# French Tachygraphic Notes in a 1504 copy of Homer's *Odyssey*

by Daniele Metilli

#### Introduction

I am an Italian computer engineer and software developer. I am also studying Archival Science, Paleography and Diplomatics at the State Archive in Milan, and Digital Humanities at the University of Pisa. I have a keen interest in languages, shorthands, and ciphers. Miss Giulia Accetta, who is proficient in contemporary Italian stenography and a fluent French speaker, helped me with some decipherments and also drew the vector shapes used throughout the report. For any corrections, suggestions, or inquiries, please contact me.

## The 1504 Odyssey

The *Bibliotheca Homerica Langiana* (*BHL*) is a collection of early printed editions of works by Homer assembled by Michael C. Lang. In May 2007 Mr. Lang donated the entire collection to the University of Chicago Library.<sup>1</sup> The *BHL* includes an edition of the works of Homer that was printed in Venice, Italy by Aldus Manutius in 1504.<sup>2</sup> It was the first Aldine of Homer, and the second edition of the Greek text to ever be printed, the first being the one published in Florence in 1488 by Demetrios Chalcondyles.<sup>3</sup>

We do not know the precise history of the book from its printing to its arrival in the United States. Based on a bookplate, it is known to have been owned by noted collector Cortland Bishop. It also contains an anonymous engraving signed "P". Volume 1 of the book contains Homer's *Iliad* and, bound together from a different book, the *Life of Homer* attributed to Herodotus, the *Essay on the Life and Poetry of Homer* by Plutarch, and *On Homer* by Dio Chrysostom.<sup>2</sup>

Volume 2 contains the *Odyssey*, the *Batrachomyomachia* and the *Homeric Hymns*. It features many handwritten annotations in various languages, including French and an unidentified shorthand script which is only found in Book XI of the *Odyssey*.<sup>2</sup> On April 24, 2014, the University of Chicago Library announced a contest offering a prize to the first person who would be able to decipher the code found in the book.<sup>4</sup>

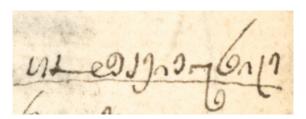
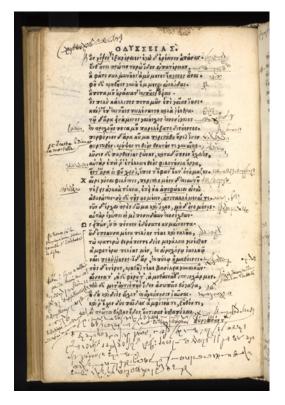


Fig. 1 – An example of the shorthand used in the book

Book XI is composed of 22 pages and all of them contain shorthand annotations. We were not able to travel to Chicago and analyze the book in person, but the University of Chicago Library kindly provided us with two high-resolution pages for the purposes of the contest. We immediately started working on the code, hoping to solve the mystery.

## The two pages

We do not know the page numbers, so for the purposes of this analysis we will call them "Page A" and "Page B". Each of them contains 29 verses. Page A starts with verse 234 of Book 11 and ends with verse 263, while Page B starts with verse 264 and ends with verse 293.



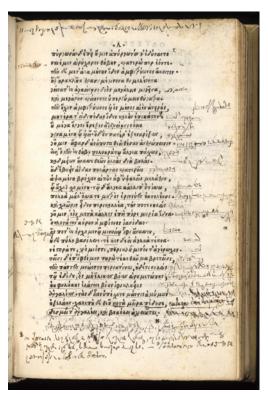


Fig. 2 – Page A from the "Odyssey", book XI.

Fig. 3 - Page B from the "Odyssey", book XI.

#### The French notes

The two pages containing the shorthand also feature readable French annotations. These notes are sometimes intertwined with the mysterious script, and the ink appears to be the same. This suggests that the two scripts were written by the same French-speaking person who was probably studying the Greek text. This is corroborated by the fact that the French notes are often precise translations of the Greek words. From one of the *marginalia* we can read the words "*le 25 avril 1854*", so we can tentatively suggest a mid-19<sup>th</sup> Century date for the inscriptions.

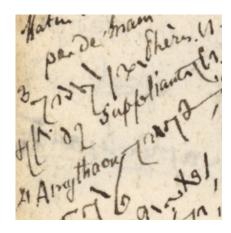


Fig. 4- French notes and shorthand intertwined



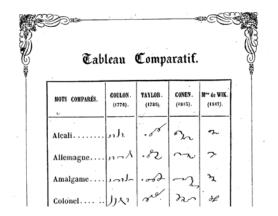
Fig. 5 – A date found in the margin: 25 april 1854

## Our first guess: stenography

The shorthand symbols resemble stenography, a method that is used to write faster and take up less space on the paper. The word "stenography" comes from the Greek  $\sigma \tau \epsilon v \delta \varsigma$  (*stenos*, "narrow") and  $\gamma \rho \dot{\alpha} \phi \omega$  (*graphō*, "writing").<sup>5</sup> The name is applied to many different systems that were developed with the same aim. Stenography draws its origin from the *Tironian notes*, a shorthand method was that by Marcus Tullius Tiro in Ancient Rome. The notes were employed in Europe throughout the Middle Ages in manuscripts and documents.<sup>6</sup>

The first modern systems of stenography were invented in England in the late 16<sup>th</sup> Century. The first published works about the systems were *Characterie* by Timothy Bright (1588), *The Art of Stenographie* by John (1602), and *An Abbreviation of Writing by Character* by Edmund Willis (1618). A similar system called *brachygraphie*, from Greek βραχύς (*brakhus*, "short"), was described by Peter Bales in his works *The Writing Schoolmaster* (1590) and *The Arte of New Brachygraphie* (1600).<sup>7</sup>

In 1626 Thomas Shelton published *Short Writing*, presenting a new method called *tachygraphy*, from Greek  $\tau \alpha \chi \dot{\nu} \varsigma$ , (*takhus*, swift). The system became very popular and was soon adapted to other European languages. It was not until a century later that the Shelton system was eventually abandoned, in favor of a new one by Samuel Taylor which went under the old name *stenography*. Taylor's work *An Essay Intended to Establish a Standard for a Universal System of Stenography*, or *Short-hand Writing*, was published in 1786.





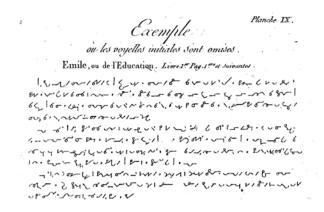


Fig. 7 – The Samuel Taylor system adapted to French by Bertin.

Since the available data suggested a French provenance and a mid-19<sup>th</sup> Century date for the *Odyssey* shorthand script, we decided to compare it to stenographic systems in use in France at the time. The first stenographic system for the French language was introduced by Jacques Cossard in 1651,<sup>8</sup> with an adaptation of the Shelton method being published by Charles Alois Ramsay in 1665.<sup>9</sup> Unfortunately, the examples of Cossard and Ramsay we were able to locate did not seem to match the *Odyssey* shorthand.<sup>10</sup>

We moved on to later methods including those described in *Sténographie* by M. Conen de Prépéan (1825),<sup>11</sup> *La sténographie* by C.D. Lagache (1829),<sup>12</sup> *L' art de recueillir la parole* by L.F. Dutertre (1829),<sup>13</sup> *Cours théorique et pratique de sténographie* by A. Fossé (1829),<sup>14</sup> and *Nouveau manuel de sténographie* by Hippolyte Prevost (1834),<sup>15</sup> but we still could not find a match. Then we suddenly had a breakthrough. In an appendix to *Système universel et complet de sténographie* by Théodore-Pierre Bertin (1792),<sup>16</sup> we came across an interesting table.

