

**TEI application profile
for digitised manuscripts
Version 1.0**

Editors:

Sebastian Meyer, Digital Library (Saxon State and University Library Dresden), in cooperation with the work group of the German Manuscript Centres consisting of Carolin Schreiber, Thomas Busch (both Bavarian State Library), Robert Giel (Berlin State Library), Christoph Mackert (University Library Leipzig) as well as Torsten Schaßan (Herzog August Library Wolfenbüttel).

On the basis of Catalogue Requirements for Metadata of the Europeana Regia project by Torsten Schaßan (Herzog August Library Wolfenbüttel) in cooperation by Dominique Stutzmann, Matthieu Bonicel and Anne-Sophie Delhaye (all French National Library).

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Zellescher Weg 18
D-01069 Dresden

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1 INTRODUCTION

This TEI application profile aims to standardize the development and bibliographic description of digitised - mainly mediaeval and early modern - manuscripts, which are mostly created as part of specific digitisation projects. The goal is to improve the interoperability of bibliographic metadata of digitised manuscripts in order to make digital assets searchable and usable in comprehensive applications, even if they were originally created in different projects. As examples of such comprehensive applications, we refer to the DFG Viewer¹, the Manuscript Portal Manuscripta Mediaevalia², the German Digital Library³ and Europeana⁴.

This documentation is therefore mainly addressing persons and organisations who create metadata for digitised manuscripts and who want to make them accessible in different applications. We also address persons and organisations who create applications for the display of digitised manuscripts.

This application profile is normally used conjointly with the following standards:

- the METS application profile⁵, which describes which metadata is necessary in order to describe the structure of digitised manuscripts and prints;
- the DFG Viewer structure data set⁶, which describes the structure types used in the logical structure unit of the METS structure description.

1.1 Implementation information

The basis for this application profile are the *Text Encoding Initiative Guidelines* (TEI) in version P5 with modules *tei*, *core*, *header*, *namesdates* and *msdescription*.⁷ The profile only considers the `tei:teiHeader`-part of the TEI standard, which can be directly embedded into `mets:dmdSec` of a METS file. All elements described in this profile are subelements of `tei:teiHeader/tei:fileDesc`.

All bibliographical and descriptive information to a manuscript always refer to the physical object, which formed the basis for the digital asset coded in METS/TEI. These specifications are coded as subelements of `tei:sourceDesc/tei:msDesc`. In addition to this, only a few basic administrative metadata is recorded for the digital asset, which are coded as subelements of `tei:titleStm` or `tei:publicationStm` (refer to chapter 2.5).⁸

¹ <http://dfg-viewer.de>

² <http://www.manuscripta-mediaevalia.de>

³ <http://www.deutsche-digitale-bibliothek.de>

⁴ <http://europeana.eu>

⁵ <http://dfg-viewer.de/profil-der-metadaten/>

⁶ <http://dfg-viewer.de/strukturdatenset/>

⁷ <http://www.tei-c.org/Guidelines/P5/>

⁸ The path specifications are to be understood as relative to the basic path specified above - the entire path e.g. for the manuscript description is therefore `tei:teiHeader/tei:fileDesc/tei:sourceDesc/tei:msDesc`.

The degree of obligation is differentiated according to obligatory, conditional (conditionally obligatory) and optional, and orients itself towards the DFG Viewers' requirements as well as the Europeana Regia project. Accordingly, the profile is also not used for a complete scientific description of a manuscript, but mainly designed to code a manuscript digital asset for internet presentation and data exchange.

The profile can be limited and upgraded for project specific requirements if necessary. All limitations and upgrades, however, have to conform with TEI-P5 and may not be in conflict with the semantics specified in the present profile.

According to the DFG's best practice for digitisation⁹, this profile for digitised manuscripts has to be applied conjointly with the METS application profile¹⁰ in the context of digitisation projects funded by the German Research Foundation (DFG). Together, these two application profiles describe the data format necessary for the correct display of digital assets in the DFG Viewer.

Metadata that corresponds to this profile has to be available in UTF-8¹¹ code. The coding language should be specified for every metadata within the relevant element with the universal attribute `xml:lang`. The values of the attribute have to correspond with BCP47¹².

Complete METS/TEI example documentation as well as a METS/TEI validator can be found on the DFG Viewer website.¹³

⁹ http://www.dfg.de/formulare/12_151/

¹⁰ <http://dfg-viewer.de/profil-der-metadaten/>

¹¹ <http://tools.ietf.org/html/rfc3629>

¹² <http://www.rfc-editor.org/rfc/bcp/bcp47.txt>

¹³ <http://dfg-viewer.de/profil-der-metadaten/beispiele/>

2 Metadata profiles for use of TEI elements and attributes

The following chapter describes the permissible TEI data elements for this application profile. The description follows the following set-up:

TEI-Definition: Represents the definition or description of the element or subelement in the *TEI-P5 Guidelines*¹⁴.

Comments: Contains profile specific information about the element or subelement.

Repeatable: Indicates if an element or subelement can be repeated.

