

La tradizione arabo-latina del sapere medico e l'umanistica digitale: alcuni casi di studio

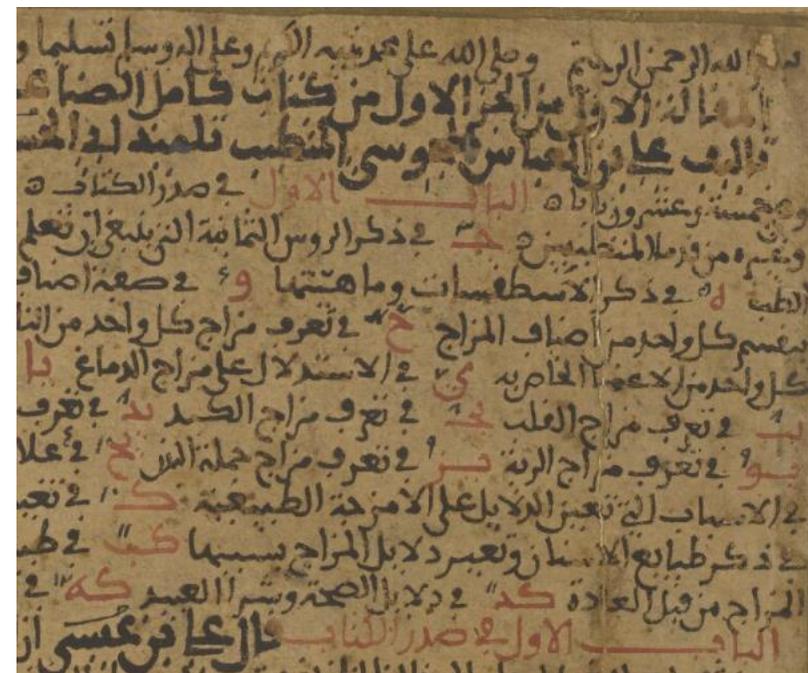
Seminario di Filosofia Medievale 2025

Padova, 22 gennaio 2025

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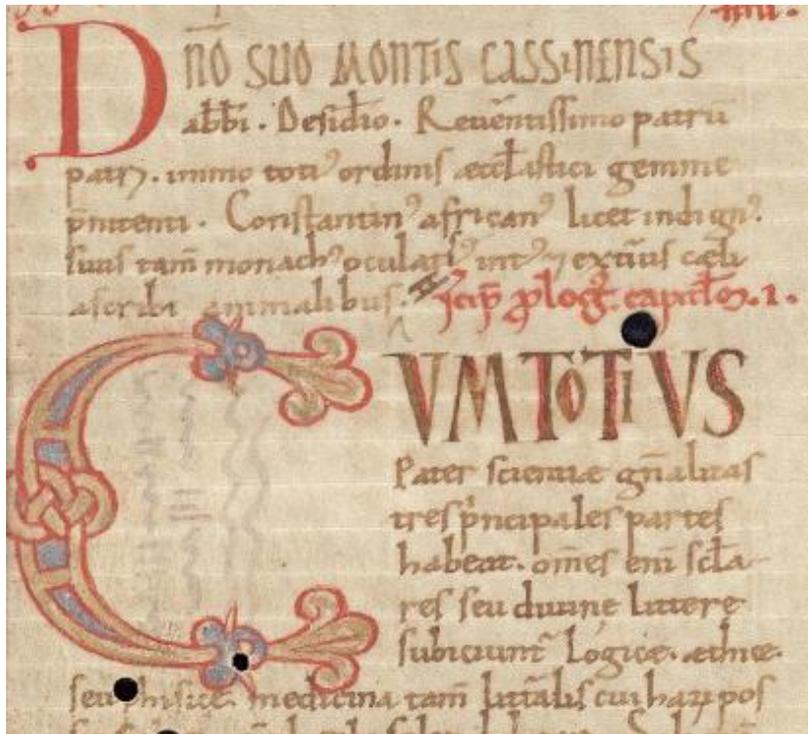
London, British Library, or. 6951, f. 2v

Al-Mağūsī



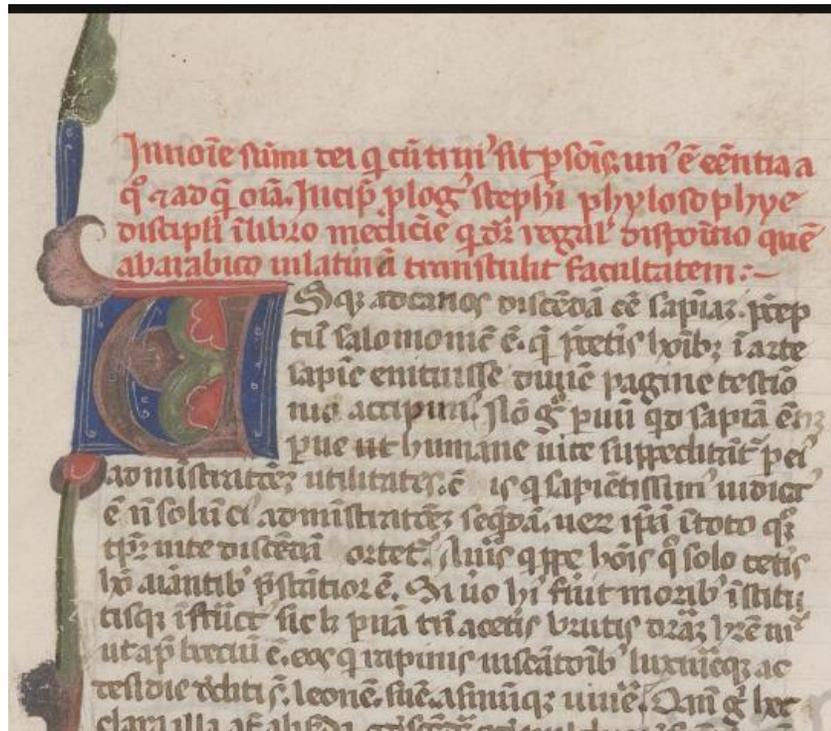
- Originario della provicinia Fārs (Ahwāz, Arraġān, Iṣfahān?)
- Allievo di Abū Māhir b. Mūsā b. Yūsuf b. Sayyār
- Dedicatario del *Kitāb al-Malakī* è ‘Aḍud al-Dawla
- A un certo momento presente in Baghdad, hospital *al-Badrī*
- MS Istanbul, Süleymaniye Kütüphanesi, Şehid Ali Paşa 2067 (datable to the 12th c.), f. 269r: opera conclusa nell’anno 367 H. = Agosto 977 / Agosto 978
- *Kitāb al-Malakī*: 20 libri, 10 teoria e 10 pratica

Costantino l'Africano



- Attivo a Montecassino nella seconda metà dell'XI secolo
- Patronato di Desiderio, élites longobarde e normanne
- Parte di un «team» di lavoro (cfr. Newton & Kwakell 2019)
- Epoca di più ampio rinnovamento del sapere medico latino (riscoperta di testi tardantichi latini + traduzione)
- Manoscritto idiografo (The Hague, KB, 73 J 7)
- Nuovi studi di Outi Kaltio sulla trasmissione manoscritta della *Pantegni*

Stefano di Antiochia



Città del vaticano, BAV, vat. lat. 2429

- Originario di Pisa, attivo ad Antiochia (patronato degli Altavilla?), forse legato agli ospedalieri di Gerusalemme negli anni Quaranta
- Traduzione del *Liber Regalis* completata entro il 1127
- Attivo anche in campo astronomico e filosofico
- Parziale conoscenza del greco (cfr. studi di Cronier sul *Breviarium medicaminum*)
- Tradizione manoscritta da riscoprire, ricezione da rivalutare