## From stenography to tachygraphy

The table compares the new stenography system by Samuel Taylor, adapted to the French language by Bertin, to an old *tachygraphie* published in 1790 in Paris. The two methods are very different and we found the tachygraphic one to closely resemble the *Odyssey* shorthand. As we wrote above, the term "tachygraphy" was invented by Shelton for his shorthand system in 1626.

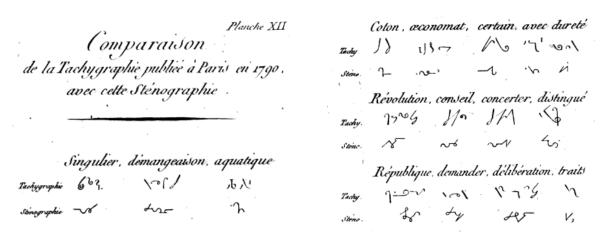


Fig. 8 – Excerpt of a table comparing stenography to tachygraphy

The term *tachygraphie* became widely used in France at the end of the 18<sup>th</sup> Century. The concept was even explained in the *Encyclopédie* by Diderot and d'Alembert (1751–1765):

TACHYGRAPHIE, s. f. (Littérat.) la tachygraphie ou tachéographie, parole composée des mots grecs ταχὺς, vite, & γραφὴ, écriture, est l'art d'écrire avec rapidité & par notes; elle est aussi quelquefois nommée brachygraphie de βραχὺς, court, & γράφω, j'écris, en ce que pour écrire rapidement, il faut se servir de manieres [sic] abregées. Aussi les Anglois qui sont ceux de tous les peuples du monde qui s'en servent le plus généralement & y ont fait le plus de progrès, l'appellent - ils de ce nom short-hand, main brieve, courte écriture ou écriture abregée.<sup>17</sup>

The *Dictionnaire de l'Académie françoise* also describes the word in its fourth edition (1762) as *"l'art d'écrire par abréviations"* ("the art of writing by abbreviations"). <sup>18</sup> The first to introduce a tachygraphic method for the French language was Jean Coulon de Thévenot (1754–1813), who used it to name his shorthand system in 1776. Coulon de Thévenot had studies the Tironian notes extensively. He was a member of the French Royal Academy of Sciences and the Society of Inventions and Discoveries. An anonymous contemporary writer notes:

Depuis 1776, un M. Coulon de Thevenot [sic] avoit adressé à l'académie des sciences un mémoire sur une découverte de sa façon, qu'il appelloit scientifiquement Tachygraphie; il s'agit de l'art d'écrire aussi vîte que la parole. Un M. Dupont réveille cet art aujourd'hui, qu'il prétend avoir perfectionné, en réduisant la méthode à quarante lettres ou notes; c'est l'objet de la curiosité du moment. 19

The method by Dupont is listed in the *Précis analytique des travaux de l'Académie des sciences* as being presented to the Academy of Sciences of Rouen in 1786.<sup>20</sup> From the *Salon de la correspondance pour les sciences et les arts* we know that Dupont presented his method in 1787, and the lecture inspired Coulon de Thévenot to update his system. Thévenot is quoted as saying:

"Tout le monde convient de l'utilité d'une méthode pour écrire aussi vîte qu'on parle; on n'a plus besoin que de le former une idée de la possibilité d'en rendre l'apprentissage et l'exercice faciles. La méthode des Anglois ("Short-hand", ou courte écriture) exige des efforts prodigieux du mémoire pour avoir, à tout instant, présentes à l'esprit, la forme et la signification des chiffres qu'il s'emploient. Tel étoit le vice des Notes tyronniènes, dont les Romains ont fait usage dès les tems [sic] de Cicéron."21

According to Coulon de Thévenot, the English shorthand methods are too difficult because they require too great an effort to remember all the symbols. He goes on to list the main features a good tachygraphic system should have:

- It should require the least possible idle movements of the pen.
- The simplest symbols should represent the most common sounds.
- · Similar sounds should have similar symbols.
- The orthography should conform to the pronunciation.
- The connections between letters should allow the most possible brevity.
- In case of abbreviations, there shall be no new characters except to indicate that the abbreviation exists.<sup>18</sup>

Initially the Coulon de Thévenot method underwent various evolutions, but after 1790 it was mostly stable. According to Irma de Wik-Potel, herself creator of a *dewikigraphie*, after the publication of Bertin's work tachygraphy was supplanted by the new Taylor-based stenographic method.<sup>22</sup>

For understanding the method we used the manual *Tachygraphie des Français* by the author himself, and also the 1819 edition of *Tachéographie ou Tachygraphie française* by professor Patey, a more concise manual that is perfect as a quick reference (we provide three tables from Patey in figures 11, 12, and 13).

Could one of these two books be the one our mysterious annotator used to learn tachygraphy?



Cachéographie, TACHYGRAPHIE FRANÇAISE. MÉTHODE NOUVELLE, ABRÉGÉE ET FACILE, FOUR APPRENDRE SOI-MÊME, ET DANS L'ESPACE DE QUELQUES JOURS, L'art d'écrire aussi wite que l'on parle, enté par M. Coulon-Thévenor, Membre de la Société
des Inventions et Découvertes. par m. PATEY, professeur de belles-lettres, membre de plusieurs sociétés savantes, etc. Prix de cette Méhode, dent trus les signes sont toucés à la main par l'atotre:

3 fr., et 3 fr. 50 c., en y joignant cing Extraits de l'Histoire Romaine, écrits en caractères tachéographiques, et les Préceptes sur la marche à suivre. CINQUIÈME ÉDITION, REVUE, CORRIGÉE AVEC SOIN, AUGMENTÉE DE NOUVEAUX MOTENS D'ABRÉVIATIONS, DE DÉVELOPPEMENTS UTILES, etc., etc. PARIS. CHEZ BRUNOT-LABBE, Libraire de l'Université de France. DE L'IMPRIMERIE DE P.D. REPAY, A MANTES. 1819.

Fig. 9 – The title page of "Tachygraphie des françaises" by Thévenot.

Fig. 10 – The title page of "Tachygraphie française" by Patey.

## The tachygraphic system

In this section we describe the tachygraphic system starting with its phonology. We matched each tachygraphic symbol as described in the manuals to its equivalent in the International Phonetic Alphabet. For representing the tachygraphic symbols we decided to redraw each one of them using a vector graphics program. In figures 11, 12, and 13 we provide a full copy of Patey's *Paradygme tachéographique* including diphthongs and other special characters.

#### Vowels

The French language features 16 vowels, including nasals. They are shown in table A with the symbols that represent them in International Phonetic Alphabet.

		Fro	ont	Comtrol	Deale
		Unrounded	Rounded	Central	Back
Close		i	у		u
Close-mid	Oral	е	Ø		0
Onen mid		ε	œ	Ð	э
Open-mid	Nessi	ε̃	œ		õ
0	Nasal				ã
Open	Oral			а	α

Table A — Vowels in the French language.

In table B we show the equivalents of each vowel in the Thévenot system, including their alphabetic representation and the tachygraphic symbols used to render them.

		Fro	ont	Central	Back	
		Unrounded	Rounded	Central		
Close		i <u>V</u>	и <u></u> り		ou <u>U</u>	
Close-mid	Oral	é <u> </u>	eu <u>l</u>	e muet		
Onen mid		ai <u> </u>			o <del> </del>	
Open-mid		ain _	eun <u>U</u>		on _}	
Onon					an <u>d</u>	
Open	Oral			а	Ţ	

Table B-Vowels in the tachygraphic system.

As we can see in table B, the system does not distinguish between  $/\emptyset$  and  $/\infty$ , between  $/\emptyset$  and  $/\infty$ , and also between  $/\emptyset$  and  $/\infty$ . The symbol for  $/\emptyset$  is explicitly called e muet ("mute e"). The system has four more symbols for rendering common diphtongs containing semi-vowels. Patey lists these diphthongs in the main table, as if they were simple vowels.

