

Manuscript Description

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This chapter investigates the creation of manuscript descriptions for digital editions through looking at the recommendations of the *Guidelines of the Text Encoding Initiative* for manuscript description. By detailing the methodology of encoding a manuscript description, we examine the basic categories and level of detail necessary to produce a competent scholarly description of the object or objects that are the source for our editions. This chapter looks at when manuscript descriptions are provided and what forms these take. It looks at how to encode such descriptions (using the TEI) to identify a manuscript, record the manuscript contents, detail the physical description, document its history, and provide additional information. The chapter concludes with brief thoughts on publishing manuscript descriptions.

1. When to describe manuscripts

In the creation of digital editions you may question when it is appropriate to fully describe a manuscript instead of just having a witness description as mentioned in the chapter on Textual Variants. It is possible to create an edition from one or more variant witnesses and merely provide a `<witness>` element to supply a brief bibliographic reference, making it possible for readers to locate the manuscript if necessary. This is equivalent to providing a brief bibliographic reference for a printed work in that it provides readers with the basic information needed to look up the copy in other sources, but does not give details about its contents, physical manifestation, history or overall structure.

The primary reason for providing a manuscript description is that a basic bibliographic reference is not sufficient to contain the information or represent the object according to the needs and uses we have for the description. Modern printed books are usually adequately described by a formulaic bibliographic reference, the conventions of which are very familiar to most readers. The provision of information such as the title, authors, editors, publisher, publication place, date, and perhaps a cited range of pages for an individual contribution are sufficient to represent the part of the physical object to which we are referring, because we accept the illusion that one printed book is, for our needs, pretty much identical to the other copies of it. This is, of course, not actually true at very precise levels -- different printings, or even copies from the same printing may have quite striking physical differences. The reason we accept this comforting illusion is because these differences are not significant for our use of the bibliographic work.

A description is more suitable for a manuscript than a reference because manuscripts are inherently unique objects -- as much as one scribe might try to faithfully copy a source there will

always be differences, not only of content, but also of production of the physical object, which are interesting in themselves to scholars. This is true of manuscripts of all time periods, content, language, writing systems, and form. Moreover, it is also true for certain categories of printed objects, such as incunabula or modern book art, which are not adequately described by bibliographic conventions because of their structure, content, or even the sentiment attached to them. The recommendations made here, and indeed in the TEI Guidelines, apply equally to any other text-bearing objects that need a more detailed level of description, whatever their form or method of creation.

In an ideal world, manuscript descriptions would be provided for any manuscript worthy of study in itself. Large collections of manuscript descriptions in a comparable format such as TEI XML enable larger scale fields of study such as computational codicology, and it should therefore go without saying that, if a manuscript is important enough that a scholarly digital edition is being created, then a manuscript description should be crafted to describe it. This does not necessarily mean that the digital editor must always provide this manuscript description themselves; many libraries, archives and other resource-holding institutions are increasingly providing descriptions that a digital edition could reference. In some cases the underlying (hopefully TEI XML) data is freely available and thus could be referenced or included in a digital edition (with appropriate attribution) and potentially improved. If a description is not already available, then a digital editor should ideally create a manuscript description and make it available to both the resource-holding institution and readers of the edition.

2. Forms of manuscript description

Manuscript descriptions in themselves can take many forms, depending on both the tradition of description, the context of the description, and how it has been created. Some descriptions include lengthy discursive explanations of quite some size, distilling all that is currently known about the creation, history, and nature of the object and its context. Alternatively, others may consist of a mere summary record, providing little more than the location and identification information for the manuscript.

In many cases the amount of detail in a description is dependent on the context of its creation, for example manuscript descriptions created as part of a library finding aid may be less detailed than those crafted as part of an academic edition. How these descriptions are intended to be used will impact what details are recorded. For example a manuscript description used for a digital edition might be more or less detailed in certain aspects, depending on the concerns and priorities of that edition (for example it could be an edition focussed on the physical aspects of the textual object, or part of a dossier génétique).

One use of manuscript description is not as metadata for a digital edition but as part of a sustained discussion concerning one or more manuscripts in a catalogue raisonné, belle letrist or other academic secondary study. However, in a digital edition a description can be used to document, locate, and describe various aspects of the edition and its physical source. The TEI aims to cope with these and other possibilities so is flexible enough to allow manuscript descriptions to appear not only as metadata but also inside and alongside paragraphs. Their use will differ depending on the aim, for example in a digital edition or a catalogue raisonné. In a

digital edition a manuscript description usually is provided as metadata for the source text of the edition. This enables encoders of manuscript descriptions using the TEI to both describe manuscripts in a manner which suits their needs and also do so in a systematic way suitable for further processing and analysis.

3. Manuscript description in the TEI

As described above, the methods of describing manuscripts provided by the TEI are designed to cope with the variation in the context of their production. It is quite common for institutions creating catalogues of manuscript descriptions to be retrospectively converting them from print, existing cataloguing systems, other markup formats (such as EAD XML), or even bespoke database systems. They may be converting them to benefit from the increased expressivity available through the TEI or to consolidate a range of catalogues all under the same processing system. It should be noted that the TEI recommendations for manuscript description, and indeed the rest of the TEI, are a moving target as the community continues to update, improve, and revise them. The advice given here reflects the state of the manuscript description module at the time of writing.