Verso l'edizione digitale

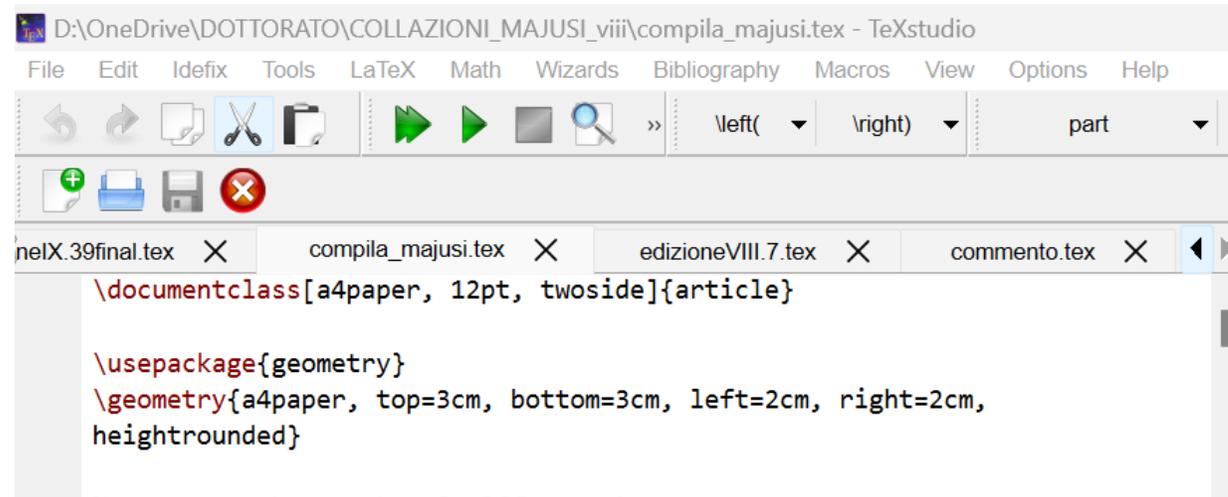
- Esigenza pratica: come arrivare a stampare un apparato critico complesso?
- Una prima risposta: Reledmac in LaTeX (tesi magistrale)

LaTeX

- LaTeX è un **programma di composizione tipografica** basata su Tex come motore
- È un sistema di composizione **asincrona**: introduzione del testo e sua composizione avvengono in due momenti diversi
- Uso di **marcatori**
- La conversione del file sorgente in un documento leggibile è svolta da un **motore**
- Si estendono le capacità di base con uso di **pacchetti** = insieme di istruzioni che permettono di svolgere alcune operazioni

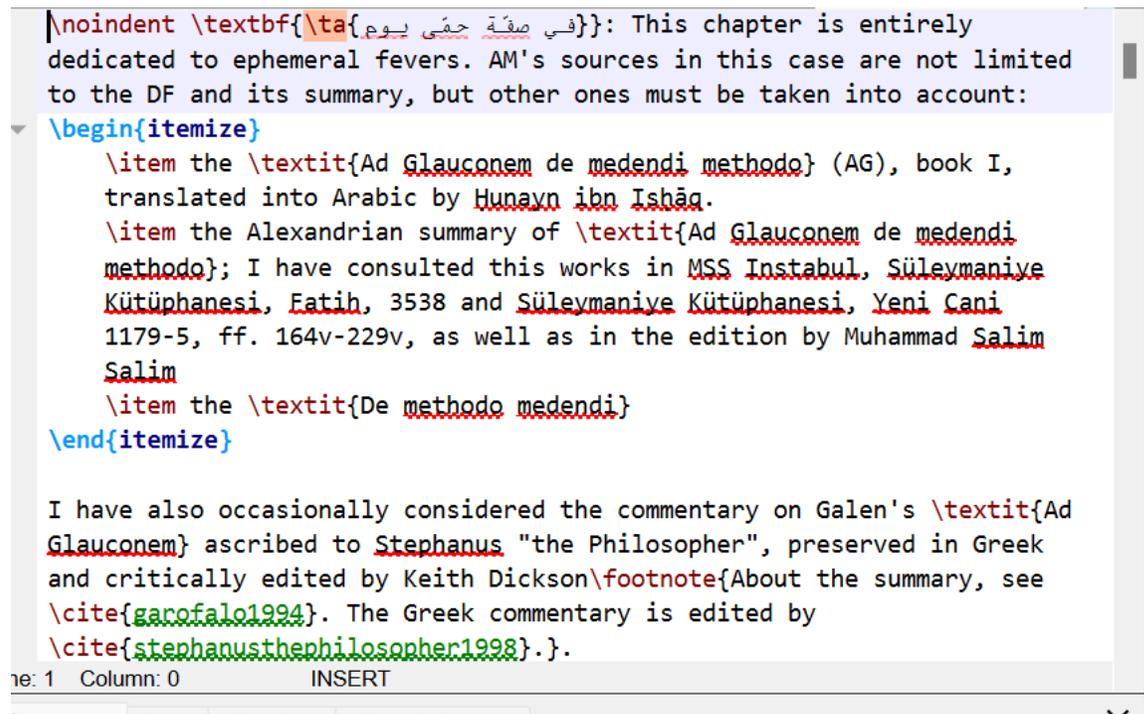
Una buona guida: http://www.lorenzopantieri.net/LaTeX_files/ArteLaTeX.pdf

LaTeX



```
D:\OneDrive\DOTTORATO\COLLAZIONI_MAJUSI_viii\compila_majusi.tex - TeXstudio
File Edit Idefix Tools LaTeX Math Wizards Bibliography Macros View Options Help
\documentclass[a4paper, 12pt, twoside]{article}

\usepackage{geometry}
\geometry{a4paper, top=3cm, bottom=3cm, left=2cm, right=2cm,
heightrounded}
```



```
\noindent \textbf{\ta{في صفة حمى يوم}}: This chapter is entirely
dedicated to ephemeral fevers. AM's sources in this case are not limited
to the DF and its summary, but other ones must be taken into account:
\begin{itemize}
\item the \textit{Ad Glauconem de medendi methodo} (AG), book I,
translated into Arabic by Hunayn ibn Ishāq.
\item the Alexandrian summary of \textit{Ad Glauconem de medendi
methodo}; I have consulted this works in MSS Instabul, Süleymaniye
Kütüphanesi, Fatih, 3538 and Süleymaniye Kütüphanesi, Yeni Cani
1179-5, ff. 164v-229v, as well as in the edition by Muhammad Salim
Salim
\item the \textit{De methodo medendi}
\end{itemize}

I have also occasionally considered the commentary on Galen's \textit{Ad
Glauconem} ascribed to Stephanus "the Philosopher", preserved in Greek
and critically edited by Keith Dickson\footnote{About the summary, see
\cite{garofalo1994}. The Greek commentary is edited by
\cite{stephanusthephilosopher1998}.}
```

Reledmac

- Reledmac è un **pacchetto** di LaTeX
- Permette di comporre edizioni critiche con testo a fronte, se combinato con **Reledpar**

Manuale di istruzioni con esempi:

<https://www.ctan.org/search?phrase=reledmac>

Esistono delle alternative? Certo! Per esempio **ekdosis**

(<https://www.ekdosis.org/>)

