# **Clarifying Angelo Mai's Use of Chemicals in Handling Latin Palimpsests**

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Angelo Mai

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#### **Abstract**

During the 19<sup>th</sup> century certain ancient manuscripts were handled with chemicals. It was argued that the purpose of this deed was to enhance the deciphering of the text. Examining three palimpsests I argue that the reason for using the chemical was to preserve the parchments and that the chemical handling may have actually achieved its goal.

I am grateful to Brepols Publishers for the permission to use three photos from Gryson's LES PALIMPSESTS ARIENS LATINS DE BOBBIO and the Veneranda Biblioteca Ambrosiana for providing me with three new photos of the same pages and for the general permission to post them online.

I thank Lars Munkhammar for his comments.

In the introduction to *Monumenta Sacra et Profana*, Ceriani, (1861) wrote:

Furthermore, if anyone wants to inspect the parchments and attempt a reading, it is fine by me. Let him know, however, that they may not be tested with any new chemical help. For I know how incautiously some try this, when they are able to read by this method, or think they can, or care nothing about destroying parchments which aren't their own, removing documents from posterity which, with two inventions of the science of chemistry, they read safely or at least subject to new studies. ...

Finally, those who have discussed the palimpsest codex who are known to me are Card. Mai, I believe, and Peyron. I don't know of anyone earlier. I claim from a kind of chemical help applied to nearly half of the parchments that the former (Card. Mai), when he was assigned to the library, tried this codex and other palimpsests which exist in the library; I don't know whether he transcribed anything. It is certain that he did not read the whole codex because many pages which had not been tested were entirely unable to be read without chemical aid. (Translated by John Hall in 2010)<sup>1</sup>

Monsignor (Later Cardinal) Angelo Mai (1782 - 1854) was in charge of the Ambrosian library in Milan and then in the same role at the Vatican Library. Obviously, Antonio Maria Ceriani (1828 - 1907) did not refer to him when he talked about those who "care nothing about destroying parchments which aren't their own."

In 1828 Mai had published his readings of several palimpsests that belonged to the same codex that Ceriani deciphered later and published in 1861. Naturally, Ceriani did not see those parchments before they were handled with chemicals and therefore could not have known from direct observation whether the chemical treatment assisted in the deciphering process or, instead, caused irreversible damage.

In this study I argue that the chemicals used by Mai were not applied in order to assist in the deciphering process but rather for better preservation of those parchments. For my study I use three photos from what Mai called SERMONUM ARRIANORUM<sup>2</sup> and Gryson FRAGMENTA THEOLOGICA ARRIANA E CODICE BOBIENSI RESCRIPTO (1982: 227). These three parchments are preserved at the Ambrosian library in Milan. I used photos of these pages from the facsimile edition LES PALIMPSESTES ARIENS LATINS DE BOBBIO (Gryson 1983) and new ones taken at Biblioteca Ambrosiana in February 2017.

Figure 1 is a new photo of a page 116. Figure 2 is the same page in the facsimile edition (Gryson 1983: Pl. 106). In Mai's book the transcription of the page is in page 235<sup>3</sup> and in Gryson's study (1982) the text is in page 250.

The somewhat faded text in the right side of the right column, the bottom of the page and in the gap between the two columns is actually the text that was written over the original writing. As Mai was interested in the original Arian text he was careful to treat only it with chemicals. The text that was written over the columns of the original text, and as such was treated with chemicals, is much clearer than the same text in the other corners of the page.