/wi/	/ųi/	/wa/	/wa/	/wã/
oui	ui	o	i	oin
<u></u>	<u>le</u>	<u>_</u> k	2_	B

Table C — Common diphthongs in the tachygraphic system.

#### Consonants

Table D lists the 19 French consonants with their IPA symbols. This table excludes semi-vowels since in the system they are used only as part of the diphthongs from table B.

	Lal	oial	Der	ntal	Pala alve	ato- olar	Palatal	Ve	lar	Uvular
Nasal	r	n	r	1			'n			
Plosive	р	b	t	d				k	g	
Fricative	f	v	s	z	J	3				
Approximant			I				j			R

Table D — Consonants in the French language.

In tables E and F we show the equivalents of each consonant in the Thévenot system, including their alphabetic representation and the tachygraphic symbols used to render them.

	Lal	oial	Der	ntal	Pala alve		Palatal	Ve	lar	Uvular
Nasal	r	n	r	7			gn			
Plosive	р	b	t	d				k	gu	
Fricative	f	v	s	z	ch	j				
							?			r
Approximant			1							

Table E — Consonants in the tachygraphic system.

As we can see in table E, Patey does not provide a representation for the approximant palatal /j/. As we will see, our mysterious annotator does not use that symbol but a different one of unknown origin. We chose the letter "y" to refer to this symbol. Patey also lists the "x" among the consonants, however that corresponds to the IPA /ks/, so it has no place in table E.

Table F lists the symbols for the various consonants. It is easy to notice how consonants from the same group are similar in shape. For instance, the labials are all horizontal, /p/ is like /b/ but longer, /ʒ/ is similar to /ʃ/ but smaller, the dentals are all diagonal lines.

	Labial		Dental		Palato-alveolar		Palatal	Velar		Uvular
Nasal	<u></u>		2				L			
Plosive	_	_	7							
Fricative	<u>_</u>			_						
						1				
Approximant				1_						

Table F − Consonants symbols in the tachygraphic system.

### Syllables

In the tachygraphic system, every consonant and vowel has a starting shape, and they combine together to form new shapes representing syllables. Including the "x" in the consonants (as Patey does), there is a 17 by 18 matrix of possible characters, for a grand total of 306. To these we have to add about 60 special characters, and of course there can also be ligatures. Usually a syllable starts with the shape of the consonant and ends with the shape of the vowel, or part of it.

The vertical alignment is especially important, as the position of a letter above or below the baseline can change the corresponding phonetic value. This explains why most notes in the Odyssey shorthand are underlined, the line being key to the transcription. In a future version of this document we will provide a full table containing all the possible combinations. Meanwhile, please refer to figure 11 which shows the full *Paradygme tachéographique* found in the manual by Patey.

#### Special characters

The manual also provides special symbols for diphthongs and consonant sequences. Unfortunately we did not have time to prepare tables for those, so please refer to figures 12 and 13 which show the originals by Patey.

# , PARADIGME TACHÉOGRAPHIQUE.

-		1	7	1	-												
Ligne perpend.	e muet	a	an	ai'	ain	eu	eun	0	on	é	ż	ou	и	oui	wi	oi	oin
Ligne,	1, .,		ð	-t					, ==		k	0	<u>ن</u>	(ی	la.	k	&− 
В		,	70	ι	ъ	7	· @	,	7	1	ر .	4	9/	3	بع	4	-G
$P_{\perp}$	_	,	-0-	-,-	-	-		<del>,</del> , .	7	-4	-1	ا مـــا	ے.	3	_e		-6
M		c	٦	r	76	-	ಾ	- 9-	7			ے.	2	3	عب	ص	~6
$V_{-}$		<b>- 4</b>	٠,	<u> </u>	-6	<b>-</b> 4	-5	- <del></del>		. <b>%</b>	· ·	ون	٩	3	ا ت	igo	8
$F_{-}$	٠	٠.,	٠-,-	4		پ	ے۔	5	5	,		ا م	ے	9	_e		4
D		7	6	\ \	6	`\	. 3	,	,		,	0	9	8	\w	<b>%</b>	99
T		7	. 6			_/_	9	-\_		1	\	\ <u>`</u>	6	/9	\ <u></u>	>	<i>SS e</i>
Z	/	-	d	6	6	/	ø/	)	1	/	6	. 6	&	6	6	6	6
S	/	/	1			/	0	/	/	/	.1	6	6	(du	6	6	6
Gu	1.	)	1			1	1	1	1	1	1	6	6	ري ا	le	2	16
K	. ] .	J	1		6	į	ال				L	Ь	6	b	اما	6	- 69
$J_{\perp}$	ı	ı	ó	ĺ.	6	į	٠.	ſ	8	ſ	j,C	6	6	@	<i>a</i>	۵	8
Ch		1	8	ſ		ĺ	1	ſ			C	6	6	6	6	6	6
L	1	,	à	1	6	1	a	)	j	1	1	v	v	ત્રુ	L	16	8
R	0		•	2	2	6	ര	9.	2	١,	r	ro	ro	10y	ne l	~	Je Je
N		8	8	ž.	8	*	ኤ	3	8	2	٠ ي	۵	处	(وير	le	&	25
$G_{n}$	Å	8	8	1	1	Å	S	8	0	1	Å	1	1	ا يو	Le	1	وکړی
X	2	2	1	1	9	1	0	1	)	1	2	6	6	6	6	2	9
				6	6			/	0	/							

Fig. 11 — "Paradygme tachéographique" by Patey.

					T - 1'-1
IA	<b>1</b>	U.A.	199	OUA	Nota. Les dipl tongues ci-cont
IAI	4	UAI	191	OUAI	s'écrivent tou
1EU	1	UEU	91	OUEU	jours par deux s gnes séparés, te
10	4	$\mathbf{vo}$	137	oué	les qu'elles so
ıÉ	M	υÉ	6	OUAN	tachygraphées a paradigme : il e
IOU	w.	UAN	ea .	ouon	donc inutile d'e tracer ici les c
IAN	10	UAIN	191		ractères repre
IAIN	4	UON	اف افع		sentatifs.
ION	6		c		

Fig. 11 — Diphthongs as listed by Patey.

1			0.1	-
PR	PL 🖰	PS 🗶	PT P	TM T
MR	ML 🗂	ms 🗸	FT 🕰	SM 🔑
FR	FL 🤄	<del></del>	MT   P	GM -
TR 🦙	TL h	N.º 1.	ST %	KM -
SR 6	SL 4	GZ /	KT 4	снм 📙
GR h	GL 1	N.º 2.	сит 🔨	LM +
KR h	KL h	KS V	LT 1	SH Z
CHR h	CHL 5		LS 🖌	sc A
LR m	Triples conson.	SPR ∠n	STR A	SKR A

Fig. 12 — Sequences of consonants as listed by Patey.

## An example of the encoding process

Now that we have explained how to write letters and consonants, and how to combine them, we can try to encode a simple text to show how it works. Let's try with this:

Voilà la tachygraphie

First we divide the words into syllables. There are seven:

Voi là la ta chy gra phie

Now we have to identify the individual sounds that make up the syllables:

V-oi l-a l-a t-a k-i g-r-a f-i

Please note the following:

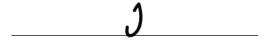
- 1) "Là" and "la" have the same encoding because they represent the same sound
- 2) "Chy" will not be encoded as /ʃi/ because (unusually for a French word) it is pronounced /ki/
- 3) "Gr" is composed of two consonants (/gʁ/), so we will have to look at figure 12 for its symbol.
- 4) "Phie" is rendered as "fi" because "ph" is pronounced /f/ and the last "e" is mute.