Reledmac

```
\begin{arab}[utf] \beginnumbering
\section*{VII}

\pstart[\setRL]\noindent 1 الباب \edtext{\ta{السابع}}{\Afootnote{
\ta{السادس} \myLR{ D} }} \pend

\pstart[\setRL]\noindent 2 \edtext{\ta{\edtext{\ta{في}}{\Afootnote{
\ta{في صفة} \myLR{ A E G Le C H D} }} \edtext{\ta{حمى الدق}}{
{\Afootnote{ \ta{المعروفة باقطيّش} \myLR{ E} \ta{حمى الدق}
{\Afootnote{ \ta{المعروفة باقطيّش} \myLR{ C} \ta{المعروفة باقطيّش} \myLR{ H}
\ta{المعروفة باقطيّش} \myLR{ G} \ta{المعروفة باقطيّش} \myLR{ A} }}
\edtext{\ta{علاماتها وعلاماتها}}{\Afootnote{ \ta{علاماتها وعلاماتها
\myLR{ Par} \myLR{om. C E A G H} }} }}
{\Afootnote{\myLR{om. I} }} \pend
```

- 8 تامًا فيبقى فيه فضله ويتزايد ذلك قليلاً قليلاً حتّى يمتلأ العضو ويتمدّد فيحدث فيه الورم فمتى حدث في عضو
- 9 من الأعضاء ورم دفعةً فذلك يكون من فضل مادّة انصبّت إليه من عضو آخر وهذا يكون في الأورام الحارّة ومتى
- 10 حدث أولاً فأولاً وتزايد قليلاً قليلاً فذلك يكون إمّا من انصباب الفضل شيء بعد شيء وإمّا من فضل يتولّد في

-
- 1 D السابع [الثامن]
 - 2 om. I [في صفة الأورام وأسبابها وعلاماتها] om. D [وعلاماتها]
 - 3 Ox فحدث [يحدث] Ox فحدث [يحدث] C add. in marg. A فأقول C فيقال [فنقول]
 - 4 Ox تدفعها [تدفعها] Ox D om. Ox يدفعها إليه L ante corr. L تدفعها L يدفعها [يدفعها]
 - 5 om. G [العضو] om. E H [العضو ... وضعف] I ذكرناه [ذكرناها]
 - 6 add. in marg. Le1 [ذكرنا] I C F E A Ox G H B L [ذكرنا] ذكر
 - 7 I القابل صحّ [القابل] E وإما أن [وأن] I القليل D الدافع [القابل] I الذي [التي]

Verso l'edizione digitale

- Con LaTeX / Reledmac si riesce a ottenere una buona rappresentazione tipografica...
- ... ma non è un'edizione digitale, e rende molto difficile portare avanti le collazioni e lavorare poi sul testo

Selezione dei testimoni e di un esemplare di collazione

- 18 manoscritti del *Kitāb al-Malakī* (Leiden, UB, or. 450a)
- 22 manoscritti della *Pantegni* (The Hague, KB, 73 J 6)
- 3 manoscritti del *Liber Regalis* (Leipzig, UB, 1125)

Collazione

- Trascrizione del testimone di riferimento
- Trascrizione di tutti gli altri testimoni
- ... e poi come procedere alla collazione in modo automatizzato e finalizzato alla creazione del file XML/TEI?

Collatex

- Procede per «tokenization» e «alignment» delle parti di testo
- Procede tramite un algoritmo di allineamento progressivo
- Si può usare in command line o in Python
- Input: testo (.txt); output: file con markup XML/TEI
- Attenzione: su quantità di testo limitata
- Richiede comunque di essere rielaborato per avere il file XML/TEI corretto, ma è un grande aiuto

Manuale: <https://collatex.net/doc/>

GitHub: <https://github.com/interedition/collatex>; tutorial per uso in Python:

<https://github.com/DiXiT-eu/collatex-tutorial>

Collatex

```
2 Directory 88.481.242.388 byte disponibili  
C:\Users\anlu7\cola>java -jar collatex-tools-1.7.1.jar -f tei -o test2.txt test1.txt test.txt  
C:\Users\anlu7\cola>java -jar collatex-tools-1.7.1.jar -f tei -o test2.1.txt test1.txt test.txt  
C:\Users\anlu7\cola>java -jar collatex-tools-1.7.1.jar -f tei -o capitulo1.8.txt capitulo1_codI.txt capitulo1_codPar.txt  
capitulo1_codPar1.txt  
Error while parsing command line arguments (-h for usage instructions)  
Invalid resource: capitulo1_codPar.txtcapitulo1_codPar1.txt  
C:\Users\anlu7\cola>java -jar collatex-tools-1.7.1.jar -f tei -o capitulo1.8.txt capitulo1_codI.txt capitulo1_codPar.txt  
capitulo1_codPar1.txt
```

Edizione in XML/TEI

- È adeguata alla conservazione in modo chiaro e interoperabile dei dati
- Fornisce un **documento base** che poi può essere trasformato e visualizzato in modi diversi
- XML è un linguaggio di **mark-up** generale di cui TEI è un «**sub-standard**» che definisce una serie di regole adeguate alla rappresentazione dei testi
- Per la rappresentazione della struttura dei testi:
 - Struttura del testo
 - Apparato critico
 - Rappresentazione di fonti primarie

Guidelines TEI: <https://tei-c.org/release/doc/tei-p5-doc/en/html/index.html>

Edizione in XML/TEI

- Serve un **editor di testo** in cui scrivere il file (es. Oxygen, ma non è OA)
- La struttura di ogni documento deve osservare delle regole definite in un **DTD**
 - si può creare su base di standard: <https://roma.tei-c.org/>
 - Imparando la sintassi è facilmente modificabile e adeguabile alle proprie esigenze

Edizione in XML/TEI

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE TEI SYSTEM "tei_drama.dtd">
<?xml-stylesheet href="provaCss.css" type="text/css"?>

<TEI xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
    <fileDesc>
      <titleStmt>
        <title type="main">VIII.7</title>
      </titleStmt>
      <publicationStmt>
        <p> completato 23/11/22</p>
      </publicationStmt>
      <sourceDesc>
```

```
motivation NMTOKENS #IMPLIED >
<!--doc:(apparatus entry) contains one ent
<!ELEMENT app (((lem), (%model.rdgLike;| %mo
<!ELEMENT add (#PCDATA|s)*>
<!ATTLIST add
%tei_att.witnessed.attributes;
hand IDREF #IMPLIED
```

Edizione in XML/TEI

- Il file contiene un <TEI Header> con informazioni generali sulla struttura del file
- Contiene anche l'indicazione del metodo usato per la codifica dell'edizione: parallel-segmentation-method
- Il testo ha poi una struttura gerarchica:
 - HEAD
 - DIV
 - P

Edizione in XML/TEI

```
<revisionDesc>
  <change>
    <date when="2022/08/09" />
    <name>Anna</name>
    <desc>Costantino Pantegni</desc>
  </change>
</revisionDesc>
</teiHeader>
<text>
  <body>
    <div>
      <head>VIII</head>
      <p n="1">الباب <app>
        <lem wit="#A #F #Ox #I #E
```

Edizione in XML/TEI

- Degli appositi elementi indicano le lezioni dei testimoni (il file emesso da Collatex già li contiene)
- L'elemento **lem** contiene come tag la lezione scelta
- L'elemento **rdg** contiene le varianti
- Entrambi hanno come **attributi** le sigle dei manoscritti
- Apparato positivo
- Si può ampliare la varietà del tipo di lezioni da rappresentare, opportunamente modificando il DTD e seguendo le guidelines come base

Edizione in XML/TEI

