Introduction into XML

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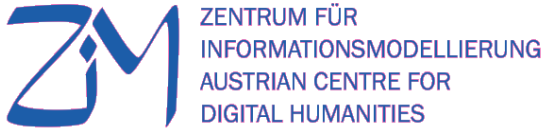
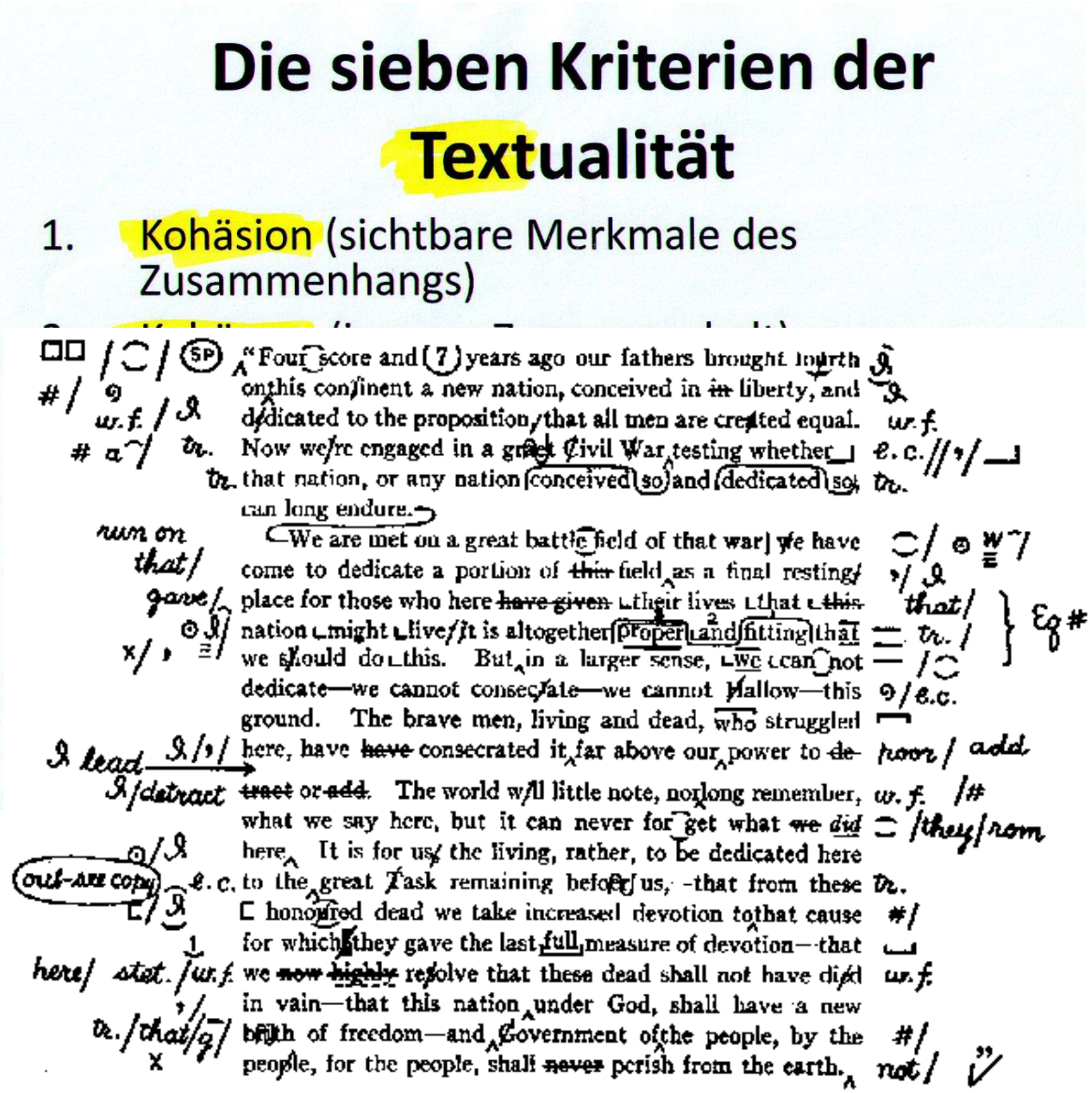


