc, *Stanowisko teologiczne M. Kopernika na podstawie Listu Dedykacyjnego do papieża Pawła III* [Theological Attitude of N. Copernicus as represented in the Dedication-Preface to Pope Paul III], in: *Księga Kopernikowska* KUL, Lublin, 1973, p. 146.

than when he entered it.'<sup>23</sup> This is what that unknown author says. These words of that author censure the book's lack of sense. For by a foolish effort it tries to revive the contrived Pythagorean belief, long since deservedly buried, since it *explicitly contradicts human reason and opposes Holy Writ*. Pythagoreanism could easily give rise to quarrels between Catholic expounders of Holy Writ and those persons who might wish to adhere with stubborn mind to this false belief. I have written this little work for the purpose of avoiding this scandal."

What strikes the reader in these remarks is the fact that Tolosani completely forgot about the distinction between Copernicanism and Pythagoreanism which he had previously made, and contrary to the preceding part of his argument, he did not limit his accusation only to the statement that Copernicus accepted the false for true, and that he contradicted both human reason and Holy Scripture. He went so far as to assert that the hypotheses of Copernicus were also absurd, that he was a fool, and that his ideas were stupid (in original: *insipientia, stultus labor*). What is more, there is even a remark on the possible scandal which might result from this false belief of Copernicus.

At the same time, Tolosani recognized something that escaped notice of many of the 16th-century readers of the work *De revolutionibus*; namely, he detected that the author of the *Revolutions* and the author of an anonymous address *To the Reader*, placed on the first pages of the Nurnberg edition, were two different persons. Of course, this speaks in favour of Tolosani. Most unfortunately, however, when he included into his text a phrase from the address *To the Reader*, he detached it completely from the context and garbled its original sense. In the original version of the address *To the Reader* that phrase was supposed to be a continuation of the idea expressed in the following way: "Therefore alongside the ancient hypotheses, which are no more probable, let us permit these new hypotheses also to become known, especially since they are admirable as well as simple and bring with them a huge treasure of very skillful observations."

Contrary to his previous intention, Tolosani decided to continue *Heaven and the Elements*, and he brought forth two more anti-Copernican excurses. The first of these excurses comes directly after the aforementioned text and reads as follows:

"Although I have ended my remarks, nevertheless, having been urged on by the advice of learned men, I think that some statements must still be added. For I have sent my reader to peruse the text of

<sup>23</sup> See the English text of the *Foreword* by Andreas Osiander in NCCW, 2, p. 16.

Aristotle, *On the Heavens*, Book II. It is not easy, however, for everybody to have that book in his own possession, together with the commentaries on it. Therefore, in order that readers may more readily learn that *Nicholas Copernicus neither read nor understood the arguments of Aristotle the philosopher and Ptolemy the astronomer*, for that reason I shall briefly adduce here their arguments and refutations of the opinion opposed by them [...].”

As we can see, the alleged accusation that Copernicus ignored Aristotle and Ptolemy is formulated here in the words even more sharp than before. And, if previously Tolosani accused Copernicus that he was not able to shake the irrefutable proofs of those two Ancient philosophers, now he says that Copernicus did not even bother to become acquainted with their arguments (in original: *nec legisse nec agnovisse rationes Aristotelis philosophi ac Ptholomaei astronomi*).

The second anti-Copernican excursus appears at the end of *Heaven and the Elements*. In this excursus Tolosani recapitulated his polemical argumentations, and into this recapitulation he weaved a mysterious allusion to a dispute which took place in Rome and in which Copernicus was also said to take part and to be condemned very severely:

“Read Book I of Nicholas Copernicus’ *Revolutions*, and from what I have written here you will clearly recognize into how many and how great errors he has tumbled, even contrary to Holy Writ. Where he wished to show off the keenness of his mind in the book he published, by his own words and writings he rather revealed his own ignorance. Hence he has no right to complain about the men *with whom he disputed at Rome*, and by whom he was most severely condemned. On the contrary it is more appropriate for him to thank those from whom he learned what he did not know. *But that discussion took place belatedly or after the printing and publication of his book*. And therefore the falsehoods he wrote had to be refuted by the truth in this little tract of mine, lest the readers of his book should be led astray by his aforementioned errors.”