```
</app>
  <app>
    <lem wit="#P #K #Pa #Om #Y #S #O #H #Ha #M #R #E #Vt #L #A #I #N #D #Q"
      >sanitatis</lem>
    <rdg wit="#J">sanitate</rdg>
  </app> <app>
    <lem wit="#P #Om #I #K #Y #S #O #Ha #H #M #R #E #L #A #Vt #N #D #J #Q"
      >aut</lem>
```

Edizione in XML/TEI: aggiunte, correzioni, omissioni, eliminazioni

```
</app> complexione <app>
  <lem wit="#P #Q #Pa #K #E #Y #S #O #H #Om #M #R #Ha #L #A #N #D"
    >tractaremus</lem>
  <rdg wit="#J">disputaremus</rdg>
  <rdg wit="#I"><subst>
    <del>tractaremus tractaremus</del>
    <add>tractaremus</add>
  </subst></rdg>
</app>
```

Edizione in XML/TEI: aggiunte, correzioni, omissioni, eliminazioni

```
</app> complexione <app>
  <lem wit="#P #Q #Pa #K #E #Y #S #O #H #Om #M #R #Ha #L #A #N #D"
    >tractaremus</lem>
  <rdg wit="#J">disputaremus</rdg>
  <rdg wit="#I"><subst>
    <del>tractaremus tractaremus</del>
    <add>tractaremus</add>
  </subst></rdg>
</app>
```

Edizione in XML/TEI: aggiunte, correzioni, omissioni, eliminazioni

```
</app>
<app>
  <lem wit="#P #K #Q #Y #S #Om #Pa #O #H #M #R #L #J #A #Ha #I #N #D"
    >significet</lem>
  <rdg wit="#E">significat</rdg>
  <rdg wit="#E" hand="#E1" varSeq="2" place="above">significet</rdg>
</app>
<app>
```

Edizione in XML/TEI

```
/app> . <app>
  <lem wit="#P #K #S #O #H #M #Vt #R #E #L #G #J #A #N #Om #Ha #D #Q"
    type="rev"> <app>
      <lem wit="#P #K #S #O #H #M #Vt #R #E #L #G #J #A #N #Om #Ha #D #Q"
        >sputi</lem>
        <rdg wit="#I">et sputi</rdg>
        <rdg wit="#Y">et sputilis</rdg>
      </app> </lem>
  <rdg wit="#Pa">sputi et sudoris</rdg>
/app> . <app>
```

Edizione in XML/TEI

- Ci sono alcune problematiche:
 - Non si possono sovrapporre le strutture
 - Problema per lezioni che si **intersecano** o lezioni che si estendono su più paragrafi (https://ec.europa.eu/programmes/erasmus-plus/project-result-content/cfb03c8e-6765-477e-aa4d-e2b162f57068/IO2_Creating%20a%20digital%20edition%20with%20the%20TEI.pdf)
 - È criticato per sua verbosità / rigidità (ma si può rimediare)

Visualizzazione

- E. Pierazzo: Che cos'è un'edizione scientifica digitale (2020)
 - È la parte più problematica e meno sviluppata del processo di edizione
 - Quanto è compito del filologo occuparsene?
- Problema 1: serve comunque una versione **a stampa** dell'edizione
 - LaTeX / Reledmac
 - Come passare da XML/TEI a LaTeX? Tramite **un XSLT Stylesheet**
 - Si tiene separata codifica dell'informazione e sua visualizzazione, che può essere quindi adeguata in base alle necessità senza intervenire sul testo base

XSLT Stylesheet da TEI a LaTeX

- XSLT è un linguaggio basato su XML **per trasformare documenti XML in altri formati**, come HTML, XML, JSON o testo semplice
- Definisce tramite **templates** come i dati devono essere trasformati
- Si basa su **Xpath** per individuare i dati da trasformare

Tutorial: https://github.com/ArianePinche/coursTNAH_XSLT

Esempi:

<https://github.com/ArianePinche/EditionLiSeintConfessor>

XSLT Stylesheet da TEI a LaTeX

```
<xsl:template match="p">
  <xsl:text>
\underline{pstart}[</xsl:text>
  <xsl:value-of select="@n"/>
  <xsl:text>]\noindent&#10;</xsl:text>
  <xsl:apply-templates/>
  <!-- récupération du texte et des appareils -->
  <xsl:text>\pend&#10;</xsl:text>
</xsl:template>
```

XSLT Stylesheet da TEI a LaTeX

```
<xsl:template match="lem">
  <xsl:text>\edtext{</xsl:text>
  <xsl:apply-templates/>
  <xsl:text>}{\Bfootnote{</xsl:text>
</xsl:template>

<xsl:template match="lem[@type = 'rev']">
  <xsl:text>\edtext{</xsl:text>
  <xsl:apply-templates/>
  <xsl:text>}{\Afootnote{</xsl:text>
</xsl:template>
```

XSLT Stylesheet da TEI a LaTeX