Degree of obligation: Indicates if an element or subelement has to be present at least once. The obligation can result from a specific requirement by the DFG Viewer and the general TEI scheme. The following values are applicable:

obligatory: the element must be present (is, however, not necessarily analysed by the DFG Viewer);

optional: the element may be present;

conditional: the use of the element depends on the context in which it is used.

Attributes: Names the attributes, which can or must be used with an element or subelement.

Values: Names the attributes or their value range which are permissible with the use of a certain element, subelement or attribute.

2.1 Specification for identification

The specification of the currently valid signature, the depository and the facility owning the manuscript are necessary to identify the described manuscript. Specifications for title, old signatures, catalogue numbers and non-canonical names of the manuscript are optional. For (summary) titles formed according to DFG-guidelines please refer to chapter 2.4.1.

All elements described in this section are subelements of `tei:teiHeader/tei:fileDesc/tei:sourceDesc/tei:msDesc`.

¹⁴ <http://www.tei-c.org/Guidelines/P5/>

2.1.1 Bibliographic title files - `tei:head`

TEI-Definition: Contains any type of heading; for example the title of a section, or the heading of a list, glossary, manuscript description, etc.

Comments: Contains the bibliographical title data of a manuscript.

Repeatable: No

Degree of conditional

obligation: A `tei:msDesc` has to contain exactly one `tei:head`, if there has to be a subelement `tei:title` (refer to section 2.1.2.1).

2.1.2 Subelements for `tei:head`

2.1.2.1 Manuscript title – `tei:title`

TEI-Definition: Contains a title for any kind of work.

Comments: Contains the title of the manuscript.

Repeatable: No

Degree of conditional

obligation: If the manuscript has a title, it must be stated here.

2.1.3 Identification – `tei:msIdentifier`

TEI-Definition: Contains the information required to identify the manuscript being described.

Repeatable: No

Degree of obligatory

obligation: A `tei:msDesc` has to contain exactly one `tei:msIdentifier`.

2.1.4 Subelement to `tei:msIdentifier`

2.1.4.1 Settlement – `tei:settlement`

TEI-Definition: Contains the name of a settlement such as a city, town, or village identified as a single geo-political or administrative unit.

Comments: Contains the geographic settlement of the manuscript.

Repeatable: No

Degree of obligatory

obligation: A `tei:msIdentifier` has to contain exactly one `tei:settlement`.

2.1.4.2 Organisational structure – `tei:institution`

TEI-Definition: Contains the name of an organization, such as a university or library, with which a manuscript is identified; generally its holding institution.

Comments: Contains the superordinate organisational unit to which the settlement organisation for the manuscript belongs, e.g. in the case of a university library this would be the name of the university.

Repeatable: No

Degree of optional

obligation:

2.1.4.3 Repository organisation – `tei:repository`

TEI-Definition: Contains the name of a repository within which manuscripts are stored, possibly forming part of an institution.

Comments: Contains the name of the repository organisation for the manuscript.

Repeatable: No

Degree of obligatory

obligation: A `tei:msIdentifier` has to contain exactly one `tei:repository`.

2.1.4.4 Collection affiliation – `tei:collection`

TEI-Definition: Contains the name of a collection of manuscripts, not necessarily located within a single repository.

Comments: Contains the name of a collection to which the manuscript is affiliated.

Repeatable: Yes

Every collection has to be coded in an individual `tei:collection` element.

Degree of optional

obligation:

2.1.4.5 Signature – `tei:idno`

TEI-Definition: Supplies any form of identifier used to identify some object, such as a bibliographic item, a person, a title, an organization, etc. in a standardized way.

Comments: Contains an identifier which is unique within the repository organisation; usually this is the signature and, if necessary, supplemented by a specification of the sheets which extends across the logical structure.

Repeatable: No

Degree of obligatory

obligation: A `tei:msIdentifier` has to contain exactly one `tei:idno`.

2.1.4.6 Non-canonical name - `tei:msName`

TEI-Definition: Contains any form of unstructured alternative name used for a manuscript, such as an 'ocellus nominum', or nickname.

Comments: Contains a non-canonical name (e.g. from literature) under which the manuscript, the fragment or similar is known.

Repeatable: Yes
Every name has to stand in an individual `tei:msName` element.

Degree of obligation: optional, but recommended

2.1.4.7 Further identifiers – `tei:altIdentifier`

TEI-Definition: Contains an alternative or former structured identifier used for a manuscript, such as a former catalogue number.

Comments: Contains old signatures and other alternative identifiers such as catalogue numbers.

Repeatable: Yes
Every signature has to be coded in an individual `tei:altIdentifier` element.

Degree of obligation: optional

Attributes: More detailed specifications about the type of alternative identifiers can be made via the `type` attribute. The use of the following values is recommended:

- **former:** for old signatures,
- **catalog:** for catalogue numbers,
- **alternative:** for alternative signatures.

Values: The same subelements apply for `tei:altIdentifier` as those mentioned in section 2.1.4 and the same rules apply as for `tei:msIdentifier`, however, only `tei:idno` is obligatory as subelement since `tei:altIdentifier` cannot itself contain `tei:altIdentifier` as a subelement.