Figure 1. Milan, Bibl. Ambr., S.P.9/2, p. 116\* (A new photo)

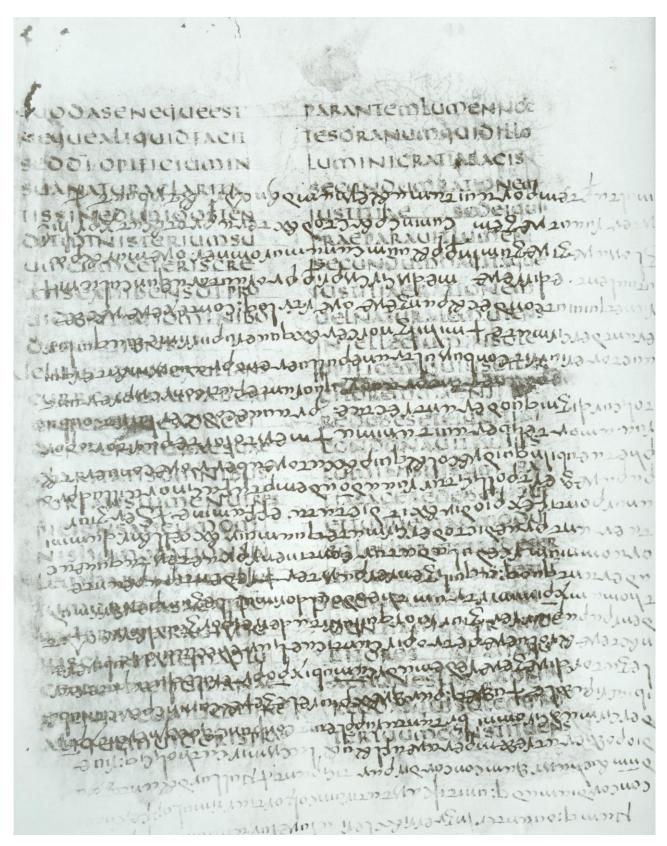


Figure 2. Pl. 106. Milan, Bibl. Ambr., S.P.9/2, p. 116\* (Gryson 1983)

In figure 3 I use fonts that I have created based upon the text of the manuscript to reconstruct two lines on the upper part of the page of the facsimile photo. Wherever I am not certain of my reading I follow Mai's text and mark the letters in grey. Figure 4 is the same section of the new photo.

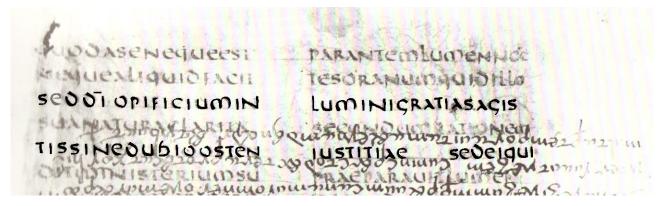


Figure 3. The upper part of p. 116\* (The facsimile edition)



Figure 4. The upper part of p. 116\* (A new photo)

### Comments:

Mai marked 'Dei.' In the manuscript the word appears as nomen sacrum 'di' with mark over it.

Mai read the end the first line and the beginning of the second lines of the right column 'nocte sera.' Gryson (1982: 251, lines 26/27) read 'noctis ora.' Gryson commented: noctis *correxi*: noctes *cod*.

In the middle of the fifth line of the right column there is a gap (Figure 5, a new photo).

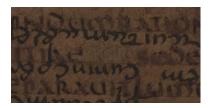


Figure 5. A gap in the text (A new photo)

Mai added to his transcription the word 'Non' in italics, and also added a question mark to the end of the previous sentence:

"numquid illo lumini gratias agis secundum rationem iustitiae?"

Apparently, the 5<sup>th</sup> century Arian preacher asked a rhetorical theological question and answered it with a resounding 'non.' However, the 8<sup>th</sup> century scribe apparently did not like this answer and erased it. Gryson inserted a question mark in the gap without commenting on Mai's insertion of '*Non*.'

Figure 6 display a new photo of page 17. Figure 7 is a photo of the same page from the facsimile edition. In Mai's book the transcription is in page 228<sup>4</sup>. In Gryson's text it is in page 260. I have chosen this page because it looks quite messy.