```
<xsl:when test="@type = 'add_above'">
  <xsl:choose>
    <xsl:when test="@hand">
      <xsl:text> </xsl:text>
      <xsl:value-of select="./text()" />
      <xsl:text> \textit{add. sup. 1.} </xsl:text>
      <xsl:value-of select="./concat(' ', ./replace(@hand, '#', ' '))" />
      <xsl:text> </xsl:text>
    </xsl:when>
    <xsl:otherwise>
      <xsl:text> </xsl:text>
    </xsl:otherwise>
  </xsl:choose>
</xsl:when>
```

Dal TEI a un bel sito web

- Problema 2: e il sito web?
 - Che cosa vorrei ottenere: alcuni esempi
 - Hunaynnet: https://hunaynnet.oeaw.ac.at/categoriae.html#cat_syr_george
 - la documentazione non è OA
 - European ArsNova : <https://mirabileweb.it/arsnova/ant/viewer>
 - Non si tratta di testi da mettere in parallelo
 - Strumenti individuati
 - EVT: non dà abbastanza flessibilità
(<https://edizionicafoscari.unive.it/it/edizioni4/libri/978-88-6969-872-9/marco-polo-le-devisement-dou-monde/#evt-content>;
<https://github.com/evt-project/evt-viewer/issues/152>)
 - Tei Publisher: di difficile apprendimento, più testi che edizioni critiche, non diffuso (<https://teipublisher.com/exist/apps/tei-publisher/documentation>)

DA TEI al sito web



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← ARISTOTLE: ANALYTICA PRIORA (BOOK 2)

Add parallel version

Greek

Chapte

52b

i

X

(1) ANAΛΥΤΙΚΩΝ ΠΡΟΤΕΡΩΝ Β

Chapter 1

(2) Ἐν πόσοις μὲν οὖν σχήμασι καὶ διὰ ποίων καὶ πόσων | προτάσεων καὶ πότε καὶ πῶς • γίνεται συλλογισμός, [52b40] ἔτι δ' εἰς ποῖα βλεπτόν ἀνασκευάζονται καὶ κατασκευάζονται, [53a1] καὶ πῶς δεῖ ζητεῖν περὶ τοῦ προκειμένου καθ' ὅποιον οὖν | μέθοδον, ἔτι δὲ διὰ ποίας ὁδοῦ ληψόμεθα τὰς περὶ | ἕκαστον ἀρχάς, ἤδη διεληλύθαμεν. (3) ἐπεὶ δ' οἱ μὲν καθόλου | τῶν συλλογισμῶν εἰσὶν οἱ δὲ κατὰ μέρος, οἱ μὲν καθόλου [53a5] • πάντες αἰεὶ πλείω συλλογίζονται, τῶν δ' ἓν μέρος οἱ μὲν | κατηγορικοὶ πλείω, οἱ δ' ἀποφατικοὶ τὸ συμπέρασμα μόνον. (4) αἱ μὲν

Arabic: Tadārā or Ṭaḍārā (= Theodor...

Chapte

52b

i

X

عامه | عاميه

لكلّ • المقاييس الكلية والجزئية. (9) وقد يمكن أن نتكلم في • المقاييس

السيلوجيسموسات | المقاييس

الكلية | على ضرب آخر (10) لأنّ قياساً واحداً يكون في الحدود الموضوعه للحدّ الأوسط | أو

P, Badawī و [أو

• النتيجة [***] (11) مثل أنّه إن كانت آ • ج [53a20] نتيجةً بتوسط ب فإنّ كلّ ما هو موضوع | لبّ أو لـج • فبالاضطرار على كّه • تقال آ لأنّه إن كانت ب مقولةً على | كلّ • د وآ مقولة على كلّ ب فإنّ آ تكون مقولةً على كلّ د وأيضاً | إن كانت • ج مقولةً على كلّ ه وآ مقولة على كلّ • ج فإنّ آ مقولة على | كلّ ه (12) وكذلك يعرض إذا كان القياس سالباً (13) [53a25] وأما في الشكل الثاني || [125v] فإنّ • القياس | إنّما يكون فيما هو موضوع • للنتيجة فقط مثل أنّه إن لم تكن آ مقولةً على شيء من د • مقولةً على كّا • ه فإنّ النتيجة أنّ د • مقولةً على شيء من • ه فإنّ كانت آ

Da TEI al sito web

DEDM. Digital Edition of the «Devisement dou monde»

Chapter 35



#35

[1] Here is described the city of Qamadin ^a

[2] And after having gone downhill for those two days as I told you, you find a large plain, *which extends(?) five days southward*, and at the beginning of this plain there is a city called Qamadin, which was once very big and very noble, but is now no longer so, because the Tartars from another country have ravaged it on several occasions. And I tell you that it is very hot in the plain. And the province we are now beginning to describe is called Reobar. ^b

^b [2] And after having gone downhill for those two [...] are now beginning to describe is called Reobar.]

Critical Note

Our translation follows **F 35 2-4** («Et quant l'en ha descendu celle deus jorné que je voç ai dit, adonc treve une grandisme plainne et ao començamant de cel plain a une cité, qe est apelés Camandi, que jadis fu grant cité et noble a mervoille, mes orendroit ne est pas si grant ne si bone, car Tartarç d'autre país la ont domajés plusor foies. Et voç di qu'il est «en» celle plainne mout chaut. Et la proense de coi nos comi«son hore est appellé Reobar»), with the addition of a chorographical datum – the extension of the Reobar plain – drawn from the **β** group: it is to be found in **Z 13 1** («invenitur quedam planicies magna, que versus meridiem durat per V dias») and **R I 14 1** («si trova una gran pianura la qual verso mezzodi dura per cinque

[3] Its fruits are dates and apples of paradise and pistachios and many other fruits that are not found in our cold regions. And in this plain there is a species of bird called 'francolins' which are different from the

F

Chapter 35

#35

[1] Ci devise de la cité de Comadi.

[2] Et quant l'en ha descendu celle deus jorné que je voç ai dit, adonc treve une grandisme plainne et ao començamant de cel plain a une cité, qe est apelés ^aCamandi

Camandi

[More Info](#) [Occurrences](#) [Map](#)

, que jadis fu grant cité et noble a mervoille, mes orendroit ne est pas si grant ne si bone, car Tartarç d'autre país la ont domajés plusor foies. [3] Et voç di qu'il est «en» celle plainne mout chaut. [4] Et la proense de coi nos comi«son hore est appellé Reobar. [5] Les sien fruit sunt datarl et pome de paraise et pistac et autres fruit les quelz ne sunt en nostre leu froit. [6] Et en ceste plainne a une generasion d'oisiaus que l'en appelle francolin, que sunt devisé a les autres francolin des autres país, car il sunt noir et blanche mesleemant, et les piés et les bech{o} ont rouges. [7] Les bestes sunt aussi divisee, et voç dirai des bué primeramant. [8] Les buef sunt grandismes et sunt tuit blanche come nois; le poib il ont peitet et [16a] plain, et ce avient por le caut leu; il ont les cornes cortes et grosses et non agues; entre les spales ont un çinb reont haut bien deus paumes: il sunt la plus belle chause dou monde a veoir. Et quant l'en le vuelt chargier, il se coucent ausint con font les giamiaus; et quant l'en le a chargés, il se levent et portent lor chargies mout bien, car il sunt forte outre meçure. [9] Il ha mouton grant com asne; et ont la coe si grosse et si large que bien poisse trente livres; il sunt mout biens et gras et sunt bues a manger. [10] En ceste plainne a plusieurs castiaus et villes que ont les

Dal TEI al sito web

apparatus entry with , <add>, <subst> #152



AnninaGili opened this issue on Mar 5, 2023 · 0 comments



AnninaGili commented on Mar 5, 2023 • edited by RobertoRDT



When the apparatus contains the elements `` and `<add>`, their content is not showed correctly in EVT 2 apparatus. For examples, given the apparatus