2.1.5 Examples

Minimum specification for the DFG Viewer

```
<tei:msIdentifier>
  <tei:settlement>Wolfenbüttel</tei:settlement>
  <tei:repository>Herzog August Bibliothek</tei:repository>
  <tei:idno>Cod. Guelf. 81.17 Aug. 2°</tei:idno>
</tei:msIdentifier>
```

Further specifications for collections and the superordinate institution

```
<tei:msIdentifier>
  <tei:settlement>Heidelberg</tei:settlement>
  <tei:institution>Universität Heidelberg</tei:institution>
  <tei:repository>Universitätsbibliothek Heidelberg</tei:repository>
  <tei:collection>Codices Palatini germanici</tei:collection>
  <tei:idno>Cod. Pal. Germ. 848</tei:idno>
```

```
</tei:msIdentifier>
```

Identification with specification of a non-canonical name

```
<tei:msIdentifier>
  <tei:settlement>Wolfenbüttele</tei:settlement>
  <tei:repository>Herzog August Bibliothek</tei:repository>
  <tei:idno>Cod. Guelf. 9.8 Aug. 4°</tei:idno>
  <tei:msName>Notae Senecae, i. e. Lexicon notarum Tironiarum.</tei:msName>
  <tei:altIdentifier type="alternative">
    <tei:idno>Cod. Guelf. 9. 8. Aug. 4to.</tei:idno>
  </tei:altIdentifier>
  <tei:altIdentifier type="catalog">
    <tei:collection>Heinemann</tei:collection>
    <tei:idno>2989</tei:idno>
  </tei:altIdentifier>
</tei:msIdentifier>
```

Further information about the prior ownership and an alternative signature

```
<tei:msIdentifier>
  <tei:settlement>Köln</tei:settlement>
  <tei:repository>Erzbischöfliche Diözesan- und Dombibliothek</tei:repository>
  <tei:idno>Cod. 1001b</tei:idno>
  <tei:altIdentifier type="former">
    <tei:settlement>Darmstadt</tei:settlement>
    <tei:idno>2084</tei:idno>
  </tei:altIdentifier>
  <tei:altIdentifier type="alternative">
    <tei:collection>Diözesanbibliothek</tei:collection>
    <tei:idno>Cod. 1b</tei:idno>
  </tei:altIdentifier>
</tei:msIdentifier>
```

2.2 Specifications about history and provenance

In addition to information about the time of origin and the place of origin of the manuscript, it is also possible to make specifications about previous owners.

All elements described in this section are subelements of `tei:teiHeader/tei:fileDesc/tei:sourceDesc/tei:msDesc/tei:history`.

2.2.1 Origin – `tei:origin`

TEI-Definition: Contains any descriptive or other information concerning the origin of a manuscript or manuscript part.

Comments: Contains information about the origin of the manuscript.

Repeatable: No

Degree of optional

obligation: (Europeana: obligatory)

Values: The content of the element can be formulated as continuous text and structured with paragraphs featured in `tei:p`. Specifications about the place of origin and time of origin have to be highlighted within text using `tei:origPlace` or `tei:origdate` as

follows.

2.2.2 Subelements for `tei:origin`

2.2.2.1 Place of origin - `tei:origPlace`

TEI-Definition: Contains any form of place name, used to identify the place of origin for a manuscript or manuscript part.

Comments: Contains the place of origin of the manuscript, as it should be displayed in the DFG Viewer.

Repeatable: No

Degree of optional, but recommended

obligation: (Europeana: obligatory)

2.2.2.2 Time of origin - `tei:origDate`

TEI-Definition: Contains any form of date, used to identify the date of origin for a manuscript or manuscript part.

Comments: Contains information about the time of origin of the manuscript, as it should be displayed in the DFG Viewer.

Repeatable: No

Degree of optional, but recommended

obligation: (Europeana: obligatory)

Attributes: Of the attributes permissible in TEI, only the following are used:

- `when`: for a correct date/time specification,
- `notBefore`: for the earliest possible point in time,
- `notAfter`: for the latest possible point in time,
- `from`: for the start of a time period,
- `to`: for the end of a time period.

Values: All attribute values have to comply with the standard *W3C Datetime Format*¹⁵ and are used e.g. for the indexing in research systems.

2.2.3 Provenance – `tei:provenance`

TEI-Definition: Contains any descriptive or other information concerning a single identifiable episode during the history of a manuscript or manuscript part after its creation but before its acquisition.

Comments: Contains information about the provenance of the manuscript.

Repeatable: Yes

Every prior ownership has to be coded in an individual `tei:provenance`. `tei:history` is, however, itself not repeatable.

Degree of optional

obligation:

Values: The content of the element can be formulated as continuous text

¹⁵ <http://www.w3.org/TR/xmlschema-2/#dateTime>

and structured in paragraphs marked with `tei:p`. Persons and organisations mentioned within the text should be highlighted with `tei:persName` OR `tei:orgName`.