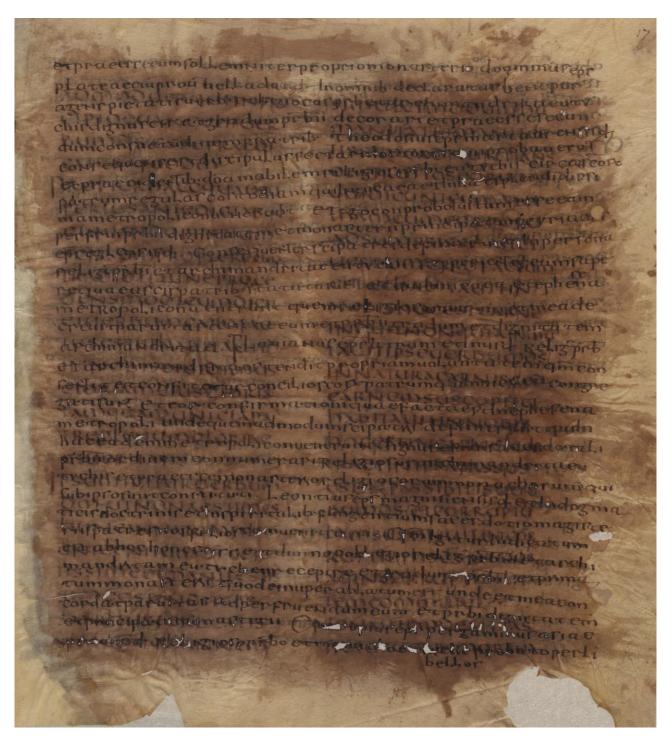


Figure 6. Milan, Bibl. Ambr. S.P. 9/1, p. 17\* (A new photo)

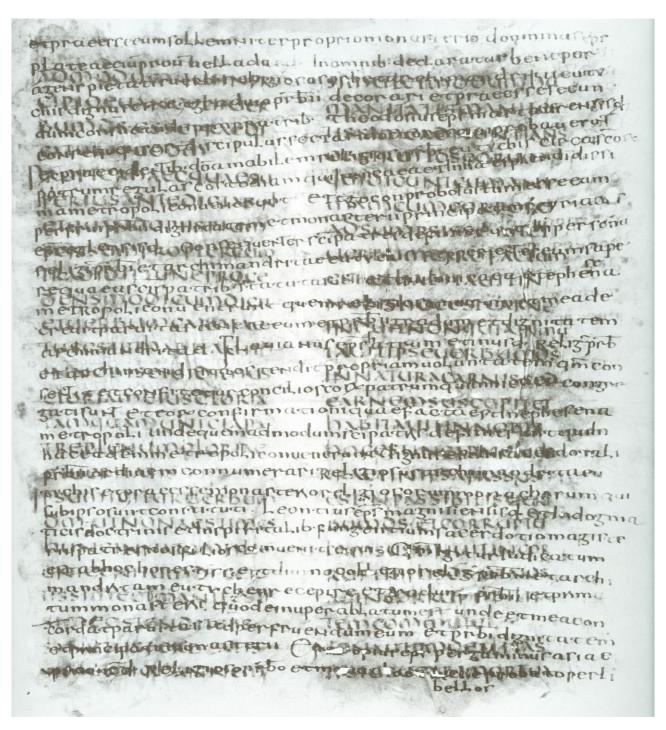


Figure 7. Pl. 93. Milan, Bibl. Ambr. S.P. 9/1, p. 17\* (The facsimile edition)

In figure 8 I present a reconstruction of lines 8-10 of the right column of page 17, using the photo from the facsimile edition.



Figure 8. Reconstructions of lines 8-10 of the right column of page 17 (The facsimile edition)



Figure 9. Lines 8-10 of the right column of page 17 (A new photo)

In Line 10 Mai wrote 'novis, and Gryson 'nobis.' (1982: 260, line 35). In my opinion Gryson is correct. At the end of the same line Mai wrote 'carnem.' The letter 'm' was omitted from the text and does not appear in the manuscript. Gryson marked the abbreviated word as 'carne(m).'