Now let's start the translation. First of all, we draw the baseline:

Without a baseline we risk confusing characters such as "kai" and "ki", or "tain" and "tu". It is crucial if we want the shorthand to be decodable at a later time. Now we go to figure (the Paradygme tachygraphique) and start looking for the symbols. First we go to row "V" and column "oi", and we find this character:



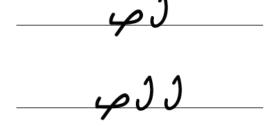
Then we go to row "L" and column "a" and we find this one:



We put the two together:



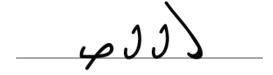
Now we add the other "la":



Now we need a "ta". In the *Paradygme* at row "T" and column "a" we find:



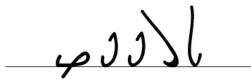
So now the sentence becomes:



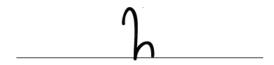
Now we need a "ki". Back to the table, row "K", column "i":



Here is the updated sentence:



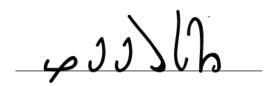
Then we look at figure 12 (the table with sequences of consonants) to find the character for "gr":



But it is not our syllable, we need to turn the "r" into a "ra". So we go back to the main table and look at row "R", column "a". To make the "r" into a "ra" we just have to add a little curl:



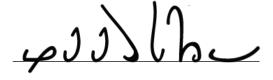
And here is the sentence:



Just one more syllable and we are finished. Row "F", column "i":



We are done, here is the final word:



Voilà la tachygraphie!

## Our method of transcription

First of all, it is important to understand that most annotations are closely linked to the Greek text. It would be very difficult to transcribe the shorthand without knowing the context it is referring to. This is compounded by the fact that some of the annotations do not have a baseline, and without a baseline a character can easily be misread for another. To make a correct translation, we had to first know and understand the Greek text and its French translation.

So as a first step we looked for a mid-19<sup>th</sup> Century French translation of the *Odyssey*. We hoped that one of these editions could use the same wording as our mysterious author. We settled for the 1854 Hachette edition of Book XI, translated by Édouard Sommer.<sup>23</sup> It proved to be very useful because it contains an extensive commentary (the *argument analitique*) that translates the verses word by word. Sommer translated all the *Odyssey*, book by book, starting in 1848.

We also initially used the Édouard Bareste translation published by Lavigne in 1842,<sup>24</sup> however since it is less faithful to the original text we kept it mostly as a backup. When in doubt we looked at two more 19th Century translations: the one by Leconte de Lisle, published in 1893,<sup>25</sup> and the one by Ulysse de Séguier, released in 1896.<sup>26</sup> We also consulted an English translation, the one by Samuel Butler published in 1898.<sup>27</sup>

To precisely identify the meaning of the Greek words, apart from the *argument analitique* by Sommer we also made use of the Greek Word Study Tool that is available on the Perseus Digital Library website.<sup>28</sup> It was exceptionally useful for translating words that we could not understand. To look for possible French matches, we searched through the *corpora* provided by the *Centre National de Ressources Textuelles et Lexicales (CNRTL)*, especially the *Trésor de la Langue Française informatique (TLFi)*.<sup>29</sup>

[In a future version of this document we will here provide an example of our decoding process.]

## **Analysis of Page A**

On Page A we can see about 30 different annotations. Here is the full Greek text with underlined words. We have named every instance of underlined text with letters from A to Z. As we will see, every handwritten note on the side of the Greek text refers to one of these underlined sentences. We decided to name the annotations sequentially using lowercase letters.

ὃν <u>γόνον abc έξαγόρευεν έγω δ' έρέεινον ἁπάσας.</u> ἔνθ' ἢ τοι πρώτην Τυρω ἴδον <u>εὐπατέρειαν d</u> , ἣ φάτο Σαλμωνῆος ἀμύμονος <u>ἔκγονος e</u> εἶναι, φῆ δὲ Κρηθῆος γυνὴ ἔμμεναι <u>αἰολίδαο f</u> ἣ ποταμοῦ ἡράσσατ' <u>ἐνιπῆος g</u> θείοιο,	235
ος πολύ κάλλιστος ποταμῶν ἐπὶ γαῖαν ἵησι, καί ρ΄ ἐπ΄ Ἐνιπῆος <u>πωλέσκετο</u> καλὰ ρέεθρα. <u>Τῷ δ΄ ἄρα εἰσάμενος γαιήοχος ἐννοσίγαιος</u> ἐν <u>προχοῆς ποταμοῦ παρελέξατο δινήεντος πορφύρεον δ΄ ἄρα κῦμα περιστάθη ο ὔρεϊ ἶσον, </u>	240
κυρτωθέν, κρύψεν <sup>m</sup> δὲ θεόν θνητήν τε γυναῖκα <sup>n</sup> . Λῦσε δὲ παρθενίην ζώνην, κατὰ δ' ὕπνον ἔχευεν. Αὐτὰρ ἐπεί ῥ' ἐτέλεσσε θεὸς <u>φιλοτήσια ἔργα</u> , <sup>o</sup> ἔν τ' ἄρα οἱ φῦ χειρί, <sup>p</sup> ἔπος τ' ἔφατ' ἔκ τ' ὀνόμαζε·	245
Χαῖρε, γύναι, φιλότητι· περιπλομένου δ' ἐνιαυτοῦ <sup>q</sup> τέξεις ἀγλαὰ τέκνα, ἐπεὶ οὐκ ἀποφώλιοι <sup>r</sup> εὐναὶ ἀθανάτων· <u>σὰ δὲ τοὰς κομέειν, ἀτιταλλέμεναί τε<sup>s</sup> νῦν δ' ἔρχευ πρὸς δῶμα, καὶ ἴσχεο, μηδ' ὀνομήνῃς<sup>t</sup> αὐτὰρ ἐγώ τοί εἰμι ποσειδάων ἐνοσίχθων.</u>	250
"Ως εἰπὼν ὑπὸ πόντον ἐδύσετο κυμαίνοντα. ἡ δ' ὑποκυσαμένη" πελίην τέκε καὶ νηλῆα, τὼ κρατερὼ θεράποντε διὸς μεγάλοιο γενέσθην ἀμφοτέρω· πελίης μὲν ἐν εὐρυχόρῳ Ἰαωλκῷ ναῖε πολύρρηνος¹, ὁ δ' ἄρ' ἐν πύλῳ ἠμαθόεντι".	255
τοὺς δ' ἑτέρους κρηθῆι τέκεν βασίλεια γυναικῶν, αἴσονά <sup>ν</sup> τ' ἠδὲ φέρητ <sup>ν</sup> ἀμυθάονά θ' ἱππιοχάρμην. τὴν δὲ μετ' ἀντιόπην <sup>χ</sup> ἴδον, ἀσωποῖο θύγατρα, ἣ δὴ καὶ διὸς εὔχετ' ἐν ἀγκοίνῃσιν ἰαῦσαι <sup>γ</sup> , καί ρ' ἔτεκεν δύο παῖδ', ἀμφίονά τε ζῆθόν τε, οἳ πρῶτοι θήβης ἕδος ἕκτισαν ἑπταπύλοιο,	260

## The trouble with yóvov

Ulysses has arrived at the city of the Cimmerians and is meeting the shadows of the dead. First he meets Elpenor, then Tyresias, and then his own mother Anticlea. Then "the wives and daughters of all the most famous men" surround him:

Αἱ δὲ προμνηστῖναι ἐπήισαν, ἠδὲ ἑκάστη ὂν γόνον ἐξαγόρευεν· ἐγὼ δ' ἐρέεινον ἁπάσας.

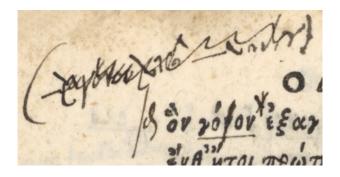
So they came up one after the other, and each one as I questioned her told me her race.