“*Sed illa disceptatio tarde contigit, vel post libri sui publicatam impressionem*”—this is the original reading of the information which seems to change something in the meaning, but still is probably the most reliable one. Tolosani refers to the date of March 15, 1543, the day when *De revolutionibus* was published, and he wants to say that the above mentioned dispute took part either just before that date, or right after.

Was Nicholas Copernicus really present in Rome at that time? Of course he was not. We know very well that he did not leave Varmia, and moreover at that time he was already confined to bed by a mortal

illness. But, according to the very apt observation of Rosen,<sup>24</sup> it is also a well-known fact that not long before Tolosani wrote his *Heaven and the Elements*, a certain book had appeared in Rome. This was a scholarly work on chronology written by Alexander Scultetus, the native of Tczew and a close friend of Copernicus. In his *Chronology* Scultetus made a list of the famous personalities, and therein, at a very prominent place next to Thomas More, he mentioned "Nicholas Copernicus, canon of Varmia, astronomer and mathematician."<sup>25</sup> Therefore, if Scultetus, who had been staying in Rome since 1540, praised Copernicus so high in that city in 1546, it seems pertinent to agree with Rosen<sup>26</sup> that, all the more, he might also have participated there in a discussion on Copernicanism. And when the echo of the whole affair, also referring to the condemnation of Scultetus for his defense of Copernicus, reached Florence, Tolosani mixed up the names of Scultetus and Copernicus. Therefore, he claimed that it was Copernicus himself who arrived on the Tiber to participate in this Roman dispute which took place "late and probably after the book had already been published."

Tolosani ended his *Heaven and the Elements* with the following and this time the final statement:

"The Master of the Sacred and Apostolic Palace had planned to condemn his [Copernicus'] book. But, prevented at first by illness, then by death, he could not carry out this [plan].<sup>27</sup> This I took care to accomplish afterwards in this little work for the purpose of safeguarding the truth to the general advantage of the Holy Church."

In this way, *Heaven and the Elements* was meant to be something like an expert's report disclosing harmful effects of Copernicanism, and Tolosani confirmed the condemnation of Copernicus' book prepared by Bartolomeo Spina, Master of the Sacred and Apostolic Palace of Paul III. This evidence is the more credible since Spina personally participated in the action taken against Alexander Scultetus by the Tribunal of the Roman Inquisition.<sup>28</sup> And he was responsible for the condemnatory judgment passed on August 17, 1545.<sup>29</sup>

In the Copernican literature a comparison has often been made between the violent reactions of the Protestant leaders to the publication of Copernicus' *Revolutions* in 1543 and the reaction of the Catholic Church. Some of the critics are of the opinion that the first symptoms

<sup>24</sup> Rosen, *op. cit.*, p. 540.

<sup>25</sup> Leopold Prove, *Nicolaus Copernicus*, Berlin, 1884.

<sup>26</sup> Rosen, *op. cit.*, p. 540.

<sup>27</sup> In original: "Cogitaverat magister sacri et apostolici palatii eius improbare librum, sed prius infirmitate, deinde morte praeventus, hoc implere non potuit."

<sup>28</sup> See Stanislaw Hosii *epistolae*, Kraków, 1879, Vol. 1, p. 200.