As the results of retrospective conversion are unpredictable as regards the granularity of the different aspects of a manuscript description, the TEI allows for a great deal of variation in the structure of manuscript descriptions. The overall structure is a `<msDesc>` element which itself is required to contain an `<msIdentifier>` usually containing its geographical and archival location, and manuscript identification information. While this identifying metadata usually contains full geopolitical and repository information, it could also contain only a manuscript name if that is all we know about that manuscript being described.

```
<msDesc xml:id="MySampleManuscript" xml:lang="en">
  <msIdentifier>
    <msName>My Manuscript</msName>
  </msIdentifier>
</msDesc>
```

This `<msIdentifier>` can be followed by one or more paragraphs, or more structured information, depending on the source of the data which itself could be more or less structured.

```
<msDesc xml:id="MySampleManuscript" xml:lang="en">
  <msIdentifier>
    <msName>My Manuscript</msName>
  </msIdentifier>
  <p>One or more paragraphs concerning various aspects of the manuscript</p>
</msDesc>
```

If the source of information can be fragmented along the categories of its intellectual contents, physical description and history, then it should be, and the TEI caters for this by allowing paragraphs inside each of these grouping elements.

```

<msDesc xml:id="MySampleManuscript" xml:lang="en">
  <msIdentifier>
    <msName>My Manuscript</msName>
  </msIdentifier>
  <msContents>
    <p>One or more paragraphs concerning the manuscript's contents</p>
  </msContents>
  <physDesc>
    <p>One or more paragraphs concerning the manuscript's physical description</p>
  </physDesc>
  <history>
    <p>One or more paragraphs concerning the manuscript's history</p>
  </history>
</msDesc>

```

In this way, manuscript descriptions generated from other sources with either more or less structure, can still be considered TEI. However, it is generally recommended that for a digital edition, each of these main sections inside of **<msDesc>** should be as fully complete as possible, using the elements described below. While it should go without saying that a manuscript description with greater structure and precision is preferable, there is of course a balance between the time cost in doing so, versus the benefit for a particular edition.

When the TEI manuscript description module is loaded in the particular TEI customization being used, additional elements are available. What this means is that any paragraph or phrase-level content is able to contain additional manuscript description elements such as: **<catchwords>**, **<dimensions>**, **<heraldry>**, **<locus>**, **<locusGrp>**, **<material>**, **<objectType>**, **<origDate>**, **<origPlace>**, **<secFol>**, **<signatures>**, **<stamp>**, **<watermark>**. Although these are allowed to be used in most phrase-level content, it is clear that some of them make more sense in particular sections, however, this enables greater flexibility in descriptions.

3.1. Identifying manuscripts

All manuscripts must be identified in some way. This could be a name, even one given to it locally, but more usually this is a particular repository with a standardised institutional shelfmark. In the TEI the provision of an **<msIdentifier>** is required, and this must have at least one form of identification information (such as an **<idno>** or **<msName>**) in it. It is more usual to provide the full geo-political location information (such as **<country>**, **<region>**, and **<settlement>**), then the repository information (such as **<institution>** and **<repository>**), and then finally the object identifier information (such as **<collection>**, **<idno>**, and **<altIdentifier>**). This is a traditional tri-partite full manuscript identification structure.

```

<msIdentifier>
  <country>United Kingdom</country>
  <region type="county">Oxfordshire</region>
  <settlement>Oxford</settlement>
  <institution>University of Oxford</institution>
  <repository>Bodleian Library</repository>
  <collection>Digby</collection>
  <idno type="shelfmark">MS. Digby 133</idno>
  <altIdentifier type="internal">
    <idno type="SCN">1734</idno>
  </altIdentifier>
</msIdentifier>

```

In the manuscript identifier above, we locate the manuscript as in the United Kingdom, in Oxfordshire, in Oxford, at the University of Oxford, and inside that at the Bodleian Library, as part of the Digby Collection. We provide a canonical shelfmark (MS. Digby 133) by which the manuscript is most commonly known, but also the alternative identifier of a number by which the manuscript was once known internally. It is possible for manuscript identifiers to contain as many alternative identifiers, or manuscript names, as needed.

```

<msIdentifier>
  <country>United Kingdom</country>
  <region type="county">Oxfordshire</region>
  <settlement>Oxford</settlement>
  <institution>University of Oxford</institution>
  <repository>Bodleian Library</repository>
  <idno type="shelfmark">MS. Auct. T. inf. 1. 10</idno>
  <altIdentifier type="internal">
    <idno type="SCN">28118</idno>
  </altIdentifier>
  <msName xml:lang="la">Codex Ebnerianus</msName>
</msIdentifier>

```

It is possible to use the `@xml:lang` attribute to indicate the language of any element's content but inside an `<msIdentifier>` this is most commonly used to identify the language of variant names of the manuscript. In the example below, where the manuscript identifier is written in Danish, the name of the manuscript is given in Latin and Icelandic as these are the two names by which the manuscript is usually known.

```

<msIdentifier xml:lang="da">
  <country>Danmark</country>
  <settlement>København</settlement>
  <repository>Det ArnamagnæanskeInstitut</repository>
  <idno>AM 45 fol.</idno>
  <msName xml:lang="la">Codex Frisianus</msName>
  <msName xml:lang="is">Fríssbók</msName>
</msIdentifier>

```

In general as many details should be provided in the `<msIdentifier>` as are necessary to be able to easily locate the manuscript, however, there is no reason not to include additional alternative identifiers if available.