Fig. 14 - yóvov

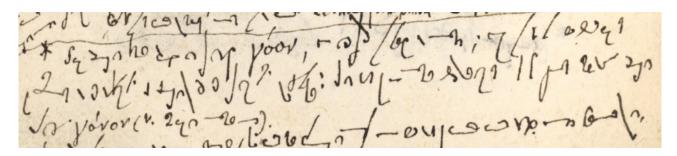
The noun  $\gamma \acute{o}vov$  (gonon) generally means "child", but in this context it means "race" or "lineage". The sentence " $\dot{\eta} \delta \dot{\varepsilon} \ \dot{\varepsilon} \kappa \acute{a}\sigma\tau \eta \ \dot{\varepsilon} \xi a \gamma \acute{o}\rho \varepsilon u \varepsilon v \ \ddot{o}v \ \gamma \acute{o}vov$ " can thus be translated as "each one of them told me her race". As you can see in figure 14, the author has cancelled the central v to make the word  $\gamma \acute{o}v$  (goon). This new word is still a noun but it has a different meaning: "weeping".

The author has also added an asterisk after the word, and a shorthand note on the left side of the text. The note is difficult to read because it has been cancelled (the author went as far as to write "non" in shorthand right below it), but we were still able to make out a few words.



Note "a" — (K ri yóvov ti l ju p di r sa ra s) / non

The first words looks like cri, which is the French noun for "weeping". Then there is a word we are not able to read (Ti-L-Ju) and finally  $peut \, dir \, sa \, race$ , meaning "can say her race". The author seems to have confused the words  $\gamma \acute{o}vov$  with  $\gamma \acute{o}ov$ , and deems it important enough to write a long footer note about it, linked to  $\gamma \acute{o}vov$  through the asterisk. This is one of the longest notes on the page, and quite difficult to read due to the lack of a baseline.



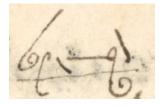
Note "b" — Ja vai da bo r kr u da voi r ch r ché γόον, m ra kon ta sai su jai d p gré; mai cè ici un nou ve l ai xan p l d la d s crai s é mo k r t dan lai ka rai x dai [?] si ku: ka r isi kai b plu na tu re l k j kon ple lui dis l mo r sa ra s γόνον (ν. 2 fè r plu ba)

Here the author seems to be explaining how he got the word wrong. He says:

J'avais d'abord cru d'avoir cherché γόον, me raconta c'est sujet de [pegré]; mais c'est ici un nouvel exemple de la [d s crai s é] un mot que [r t] dans les caresses des [?]: car ici qu'est beau plus naturel que je complais lui dis le mot [r] sa race γόνον (v. 2 [fè r] plus bas)

I had initially believed to have searched γόον, it told me this is subject of [...]; but it is here a new example of the [...] a word that [...] in the caresses of [...]: because here it is much more natural that I that I liked him to say the word her race γόνον (ν. 2 [...] below) [?]

We think the person who wrote the note initially read the word as  $\gamma \acute{o}ov$  (weeping), but then understood that it means  $\gamma \acute{o}vov$  (race). On the right side of the page, we see another note.



Note "c" — Su jai d p lain ta

This note seems to read "sujet de". Unfortunately we don't understand what it is referring to.

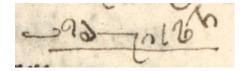
## **Ulysses meets Tyro**

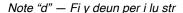
In the next few verses Ulysses describe his meeting with Tyro, daughter of Salmoneus and married to his brother Cretheus. Salmoneus and Cretheus were sons of Aeolus, god of the winds.

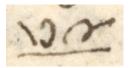
ἔνθ' ἦ τοι πρώτην Τυρὼ ἴδον εὐπατέρειαν<sup>d</sup>, ἢ φάτο Σαλμωνῆος ἀμύμονος ἔκγονος<sup>e</sup> εἶναι, φῆ δὲ Κρηθῆος γυνὴ ἔμμεναι αἰολίδαο<sup>f</sup>.

The first I saw was Tyro, daughter of a noble sire, She was daughter of Salmoneus the irreproachable and wife of Cretheus, the son of Aeolus.

The first underlined word is  $\varepsilon \dot{\iota} \pi \alpha \tau \dot{\varepsilon} \rho \varepsilon \iota \alpha v$  (eupatereian), meaning "daughter of a noble sire". The second one is  $\dot{\varepsilon} \kappa \gamma o v o \varsigma$  (ekgonos), meaning "born of". The third one is  $\alpha \dot{\iota} o \lambda \dot{\iota} \delta \alpha o$  (aiolidao), meaning "son of Aeolus". Three shorthand note are placed on the right side of the page, each corresponding to one of the underlined Greek words.







Note "e" - D la ras



Note "f" — E o I

The first note clearly means "fille d'un père illustre", which is the french translation of the word εὐπατέρειαν. The second note means "de la race", referring to ἕκγονος. The third one is just Éole, the French name for Aeolus.

#### Tyro and Enipeus

Ulysses now tells us that Tyro, while married to Cretheus, was in love with the river god Enipeus.

ἡ ποταμοῦ ἠράσσατ' ἐνιπῆος θείοιο, ὃς πολὺ κάλλιστος ποταμῶν ἐπὶ γαῖαν ἵησι, καί ῥ' ἐπ' Ἐνιπῆος πωλέσκετο καλὰ ῥέεθρα.

She fell in love with the river Enipeus, who is the most beautiful river in the whole world. She often walked by his limpid waves.

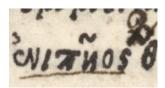
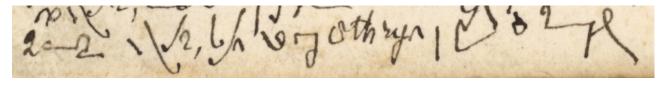


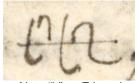
Fig. 15 — ἐνιπῆος

Here we see two more underlined words:  $\dot{\epsilon}v\iota \pi \hat{\eta} \circ \varsigma$  (Enipēos), name of the river god, and  $\pi\omega\lambda\dot{\epsilon}\sigma\kappa\epsilon\tau o$  (pōlesketo), imperfect indicative of verb pōleomai, meaning "to go up and down". As we see in figure 15, the word  $\dot{\epsilon}v\iota\pi\hat{\eta}\circ\varsigma$  has a superscript number 2 next to it, sending us to the very bottom of the page.



Note "g" - F leu v d tai sa li ki sor du mon Othrys e s jai t dan l pi né

Note "g" clearly reads "fleuve de Thessalie qui sort du mont Othrys et se jète dans le Pinée". This refers to the fact that river Enipeus, in present times called Ενιπέας (Enipeas), springs from mount Othrys in Thessaly and ultimately flows into river Pineios.



Note "h" — E I e rai

The word  $\pi\omega\lambda\dot{\epsilon}\sigma\kappa\epsilon\tau o$  also has a shorthand note close to it on the right side of the Greek text. It refers to the word  $\pi\omega\lambda\dot{\epsilon}\sigma\kappa\epsilon\tau o$ , meaning "she walked by". In note "h" we read "Elle errait", meaning "she walked around".

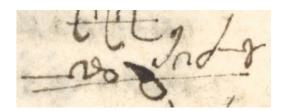
## **Tyro meets Neptune**

Then Ulysses tells us that Neptune disguised himself as Enipeus and laid with Tyro at the mouth of the river. This passage is quite complex and it contains six different notes.

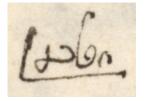
Τῷ δ' ἄρα εἰσάμενος γαιήοχος ἐννοσίγαιος ἐν προχοῆς ποταμοῦ παρελέξατο δινήεντος πορφύρεον δ' ἄρα κῦμα περιστάθη, οὔρε ἶσον, κυρτωθέν, κρύψεν δὲ θεὸν θνητήν τε γυναῖκα.