<sup>29</sup> *Ibid.*, Vol. 1, pp. 423-426.

of the opposition of the Catholic Church to the work of Copernicus came not earlier than in the last term of the 16th century,<sup>30</sup> and until that time the Church authorities in Rome were supposed to assume either friendly or neutral attitude towards the idea of heliocentricism. In the light of Tolosani's remarks, such statements must be refuted. It appears that the anti-Copernicans, who were active at the time of Paul V and Urban VIII, had their predecessors in the opponents of the Copernican theories who had been active as far back as the forties of the 16th century, and who also recruited from the Dominicans. It would be difficult to deny that Rosen is right when he says that what happened to Galileo's *Dialogue on the Two Supreme Systems of the Ptolemaic and Copernican Universe*, notwithstanding the fact that the work had been approved at first by the censorship, nearly happened to Copernicus' *Revolutions* already at the time of Paul III.<sup>31</sup> It seems that the condemnation of Copernicus' *Revolutions* by the Roman authorities was hindered first by the illness and death of Spina, the Master of the Sacred and Apostolic Palace, and next by the fact that the Vatican became deeply involved in the affairs of the Council of Trent.<sup>32</sup>

On the other hand, there are some reasons to assume that the manuscript of Tolosani's *Heaven and the Elements*, kept at the Dominican Friary of San Marco in Florence, was read by some people during the 17th-century controversions about Copernicanism and denouncements of Galileo's *Dialogue*.<sup>33</sup> And who knows if the formulation used in the decree of the Congregation of Sanctum Officium in 1616 was not to some extent a reminiscence of what Tolosani had written? We can find there a reference to "a false Pythagorean doctrine about the moving Earth and the motionless Sun, quite contrary to Holy Writ." This does not mean, however, that we can identify the anti-Copernican enunciation of Tolosani with the verdict of the cardinals from 1616. The authors of that ecclesiastical pronouncement managed, in spite of all, to pre-

<sup>30</sup> "The disapproval of Nicholas Copernicus' work was openly pronounced by the official church authorities not earlier than in 1616." Rev. Tadeusz Pawluk, *Na marginesie klauzuli kościelnego urzędu cenzorskiego dotyczącej dzieła M. Kopernika* [A propos the Clause of the Church Censor's Office Regarding the Work of N. Copernicus], "Studia Warmińskie" 9 (1972), p. 238.

<sup>31</sup> Rosen, *op. cit.*, p. 541.

<sup>32</sup> Tolosani's anti-Copernican appendix was written after Spina's death, but during his life Spina managed to read the main treatise *De veritate S. Scripturae*. This is testified by the following note on the front page of the manuscript preserved in Florence: "Hec egregium opus ab autore manu sua exaratum atque a reverendissimo magistro Sacri Palatii fra' Bartholomeo Pisano, Paulo III pontifice mandate, approvantum [...]"

<sup>33</sup> See Rosen, *op. cit.*, p. 541. When Garin entitled his edition "Alle origini della polemica anticopernicana" he wanted to call attention to nothing else but to the "pioneer" work of the author of *Heaven and the Elements* in the field of anti-Copernican activities.

serve certain moderation allowing to treat Copernicanism as a hypothesis and admitting that the work *De revolutionibus* included "a lot of things useful for the common people,"<sup>34</sup> while Tolosani saw in the work of Copernicus only falseness, absurdity and the very source of scandal.

So far we could agree with Rosen that there was an anti-Copernican opposition in Rome in the forties of the 16th century. But Rosen did not stop at suggesting only some doubts that arise when reading Baldi's relation. He went so far as to ascertain that the condemnation of Copernicus' *Revolutions*, prepared by Spina—the man of confidence of Paul III—and recorded by Tolosani, excluded the possibility that the Pope might ever have approved of Copernicus' work. Writing his *Biography of Copernicus* in 1588, Baldi—according to Rosen—just fabricated the tale about such an approval.<sup>35</sup>

This argumentation, depriving of reliability the relation of the first biographer of Copernicus, seems not to sound very convincing. Who knows if it were not possible to reconcile somehow the two relations of Baldi and Tolosani, assuming that there were *some fluctuations* in the attitude of Paul III and the Roman authorities towards the Copernican science. As also noted by Rosen,<sup>36</sup> Spina had not been Master of the Sacred and Apostolic Palace since the very beginning of the pontificate of Paul III, but only since July 1542. Therefore, it can safely be assumed that only in Spina's time such an approval would not have been possible, while before the situation might have been different. It rather seems that at the very beginning of the pontificate of Paul III, the memory of a friendly attitude shown by Clement VII to Copernicus must have still been fresh in the mind of the leading circles of the Roman society. After all, until 1539 the post of the Secretary to Paul III was held by nobody else but the same John Albertus Widmanstetter<sup>37</sup> who, as we know from the most reliable evidence, was disclosing to Clement VII during his walks in the Vatican gardens "Copernicus' opinion about the earth's motion."<sup>38</sup>

The probability that some words of appraisal were uttered by

<sup>34</sup> See Artur Wołyński, *Kopernik w Italii* [Copernicus in Italy], Poznań, 1978.