Starting with 'verbum' till 'nobis' Gryson marked the letters (line 34, 35) in italics, apparently meaning that the text in the manuscript is unclear However, with digital enlarging in my opinion the text is quite legible.

Nothing was written over the original Latin text of page 26 (Figure 10 and Figure 11). In Mai's book: page 227<sup>5</sup>, Gryson, 1992: 247.

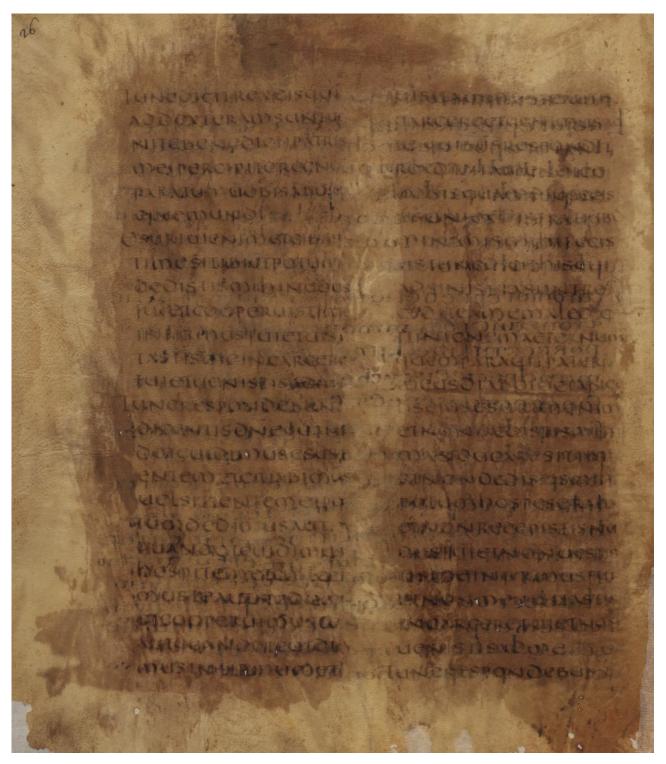


Figure 10. Milan, Bibl. Ambro., S.P. 9/1, p.26 (A new photo)

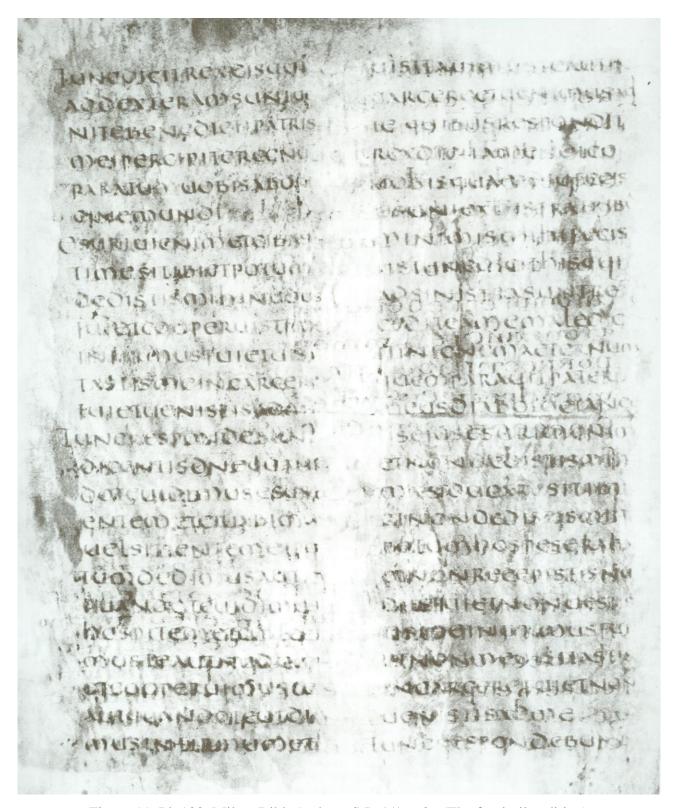


Figure 11. Pl. 100. Milan, Bibl. Ambro., S.P. 9/1, p.26 (The facsimile edition)

Figure 12 displays my reconstruction of the last 3 lines of the left column of page 26. (The facsimile edition).