The one who makes the earth tremble, disguised as him, lay with her at the mouth of the whirling river, and a huge blue wave, similar to a mountain, arched itself over them to hide both woman and god

Here we have four notes: the first one (note "i") refers to the sentence  $T\hat{\psi}$   $\delta'$   $\check{a}\rho\alpha$   $\varepsilon i\sigma \acute{a}\mu\varepsilon vo\varsigma$  ( $t\bar{o}$  d' ara eisamenos), meaning "he had made himself similar to".

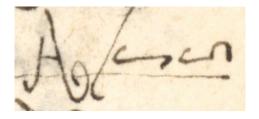


Note "i" — P ran dan don xa re san b lan s

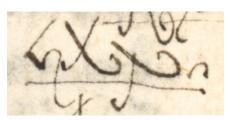


Note "j" — An bou chu r

In note "i" we read "prendant donc sa ressemblence", which is the French for "taking his resemblance". Note "j" refers to the word  $\pi\rhoo\chi o\hat{\eta}\varsigma$  (prokhoēs), meaning "mouth". The shorthand note reads "embouchure", which is the mouth of a river.



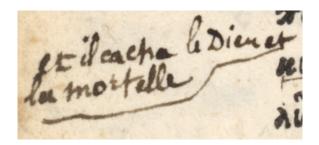
Note "k" — E b du s fleu v r



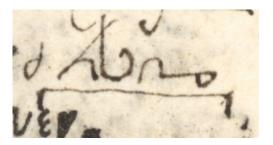
Note "I" — S d rai sa ti co ti r

The next two notes are more difficult to translate. Note "k" refers to the word παρελέξατο (parelexato), acrist indicative form of verb παραλέγω (paralegō), meaning "to lay". Note "l" refers to the verb περιστάθη (peristathē), acrist indicative passive of περιίστημι (periistēmi), meaning "encircle". We have not yet been able to translate them.

Moving on, we see a French note reading "et il cache le Dieu et la mortelle", which means "and it covers the God and the mortal". This note is close to the word  $\kappa \nu \rho \tau \omega \theta \dot{\epsilon} v$  (kurtōthen), from verb  $\kappa \nu \rho \tau \dot{\delta} \omega$  (kurtoō), meaning "arching itself".



Note "m" - Et il cacha le Dieu et la mortelle



Note "n" — An s la cu r ban

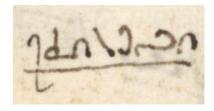
However, it seems instead to be referring to the next word (also underlined),  $\kappa\rho\dot{\nu}\psi\varepsilon\nu$  (krupsen), from verb  $\kappa\rho\dot{\nu}\pi\tau\omega$  (kruptō), meaning "to cover". The next note is in shorthand, we were not able to translate it but it seems to contain the French word "courbant" ("curving"), and by exclusion it has to refer to the Greek  $\kappa\nu\rho\tau\omega\theta\dot{\varepsilon}\nu$  ("arching itself").

## Tyro and Neptune make love

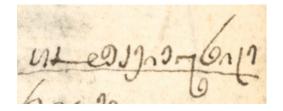
In the next three verses Neptune makes love to Tyro and then starts talking to her.

Λῦσε δὲ παρθενίην ζώνην, κατὰ δ' ὕπνον ἔχευεν. Αὐτὰρ ἐπεί ρ' ἐτέλεσσε θεὸς φιλοτήσια ἔργαο, ἔν τ' ἄρα οἱ φῦ χειρίρ, ἔπος τ' ἔφατ' ἔκ τ' ὀνόμαζε·

And he loosed her virgin girdle and laid her in a deep slumber. When the God had accomplished the deed of love, he took her hand in his own and said,



Note "o" — Lai eu v r d la mu r



Note "p" — I s i on pui y la di r la main su r k l

Note "o" is quite straightforward, reading "les oeuvres de l'amour", which means "the works of love". Note "p" is more complicated, it seems to translates the Greek sentence about the hand (la main), but we were not able to understand it fully.

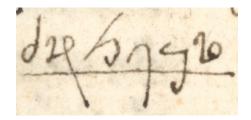
## **Neptune speaks to Tyro**

After making love to her, Neptune speaks to Tyro, telling her that she will get pregnant of him and have children. He tells her to take care of them and keep their father's identity a secret.

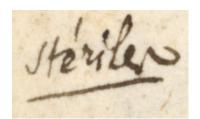
Χαῖρε, γύναι, φιλότητι· περιπλομένου δ' ένιαυτοῦ<sup>q</sup> τέξεις ἀγλαὰ τέκνα, ἐπεὶ οὐκ ἀποφώλιοι<sup>r</sup> εὐναὶ ἀθανάτων· σὺ δὲ τοὺς κομέειν, ἀτιταλλέμεναί τε<sup>s</sup> νῦν δ' ἔρχευ πρὸς δῶμα, καὶ ἴσχεο, μηδ' ὀνομήνῃς<sup>t</sup> αὐτὰρ ἐγώ τοί εἰμι ποσειδάων ἐνοσίχθων.

"Tyro, rejoice in all good will; when a year has passed, you will bear fine twins, since not vain are the embraces of the gods. Make sure to nourish and rear them well. Now go home, keep restraint and do not tell my name, as I am Neptune, the earth-shaker"

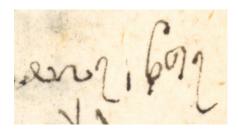
In this passage there are four notes. Note "q" refers to the sentence  $\pi \epsilon \rho \iota \pi \lambda o \mu \dot{\epsilon} v o u \delta' \dot{\epsilon} v \iota a u \tau o \hat{u}$  (periplomenou d'eniautou), meaning "when a year has passed". Note "r" is about the word  $\dot{\alpha} \pi o \phi \dot{\omega} \lambda \iota o \iota$  (apophōlioi), meaning "vain" and referring to the embraces of the gods.



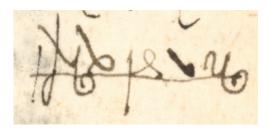
Note "q" — Kan la n se ra re vo lu



Note "r" - Stérile



Note "s" — Nu ri lai é choi y lai



Note "t" — É kon ti en toi é n di ri en

Note "s" reads "nourris-les et choye-les", meaning exactly "nourish them and rear them". Note "t" states "et contien-toi et ne dis rien", which means "and restrain yourself and do not say anything". These notes provide precise French translations of the corresponding Greek sentences.

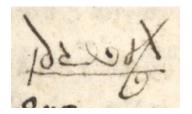
## Tyro's children

After a year, Tyro gives birth to two children: Pelias and Neleus. The first resides in lolcus where he breeds sheep, the second lives in the sandy Pylos.

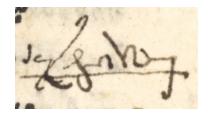
"Ως εἰπὼν ὑπὸ πόντον ἐδύσετο κυμαίνοντα. ἡ δ' ὑποκυσαμένη πελίην τέκε καὶ νηλῆα, τὼ κρατερὼ θεράποντε διὸς μεγάλοιο γενέσθην ἀμφοτέρω· πελίης μὲν ἐν εὐρυχόρῳ Ἰαωλκῷ ναῖε πολύρρηνος, ὁ δ' ἄρ' ἐν πύλῳ ἡμαθόεντι. τοὺς δ' ἑτέρους κρηθῆι τέκεν βασίλεια γυναικῶν, αἴσονά τ' ἠδὲ φέρητ' ἀμυθάονά θ' ὑπιοχάρμην.

Having said that, he dived under the sea, and she gave birth to Pelias and Neleus, who both served Jupiter with all their might. Pelias lived in Iolcus breeding sheep, the other one lived in the sandy Pylos. The rest of her children were by Cretheus: Aeson, Pheres, and Amythaon, who fights from a chariot.