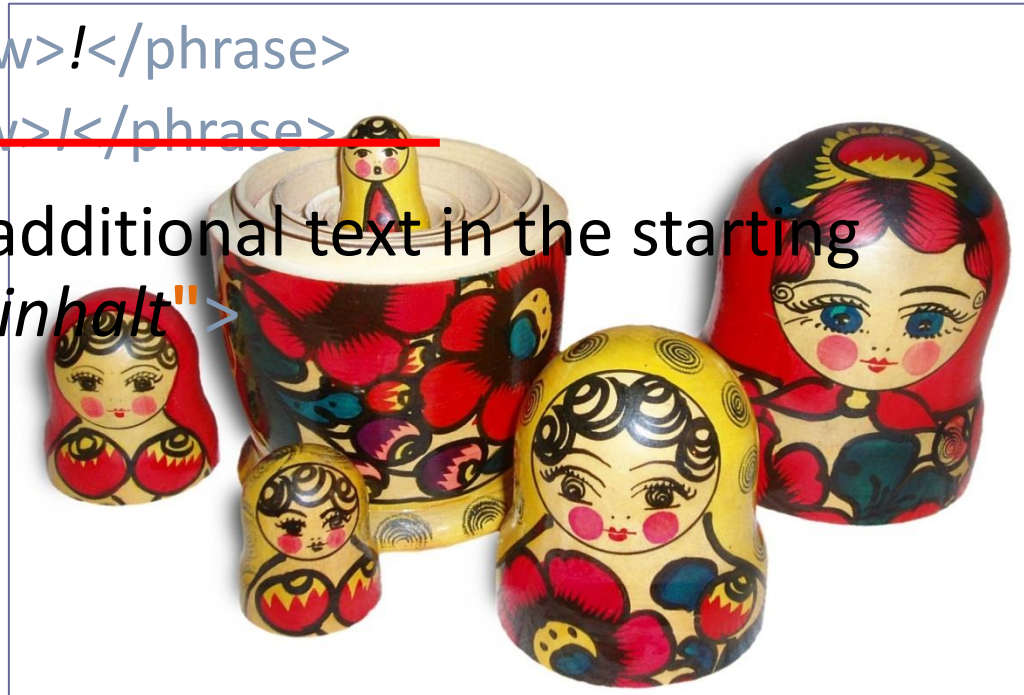
XML is Mark up

- Textmarker
- Type setting annotations in preparation of printed books
- Signs in scholarly editions:
  - |= =| , |- -| , < > , [ ]



Syntax

- „pointy brackets“: < >
- Bracketing by correpsonding <tag> and </tag> forming an **element**
- All elements have to be nested strictly hiearchical:
  - <phrase><w>*Vae*</w> <w>*victis*</w>*!*</phrase>
  - <phrase><w>*Vae*<w></w>*victis*</w>*!*</phrase>
- Elements can have attributes by additional text in the starting tag: <element attribut="*Attributinhalt*">



Terminology

- **Tag**
  - Code in pointy brackets: <tag>
- **Element**
  - Corresponding tags („start tag“<tag>, „end tag“ </tag>; „opening tag“<tag>, „closing tag“</tag>) and the text inbetween <tag>*content* </tag>
  - **Content of the element**: everything between to corresponding tags, i.e. text and other elements
- **Attribute**
  - Description of the element in the start tag <tag attribut="...">
  - Consists of an attribute name **attribute**=".." followed by an equal sign and the attribute content attribute="***content***" in quotation marks.