2.2.4 Examples

Minimum specification for the DFG Viewer

```
<tei:origin>
  <tei:origPlace>weissenburg</tei:origPlace>
  <tei:origDate notBefore="0851" notAfter="0900">IX. Jh., 2. H.</tei:origDate>
</tei:origin>
```

Specifications about the origin as continuous text

```
<tei:origin>
  Die Handschrift entstand im Zeitraum
  <tei:origDate from="0834" to="0843">834 bis 843</tei:origDate>
  im karolingischen
  <tei:origPlace>Tours</tei:origPlace>.
</tei:origin>
```

Specifications about prior owners

```
<tei:origin>
  <tei:origDate notBefore="0801" notAfter="0850">1. H. d. 9. Jh.</tei:origDate>
</tei:origin>
<tei:provenance>
  Im Mittelalter befand sich die Handschrift im
  <tei:orgName>Kloster St. Bertin</tei:orgName>
  bei St. Omer.
</tei:provenance>
<tei:provenance>
  <tei:persName>Herzog August</tei:persName>
  erwarb sie 1655 in Nürnberg durch Vermittlung seines Bücheragenten
  <tei:persName>Georg Forstenheuser</tei:persName>.
</tei:provenance>
```

2.3 Specifications for the physical quality

The physical description of the manuscript should at least have specifications which are traditionally part of the "header", i.e. writing material, number of sheets and format.¹⁶ Furthermore, it is possible to specify other information (optional) about watermarks, foliation, collation, condition and other physical properties.

All elements described in this section are subelements of `tei:teiHeader/tei:fileDesc/tei:sourceDesc/tei:msDesc/tei:physDesc`.

2.3.1 Physical object properties - `tei:objectDesc`

TEI-Definition: Contains a description of the physical components making up the object which is being described.

Comments: Contains description of outer physical quality of the manuscript.

Repeatable: No

Degree of optional

obligation: (Europeana: obligatory)

Attributes: The outward form can be coded in the `form` attribute. The use of the following attribute values is recommended:

- **codex:** for a codex,
- **fascicle:** for a fascicle,
- **roll:** for a scroll,
- **fragment:** for a manuscript fragment,
- **leaf:** for an individual sheet.

2.3.2 Subelements for `tei:objectDesc`

2.3.2.1 Material – `tei:supportDesc`

TEI-Definition: Groups elements describing the physical support for the written part of a manuscript.

Comments: Contains information about the material of the manuscript.

Repeatable: No

Degree of optional

obligation: (Europeana: obligatory)

Attributes: The material specification is made in the attribute `material`. The use of the following attribute values is recommended:

- **paper:** for paper,
- **parchment:** for parchment,
- **papyrus:** for papyrus,
- **mixed:** for mixed materials.

¹⁶ To code specifications about time of origin and place of origin, which are also included in the header, please refer to section 2.2.1.

2.3.2.2 Writing material – `tei:supportDesc/tei:support`

TEI-Definition: Contains a description of the materials etc. which make up the physical support for the written part of a manuscript.

Comments: Contains specifications about special characteristics of the writing material.

Repeatable: No

Degree of

obligation:

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`. Within the text it is possible to highlight heraldic features, materials, signatures, stamps and watermarks using `tei:heraldry`, `tei:material`, `tei:signatures`, `tei:stamp` OR `tei:watermark`.

2.3.2.3 Extent – `tei:supportDesc/tei:extent/tei:measure`

TEI-Definition: Contains a word or phrase referring to some quantity of an object or commodity, usually comprising a number, a unit, and a commodity name.

Comments: Contains quantity specifications such as number of sheets, which is also displayed in DFG Viewer.

Repeatable: Yes

Within `tei:extent` it is possible to have any number of `tei:measure`. `tei:extent` is, however, itself not repeatable.

Degree of

obligation:

(Europeana: the number of sheets specification is obligatory)

Attributes: The type of quantity specification has to be specified in more detail via the `type` attribute. The use of the following attribute values is obligatory:

- **LeavesCount:** for the number of sheets.

2.3.2.4 Format – `tei:supportDesc/tei:extent/tei:dimensions`

TEI-Definition: Contains a dimensional specification.

Comments: Contains specifications about the physical dimensions such as sheet format which is also displayed in the DFG Viewer.

Repeatable: Yes

Within `tei:extent` it is possible to have any number of `tei:dimensions`. `tei:extent` itself is, however, not repeatable.

Degree of

obligation:

(Europeana: the sheet format specification is obligatory)

Attributes: The `unit` attribute can include the measuring unit of the size specifications (e.g. *cm*). Using the `type` attribute, it has to be specified what the dimension specification refer to. The use of the following attribute values is obligatory:

- **Leaves:** for sheet format.

Values: The precise size specifications are made in the subelements `tei:depth`, `tei:height` as well as `tei:width`.

2.3.2.5 Foliation – `tei:supportDesc/tei:foliation`

TEI-Definition: Describes the numbering system or systems used to count the leaves or pages in a codex.

Comments: Contains information about foliation.

Repeatable: Yes
There can be several `tei:foliation` within `tei:supportDesc`.

Degree of

obligation:

optional

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

2.3.2.6 Collation – `tei:supportDesc/tei:collation`

TEI-Definition: Contains a description of how the leaves or bifolia are physically arranged.

Comments: Contains the layers description.

Repeatable: No

Degree of

obligation:

optional

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

2.3.2.7 Condition – `tei:supportDesc/tei:condition`

TEI-Definition: Contains a description of the physical condition of the manuscript.

Comments: Contains information about the condition of the writing material.