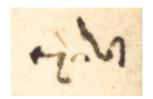
Here we see five more notes: note "u" refers to  $\dot{\upsilon}$ ποκυσαμένη πελίην (hupokusamenē Peliēn), meaning "she gave birth to Pelias"; note "v" refers to the word πολύρρηνος (polurrēnos), "rich in sheep"; note "w" refers to  $\dot{\eta}$ μαθόεντι (ēmathoenti), meaning "sandy"; note "x" refers to  $\dot{\alpha}$ ίσονά (aisona), accusative form of the Greek name Aίσων (Aisōn), Aeson in English; finally, note "y" is about the noun  $\phi$ έρητ (pherēt'), dative form of the name  $\Phi$ έρης (Pherēs).



Note "u" — É tan d v nu an san t

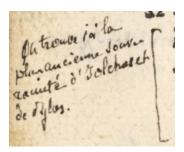


Note "v" — A vai sa no b l t ru peu



Note "w" – Mai r ti ré

Note "u" reads "étant devenue enceinte", which is French for "having become pregnant". Note "v" says "avec sa noble troupeau", meaning "with his noble sheep". Note "w" seems to read "mère", meaning "sea", but we are unsure about the second word. For now we stopped here with translations from page A. Before moving on to page B, we have to report the presence of another annotation on the left side of the Greek text, seemingly referring to the entire paragraph. To this note we gave letter "z".



Note "z" — On trouve [i a] la plan ancienne [jouv?] [racinté?] d'Iolchos et de Pylos.

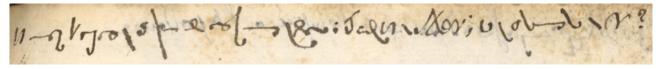
Apparently the annotator is saying that he looked at an ancient map *(plan ancienne)* and found the cities of lolcus and Pylos, however we cannot understand some words.

## **Analysis of Page B**

On Page A we can see about 30 different annotations. Here is the full Greek text with underlined words. We have named every instance of underlined text with letters from A to Z. Every handwritten note on the side of the Greek text seems to refer to one of the underlined sentences. We decided to name the annotations sequentially using lowercase letters.

πύργωσάν τ', έπεὶ οὐ μὲν ἀπύργωτόν γ' ἐδύναντο ναιέμεν εὐρύχορον θήβην, κρατερώ περ ἐόντε. τὴν δὲ μετ' ἀλκμήνην ἴδον, ἀμφιτρύωνος ἄκοιτιν, ἡ ῥ' ἡρακλῆα θρασυμέμνονα θυμολέοντα	265
γείνατ' ἐν <u>ἀγκοίνῃσι</u> α διὸς μεγάλοιο μιγεῖσα·	
καὶ μεγάρην, κρείοντος ὑπερθύμοιο θύγατρα,	
τὴν ἔχεν ἀμφιτρύωνος υἱὸς μένος αἰὲν ἀτειρής.	270
<u>μητέρα τ' οἰδιπόδαο</u> ἴδον, καλὴν <u>ἐπικάστην</u> ,¢	
ἣ μέγα ἔργον ἔρεξεν <u>ἀϊδρείησι νόοιο</u> σ	
<u>γημαμένη</u> ε ὧ υῗί∙ ὁ δ' ὃν πατέρ' ἐξεναρίξας	
γῆμεν· <u>ἄφαρ δ' ἀνάπυστα θεοὶ θέσαν ἀνθρώποισιν</u> .f	
άλλ' ὁ μὲν ἐν θήβῃ <u>πολυηράτω</u> ց ἄλγεα πάσχων	275
καδμείων ἤνασσε θεῶν <u>ὀλοὰς διὰ βουλάς</u> . h	
ή δ' ἔβη εἰς ἀΐδαο <u>πυλάρταο</u> κρατεροῖο,	
άψαμένη βρόχον αίπὺν ἀφ' ὑψηλοῖο μελάθρου	
<u>ὧ ἄχεϊ σχομένη · </u> τῷ δ' ἄλγεα κάλλιπ' ὀπίσσω	
πολλὰ μάλ', <u>ὄσσα τε μητρὸς ἐρινύες ἐκτελέουσι</u> .k	280
καὶ <u>χλῶριν</u> ' εἶδον περικαλλέα, τήν ποτε νηλεὺς	
γῆμεν <u>ἑὸν διὰ κάλλος, ἐπεὶ πόρε μυρία ἕδνα, <sup>m</sup></u>	
<u>ὁπλοτάτην</u> κούρην ἀμφίονος ἰασίδαο,	
ός ποτ' ἐν ὀρχομενῷ <u>μινυηΐω</u> ο ἶφι ἄνασσεν·	
ή δὲ πύλου βασίλευε, <u>τέκεν<sup>ρ</sup> δ</u> έ οἱ ἀγλαὰ τέκνα,	285
νέστορά τε χρομίον τε περικλύμενόν τ' <u>ἀγέρωχον</u> . q	
<u>τοῖσι δ' ἐπ' ἰφθίμην πηρὼ τέκε,</u> θαῦμα βροτοῖσι,	
τὴν πάντες μνώοντο περικτίται· οὐδέ τι νηλεὺς	
τῷ ἐδίδου, ὃς μὴ ἕλικας βόας εὐρυμετώπους	
έκ φυλάκης έλάσειε βίης ἰφικληείης	290
άργαλέας. τὰς δ' οἶος ὑπέσχετο μάντις ἀμύμων	
έξελάαν· χαλεπή δὲ θεοῦ κατὰ μοῖρα πέδησε	
δεσμοί τ' ἀργαλέοι καὶ βουκόλοι ἀγροιῶται.	

An interesting feature of page B are a shorthand question at the very top of the page. Another is that the annotator underlined every word in the last five verses and wrote long shorthand notes next to them, as if they were particularly important or (most likely) difficult to translate. We have not yet completed a full transcription of the shorthand annotations found in page B. We provide an analysis of four of them. We will update this document with more information as soon as we are able to complete more transcriptions.



The question – "Ici parai ks mo man d jan t v n mankai pa d nmi: sa vné ici d sasituiras; ou dai lan tipa ti d ras?"

The question at the top of the page reads:

Ici paraît que ce mot [man d jan t v] ne manquer pas d'ennemi: ce a venait ici de [sasitui] race; ou de l'antipathie de race?

#### The English translation is:

Here it seemed that this word [...] not lack enemies: did that come here from [...] or from antipathy of race?

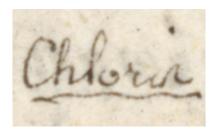
The annotator seems to be writing about a word. We do not know which one yet, but in any case it does not seem that this question is of a personal nature. Apart from the question, on page B we focused our attention on the following passage:

καὶ χλῶριν εἶδον περικαλλέα, τήν ποτε νηλεὺς γῆμεν ἐὸν διὰ κάλλος, ἐπεὶ πόρε μυρία ἔδνα,<sup>m</sup> ὁπλοτάτην κούρην ἀμφίονος ἰασίδαο, ὅς ποτ' ἐν ὀρχομενῷ μινυείῳ ἔφι ἄνασσεν ἡ δὲ πύλου βασίλευε, τέκεν δέ οἱ ἀγλαὰ τέκνα, νέστορά τε χρόνιον τε περικλύμενόν τ' ἀγέρωχον φ

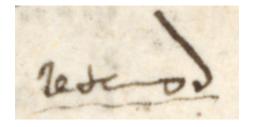
#### which is translated in French as:

Je vois aussi la belle Chloris, que jadis Nélée prit pour épouse à cause de sa beauté, et qu'il obtint en échange d'immenses présents. Chloris était la plus jeune des filles d'Amphion, issu d'Iasus, et qui régna puissamment dans Orchomène, ville de Minias. Cette reine de Pylos donna au roi Nélée trois fils célèbres, Nestor, Chromion, et le magnanime Périclymène.

Here we see six annotations. Note "I" is in French, it is close to the Greek word  $\chi\lambda\hat{\omega}\rho\nu l$  ( $khl\bar{o}rin$ ) and just says "Chloris".