Syntax

- „pointy brackets“: **< >**
- Bracketing by correpsonding
  <tag> and **</tag>** forming an **element**
- All elements have to be nested strictly hiearchical:
  - <phrase><w>*Vae*</w> <w>*victis*</w>*!*</phrase>
- Each XML-document has exactly one root element.
- Some character have to replace by „entities“:
  - < => <
  - & => &

XML Ressources

- W3Schools: XML Tutorial (https://www.w3schools.com/xml/)
- IDE XML Short References (in German): https://www.i-d-e.de/publikationen/weitereschriften/#Kleinschriften

Experiment

"I, being born a woman and distressed“, by Edna St. Vincent Millay
I, being born a woman and distressed by all the needs and notions of my kind, am urged by your propinquity to find your person fair, and feel a certain zest to bear your body’s weight upon my breast: So subtly is the fume of life designed, to clarify the pulse and cloud the mind, and leave me once again undone, possessed. Think not for this, however, the poor treason of my stout blood against my staggering brain, I shall remember you with love, or season my scorn with pity, — let me make it plain: I find this frenzy insufficient reason for conversation when we meet again. (1923)
(source: https://www.poetryfoundation.org/poems/148564/i-being-born-a-woman-and-distressed)

Millay_Sonnet_1923.xml [Z:\Documents\HistInf\ide\SummerSchoolDigEd\23_4_Sorores\Examples\Millay_Sonnet_1923.xml] - <oXygen/> XML Editor (Ausschließlich akademische Nutzung)

Datei Bearbeiten Suchen Projekt Optionen Werkzeuge Dokument Fenster Hilfe

XPath 2.0 | XPath ausführen auf 'Aktuelle Datei'

Gliederung

Elementnamen-Filter

- poem I, Being Born a Woman and Distresse
  - title I, Being Born a Woman and Distres
  - author Edna St. Vincent Millay
  - text
    - octave I, being born a woman and d
      - stanza I, being born a woman ar
    - sestet Think not for this, however, t

Projekt

SaarbrückenSchool2024.xpr

- BayHStAStV1378.docx
- BayHStAStV1378.xml
- Millay_Sonnet_1923.txt
- Millay_Sonnet_1923.xml
- Petrarca_Sonnet.txt

Die Hauptdatei-Unterstützung ist deaktiviert.

Aktivieren Mehr lesen

Projekt | Referenzierte/Ab..