Repeatable: No

Degree of

obligation:

optional

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

2.3.2.8 Layout – `tei:layoutDesc/tei:layout`

TEI-Definition: Describes how text is laid out on the page, including information about any ruling, pricking, or other evidence of page-preparation techniques.

Comments: Contains the description of the page layout.

Repeatable: Yes
Several `tei:layout` can appear in `tei:layoutDesc`.

Degree of

obligation:

optional

Attributes: Numerical specification about the number of columns, ruled or written lines can be made via the attributes `columns`, `ruledLines` and `writtenLines`.

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

2.3.2.9 Text block – `tei:layoutDesc/tei:layout/tei:dimensions`

- TEI-Definition:** Contains a dimensional specification.
- Comments:** Contains specification about the physical dimension of the text block or the written area.
- Repeatable:** No
- Degree of obligation:** optional
- Attributes:** The `unit` attribute can contain the measuring unit of the size specification. Using the `type` attribute, it has to be specified what the dimension specification refer to. The use of the following attribute values is obligatory:
- *written*: for text block.
- Values:** The precise size specifications are made in the subelements `tei:height` as well as `tei:width`.

2.3.3 Script and writer - `tei:handDesc`

- TEI-Definition:** Contains a description of all the different kinds of writing used in a manuscript.
- Comments:** Contains specifications about written form, hands, punctuation, orthography, trial pen-strokes, etc.
- Repeatable:** No
- Degree of obligation:** optional
- Attributes:** The optional `hands` attribute specifies the number of identified hands.

2.3.4 Subelements for `tei:handDesc`

2.3.4.1 Style and hand - `tei:handNote`

- TEI-Definition:** Describes a particular style or hand distinguished within a manuscript.
- Comments:** Contains the description of a written form or hand.
- Repeatable:** Yes
- Several `tei:handNote` can appear in `tei:handDesc`. Every hand should be described in an individual `tei:handNote`.
- Degree of obligation:** conditional
- Attributes:** At least one `tei:handNote` has to appear in `tei:handDesc`.
- Attributes:** The writer can be created via the `scribe` attribute, whilst the `script` attribute can contain formal specifications about the lettering.
- Values:** The content of the element can be formulated as continuous text and structured with paragraphs featured in `tei:p`.

2.3.5 Book decoration – `tei:decoDesc/tei:decoNote`

TEI-Definition: Contains a note describing either a decorative component of a manuscript, or a fairly homogeneous class of such components.

Comments: Contains the description of the decoration element.

Repeatable: Yes
Several `tei:decoNote` can appear in `tei:decoDesc`. `tei:decoDesc` itself is, however, not repeatable. Every decoration element should be described in an individual `tei:decoNote`.

Degree of optional

obligation:

Attributes: The type of book decoration should be formally classified in the `type` attribute.

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`. If the text contains the name of an artist, then this should be explicitly highlighted with `tei:persName` using a suitable `role` attribute value (e.g. *illustrator*).

2.3.6 Additions – `tei:additions`

TEI-Definition: Contains a description of any significant additions found within a manuscript, such as marginalia or other annotations.

Comments: Contains the description of additions such as marginalia and annotations.

Repeatable: No

Degree of optional

obligation:

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

2.3.7 Binding – `tei:bindingDesc/tei:binding`

TEI-Definition: Contains a description of one binding, i.e. type of covering, boards, etc. applied to a manuscript.

Comments: Contains the description of the binding.

Repeatable: Yes
Several `tei:binding` can appear in `tei:bindingDesc`. `tei:bindingDesc` is, however, not repeatable. Every binding should be described in an individual `tei:binding`.

Degree of optional

obligation:

Attributes: Using the `contemporary` attribute, a specification should be made whether it is a contemporary binding. The following values are obligatory:

- **true:** for a contemporary binding,
- **false:** for a more recent binding,
- **unknown:** for undated bindings or manuscripts.

Values: The content of the element can be formulated as continuous text

and structured in paragraphs marked with `tei:p`.

2.3.8 Additional material – `tei:accMat`

TEI-Definition: Contains details of any significant additional material which may be closely associated with the manuscript being described, such as non-contemporaneous documents or fragments bound in with the manuscript at some earlier historical period.

Comments: Contains the description of additional materials.

Repeatable: No

Degree of obligation: optional

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

Kommentiert [MH1]: Sollte das nicht `tei:addMat` sein

Additional material – `tei:accMat`?