```
<app>
  <lem wit="#R #K #Y #T #Q #I #O #S #E #N #H #M #L #P #D">et</lem>
  <rdg wit="#A">
    <add>et</add>
  </rdg>
```



Dal TEI al sito web

In this case, what I would like to obtain would be:

pertinet rubori] pertinet ruboris *in* pertinet rubori *corr.* O

Many thanks for you help!

Anna Gili

totum corpus pertinet rubori^a . accessiones^b accessiones^c

^a pertinet rubori R Y I S N M A L P D  
• **GROUP 1:** pertinet rubori R Y I S N M A L P D pertinet ruboris
pertinet rubori Q rubori pertinet K
• **GROUP 1:** pertinet ruboris E

Info aggiuntive XML

^b]  
• **GROUP 1:** *om.* R K Y I O S N H M L P D *ct* A
• **GROUP 1:** *om.* E

Info aggiuntive XML

^c]  
• **GROUP 1:** *om.* R K Y I O S N H A L D M *autem* P
• **GROUP 1:** *om.* E

Info aggiuntive XML

Dal TEI al sito web

- Problema 2: e il sito web?
 - Problema di **visualizzazione** di apparati critici complessi
 - Problema di **messa in parallelo di testi**
 - Campo di studi in evoluzione: funziona tra testi di stessa lingua, più complesso tra codici diversi
 - Es. studi di Marianne Reboul
 - Es. Andreas Buettner (<https://www.arabic-latin-corpus.philosophie.uni-wuerzburg.de/text/index.xhtml>)
- Una possibile soluzione: **LERA Software**
 - Lavora sulla messa in parallelo automatica di testi
 - Funziona con il latino, non con l'arabo
 - Confusione tra collazione / versioni redazionali
 - *Work in progress* per la visualizzazione dell'apparato

LERA

- Nasce per osservare differenze e somiglianze tra diverse versioni di un testo
 - Potenziale confusione tra confronto di versioni ed edizione critica
 - Punto però cruciale per la *Pantegni*: è disputata e disputabile la identificazione di certi manoscritti come portatori di una diversa versione del testo
 - <https://lera.uzi.uni-halle.de/editions/3?lang=en>
 - <https://kalila-and-dimna.fu-berlin.de/collations/Im>

LERA

43

Am andern Morgen fand der König die ganze Kammer voll Gold;¹ aber sein Herz wurde **dadurch**² nur noch begieriger;³

Als der König kam und nachsah, da **erstaunte er und freute sich**,¹ aber sein Herz wurde² nur noch begieriger³

Als der König kam und nachsah, da **erstaunte er und freute sich**,¹ aber sein Herz wurde² nur noch begieriger³

Als der König kam und nachsah, da **erstaunte er**, und freute sich,¹ aber sein Herz wurde² nur noch **goldgieriger**.³

Als der König **kam** und nachsah, da **erstaunte er**, und freute sich,¹ aber sein Herz wurde² nur noch goldgieriger.³

Bei **Sonnenaufgang kam schon** der König und **als er das Gold erblickte**, **erstaunte er** und freute sich,¹ aber sein Herz **ward**² nur noch **geldgieriger**.³

Bei Sonnenaufgang kam schon der König und als er das Gold erblickte, **erstaunte er und freute sich**,¹ aber sein Herz ward² nur noch **goldgieriger**.³

44

und er¹ ließ die Müllerstochter in eine andere, noch größere Kammer voll Stroh thun,⁴ das sollte sie auch⁵ zu Gold machen⁶.

und er¹ ließ die Müllerstochter in eine andere **Kummer voll Stroh bringen**², **die**³ noch **viel größer war und befahl ihr**,⁴ das auch in **einer Nacht**⁵ zu **spinnen**, wenn **ihr das Leben lieb wäre**⁶.

und er¹ ließ die Müllerstochter in eine andere Kammer voll Stroh bringen², die³ noch viel größer war, und befahl ihr⁴ das auch in einer Nacht⁵ zu spinnen, wenn ihr das Leben lieb wäre⁶.

Er¹ ließ die Müllerstochter in eine andere Kammer voll Stroh bringen², die³ noch viel größer war, und befahl ihr⁴ das auch in einer Nacht⁵ zu spinnen, wenn ihr das Leben lieb wäre⁶.

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Er¹ ließ die Müllerstochter in eine andere Kammer voll Stroh bringen², die³ noch viel größer war, und befahl ihr⁴ das auch in einer Nacht⁵ zu spinnen, wenn ihr das Leben lieb wäre⁶.

Er¹ ließ die Müllerstochter in eine andere Kammer voll Stroh bringen², die³ noch viel größer war, und befahl ihr⁴ das auch in einer Nacht⁵ zu spinnen, wenn ihr das Leben lieb wäre⁶.

LERA

KwD Edition (v.0.5.17) / Collations / The Arabic Introduction (updated: 31.05.2024, 15:13)

Map Facsimile Settings... Downloads... Search unit numbers, titles, or content

(A) P3465	(B) P2789	(C) H170	(D) R2407	(E) P3473	(F) BWII672	(G) P3466	(H) T2281
(Im.9) Fables Facilitate Many Types of Discourse							
فاجتمع لهم بذلك خلال أمامهم فوجدوا منصرفًا في القول وشعوبًا فأما هو فجمع حكمة	فاجتمع لهم من ذلك خلال منها أنهم وجدوا متصرفًا في القول وشعوبًا يأخذون منها وأما الكتاب فإنه جمع حكمة وعلومًا	فاجتمع لهم بذلك خلال منها أنهم وجدوا منصرفًا في القول وشعوبًا يأخذون منها وأما الكتاب فجمع حكمة وعلومًا	فاجتمع لهم بذلك خلال أمامهم فوجدوا منصرفًا في القول وشعوبًا يأخذون فيها وأما الكتاب فجمع أن يكون لهذا وحكمة فاجتناه***	مشحونة بالحكم ليرغب فيه الغزّ تلهيًا بظاهره والعاقل تمتعًا بباطنه	فاجتمع لهم بذلك معاني خفية باطنها غير ظاهر وظاهرها غير باطنها وشعوبًا يأخذون منها المعاني البليغة لهذا وحكمة فجنّاه من جنى على قدر أدبه وذوقه	فاجتمع لهم بذلك خلال [[بذلك]] فوجدوا متصرفًا في القول وشعوبًا يأخذون فيها وأما هو فجمع أن يكون لهذا وحكمة	لهم بذلك جلال بها التاج العود إلى
(Im.10) Farmer Works Land for Yield Not Weed							
[absent]	[absent]	[absent]	***مثله في ذلك مثل الزارع الذي إنما يبزّ أرضه ويعمّرها ابتغاء للزرع لا ابتغاء للعشب وهي لا محالة نابت العشب فيها وصنوفه	وإن مثله في ذلك ومثل واضعه كمثل الزارع إنما يصلح أرضه ويعمّرها ابتغاء لمنفعة ما يزرعه لا لابتغاء العشب ثم هي لا محالة نابت فيها صنوف العشب	وإن مثله كالزارع الذي حرت أرضه وعمّرها لابتغاء الزرع لأجل العشب والكلأ والتمر فنابت فيها الأعشاب بصنوفها	[absent]	[absent]
(Im.11) Book Is Used for Wisdom, Pleasure, and Knowledge							

LERA

- Nasce per osservare differenze e somiglianze tra diverse versioni di un testo
 - Permette di caricare testi segmentati e visualizzarli **sinotticamente**
 - Permette di iniziare a sperimentare con **l'allineamento automatico** delle versioni latine
 - Il risultato è poi integrabile all'interno di una pagina web appositamente creata
 - Devo (per ora) caricare il documento pulito del markup legato all'edizione critica perché non supportato
 - Come pulirlo? **Python** script

LERA