Note "I" — Chloris



Note "m" - ? lan fan ta

Note "m" seems to refer to the underlined verb  $\tau \acute{\epsilon} \kappa \epsilon \nu$ , which is on the same line and can be rendered in French as *enfanta*, "gave birth". We immediately recognized the last two letters of the word as the syllables *fan-ta*. We then identified the first syllable as an *I* and the second as an *an*, representing the French phonetic value for *en*. The word can thus be transcribed as *l'enfanta*, meaning "she gave birth to him".

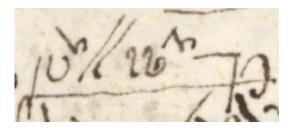
We then moved on to the following passage:

τοῖσι δ' ἐπ' ἰφθίμην πηρώ' τέκε, θαῦμα βροτοῖσι, τὴν πάντες μνώοντο περικτίται. οὐδέ τι νηλεὺς τῷ ἐδίδου, ὂς μὴ ἔλικας βόας εὐρυμετώπους ἐκ φυλάκης ἐλάσειε βίης ἰφικληείης ἀργαλέας. τὰς δ' οἶος ὑπέσχετο μάντις ἀμύμων ἐξελάαν· χαλεπὴ δὲ θεοῦ κατὰ μοῖρα πέδησε δεσμοί τ' ἀργαλέοι καὶ βουκόλοι ἀγροιῶται.

which is translated in French as:

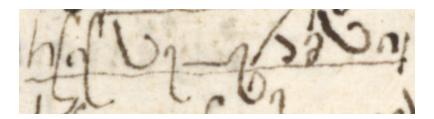
Chloris enfanta aussi l'illustre Péro, admirée par tous les hommes, et que les princes voisins désiraient épouser; ne consentit à l'accorder qu'à celui qui ramènerait des champs de Phylacé les génisses au large front du puissant Iphiclus. Ce projet était difficile à exécuter [...]

The Greek  $Toloi \delta' \dot{\epsilon}\pi' i\phi\theta i\mu\eta\nu \Pi\eta\rho\dot{\omega}$ , which is underlined, means "and besides these she gave birth to the noble Pero". The French translation is *Chloris enfanta aussi l'illustre Péro*. If we look at the tachygraphic notes, we see:



Note "r" — A u tr s si li lu str pe ro

Here we initially read "aussi l'illustre Pero". However [a u] should not be read as "au", so we are unsure about the first word. There is also a quirky "tr" which the author added above the line. Finally, we were able to fully translate note "s":



Note "s" — k r chai r chai tou lai prain s dan l an tou ra j

This note is on the same line as the underlined Greek sentence  $\tau \dot{\eta} v \pi \dot{\alpha} v \tau \epsilon \varsigma \mu v \dot{\omega} o v \tau o \pi \epsilon \rho \iota \kappa \tau \dot{\tau} \tau a \iota$ , meaning "whom all the neighboring princes wooed". The transcribed sentence reads "que recherchaient tous les princes dans l'entourage".

#### **Conclusions**

We were able to positively identify the shorthand system in use in Book 11 of the 1504 copy of the *Odyssey* owned by the University of Chicago Library. The shorthand closely follows the rules of the *tachygraphie* invented by Jean Coulon de Thévenot in 1776. We were able to transcribe most of the annotations on page A and some from page B. All the notes we translated are references to the Greek text, which the annotator was clearly studying.

Many annotations have yet to be studied. A few from page A, most from page B, and all those that are found on the remaining 20 pages of Book XI. We will keep transcribing the notes, looking for answers. We will update the document as new information is available.

While studying the text, we learned many things we did not know before entering the contest. We learned to read and write in a tachygraphic system in use in the 19<sup>th</sup> Century. We learned its history, its predecessors and successors. Why it was invented, how it was forgotten. We spent days and nights trying to solve difficult word puzzles. We read Greek, we wrote French. We rediscovered the beauty of the *Odyssey*. We approached the contest looking for an adventure, and we got it. It was a wonderful experience and we could not be more happy.

However, we cannot help but feel a bit disheartened that after going this far we still know next to nothing about the annotator. Who is he or she? We do not know. There are no personal references in the annotations, and in the few instances in which the author uses the first person it is only to explain why he or she committed a translation mistake. What about the shorthand? It was very popular at the beginning of the 19<sup>th</sup> Century, but certainly not in 1854. Where did the annotator learn the code? What is the motive for its use? These remain open questions.

#### The power of digital humanities

Winning the contest made us reflect on the importance of digital humanities. We got news of the challenge from a blog post published on *Language Log*. It was late evening in Italy. We had no access to libraries and did not even have a Greek dictionary at hand. We looked at the code and starting searching on the Internet: Google Books, Gallica, online dictionaries and *corpora*, all the resources we could think of. In three hours we had identified the code. In twelve we were submitting our report.

We think it is a statement to the power of digital humanities that we were able to solve the mystery in such a short amount of time. Just a few years ago it would not have been possible. The digitization efforts that are ongoing at cultural institutions around the world, and the tools that are being created around the data, allow us to answer questions we thought we thought unsolvable. Even a few mysteries. But just like any great mystery, when it begins to unfold new questions emerge.

#### The second mystery

Michael C. Lang, the collector who created the *Bibliotheca Homerica Langiana* and sponsor of the contest, has suggested that a second mystery is hidden in the book. This new question is: why did the annotator choose this particular book, a rare copy that was very valuable? Why not use a contemporary print, readily available and cheap, to study the text? Unfortunately we are not able to answer this question.

We can, however, analyze a few hypotheses about the annotator's identity and see if one fits. Maybe when we learn who he or she was we will understand the motive hidden behind the notes.

#### Hypothesis A — The annotator was a young student

In favor of this hypothesis is the fact that the annotator was undoubtedly studying the book. He wanted to understand it, so he took notes. He used the book without knowing how rare it was, so

he was probably studying alone. But then, why so few mistakes on the page? Why no personal notes? How did he learn a shorthand that had been invented more than sixty years before and superseded by new stenographic systems?

And how did he come to master it so well as to make almost no errors while using it? Finally, how could he know Greek so well? Frankly we think this hypothesis has so many flaws that in the absence of any contrary evidence we consider it highly implausible. The latest element we found to refute this hypothesis is the presence on the first page of Book XI of another handwritten date, 24 april 1854. The annotator managed to translate half of the book in just one day!

Hypothesis B — The annotator was a school teacher

If he was not a student, he might have been a teacher. We picture him as an old professor, who loved the Greek texts and did not mind scribbling on an old copy to prepare his lessons. He mastered both the Greek language and the shorthand he had learned in his youth, which he simply found faster or more comfortable than the Latin alphabet. This hypothesis looks better than the previous one, but it still does not explain why the teacher would write on such a rare and precious book.

Hypothesis C — The annotator was a professional translator

This is the hypothesis we currently find most fascinating. If the annotator was a professional translator, he would have known Greek perfectly, and his only aim in writing the notes would be the translation of the original text. He certainly would not bother writing about himself. The shorthand system could be easily mastered by a translator, who would also have reason to use it to keep his work private until the official publication.

## A final personal note by the author

While discussing the translator hypothesis with Miss Accetta on the day before publishing this report, something odd came to my mind. The main edition of the Odyssey we used as reference was translated by Édouard Sommer and published by Hachette book by book starting in 1848. While transcribing the shorthand, we had noticed how the annotations sometimes seemed to use the exact same wording as the "argument analitique" found in that edition.

The Sommer translation is very accurate and close to the text, just like our annotations. The other translations of the time (Bareste, Leconte de Lisle) look nothing like it. So it finally came to me: which year did Hachette publish book XI of the Odyssey? Which year did the annotator write his notes? The same year: 1854. What if Mr. Sommer were our mysterious annotator?

-Maybe not. And even if he were, what about the second mystery?

Let's find out.

Daniele Metilli

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