In some cases, additional information giving an overall summary of the manuscript description (the kind of thing that might have appeared in a `<witness>` element if a full manuscript description was not being created) follows the `<msIdentifier>` element. For historical reasons this uses the standard TEI `<head>` element (usually for headings) to provide a general heading for the entire description.

```

<msDesc>
  <msIdentifier>
    <country>United Kingdom</country>
    <region type="county">Oxfordshire</region>
    <settlement>Oxford</settlement>
    <institution>University of Oxford</institution>
    <repository>Bodleian Library</repository>
    <idno type="shelfmark">MS. Lat. th. e. 46</idno>
    <altIdentifier type="internal">
      <idno type="SCN">Not in SC (late accession)</idno>
    </altIdentifier>
  </msIdentifier>
  <head>Miscellaneous theological works; English, 13th century, first quarter</head>

```

In general it is preferable that this information be stored throughout the manuscript description and that the processing for display, analysis, or interchange extracts this as necessary. However, in systems that can make use of it, providing this summary `<head>` may be useful.

3.2. Recording the intellectual contents

One of the reasons for creating a manuscript description is to detail the intellectual contents of a manuscript. To do this the TEI uses the `<msContents>` element with either structured `<msItemStruct>` or more usually with the less rigorously structured `<msItem>` elements. These provide bibliographic and other information concerning each of the content items in the manuscript.

```

<msContents>
  <msItem n="1">
    <locus from="1r" to="4v">fol. 1r - fol. 4v</locus>
    <p>Description of this item</p>
  </msItem>
  <msItem n="2">
    <locus from="5r" to="55v">fol. 5r - fol. 55v</locus>
    <msItem n="2.1">
      <locus from="5r" to="15v">fol. 5r - fol. 15v</locus>
      <p>Description of this sub-item</p>
    </msItem>
    <msItem n="2.2">
      <locus from="16r" to="55v">fol. 16r - fol. 55v</locus>
      <p>Description of this sub-item</p>
    </msItem>
  </msItem>
  <msItem n="3">
    <locus from="56r" to="109r">fol. 56r - fol. 109r</locus>
    <p>Description of this item</p>
  </msItem>
</msContents>

```

In this hypothetical example, only paragraphs have been provided alongside a **<locus>** element whereas more specific elements could be provided instead. Here three **<msItem>** elements are shown, with the second consisting of two sub-items. Each manuscript item is given a **<locus>** element with both machine-processable **@from** and **@to** attributes as well as an optional human-readable version. This could be used by later processing to create a table of contents linking to the items, or surrogates of them based on their folio numbers. If a **<locus>** is given in the **<msItem>** it must be given before other elements. While it is possible to provide only a paragraph of information, it is more usual for **<msItem>** elements to contain more specific bibliographic information such as **<author>**, **<title>**, and **<textLang>**.

```

<msContents>
  <msItem n="1" xml:id="a1">
    <author ref="http://viaf.org/viaf/10428840">
      <persName>John Mirk</persName>
    </author>
    <title>Festial</title>
    <textLang mainLang="eng">English</textLang>
  </msItem>
  <msItem n="2" xml:id="a2">
    <author ref="http://viaf.org/viaf/10428840">
      <persName>John Mirk</persName>
    </author>
    <title>Instructions for parish priests</title>
    <textLang mainLang="eng">English</textLang>
  </msItem>
  <msItem n="3" xml:id="a3" class="#sermones">
    <title type="desc">Sermon</title>
    <textLang mainLang="eng">English</textLang>
  </msItem>
  <msItem n="4" xml:id="a4">
    <author ref="http://viaf.org/viaf/35717526">
      <persName>Richard Lavynham</persName>
    </author>
    <title>Treatise on the Seven Deadly Sins</title>
    <textLang mainLang="eng">English</textLang>
  </msItem>
  <msItem n="5" xml:id="a5" class="#sacramenta">
    <title type="desc">Treatise on confession</title>
    <textLang mainLang="eng">English</textLang>
  </msItem>
</msContents>

```

In `<msContents>` above, there are five `<msItem>` elements each providing an author, title, and language of the item, if known. In this case the manuscript items are numbered and have an `@xml:id` attribute for processing reasons. Where an author is known for the item, it has been linked to VIAF (the Virtual International Authority File).¹ Inside the `<author>` elements this catalogue has further encoded names with `<persName>` elements (this is strictly unnecessary, but provides consistency across a collection of up-converted descriptions). The `<title>` element sometimes uses its `@type` attribute to indicate whether this is a real title (no `@type` attribute provided) or an editor's description of the work (a value of 'desc'). Some of the `<msItem>` elements also have a `@class` attribute, which points to more information about the text type or other classifications. The `<msItem>` elements also contain `<textLang>` elements detailing the language(s) of that particular item.

¹ The Virtual International Authority File (<http://viaf.org/>) combines multiple authority files for names into a single resource hosted by the Library of Congress in the USA. By referencing this it disambiguates this name from any other forms.

```

<msItem n="2">
  <locus from="132r" to="134v">(fols. 132r–134v)</locus>
  <title>List of emperors</title>
  <note>with the lengths of their reigns, as far as Alexios III, after which is
    recorded the Latin capture of CP.</note>
  <incipit xml:lang="grc">τῆ ἀπὸ κτίσεως κόσμου ,εωκα'</incipit>
  <explicit xml:lang="grc">καὶ ἀφηρέθη ἐξ αὐτῶν παρὰ τῶν Λατίνων ἡ Κπολις</explicit>
  <note><hi rend="italic">pr. </hi>0. Lampsides, <title>op . cit.</title>, pp.
    353–5.</note>
  <textLang xml:lang="grc">Greek</textLang>
</msItem>

```

As in the earlier example, this `<msItem>` gives the location of the item in the manuscript using the `<locus>` element, in this case formatted with parentheses for a specific display output. In this case, additional notes, an incipit, and an explicit also have been supplied. The second note is really a bibliographic citation, and so would be better in a `<bibl>` element, but here is produced because of the migration of legacy data.