```
5_esercizi_set.py 6_esercizi_istruzioniCondizionali.py ● 9_for.py 10_metodi.py prova_x
prova_xml.py > ...
1 import re
2 import os
3 from lxml import etree
4
5 # Function to remove spaces before punctuation marks and line breaks
6 def clean_text(text):
7     if text:
8         # Remove spaces before punctuation marks
9         text = re.sub(r'\s+([.,:;!])', r'\1', text)
10        # Remove line breaks and extra spaces
11        text = re.sub(r'\s+', ' ', text).strip()
12    return text
13
● 14 # Function to process a single XML file and clean text in <p> tags
15 def process_xml_file(input_file, output_file):
16     try:
17         # Parse the XML file
18         tree = etree.parse(input_file)
19
20         # Define the namespace (based on the provided XML structure)
21         ns = {'tei': 'http://www.tei-c.org/ns/1.0'}
22
23         # Find all <p> elements in the body of the text
24         for p in tree.xpath('///tei:body//tei:p', namespaces=ns):
25             # Get the current text content of the <p> element
26             if p.text:
27                 # Clean text by removing spaces before punctuation and line breaks
28                 new_text = clean_text(p.text)
29                 # Update the text in the <p> element
```

LERA

testo_latino testo_latino2

Reset Update

6

Significationes unde unaqueque possit¹ intellegi sunt hee². Composite³ secundum vicinitatem faciliores sunt intellegi⁴ de tempore sue perseverationis⁵, quod si⁶ febres continue componantur cum febris periodibus, periodes intelliguntur⁷ de rigore quem habent in accessionis tempore⁸, continue ex sua stabilitate⁹. Si vero compositio sit secundum complexionem, intellectus harum durus et molestus est propter diversitatem suarum significationum¹⁰; maxime si complexio sit equalis, durus et molestus est¹¹. Si autem una ex materiebus¹² in complexione dominetur, fit levior intellectus quia significatio dominantis apertior erit.

intellegi [.2.]³ secundum vicinitatem faciliores sunt intellegi⁴ de tempore tensionis sue⁵, si autem⁶ febres continue componantur cum febris periodibus, intelliguntur periodes⁷ de rigore quem habent in tempore accessionis⁸, continue ex stabilitate sua⁹. Si vero compositio sit secundum complexionem, intellectus harum durus et molestus est propter diversitatem significationum suarum¹⁰; maxime si complexio sit equalis, durior erit et molestior¹¹. Si autem una ex materialibus¹² in complexione dominetur, fit levior intellectus quia significatio dominantis apertior erit.

Variants Filters and color mode Download Settings Comment

Compare filters (0) Display filters (0) all none

- Letters
- Punctuation
- Diacritics
- Editor's text
- Author's text
- Other

Color mode

Create an apparatus of the differences and the corresponding text passages of the other documents. In addition those text passages are marked as follows:

- only footnotes
- gray highlighting
- green highlighting if the text passage is exclusively to one document
- colored highlighting if exactly two documents are matching
- blue with increasing saturation, the less often a text passage matches

- Words are colored within the gray highlighted text passages:
 - green for adding
 - red for deletion
 - blue for substitution

Reset Update

LERA

testo_arabo	testo_latino	testo_latino1
	1	
الباب السادس	VI	Capitulum VI
	2	
في الحميات المركبة وأسبابها وعلاماتها	De compositis febribus et earum causis et significationibus	De compositis febribus causisque earum et signis
	3	
فإنما الحميات المركبة فأصنافها كثيرة وذلك أنّها إما إنّ تتركب غيباً مع نائية أو غيباً مع ربع أو نائية مع ربع أو غيباً مع مطبقة أو مواظبة مع مطبقة أو ربع مع مطبقة أو غيباً نائية مع غيباً دائمة أو مواظبة نائية مع مواظبة دائمة أو ربع نائية مع ربع دائمة أو غيباً دائمة مع مواظبة نائية وربما تركبت ثلاث من هذه الحميات وربما تركبت أربعها وغير ذلك من اختلاف التراكيب	Febres composite sunt multe et diverse quia aliquando componitur tertiana cum cotidiana, aut tertiana cum quartana, aut tertiana et cotidiana cum quartana, aut cotidiana cum continua, aut quartana cum eadem continua, aut tertiana periodis cum tertiana continua, aut cotidiana continua cum cotidiana periodi, aut quartana periodis cum quartana continua, aut terciaria continua cum cottidiana periodi. Et aliquando componuntur sibi invicem tres ex his febribus, aliquando IIII, et compositiones alie sunt plurime.	Compositarum diversitates febrium multe sunt: aut enim componitur terciaria cum circulari, hecque aut quartana aut cotidiana cum continua, aut terciaria circularis cum terciaria continua, aut interpolata cotidiana cum continua cotidiana, aut quartana accedens cum quartana continua, aut terciaria continua cum cotidiana interpolata, et alia huiusmodi. Aliquotiens autem harum tres componuntur febrium, nonnumquam IIII et alie huiusmodi varie compositiones.

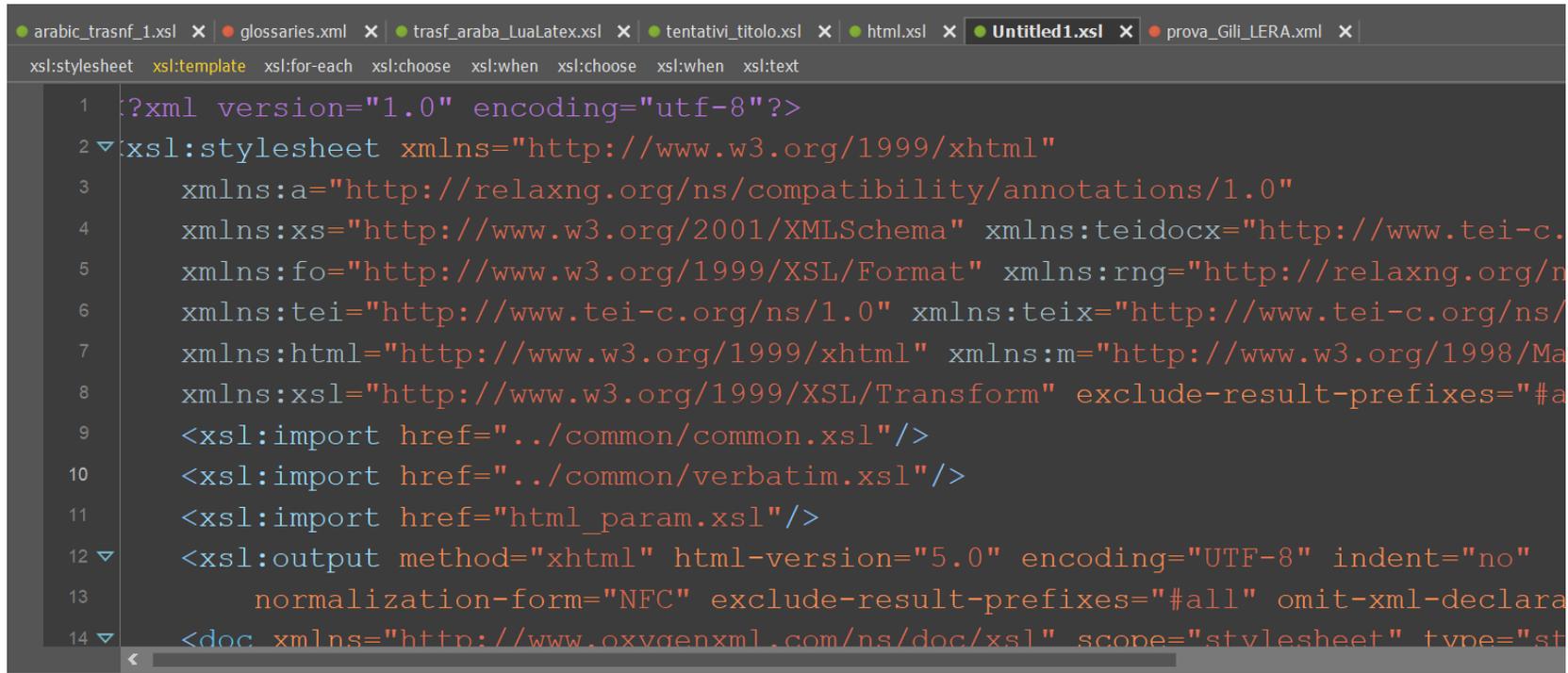
Dal TEI al sito web

- Una possibile soluzione: sviluppo personale di un sito web
 - Necessità di trasformare il file XML/TEI in **HTML**
 - HTML (HyperText Markup Language) è un linguaggio di **markup** per creare e strutturare contenuti su **pagine web (statiche)** che i browser sanno interpretare
 - Supporto di TEI Consortium (uso in Oxygen)
 - Foglio di trasformazione **XSLT**
 - Questo risultato deve essere inserito in un'applicazione web dinamica: CSS, JavaScript (il primo facile, il secondo meno)

<https://tei-c.org/release/doc/tei-xsl/profiles/default/html/to.html>

https://github.com/TEIC/Stylesheets/blob/dev/html/html_textcrit.xsl

Da TEI a HTML



```
arabic_trasnf_1.xml x glossaries.xml x trasf_araba_LuaLatex.xml x tentativi_titolo.xml x html.xml x Untitled1.xml x prova_Gili_LERA.xml x
xsl:stylesheet xsl:template xsl:for-each xsl:choose xsl:when xsl:choose xsl:when xsl:text
1 <?xml version="1.0" encoding="utf-8"?>
2 <xsl:stylesheet xmlns="http://www.w3.org/1999/xhtml"
3   xmlns:a="http://relaxng.org/ns/compatibility/annotations/1.0"
4   xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:teidocx="http://www.tei-c.
5   xmlns:fo="http://www.w3.org/1999/XSL/Format" xmlns:rng="http://relaxng.org/n
6   xmlns:tei="http://www.tei-c.org/ns/1.0" xmlns:teix="http://www.tei-c.org/ns/
7   xmlns:html="http://www.w3.org/1999/xhtml" xmlns:m="http://www.w3.org/1998/Ma
8   xmlns:xsl="http://www.w3.org/1999/XSL/Transform" exclude-result-prefixes="#a
9   <xsl:import href="../common/common.xsl"/>
10  <xsl:import href="../common/verbatim.xsl"/>
11  <xsl:import href="html_param.xsl"/>
12 <xsl:output method="xhtml" html-version="5.0" encoding="UTF-8" indent="no"
13   normalization-form="NFC" exclude-result-prefixes="#all" omit-xml-declara
14 <doc xmlns="http://www.oxygenxml.com/ns/doc/xsl" scope="stylesheet" type="st
```

Da TEI a HTML