<sup>35</sup> Speaking about this conjectural intention Rosen uses the following formulations: "fictional tale," "unsupported assertion," "if there were an iota of truth!"

<sup>36</sup> Rosen, *op. cit.*, p. 536.

<sup>37</sup> An ample scientific literature on Widmanstetter is cited by Biliński, *op. cit.*, pp. 120–121.

<sup>38</sup> "*Copernicana de motu Terrae sententia*." This refers to a record on the parchment Greek Code which Widmanstetter got as a gift from Clement VII and which is now kept in the Munich Library.

Paul III, obviously only verbally and in very general terms, becomes even greater if we take into account the most genuine education and astronomical interests of this Pope who, on the other hand, inaugurated the Era of Counter-reformation. "I have preferred—says Copernicus in his *Dedication-Preface* of June 1542—dedicating my studies to Your Holiness rather than to anyone else. For even in this very remote corner of the earth where I live you are considered *the highest authority* by virtue of the loftiness of your office and *your love for all literature and astronomy too*. (In original: "*literarum omnium atque mathematices etiam amore eminentissimus habearis.*"<sup>39</sup>) And is it not self-evident that the information on the astronomical interests of Paul III could reach Copernicus staying at Frombork only through his friends who were in Rome at that time? So, it can be assumed that the same Roman advisers of Copernicus, hinting at the favourable attitude of Clement VII, managed to obtain from Paul III at the very beginning of his pontificate something like a general approval; the approval that afterwards gave courage to the modest canon to dedicate his work to the pope himself.

Baldi's editor Biliński was right when he pointed out to the phrase "I have preferred" (*malui*)<sup>40</sup> used in the place where Copernicus speaks about the dedication of his work. It seems as if the author of the *Revolutions* wanted to suggest that he could have also chosen the other noble patrons to whom he might have dedicated his work, but from among them he preferred no one else but Paul III.

Quite a lot has been written on the subject of the objections raised at that time by the theologians and church authorities against the Copernican doctrine. It is certain however, that the last word in this scope has not been said by the science yet. The anti-Copernican appendix from the forties of the 16th century, which has recently enriched the studies on Copernicus' work, fully confirms this statement. There is yet another fact which testifies that this problem has not been exhausted yet. Namely, not long ago another anti-Copernican comment was traced in one of John Calvin's texts. And thus it has turned out that there is an unmistakable allusion to the Copernican science inserted by Calvin into his Homily on Chapters 10 and 11 of the First Letter of St. Paul to the Corinthians. Therein Calvin makes a reference to those who "have such a spirit of contradiction that they turn upside down the order of nature, those phrenetics who will say that *the sun does not move and that it is the earth which moves and that she revolves.*"<sup>41</sup> From the context of the whole statement it follows that the reformer

<sup>39</sup> NCCW, 2, p. 5.

<sup>40</sup> Biliński, *op. cit.*, p. 109.

<sup>41</sup> R. Hooykaas, *Calvin and Copernicus*, "Organon" 10 (1974).



from Geneva came to the conclusion that Copernicanism threatens the common sense implanted in the man by the Creator. On the other hand, he does not say a word about the inconsistency of Copernicus' doctrine and the text of the Bible, and this silence is very symptomatic. Being a theologian and a religious thinker, Calvin knew better than his contemporaries that the authors of the Bible tried to adjust themselves to the intellectual level of their readers and listeners, and that therefore Holy Writ is not and cannot be an authority in the problems of cosmology.