Many TEI manuscript descriptions are created from existing legacy records, or are destined for specific systems and so the TEI allows significant flexibility as seen above. For a digital scholarly edition however, one should always use the appropriate elements at the most reasonable level of granularity. The `<msContents>` element could be used by a front-end developer, to generate a table of contents for the manuscript, or to enable resource discovery, filtering by various aspects, searching, or browsing over a collection as a whole, a single edition or images of an individual manuscript.

3.3. Describing the physical object

After the intellectual contents, one of the most important aspects of a manuscript description is a record of the physical object. Indeed, for those interested in larger-scale computational codicology this may be vital. While a `<physDesc>` element may just have paragraphs, these could also be embedded at lower levels for the description of the object (and its support and layout), hands, type (if applicable), scripts, music, decoration, additions, binding, seals, and accompanying matter.

```

<physDesc>
  <objectDesc>
    <supportDesc>
      <p>...</p>
    </supportDesc>
    <layoutDesc>
      <p>...</p>
    </layoutDesc>
  </objectDesc>
  <handDesc>
    <handNote><p>...</p></handNote>
  </handDesc>
  <typeDesc>
    <typeNote><p>...</p></typeNote>
  </typeDesc>
  <scriptDesc>
    <scriptNote><p>...</p></scriptNote>
  </scriptDesc>
  <musicNotation><p>...</p></musicNotation>
  <decoDesc>
    <decoNote><p>...</p></decoNote>
  </decoDesc>
  <additions><p>...</p></additions>
  <bindingDesc>
    <binding>
      <p>...</p>
    </binding>
  </bindingDesc>
  <sealDesc>
    <seal>
      <p>...</p>
    </seal>
  </sealDesc>
  <accMat>
    <p>...</p>
  </accMat>
</physDesc>

```

Many of these sections of the physical description can incorporate more details or structure provided, some of which are discussed below.

3.3.1. Physical Description: the <objectDesc> element

In describing the physicality of the manuscript one of the most important sections is the general <objectDesc> element. This contains elements for the description of its support, that is the physical material or object which supports the written part of the manuscript -- other aspects of

support such as the binding or seals are handled separately. A description of the layout of the writing can also be provided inside the **<objectDesc>**.

```
<objectDesc>
  <supportDesc>
    <support><p>Description of the physical support, materials, etc.</p></support>
    <extent>The size of the manuscript using convenient dimensions</extent>
    <foliation><p>Description of the foliation or other numbering of
      surfaces</p></foliation>
    <collation><p>Description of the physical arrangement of folios, including
      collation formulas and discussion of catchwords</p></collation>
    <condition><p>Description of the physical condition</p></condition>
  </supportDesc>
  <layoutDesc>
    <summary><p>Summary description of the layout if desired</p></summary>
    <layout columns="1" ruledLines="20" writtenLines="20">
      <p>One or more descriptions of layout, including columns, ruling, pricking,
        written lines, etc.</p>
    </layout>
  </layoutDesc>
</objectDesc>
```

The hypothetical example uses a **<support>** element to describe the physical support for the writing of the manuscript. Inside this it is possible to have either phrase-level description mixing text and markup, or in the case of longer descriptions of the source, multiple paragraphs of description. Inside the **<supportDesc>** in addition to describing the support generally, there are specialised elements for describing the extent (the size of the manuscript support), the foliation (how the surfaces are numbered), the collation (the arrangement of folios), and the overall physical condition of the manuscript.

Inside the **<objectDesc>** the **<layoutDesc>** element can be used to group one or more **<layout>** elements, which describe how the text is laid out on the surface (e.g. whether the text is in columns, the number of ruled or written lines, description of surface pricking or any other aspects of the text layout). A real-world example might have more or less of this information:

```

<objectDesc form="codex">
  <supportDesc material="perg">
    <support><material>Parchment</material>, of mediocre quality, with numerous flaws,
    irregular edges, and pronounced hair-/flesh-side differences.</support>
  <extent>iii (modern card/paper) + ii (medieval parchment) + 168 + ii (medieval parchment).
    <dimensions type="leaves" unit="mm">
      <height max="305" min="300">300-5</height>
      <width>220</width>
    </dimensions>
    <dimensions type="ruled" unit="mm">
      <height min="234" max="239">234-9</height>
      <width min="163" max="146">163-4</width>
    </dimensions>
  </extent>
  <foliation>Foliated in modern pencil, i-v, 1-170
  (a former foliation left fols. i-iii blank, and numbered
  fols. iv, and v as 'i' and 'ii'; this was altered, 5 Aug. 1997);
  a 15th-/16th-century hand foliated fols. 1-4 in ink in the
  centre of the top margin, in arabic numerals.</foliation>
  <collation>
    <formula>I-XIV<hi rend="sup">12</hi> (fols. 1-168)</formula>;
    <catchwords>catchwords in all quires except the last, in the script of the
    main text, a little below the right-hand side of the right-hand column of text;</catchwords>
    <signatures>no leaf signatures visible</signatures>.
  </collation>
</supportDesc>
<layoutDesc>
  <layout ruledLines="45 46" columns="2">Ruled with 45 (Quires I-II, fols. 1-24) or 46
  (Quires III-XIV, fols. 25-168) lines of text in 2 columns, in brown ink (Quires I-II),
  and in grey/brown 'pencil'/'crayon' (Quires III-XIV), each column with single vertical
  bounding lines extending the full height of the page, the top and bottom horizontal
  lines extending the full width; fols. 162v-168r ruled with a considerably narrower
  inter-columnar space; each column 74-5 mm. wide.</layout>
</layoutDesc>
</objectDesc>