Millay_Sonnet_1923.xml*

poem text octave stanza

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <poem>
3      <title>I, Being Born a Woman and Distressed</title>
4      <author>Edna St. Vincent Millay</author>
5      <text>
6          <octave>
7              <stanza>
8                  I, being born a woman and distressed
9                  By all the needs and notions of my kind,
10         Am urged by your propinquity to find
11         Your person fair, and feel a certain zest</stanz>
12         <stanza>
13             To bear your body's weight upon my breast:
14             So subtly is the fume of life designed,
15             To clarify the pulse and cloud the mind,
16             And leave me once again undone, possessed.</stanza>
17         </octave>
18         <sestet>
19             <stanza>Think not for this, however, the poor treason
20             Of my stout blood against my staggering brain,
21             I shall remember you with love, or season</stanza>
22             <stanza>My scorn with pity,—let me make it plain:
23             I find this frenzy insufficient reason
24             For conversation when we meet again.</stanza>
25         </sestet>
           </text>
```

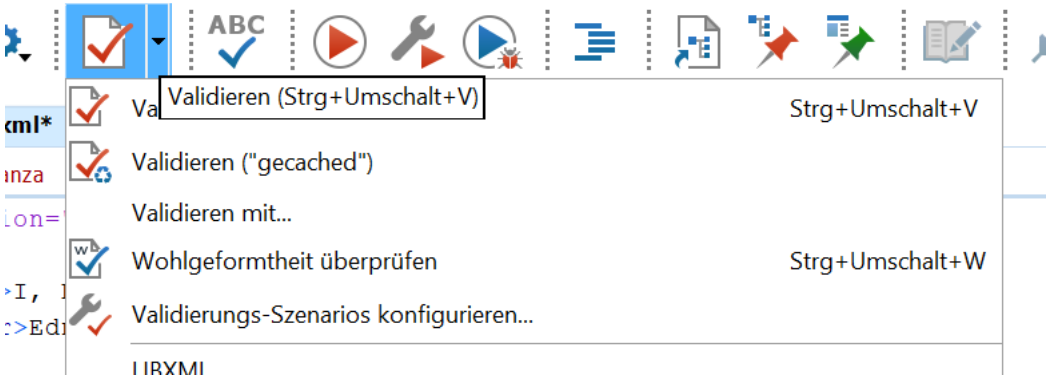
The element type "stanza" must be terminated by the matching end-tag "</stanza>".

Text

Attribute | Elemente | Entitäten

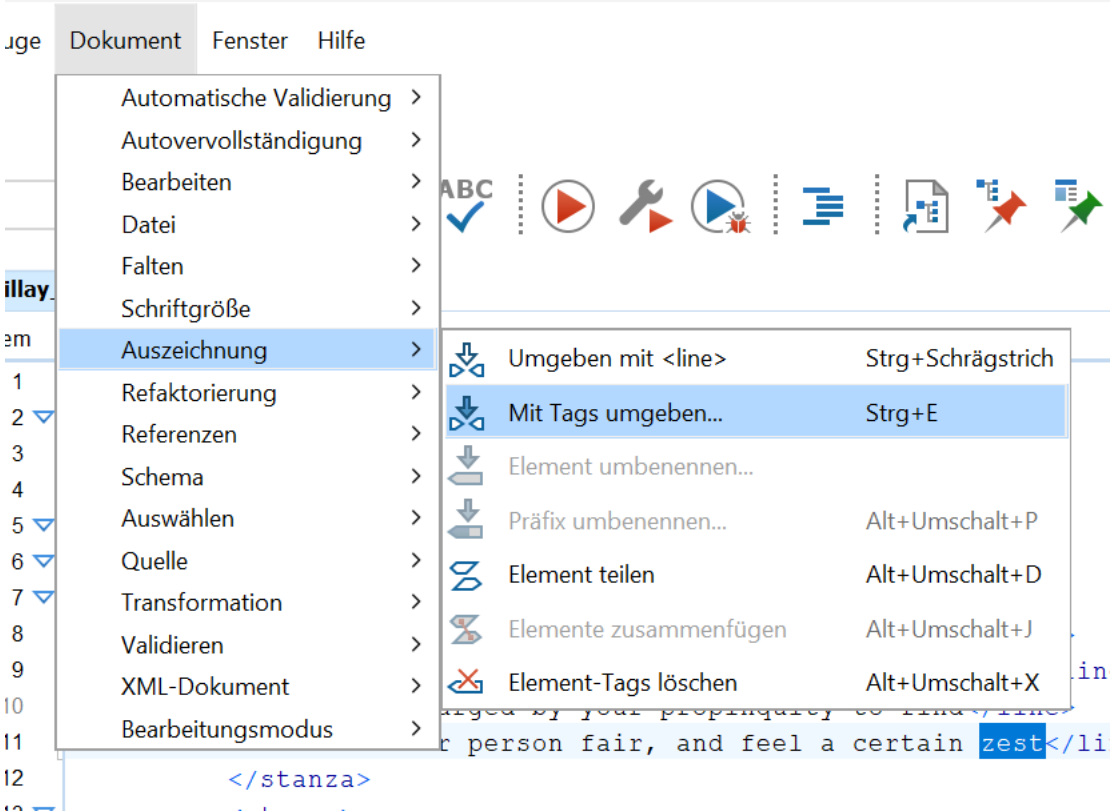
Oxygen

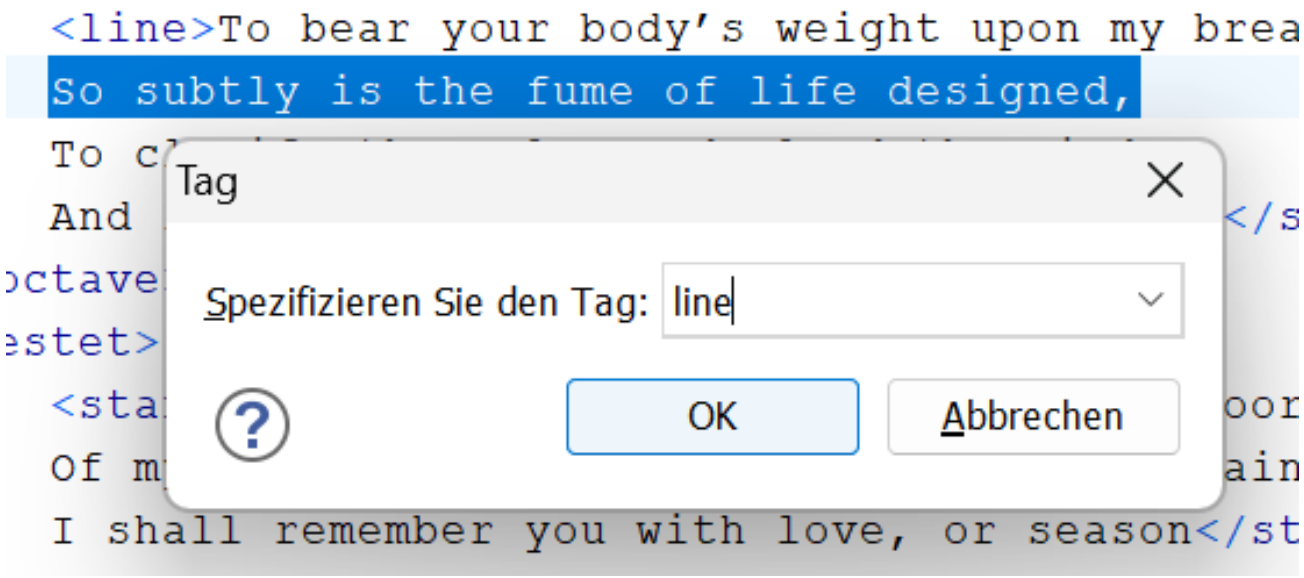
- Validation:
  - Welformed (correct XML syntax) and valid (correct XML names and structure)



Oxygen: Annotating existing text

- Select text range + Ctrl-E
  (menu: document >
  XML-refactoring >
  surround with tags)





Whitespace: line breaks and indention

- XML does merges all whitespace (spaces between characters, words, lines, indentions etc.) into one single whitespace:
- „Oh my love is endless“
  => „Oh my love is endless“
- „Oh
  my
  love is endless“
  => „Oh my love is endless“
- „Oh
  my
  love is endless“
  => „Oh my love is endless“

Oxygen: „Re-format“

- Use your whitespace to make encoding more readable:

```
<octave><stanza><line>I, being born a woman and distressed</line><line>By all the needs and notions of
<line>Am urged by your propinquity to find</line><line>Your person fair, and feel a certain zest</line>
<stanza><line>To bear your body’s weight upon my breast:</line><line>So subtly is the fume of life desi
</octave>
```

Ctrl-Shift+P

```
<stanza>
    <line>I, being born a woman and distressed</line>
    <line>By all the needs and notions of my kind,</line>
    <line>Am urged by your propinquity to find</line>
    <line>Your person fair, and feel a certain zest</line>
</stanza>
<stanza>
    <line>To bear your body’s weight upon my breast:</line>
    <line>So subtly is the fume of life designed,</line>
    <line>To clarify the pulse and cloud the mind,</line>
    <line>And leave me once again undone, possessed.</line>
</stanza>
```

Making Oxygen even more comfortable

- *Ctrl-shift-y* = soft line breaks (Document > edit > toggle line break)
- Offers Frameworks for specific use cases:
  - File -> New -> XML document, TEI all, …
- Oxygen is „schema aware“:
  - Suggest fitting tags: closing tag, fitting tags by a pre-defined schema
  - Learns typical structures from a document opened
  - Let you assign an external schema to your document and validates
- => Just press „<“
-

Text Encoding Initiative

https://tei-c.org

TEI: the community

- Since 1986 by humanistis
- Steered by (policital) board and a (technical) council elected by institutional and individual members (https://members.tei-c.org/)
- The SIGs („Special Interest Groups“)
- The journal (https://jtei.revues.org/)
- The annual conference: https://members.tei-c.org/Events/meetings (this year in Buenos Aires)
- The Mailing-List: https://listserv.brown.edu/archives/cgi-bin/wa?SUBED1=tei-l&A=1

TEI: The guidelines

- http://www.tei-c.org/release/doc/tei-p5-doc/en/html/index.html
- The specs: http://www.tei-c.org/release/doc/tei-p5-doc/en/html/index.html

- The Oxygen-Framework
- The tools:
  - Schema creation: Roma (https://roma.tei-c.org)
  - Document conversion: TEI-garage (https://teigarage.tei-c.org)

TEI ressources

- https://teibyexample.org
- https://teigarage.tei-c.org
- https://teipublisher.com, Edition Visualisation Toolkit (Roberto Roselli del Turco, http://evt.labcd.unipi.it/)