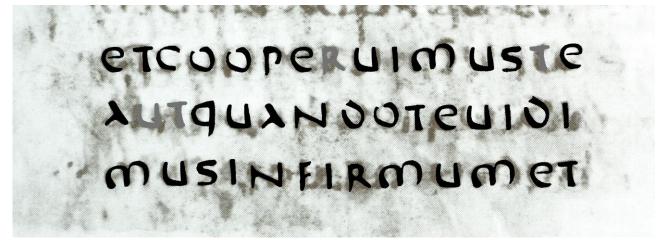


Figure 12. Reconstruction of the last 3 lines of the left column of page 26. (The facsimile edition)

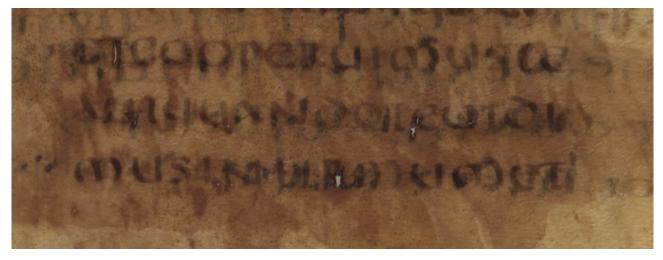


Figure 13. The last 3 lines of the left column of page 26. (A new photo)

Gryson (1982: 247) marked almost all the page in italics, that is, illegible. I suggest that except for several letters, with digital enlargement the text is quite legible.

By definition palimpsests are ancient parchments where the old text was erased and a new one was later written over it. For example, the 6<sup>th</sup> century Gothic palimpsests indeed follow this definition. In those parchments there are holes, burnt out sections, and clear evidences of erasure by chemical treatment. However, in the photos of the Latin manuscripts that I have examined there are no signs that anyone had ever tried to erase the original text. Browsing through the facsimile edition, I dare

to suggest that most if not all the pages were not tampered with chemicals. Several pages indeed seem to be very unclear, however, without close examination of the parchments themselves to rule out erasing I still dare to suggest other reasons for the illegibility. Just to compare, several pages of the Codex Argenteus, for example Lc. XX: 37-46. Ms. 108 v.<sup>6</sup> are unclear, however nobody has suggested the possibility of erasing.

Had page 116 been a bona fide palimpsest, then the 8<sup>th</sup> century scribe who overwrote the text could have erase the whole page instead of only 'Non.'

My guess is that since a parchment is a very delicate material, the people in charge of the overwriting had decided that it would be just better to write the new text over the somewhat faded three-century old text. In this way they saved the need of going into the trouble of erasing the old text and damaging the parchments in the process.

Occasionally they also employed a method to avoid confusion between the old and new texts. In 37 out of the 106 pages of the facsimile edition, for example page 116, the new text was written in the opposite direction of the original text. I suggest that the decision not to erase the old text was a wise one.

Following my study of the Gothic palimpsests (Landau 2016), I maintain that the Gothic palimpsests are, in general, in a very bad condition and deciphering the text is extremely difficult. In contrast, my reading of the original Latin text in the photos in front of me has been relatively easy. I also find it hard to believe that the condition of the palimpsests deteriorated since the days Mai read them. If we take into account that Mai actually read the original manuscripts themselves and that he knew Latin, my assessment is that he should not have any serious problems reading the text. In short, he did not need any chemical manipulation for the deciphering task.