```

In this example, the description provides a great deal of information. It has used both the **@material** attribute and **<material>** element to provide both an easy processable standard form ('perg') and a human-readable version ('parchment'). The **<extent>** element provides a mixture of textual description and dimensions for the leaves and ruled sections. There is a description of the foliation and the collation that includes not only a brief collation formula using the **<formula>** element, but also information about the **<catchwords>** and **<signatures>** of the text. There is only one major layout format for the manuscript, although this varies from 45 to 46 ruled lines, and the amount of inter-columnar space varies. It would also be possible to separate these into individual **<layout>** elements if it was needed to record a more distinct separation of layouts.

3.3.2. Physical Description: **<handDesc>**, **<typeDesc>**, **<scriptDesc>**

After the description of the object, the **<physDesc>** allows more specific descriptions for other aspects such as the hand, type, or script used. These can then be referred to from other parts of the manuscript description or transcription. For example, in the hypothetical example below, the **<handNote>** has an identification number, which can be pointed to from within a transcription to indicate where a hand changes. Similarly the note itself could point to more information about a scribe (with **@scribeRef**) or script (with **@scriptRef**). An arbitrary identifier could be provided for **@scribe** and **@script** attributes if it is not feasible to point to more information.

```

<handDesc>
  <handNote xml:id="handID" medium="inkType" scope="major" scribe="Scribel"
    scribeRef="#scribeID" script="scriptName" scriptRef="#script1">
    <p>One hand note for each identified hand in the manuscript with optional
      attributes for a hand id number, the medium of the hand, the scope of its
      writing stint, a scribe or reference to more information about one, a script
      or reference to one</p>
  </handNote>
</handDesc>
<typeDesc>
  <typeNote>
    <p>If describing a source with printed aspects, an optional typeNote for each
      typographic feature</p>
  </typeNote>
</typeDesc>
<scriptDesc>
  <scriptNote xml:id="script1">
    <p>Discussion of a particular script in the manuscript, its scriptorium, or
      usual use</p>
  </scriptNote>
</scriptDesc>

```

The **<typeNote>** element is used for either printed sources or manuscripts with printed aspects. It is important to note that the **<msDesc>**, although developed for manuscripts, can be used for any textual source whose description is not adequately covered by standard bibliographic metadata. Here, the identification number on the **<scriptNote>** is referenced from the earlier **<handNote>** to give a more detailed description of the script in which that hand is written.

```

<handDesc>
  <handNote>Written in dark brown ink in a gothic bookhand,
    in two sizes according to liturgical function;
    apparently by a single scribe throughout, except for the
    suffrage to Adrian (fols. 49r-50r) which is by a different but
    contemporary hand, perhaps in the same workshop.</handNote>
</handDesc>

```

Any of these more specific descriptive aspects can be more or less specific. In the example above two hands are recorded in a single **<handNote>** but where there are multiple hands these could be given as separate **<handNote>** elements.

```

<handDesc>
  <handNote xml:id="hand1">
    <locus from="1r" to="188r"/>
    Fols. 1r–188r written in gothic textualis, first half of the thirteenth
    century, with contemporary corrections pencilled in the margins (e.g. fols. 39v,
    44r–45r, 74r–77r). At least two scribes, one writing a smaller, more delicate
    script.</handNote>
  <handNote xml:id="hand2">
    <locus from="188v" to="192r"/>
    Fols. 188v–192r written in a charter hand, first half of the thirteenth
    century, at least two scribes.</handNote>
</handDesc>

```

3.3.3. Physical Description: <musicNotation>, <decoDesc>, <additions>

In addition to hands, physical type used, and scripts, there are also grouping elements for recording the presence and descriptions of musical notation, any forms of decoration, and any additions, marginalia, or annotations on the manuscript. In a hypothetical example, this might look like:

```

<musicNotation>
  <p>Description of the type of musical notation in the manuscript</p>
</musicNotation>
<decoDesc>
  <decoNote type="intials">
    <p>Description of the decoration of the manuscript or one homogenous class of
    decoration in it</p>
  </decoNote>
</decoDesc>
<additions>
  <p>Description of any additions, marginalia, or annotations on the manuscript</p>
</additions>