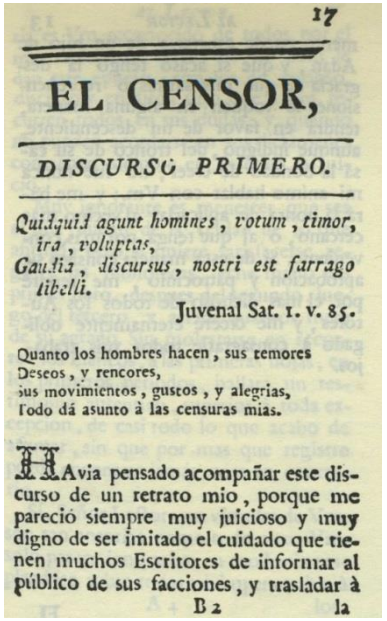
- Example: https://maria-magdalena.ub.uni-freiburg.de/teidoc/

TEI Guidelines: Structure

- Core elements for
  - default text structure
  - Metadata (teiHeader)
- Modules for specific use cases:
  - Poetry, Theater and performanc, Lexica, ...
  - Primary Source: transcription, manuscript descriptions
  - Critical edition
  - Names, dates places

Structure

- 1 The TEI Infrastructure
- 2 The TEI Header
- 3 Elements Available in All TEI Documents
- 4 Default Text Structure
- 5 Characters, Glyphs, and Writing Modes
- 6 Verse
- 7 Performance Texts
- 8 Transcriptions of Speech
- 9 Dictionaries
- 10 Manuscript Description
- 11 Representation of Primary Sources
- 12 Critical Apparatus
- 13 Names, Dates, People, and Places
- 14 Tables, Formulæ, Graphics and Notated Music
- 15 Language Corpora
- 16 Linking, Segmentation, and Alignment
- 17 Simple Analytic Mechanisms
- 18 Feature Structures
- 19 Graphs, Networks, and Trees
- 20 Non-hierarchical Structures
- 21 Certainty, Precision, and Responsibility
- 22 Documentation Elements
- 23 Using the TEI


17

EL CENSOR,

DISCURSO PRIMERO.

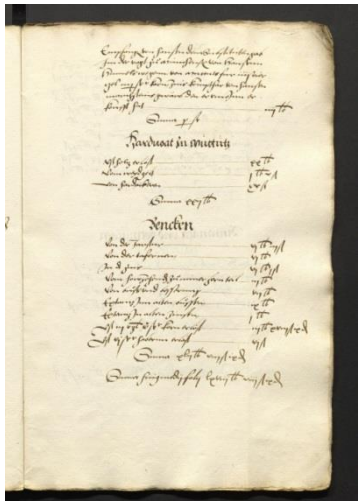
Quidquid agunt homines, votum, timor, ira, voluptas,
Gaudia, discursus, nostri est farrago libelli.

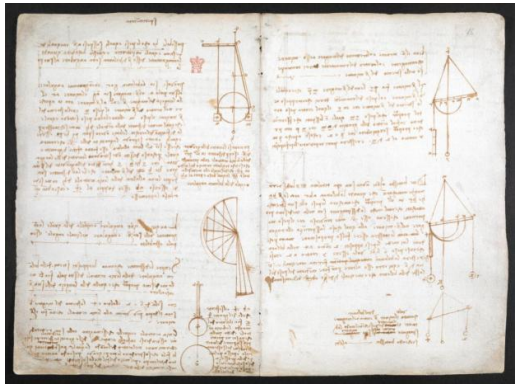
Juvenal Sat. 1. v. 85.

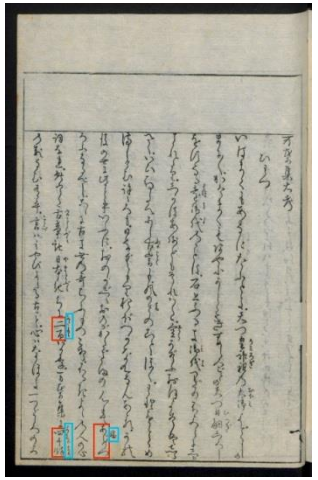
Quanto los hombres hacen, sus temores
Deseos, y rencores,
sus movimientos, gustos, y alegrias,
Todo dá asunto à las censuras mias.

HAvia pensado acompañar este discurso de un retrato mio, porque me pareció siempre muy juicioso y muy digno de ser imitado el cuidado que tienen muchos Escritores de informar al público de sus facciones, y trasladar à

B 2 la







TEI core elements

- Basic structure of the TEI XML document in
  - <teiHeader> (Metadata of the file)
  - <text> (the very text)
    (<front>), <body> (the very-very text), (<back>)
- Text contains: sections , paragraphs <p>, headings <head>, (foot-/end-/marginal)notes <note>, lists <list>/<item>, bibliographic references <bibl>, important parts <emph>, table of content <divGen/>, other language <foreign>, quotation <q>|<quote>|<cit>, images <figure>, tables <table>/<row>/<cell> etc.

TEI: Structure

Alternatives: text can be a:

- an **image (<facsimile>)**
- a linguistic structure (<text>)
- a documentary transcription (<sourceDoc>)

TEI: Structure

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- an image (<facsimile>)
- a **linguistic structure (<text>)**
- a documentary transcription (<sourceDoc>)

Voi ch'ascoltate in rime sparse il suono
di quei sospiri ond'io nudriva 'l core
in sul mio primo giovenile errore
quand'era in parte altr'uom da quel ch'i' sono,

del vario stile in ch'io piango et ragiono
fra le vane speranze e 'l van dolore,
ove sia chi per prova intenda amore,
spero trovar pietà, nonché perdono.

Ma ben veggio or sì come al popol tutto
favola fui gran tempo, onde sovente
di me medesmo meco mi vergogno;

et del mio vaneggiar vergogna è 'l frutto,
e 'l pentersi, e 'l conoscer chiaramente
che quanto piace al mondo è breve sogno.

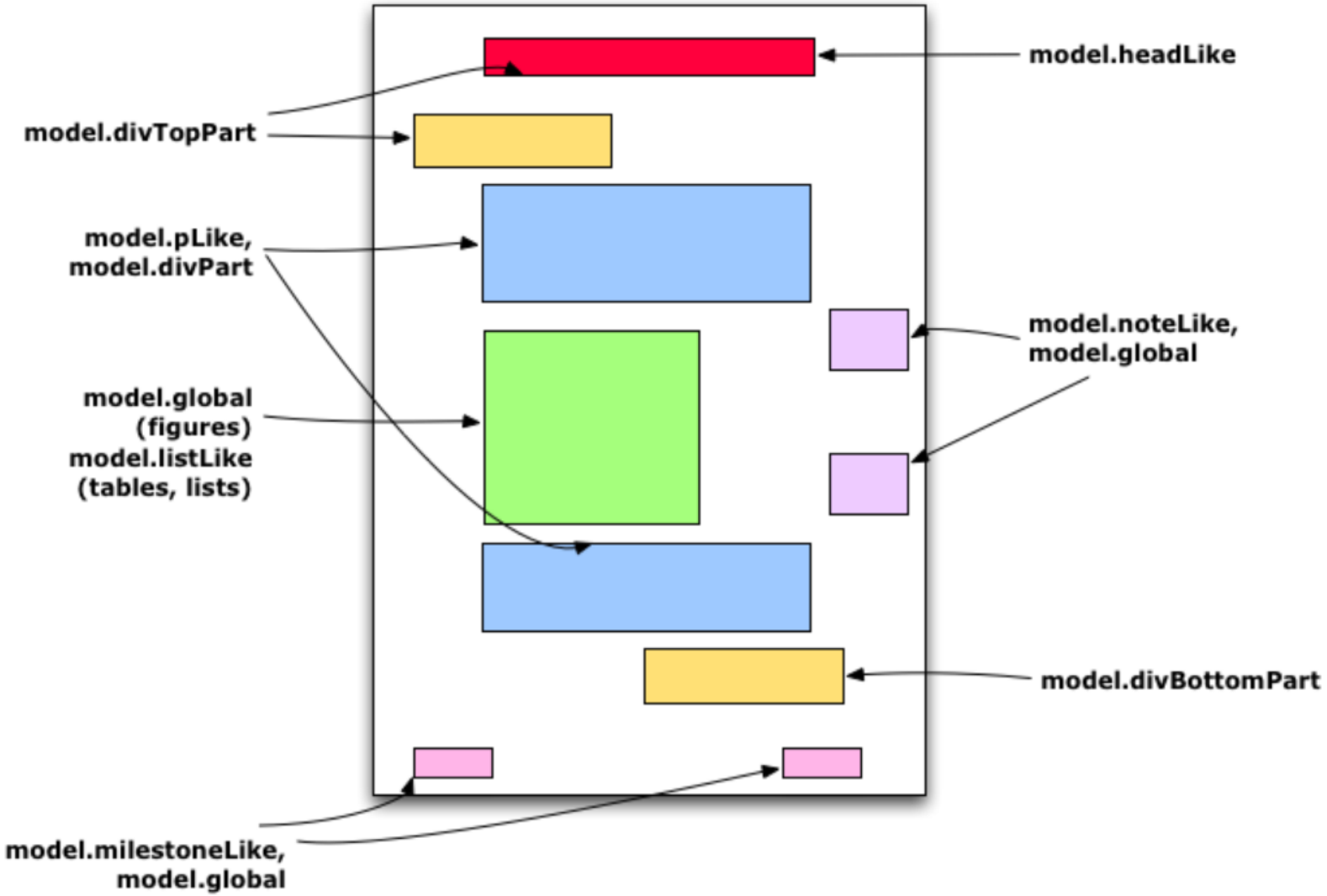
TEI: Structure

Alternatives: text can be a:

- an image (<facsimile>)
- a linguistic structure (<text>)
- a **documentary transcription** (<sourceDoc>)

VOI CHASOLTATE IN RI
ME SPARSE EL SVONO
Di quei sospiri ond'io nudriva 'l core
In sul mio primo giovenile errore
Quand'era in parte altr'uom da quel ch'i' sor
Del vario stile in ch'io piango et ragiono
Fra le vane speranze e 'l van dolore,
Ove sia chi per prova intenda amore,
Spero trovar pietà, nonché perdono.
Ma ben veggio or sì come al popol tutto
Favola fui gran tempo, onde sovente
Di me medesmo meco mi vergogno;
E del mio vaneggiar vergogna è 'l frutto,
E 'l pentersi, e 'l conoscer chiaramente
Che quanto piace al mondo è breve sogno.

TEI basic textual units



TEI by teigarage

1. Convert the edition of the account for Vicedominus Peter von Eck 1337 (BayHStAStV1378.docx) with https://teigarage.tei-c.org/ into TEI P5 XML
2. Open the file in Oxygen
3. Study the XML encoding, read in particular the descriptions in the guidelines on the elements with the names „note“, „p“, „div“, „hi“
4. Discuss with your colleagues how much the annotations cover of the editorial interest
5. try to invent elements that have names that are more precise from the standpoint of an editor.

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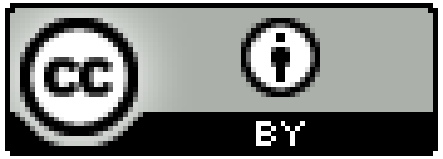

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