2.3.9 Examples

Minimum specifications for Europeana Regia

```
<tei:objectDesc form="codex">
  <tei:supportDesc material="parchment">
    <tei:support>Pergament</tei:support>
    <tei:extent>
      <tei:measure type="leavesCount">118 Bl.</tei:measure>
      <tei:dimensions type="leaf" unit="cm">
        <tei:height>23,5</tei:height>
        <tei:width>14,5</tei:width>
      </tei:dimensions>
    </tei:extent>
  </tei:supportDesc>
</tei:objectDesc>
```

Extensive specifications to different physical characteristics

```
<tei:objectDesc form="codex">
  <tei:supportDesc material="parchment">
    <tei:support>Pergament</tei:support>
    <tei:extent>
      <tei:measure type="leavesCount">155 Bl.</tei:measure>
      <tei:dimensions type="leaf" unit="cm">
        <tei:height>17,4</tei:height>
        <tei:width>17,3</tei:width>
      </tei:dimensions>
    </tei:extent>
    <tei:foliation>
      <tei:locus from="54v" to="56r"> zwischen f.54 und 56</tei:locus> ein
      Blatt beim Folieren übersprungen
    </tei:foliation>
    <tei:collation>
      6 IV (48). IV (57). 5 IV (97). IV-2 (103). IV-2 (109). IV (117). IV-1
      (124). II-2 (126). II-2 (128). I-1 (129). IV-3 (134). 2 IV (150). III-
      1 (155). vs (Papier)
    </tei:collation>
  </tei:supportDesc>
</tei:objectDesc>
```

```
</tei:supportDesc>
<tei:layoutDesc>
  <tei:layout columns="2">Zwei-Kolumnen-Schreibweise</tei:layout>
</tei:layoutDesc>
</tei:objectDesc>
<tei:handDesc hands="2">
  <tei:handNote script="carolmin">
    Karolingische Minuskel der <tei:date>1. H. des 9. Jhs.</tei:date>,
    Haupttext von einem Schreiber, Nachträge und Einschübe ausgenommen.
  </tei:handNote>
</tei:handDesc>
<tei:decoDesc>
  <tei:decoNote type="initial">
    Dreizeilige Majuskelinitialen zu Beginn der Handschrift und einzelner
    Bücher.
  </tei:decoNote>
  <tei:decoNote type="rubric">
    Capitalis rustica als Auszeichnungsschrift am Beginn der einzelnen Bücher.
  </tei:decoNote>
</tei:decoDesc>
<tei:additions>
  Am Rand Nachträge aus dem <tei:date>9. Jh.</tei:date>.
</tei:additions>
<tei:bindingDesc>
  <tei:binding contemporary="false">
    <tei:p>Durch Pappe verstärkter heller Pergamenteinband, im Auftrag von
    <tei:name>Herzog August dem Jüngeren</tei:name> um
    <tei:date>1658</tei:date> gefertigt.</tei:p>
  </tei:binding>
</tei:bindingDesc>
<tei:accMat>
  Auf dem Vorsatzblatt hielten sowohl Georg Burckhardt Lauterbach, Karl Philipp
  Christian Schönemann und Otto von Heinemann ihre Beobachtungen zur Handschrift
  fest.
</tei:accMat>
```

2.4 Information about the content of the manuscript

In addition to the (obligatory on a bibliographic level) summary title, it is possible to make more precise specifications about the intellectual content of the manuscript and individual parts such as dependent fragments, texts etc.

All elements described in this section are subelements of `tei:teiHeader/tei:fileDesc/tei:sourceDesc/tei:msDesc/tei:msContents`.

2.4.1 Summary content – `tei:summary`

TEI-Definition: Contains an overview of the available information concerning some aspect of an item (for example, its intellectual content, history, layout, typography etc.) as a complement or alternative to the more detailed information carried by more specific elements.

Comments: Offers a summary overview of the content.

Repeatable: No

Degree of obligation: optional, but recommended

2.4.2 Language – `tei:textLang`

TEI-Definition: Describes the languages and writing systems identified within the bibliographic work being described, rather than its description.

Comments: Contains specifications about the languages in which the text of the manuscript has been written.

Repeatable: No

Degree of obligation: optional, but recommended

(Europeana: obligatory)

Attributes: The `mainLang` attribute should mainly specify the language which is used most, whilst all other languages occurring in the manuscript should be mentioned separated with a space in the `otherLangs` attribute.

Values: The attribute values should be language codes according to the ISO 639-2 or ISO 639-3.

2.4.3 Text – `tei:msItem`

TEI-Definition: Contains a description for an individual work or item within the intellectual content of a manuscript or manuscript part.

Comments: Contains the description of an individual text or any other dependent part of a manuscript.

Repeatable: Yes

Degree of obligation: optional

obligation:

Attributes: The type of text can be classified in the `class` attribute.

2.4.4 Subelements for `tei:msItem`

2.4.4.1 Location in manuscript – `tei:locus`

TEI-Definition: Defines a location within a manuscript or manuscript part, usually as a (possibly discontinuous) sequence of folio references.

Comments: The element refers to a location in the manuscript usually as a series of folio numbers.

Repeatable: Yes

Degree of

obligation:

Attributes: The interval of folio numbers can also be specified numerically using the `from` and `to` attributes.

2.4.4.2 Author – `tei:author`

TEI-Definition: In a bibliographic reference, contains the name(s) of an author, personal or corporate, of a work.

Comments: Contains the author of a text.

Repeatable: Yes

Degree of

obligation:

2.4.4.3 Title – `tei:title`

TEI-Definition: Contains a title for any kind of work.

Comments: Contains the title of the described unit.

Repeatable: No

Degree of

obligation:

2.4.4.4 Rubric – `tei:rubric`

TEI-Definition: Contains the text of any rubric or heading attached to a particular manuscript item, that is, a string of words through which a manuscript signals the beginning of a text division, often with an assertion as to its author and title, which is in some way set off from the text itself, usually in red ink, or by use of different size or type of script, or some other such visual device.