```

While **<musicNotation>** and **<additions>** have no specific structures in the content models -- that is they allow either text with phrase-level content or one or more paragraphs -- the **<decoDesc>** element contains one or more **<decoNote>** elements. These **<decoNote>** elements can each contain either text with phrase-level content or one or more paragraphs, allowing flexibility in the amount and level of description. Many collections of manuscript descriptions will prefer to use paragraphs where allowed, regardless of whether they need more than one, for consistency in processing the output. In other cases a **<decoNote>** element may be used for each separate form of decoration.

```

<decoDesc>
  <decoNote>Fine miniatures, borders, initials. Historiated penwork borders.
    (P&A ii. 73, pl. VI)
  </decoNote>
  <decoNote>Fine miniatures in colours and gold at the
    start of the five books (fols. 1r, 54r, 101r, 151v, 168r).</decoNote>
  <decoNote>Fine red and
    blue penwork decoration, often extending from two-line initials, includes
    birds, animals, dragons, human-headed hybrid creatures (see. e.g. fol. 113v),
    etc.</decoNote>
</decoDesc>

```

It is, of course, possible to also have <locus> elements inside <decoNote> to indicate where the decoration is situated. Similarly an @xml:id attribute can be provided, and referenced to from particular places in the transcribed text to localise the notes.

Physical Description: <bindingDesc>, <sealDesc>, <accMat>

The final sections of a physical description are those of external and adjunct aspects of the manuscript. In particular, information concerning the binding, seals, or other matter which accompanies the manuscript.

```

<bindingDesc>
  <binding notBefore="1700" contemporary="false">
    <p>Description of the binding, including boards and coverings, with optional
      dating attributes and indication of whether the binding is contemporary</p>
    <condition>
      <p>Optional description of the condition of the binding</p>
    </condition>
    <decoNote>
      <p>Optional description of the decoration on the binding</p>
    </decoNote>
  </binding>
</bindingDesc>
<sealDesc>
  <seal when="1518" contemporary="true">
    <p>Description one or more seals, with optional dating attributes and
      indication of whether the seal is contemporary</p>
  </seal>
</sealDesc>
<accMat>
  <p>Description of any significant additional material closely associated with the
    manuscript being described (e.g. papers not catalogued separately)</p>
</accMat>

```

Following the same pattern as many of the elements in <physDesc>, the <bindingDesc> and <sealDesc> elements may contain one or more <binding> or <seal> elements. Multiple <binding> elements usually are historical in nature, where details of earlier bindings are known because of existing records, or the manuscript has recently been rebound, or because of surviving artifacts of its presence. Multiple <seal> elements are used to indicate that multiple seals survive (or there is information about additional missing ones). The <accMat> element (for

accompanying material) is used, in this location, to describe the physicality of any accompanying objects that do not usually have their own descriptions.

```
<bindingDesc>
  <binding>
    <p>
      <dimensions type="binding">
        <height quantity="360">360</height>
        <width quantity="258">258</width>
        <depth min="54" max="83"/>
      </dimensions>
      Leather over boards, 18th or 19th century.
    </p>
    <condition>Binding is tight, putting unnecessary pressure on leaves.</condition>
  </binding>
</bindingDesc>
```

In this example the **<binding>** element has a paragraph inside it because it is mixing element content such as **<dimensions>** with prose text. The **<condition>** element is provided separately inside **<binding>** to record the condition of the binding and its effect on the manuscript as an object.

The **<seal>** element usually contains one or more paragraphs inside it and records information about the seals, their contents, and condition. It could also contain a description of other aspects of the document which might be used to validate its authenticity. A **@contemporary** attribute can be used (as with bindings) to record whether the seal is contemporary or not.

```
<sealDesc>
  <seal>
    <p>Remains of four seals in red wax, plaqué</p>
  </seal>
</sealDesc>
```

The physical description is a key aspect of any manuscript description. The layout, foliation, collation, hands, decoration, bindings, seals, and other physical aspects can provide more contextual information for an edition. This is not only useful for understanding the context of production of the physical object, but also how it may interact with the creation or copying of the text that is at the heart of the edition.

3.4. History: Origin, Provenance, and Acquisition

The history of the creation of a manuscript, and its provenance, are some of the important aspects of a manuscript description. The history of how this text-bearing object has come to survive to the modern day is of great interest for those using it in an edition, as that history may have affected the physical and textual make up of the document. This history is stored in a **<history>** element, all of whose children are optional. These include providing a summary in a **<summary>** element, information about the creation of the manuscript in an **<origin>** element, as many **<provenance>** elements as needed to record any episodes in its history, and an

<acquisition> with details of its current acquisition. As with other sections, these may contain phrase-level content or a series of paragraphs.

```
<history>
  <summary>
    <!-- Summary entry of history of the manuscript -->
  </summary>
  <origin>
    <!-- Information concerning the origin and creation of the manuscript -->
  </origin>
  <provenance>
    <!-- Information concerning any single identifiable episode during the history
      of the manuscript after its creation but before its acquisition
    -->
  </provenance>
  <acquisition>
    <!-- Information concerning the acquisition of the manuscript
      by the current resource-holding institution
    -->
  </acquisition>
</history>
```