Mai had discovered the Gothic palimpsests in 1817 and for the first publication, in 1819, he cooperated with Count Carlo Ottavio Castiglioni (1784-1849). Later Mai concentrated on the Latin palimpsests and Castiglioni continued to decipher the Gothic palimpsests for the next 20 years.

As for the preservation endeavor, based upon my observations I suggest that, as a rule of thumb, it has succeeded, although it is hard to come up with a definite answer. Just to compare, the Codex

Argenteus was never handled with chemicals (Lars Munkhammar, personal communication). Nevertheless, it was thoroughly studied for centuries.

In my study of the Gothic palimpsests I suggest that for someone who is familiar with the topic it may take three to four weeks to conduct an extensive preliminary examination of one page. From my limited experience of studying the Latin palimpsests, I suggest that same length of time is valid also here. It is harder to decipher the text of the Gothic palimpsests, however it seems to be more text in the pages of the Latin palimpsests.

One topic that remains open for further study is the use of ultra-violet illumination. The new photos were taken with conventional lighting. My impression is that ultra-violet radiation was used in preparing the photos of the facsimile edition, and possibly improved the legibility of the text.

## **Update: July 2023**

In July 2023 I visited the Ambrosian Library and examined these three pages with my own eyes with the help of a magnifying lens.

The aim of this paper has been to examine several technical aspects of the manuscripts:

- 1. Do these pages fulfill the definition of a palimpsest?
- 2. Was the use of chemicals intended to help with the deciphering of the text?
- 3. Can the reading of the text still be improved?

The definition of a palimpsest includes two main features: the parchment was washed and a new text was written over the old one. My observation is that in all three pages a new text indeed was written over the old one, however, in my opinion pages 116 and 26 were not washed and page 17 possibly washed. In page 116 the new text was written in the opposite direction of the old one.

In order to the determine whether the use of chemicals was intended to improve the reading I tried to find places where the old text was not covered by the chemicals so I could compare them with the text that was covered. However, the person who applied the chemicals executed quite a thorough job and I could not find such places, just several spots that maybe less chemical were applied. Nevertheless, my tentative conclusion is the chemicals were used in order to preserve the

manuscripts, not to help with the deciphering of the text. In the photos, the new text, which was not covered with chemicals, is quite blurred, however in the manuscripts it is clear.

While studying the photos I marked several spots where the reading was problematic. In page 17 line 10 Mai read 'novis' and Gryson 'nobis'. I suggested the Gryson was correct and after examining the manuscript I still maintain that Gryson was correct.

Mai read the end of line 1 and the beginning of line 2 on the right column of page 116 as 'nocte sera', Gryson marked it as 'noctis ora'. My reading is: 'nocte sora' or 'noctes ora'. All in all, in this study I examined 10 lines, chosen arbitrarly.

Traditional photographing, digital photographing and digital image processing programs are indeed excellent tools for studying manuscripts, however they cannot be more than auxiliary ones. The ultimate method, in the past as now, is examining the manuscripts with one's own eyes being assisted by a magnifying lens.

I thank Dr. Federico Gallo, Sig. Trifone Cellamaro, Dr. Stefano Serventi and Sig. Ferdinando Righetto of the Ambrosian Library for their cooperation.

## **Comments**

- 1. http://palimpsest.stmarytx.edu/CerianiParvaGenesisPreface.htm
- 2. https://archive.org/stream/bub\_gb\_FvjvACi\_APAC#page/n518/mode/1up
- 3. https://archive.org/stream/bub\_gb\_FvjvACi\_APAC#page/n545/mode/1up
- 4. https://archive.org/stream/bub\_gb\_FvjvACi\_APAC#page/n538/mode/1up
- 5. https://archive.org/stream/bub\_gb\_FvjvACi\_APAC#page/n537/mode/1up
- 6. https://www.modeemi.fi/~david/Codex\_Argenteus/jpg\_files/274lc20f.html

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