Comments: Contains the rubric of the described text.

Repeatable: Yes

Degree of

obligation:

2.4.4.5 Incipit – *tei:incipit*

TEI-Definition: Contains the incipit of a manuscript item, that is: the opening words of the text proper, exclusive of any rubric which might precede it, of sufficient length to identify the work uniquely; such incipits were, in former times, frequently used as a means of reference to a work, in place of a title.

Comments: Contains the incipit of the described text (without rubric).

Repeatable: Yes

Degree of obligation: optional

2.4.4.6 Explicit – *tei:explicit*

TEI-Definition: Contains the explicit of a manuscript item, that is, the closing words of the text proper, exclusive of any rubric or colophon which might follow it.

Comments: Contains the explicit of the described text (without final rubric or colophon).

Repeatable: Yes

Degree of obligation: optional

2.4.4.7 Final rubric– *tei:finalRubric*

TEI-Definition: Contains the string of words that denotes the end of a text division, often with an assertion as to its author and title, usually set off from the text itself by red ink, by a different size or type of script, or by some other such visual device.

Comments: Contains the final rubric of the described text.

Repeatable: Yes

Degree of obligation: optional

2.4.4.8 Colophon – *tei:colophon*

TEI-Definition: Contains the colophon of a manuscript item; that is, a statement providing information regarding the date, place, agency, or reason for production of the manuscript.

Comments: Contains a colophon.

Repeatable: Yes

Degree of obligation: optional

2.4.4.9 Text decoration – tei:decoNote

TEI-Definition: Contains a note describing either a decorative component of a manuscript, or a fairly homogenous class of such components.

Comments: Contains the description of an element decorating the text. General book decoration is described as part of the physical features (refer to section 2.3.5).

Repeatable: Yes

Degree of optional

obligation:

Values: The content of the element can be formulated as continuous text and structured in paragraphs marked with `tei:p`.

2.4.4.10 Language – tei:textLang

TEI-Definition: Describes the languages and writing systems identified within the bibliographic work being described, rather than its description.

Comments: Contains specifications about the languages in which the text has been written.

Repeatable: No

Degree of optional

obligation:

Attributes: The `mainLang` attribute should mainly specify the language which is used most, whilst all other languages occurring in the manuscript should be mentioned separated with a space in the `otherLangs` attribute.

Values: The attribute values should be language codes according to the ISO 639-2 or ISO 639-3.

2.4.5 Examples

Minimum specification for the DFG Viewer

```
<tei:summary>
  <tei:persName role="author">Augustinus</tei:persName>, De civitate Dei I-IV
</tei:summary>
```

Additional specifications to the language and an included text

```
<tei:summary>
  <tei:persName role="author">Aurelius Prudentius</tei:persName>: Opera
</tei:summary>
<tei:textLang mainLang="lat" otherLangs="goh">
  Latein mit althochdeutschen Glossen.
</tei:textLang>
<tei:msItem class="text">
  <tei:author>Gennadius Massiliensis</tei:author>
  <tei:title xml:lang="lat">De viris illustribus</tei:title>
</tei:msItem>
```

2.5 Administrative specifications for the digital asset

A XML-coding according to TEI standard has to include at least one title and a publication specification. Europeana expects furthermore a persistent identifier for the digital asset and the specification of a preview image.

All elements described in this section are subelements of `tei:teiHeader/tei:fileDesc`.

2.5.1 Title data for the digital asset – `tei:titleStmt`

TEI-Definition: Groups information about the title of a work and those responsible for its content.

Comments: Contains title data for the digital asset.

Repeatable: No

Degree of obligatory

obligation: Within `tei:fileDesc` there has to be exactly one `tei:titleStmt`.

2.5.2 Subelements for `tei:titleStmt`

2.5.2.1 Title – `tei:title`

TEI-Definition: Contains a title for any kind of work.

Comments: Contains title for the digital asset. Usually, this is the signature of the digitised manuscript or the complete header made up according to DFG rules. It is not to be confused with the manuscript's title (see 2.1.2.1) or the content summary (see 2.4.1). It is not shown in the DFG Viewer.

Repeatable: No

Degree of obligatory

obligation: Each `tei:titleStmt` has to contain exactly one `tei:title`.

2.5.2.2 Funder – `tei:funder`

TEI-Definition: Specifies the name of an individual, institution, or organization responsible for the funding of a project or text.

Comments: Contains a relevant funder for the digitisation. This can e.g. also be the digitising institution.

Repeatable: Yes

Degree of optional, but recommended

obligation:

2.5.3 Publication data for the digital asset - `tei:publicationStmt`

TEI-Definition: Groups information concerning the publication or distribution of an electronic or other text.

Comments: Contains specifications about the publication of the digital asset.

Repeatable: No

Degree of obligatory

obligation: Within `tei:fileDesc` exactly one `tei:publicationStmt` has to appear.

2.5.4 Subelements for `tei:publicationStmt`

2.5.4.1 Publisher – `tei:publisher`

TEI-Definition: Provides the name of the organization responsible for the publication or distribution of a bibliographic item.