Other than <summary> each of these is ‘datable’ -- by which we mean that they are members of the TEI att.datable class, and thus get a whole slew of dating attributes like @when, @notBefore, @notAfter, @from, and @to. This enables any of these steps in its history to be given a date on this container element. In manuscript description phrase-level content there are two elements which while available almost anywhere are best used inside <origin>, namely <origDate> (for providing an origin date) and <origPlace> (for providing an origin placename).

```
<history>
  <origin>
    Written in the
    <origDate calendar="Gregorian" notAfter="1500" notBefore="1400">15th century</origDate>
    in <origPlace><country>England</country></origPlace>
  </origin>
  <provenance>
    Previously owned by
    <persName type="person" role="formerOwner" ref="http://viaf.org/viaf/73979081">
      Sir Thomas Phillipps (1792-1872)</persName>, MS. 13443* and 13446
  </provenance>
  <provenance>
    Previously owned by
    <persName type="person" role="formerOwner" ref="http://viaf.org/viaf/11255508">
      Sir Robert Leicester Harmsworth</persName>
  </provenance>
  <acquisition>
    Harmsworth Trust sale at Sotheby's, <date when="1945-10-16">16 Oct. 1945</date>,
    lot 2051, bought by Quaritch for £38.
  </acquisition>
</history>
```

This example has the information that this manuscript was written in the fifteenth century ‘in

England'. (Although in some manuscript description traditions this might be expressed as 'English', in this case it is an indication of its nationality not its text language.) There are two episodes in its provenance that are known, that it had previous owners that are identified and referenced to VIAF. Finally, the purchase of this manuscript by the Bodleian Library in 1945 from an auction is recorded. While this information is minimal, often the confirmed provenance of a manuscript is very limited. It is very useful for any description, especially when attached to a surrogate such as a digital edition, to record and preserve any knowledge about the manuscript's history.

3.5. Recording additional metadata

The above sections clearly identify the manuscript, its intellectual contents, physical form, and history. However, there are other forms of metadata that are important to record, such as information about the sources of the manuscript description, events in its custodial history (such as photography and conservation), digital or print surrogates for the manuscript, and secondary works concerning the manuscript. These may be provided in an <additional> element which contains (optional) <adminInfo>, <surrogates>, and <listBibl> elements.

```

<additional>
  <adminInfo>
    <recordHist>
      <source>
        <!-- Information about the source of the manuscript description -->
      </source>
      <change>
        <!-- Descriptions of changes to the manuscript description -->
      </change>
    </recordHist>
    <custodialHist>
      <custEvent>
        <p> <!-- Custodial event history here --> </p>
      </custEvent>
    </custodialHist>
  </adminInfo>
  <surrogates>
    <p> <!-- Description of surrogates --></p>
    <listBibl>
      <bibl>
        <!-- Bibliographic entries of surrogates -->
      </bibl>
    </listBibl>
  </surrogates>
  <listBibl>
    <bibl>
      <!-- Bibliographic entries to works concerning the manuscript -->
    </bibl>
  </listBibl>
</additional>

```

Inside **<adminInfo>** it is possible to provide **<recordHist>**, **<availability>**, and **<custodialHist>**, elements. These help to provide information about the source and history of the manuscript description itself, the license under which that manuscript description is made available, and events in the custodial history of the manuscript.

```

<additional>
  <adminInfo>
    <recordHist>
      <source>Summary description by Elizabeth Solopova based on the Summary
        and Quarto Catalogues and supplementary sources.
      <listBibl>
        <bibl type="QUARTO" facs="abw0019.gif">Quarto Catalogue, cols. 19-20</bibl>
        <bibl type="QUARTO" facs="abw0192.gif">Quarto Catalogue (addenda), p. 15</bibl>
        <bibl type="QUARTO" facs="abw0193.gif">Quarto Catalogue (addenda), p. 16</bibl>
        <bibl type="SC" facs="aap0091.gif">Summary Catalogue, vol. 2, part 1, p. 70</bibl>
      </listBibl>
    </source>
  </recordHist>
</adminInfo>
<surrogates>
  <bibl facs="http://image.ox.ac.uk/list?collection=bodleian">
    Timaeus and Chanson de Roland: full digital facsimiles
  </bibl>
</surrogates>
</additional>

```

In the example above, the **<recordHist>** element provides information about the source of the description, listing previous catalogues that were used in composing it. Meanwhile the **<surrogates>** element gives a bibliographic reference to a digital facsimile of the manuscript.

3.6. Composite manuscripts and fragments

So far, the manuscript descriptions discussed have been for unitary manuscripts, which may contain multiple items but were produced originally as a single object. In many cases manuscripts are composite, i.e. now treated as a single physical object, but were originally distinct objects (or a part of a previous manuscript) before being grouped together. This is different from manuscript fragments, which are separate pieces of a single manuscript.

```

<msDesc xml:id="MyCompositeMS">
  <msIdentifier>
    <!-- MS Identification for composite object -->
    <msName>My Composite Manuscript</msName>
  </msIdentifier>

  <!-- MS Part elements for each manuscript in the composite -->
  <msPart xml:id="msPartA">
    <msIdentifier>
      <!-- Identification for this manuscript part -->
    </msIdentifier>
    <msContents>
      <!-- Intellectual contents of this part -->
    </msContents>
    <physDesc>
      <!-- Physical description of this part -->
    </physDesc>
    <history>
      <!-- History of this part -->
    </history>
    <additional>
      <!-- Additional metadata for this part -->
    </additional>
  </msPart>

  <!-- Additional parts -->
  <msPart xml:id="msPartB">
    <msIdentifier></msIdentifier>
  </msPart>

  <!-- Additional parts -->
  <msPart xml:id="msPartC">
    <msIdentifier></msIdentifier>
  </msPart>
</msDesc>