```
<xsl:for-each select="tei:rdg[position() > $start]">
  <xsl:text>; </xsl:text>
  <xsl:choose>
    <xsl:when test="@cause = 'omission'">
      <xsl:text>[ciao] (</xsl:text>
      <xsl:value-of select="tei:getWitness(@wit)"/>
      <xsl:text>)</xsl:text>
    </xsl:when>
    <xsl:when test="@type = 'om'">
      <xsl:text>om.</xsl:text>
      <xsl:text> (</xsl:text>
      <xsl:value-of select="tei:getWitness(@wit)"/>
      <xsl:text>)</xsl:text>
    </xsl:when>
  </xsl:choose>
</xsl:for-each>
```

Da TEI a HTML

Prova

Table of contents

1. [XX](#)

1. XX

Capitulum XX

De morsu animalis venenosi et primum de rabidi canis morsu¹.

Animal venenum habens quoddam mordet, aliud ore accingit², aliud pungit. Et quod mordet ut rabidus canis, mustela, ebenarsa, et³ quod vocal alie iaculi, alie que aquis merguntur, alie que vocantur picrinos⁵, alie que eserios ac cerastos⁶. Quod vero pungit animal, scorpius, reptilia, vesp

morsu] **L, V**; om. (B)

accingit] **V**; accidit L, G

et] **L, V**; [ciao] (B); om. (C); miao add. s. l.C1

cala. Attrectant] ; cala attreczant V; tala attractant B; cala atireccant L

picrinos] **L**; picrinos et B

cerastos] **V**; carastestes B, L

[Home](#)

Date: 2022/08/09

Attorno all'edizione critica

- **Descrizione** dei manoscritti
 - Apposito modulo TEI: primary sources
 - Trasformaizone in file LaTeX tramite XSLT Stylesheet
- Creazione di **glossario**
 - Apposito modulo TEI: dictionaries (con ampie modifiche al DTD)
 - Trasformazione in .csv tramite XSLT Stylesheet

Attorno all'edizione critica

```
<witness xml:id="Av"><msDesc>
  <msIdentifier>
    <settlement>Avignon</settlement>
    <repository>Bibliothèque municipale</repository>
    <idno>994</idno>
  </msIdentifier>
  <msContents>
    <msItem n="1">
      <locus>1r-80v</locus>
      <author>constantinus africanus</author>
      <title>Pantegni, Theorica, II.7-X</title>
      <incipit defective="true">corporis videtur attinere extraneum
        quid exterius</incipit>
    </msItem>
```

```
type="apex" /></emph></collation>
<signatures>signature of the quires in quires 1-3, 5, 8-10,
  12-16, 18-21; where the original signatures are not
  visibile, a modern hand has rewritten them; beginning of
  the quire flesh side</signatures>
<condition>good state of preservation; it as been restored
  (see c. 171)</condition>
<dimensions>
  <height>261</height>
  <width>175</width>
  <formula>17 [189] 55 x 21 [105] 49 </formula>
</dimensions>
supportDesc>
```

Attorno all'edizione critica

```
</>
<head>Latin (Constantine)-Arabic</head>
<entry source="#cap1" xml:id="id_1" n="1">
  <form type="C">significatio</form>
  <form type="S">signum</form>
  <gramGrp>
    <pos>noun</pos>
  </gramGrp>
  <cit type="translation">
    <Arabic>دليل </Arabic>
    <transl>dalīl</transl>
    <sense>sign</sense>
  </cit>
  <usg> </usg>
```

Attorno all'edizione critica

```
<entry source="#rec1 #rec6" n="3" xml:id="condio">
  <form type="action">condio</form>
  <gramGrp>
    <pos mood="part">verb</pos>
  </gramGrp>
  <cit type="translation">
    <Arabic>طَيَّب</Arabic>
    <transl>tayyaba</transl>
    <sense>to make good, pleasant</sense>
  </cit>
  <usg>
    <style>Latin equivalent</style>
    <time>condio</time>
  </entry>
```

Attorno all'edizione critica

```
<entry source="#rec1 #rec18" n="4">
  <form type="simple">xiloaloes</form>
  <gramGrp>
    <pos gen="ND" num="S">noun</pos>
  </gramGrp>
  <cit type="translation">
    <Arabic>عود</Arabic>
    <transl>'ūd</transl>
    <sense>aloe wood</sense>
  </cit>
  <usg>
    <style>Latin equivalent</style>
    <time>lignum aloes</time>
  </usg>
  <hint />
</entry>
```

Altre linee di ricerca

- Stilometria e attribuzione di traduzioni
 - A. Buttner, D. Hasse: Notes on anonymous 12^o century translations (https://www.philosophie.uni-wuerzburg.de/fileadmin/06010000/2019/Hasse__Buettner_2018_-_Notes_on_Anonymous_Twelfth-Century_Translations_of_Philosophical_Texts_from_Arabic_into_Latin_on_the_Iberian_Peninsula.pdf)
 - P. Beullens, W. Haverals, B. Nagy: Stylometric Inquiry of Greek-Latin Aristotle (<https://journals.uco.es/mediterranea/article/view/16723>)
- Visualizzazione spaziale e analisi statistica per ampie popolazioni di manoscritti
 - <https://eadh.org/projects/mapping-manuscript-migrations>

Attorno all'edizione critica

The screenshot displays a digital library interface for manuscripts. At the top, there is a search bar with the text "Search all content" and a purple header with "MANUSCRIPTS" and "WORKS" buttons. The main title is "Manuscripts" with an information icon. Below the title, it shows "Results: 2029 manuscripts".

The left sidebar contains several filter sections:

- Active filters:** A red "REMOVE ALL" button and a filter for "Author: Aristotle" with a close icon.
- Narrow down by:** A dropdown menu currently set to "Manuscript".
- Author:** A search bar and a list of authors with checkboxes:
 - Augustine, Saint, Bishop of Hippo [4661]
 - Jerome, Saint, -419 or 420 [3245]
 - Cicero, Marcus Tullius [2575]
 - Anonymous [2327]
 - Aristotle [2029]
 - Gregory, I, Pope, approximately 540-604 [1980]
 - Bernard, of Clairvaux, Saint, 1090 or 1091-1153 [1864]
 - John Chrysostom, Saint, -407 [1748]
 - Aquinas, Thomas, Saint, 1225-1274 [1477]
 - Bede, the Venerable, Saint, 673-735 [1420]
- Work:** A dropdown menu.
- Production place:** A dropdown menu.
- Production date:** A dropdown menu.

The right side of the interface features a map of the region around Asti and Cuneo, Italy. The map is titled "PRODUCTION PLACES" and includes a legend with "TABLE", "PRODUCTION HEATMAP", "LAST KNOWN LOCATIONS", "MIGRATIONS", and "EXPORT" options. A blue pin labeled "1" is placed on the map near Saluzzo. The map shows various towns and geographical features, with a scale bar indicating 10 km and 5 mi.