Comments: Contains the publisher of the digital asset, which is usually also the digitising facility.

Repeatable: Yes

Within `tei:publicationStmt` any number of `tei:publisher` can occur.

Degree of optional

obligation:

2.5.4.2 Persistent identifier – `tei:pubPlace/tei:ptr`

TEI-Definition: Contains the name of the place where a bibliographic item was published.

Comments: Contains a persistent identifier of the digital asset.

Repeatable: Yes

Within `tei:publicationStmt` any number of `tei:pubPlace` can occur, however, only one `tei:ptr`.

Degree of optional

obligation: (Europeana: it is obligatory to specify at least one persistent identifier)

Attributes: If the identifier is a URL, then this has to be specified in the `target` attribute, otherwise in the `cRef` attribute. Furthermore, the type of identifier has to be specified in the `type` attribute. The use of the following values is recommended:

- **urn:** for a Uniform Resource Name,
- **PURL:** for a persistent Uniform Resource Location,

Values: The `tei:ptr` is an empty element. All specifications have to be made within the attributes.

2.5.4.3 Preview image – `tei:pubPlace/tei:ptr`

- TEI-Definition:** Defines a pointer to another location.
- Comments:** Contains a persistent identifier of the digital asset.
- Repeatable:** No
- Degree of obligation:** optional
(Europeana: obligatory)
- Attributes:** The `type` attribute has to be allocated with the `thumbnailForPresentations` value whilst the URL of the preview image has to be specified in the `target` attribute.
- Values:** The `tei:ptr` is an empty element. All specifications have to be made within the attributes.

2.5.4.4 Time of origin – `tei:date`

- TEI-Definition:** Contains a date in any format.
- Comments:** Contains the digitising and publication date of the digital asset.
- Repeatable:** Yes
Within `tei:publicationstmt` any number of `tei:date` can occur.
- Degree of obligation:** optional
(Europeana: obligatory)
- Attributes:** Digitising and publication date are differentiated via the `type` attribute using the following values:
- *digitised*: for the digitising date,
 - *issued*: for the publication date of the digital asset.

2.5.4.5 Identifier for the digital asset – `tei:idno`

- TEI-Definition:** Supplies any form of identifier used to identify some object.
- Comments:** Contains an identifier for the digital asset or data set itself.
- Repeatable:** Yes
Within `tei:publicationstmt` any number of `tei:idno` can occur.
- Degree of obligation:** optional, but recommended
- Attributes:** Different types of identifiers are differentiated via the `type` attribute.

2.5.5 Examples

Minimum specifications for the DFG Viewer

```
<tei:titlestmt>
  <tei:title>
    Aurelius Prudentius: Opera – Cod. Guelf. 56.18 Aug. 8° – Signaturdokument
  </tei:title>
</tei:titlestmt>
<tei:publicationstmt>
  <tei:publisher>Herzog August Bibliothek</tei:publisher>
</tei:publicationstmt>
```

2.6 Universally applicable elements

There is a range of so-called "phrase-level" elements in the TEI standard which are permissible within a number of the above mentioned elements. These phrase elements are used to specifically highlight individual terms or phrases within a continuous text in order to give them an explicit meaning. The following does not describe all possible phrase elements, but focuses only on the most important and most frequently used ones. A full list can be found in *TEI Guidelines*¹⁷.

2.6.1 `tei:locus`

TEI-Definition: Defines a location within a manuscript or manuscript part, usually as a (possibly discontinuous) sequence of folio references.

Comments: The element refers to a location in the manuscript usually as a series of folio numbers.

Attributes: The interval of folio numbers can also be specified numerically using the `from` and `to` attributes.

2.6.2 `tei:origDate` / `tei:date`

TEI-Definition: Contains any form of date (used to identify the date of origin for a manuscript or manuscript part).

Comments: The element specifies a date specification. `tei:origdate` is used if it applies to an origin context, otherwise the less specific `tei:date` is used.

Attributes: Of the attributes permissible in TEI, only the following are used:

- `when`: for a correct date/time specification,
- `notBefore`: for the earliest possible point in time,
- `notAfter`: for the latest possible point in time,
- `from`: for the start of a time period,
- `to`: for the end of a time period.

All attribute values have to comply with the standard *W3C Datetime Format*¹⁸ and are used e.g. for the indexing in research systems.

2.6.3 `tei:origPlace` / `tei:placeName`

TEI-Definition: Contains any form of place name, used to identify the place of origin for a manuscript or manuscript part.

Comments: The element specifies a location specification. `tei:origPlace` is used if applied to an origin context, otherwise the less specific `tei:placeName` is used.

¹⁷ <http://www.tei-c.org/release/doc/tei-p5-doc/de/html/ref-macro.phraseSeq.html>

¹⁸ <http://www.w3.org/TR/xmlschema-2/#dateTime>

2.6.4 `tei:name` / `tei:persName` / `tei:orgName`

TEI-Definition: Contains a proper noun or noun phrase (referring to a person or organization).

Comments: The element refers to names of persons (`tei:persName`) or organisations (`tei:orgName`) as well as non-specific names (`tei:name`).

Attributes: The role of the person or organisation in the described context can be specified using the `role` attribute.