```

Inside each `<msPart>` you have the same elements as are available inside `<msDesc>` and thinking of them as nested manuscript descriptions is a useful approach. You may have the usual elements such as `<physDesc>` inside the parent `<msDesc>` which cover aspects that affect the composite object, and also a `<physDesc>` inside the `<msPart>` that describes the physicality of the part.

```

<msPart xml:id="bod-MS._Digby_133-1">
  <msIdentifier>
    <idno type="part">MS. Digby 133 - Part 1</idno>
  </msIdentifier>
  <msContents>
    <msItem n="1" xml:id="a1_1">
      <author ref="http://viaf.org/viaf/2470550"> Galileo Galilei </author>
      <title>Discorso del flusso e reflusso del mare</title>
      <textLang mainLang="ita">Italian</textLang>
    </msItem>
  </msContents>
  <physDesc>
    <objectDesc form="codex">
      <supportDesc material="chart">
        <support>paper</support>
      </supportDesc>
    </objectDesc>
  </physDesc>
  <history>
    <origin>
      <date calendar="Gregorian" notBefore="1600" notAfter="1700">17th century</date>
      <origPlace>Italian</origPlace>
    </origin>
  </history>
</msPart>

```

In this **<msPart>**, a brief description of its contents, physical form and history are provided, but these could also contain full and detailed descriptions, depending on what information is available.

In the event that a single manuscript has been fragmented into separate parts, and it is necessary to describe each of these fragments as part of a larger manuscript description, **<msFrag>** can be used. The main difference between **<msPart>** and **<msFrag>** is that the former is used for part of an existing object that was previously distinct, and the latter is used for a fragment of an original that is not now bound or attached. A manuscript description containing **<msFrag>** is not describing a single object, but a putative reconstructed or original object from which these fragments originate. On the other hand, a manuscript description containing an **<msPart>** is a single existing object that happens to be formed of parts which were originally distinct.

```

<msFrag xml:id="MS_Example-frag1">
  <msIdentifier>
    <!-- Manuscript identification of this fragment -->
  </msIdentifier>
  <msContents>
    <!-- Manuscript contents of this fragment -->
  </msContents>
  <physDesc>
    <!-- Physical description of this fragment -->
  </physDesc>
  <history>
    <!-- History of this fragment -->
  </history>
  <additional>
    <!-- Additional metadata of this fragment -->
  </additional>
</msFrag>

```

An **<msFrag>** is structurally identical to an **<msPart>** -- the only real difference between them is the semantics of their definition. An **<msDesc>** element containing either of these can be as detailed as the available information allows. The same elements that appear inside **<msDesc>** are also available inside **<msPart>** and **<msFrag>** because information relating to the part or fragment might concern its identification, contents, physical description, history, or other additional aspects. Usually, any information that applies to the manuscript as a whole is stored in the main sections, and only those aspects that apply to individual parts are recorded inside **<msPart>** or **<msFrag>**.

4. Publishing manuscript descriptions

A manuscript description created as part of a digital edition should form part of the published digital edition itself. For example, the information stored in the organised sections of the manuscript description can be extracted to form a description given in the introduction to the edition. Some of the publication tools for manuscript editions do make use of descriptions if they are present, but for the most part even these take a generalistic approach. More complicated and nuanced displays of manuscript descriptions are found where institutions present whole catalogues describing their holdings. In cases such as these you can usually browse and/or search the entire collection, and often filter by various facets. The software behind such systems range from native XML databases to bespoke systems developed for individual institutions. For example, in the recent redevelopment of all TEI manuscript description catalogues at the Bodleian Library, University of Oxford, the TEI P5 XML was converted to HTML to be ingested by Blacklight and indexed by Solr. In the Bodleian's case this was driven from TEI

manuscript descriptions stored in a publicly accessible GitHub account with the same underlying software used across several different catalogues, resulting in improved overall maintenance and support for the system.² However, systems such as these may be unnecessary when presenting a manuscript description from a digital edition, and the decision as to what software should be used to display the description is more dependent on how the edition itself is being published. Two basic rules should always be followed:

- Always offer the resource-holding institution a copy of your final manuscript description. They may not have need or use for it, or be willing to convert it to whatever system they are using, but since you've put work into increasing the detail of the description it is fair to offer it to them. However, if you've put significant intellectual effort into creating it, then do offer it on condition that you are cited as the creator of it (indeed you could store this in the `<recordHist>` element's `<source>` child element while listing sources). If you license the description to them as Creative Commons Attribution, using the `<availability>` element in the header, then they are duty bound to acknowledge you in their use of it, but this does not hamper them in using it in their systems otherwise.
- Always make the TEI XML of your description available. This is not in question if you are making the whole of your edition's XML available, but if the manuscript description is presented separately it is sometimes overlooked in the version of the XML that is released. Not only is this good practice, as it shows your underlying methodologies, but it enables others to make use of this data in ways you might not have anticipated. (e.g. the programmatic study of the markup itself or linguistic analysis of manuscript descriptions).

Conclusion

This chapter seeks to give an introduction to creating manuscript descriptions through the lens of encoding them according to the recommendations of the Guidelines of the Text Encoding Initiative, but the information given herein should still be useful in highlighting the categories of information and detail that is expected in a full manuscript description, whatever system is used. Thinking clearly and precisely about the physical object, its history, and describing the intellectual contents of that object will provide an intimate familiarity with a manuscript that can only benefit the creation of a sensitive and useful digital edition of its text.

² The TEI XML medieval manuscript descriptions from Bodleian Libraries are available from <https://github.com/bodleian/medieval-mss>.