

# Roman du Mont Saint Michel

A medieval novel in three books.

Case Study Shared Canvas by University of  
Caen, the British Library and Biblissima

# Roman du Mont Saint Michel

Source:

Two manuscripts

- BL Additional 10289 (date 1275-1300)
- BL Additional 26876 (date 1340)

# Roman du Mont Saint Michel

## Editions

Print edition:

[Guillaume de Saint-Pair, Le roman du Mont Saint-Michel, Les manuscrits du Mont Saint-Michel : textes fondateurs II, C. Bougy \(éd.\), 2009.](#)

Access point electronic edition:

<http://www.unicaen.fr/puc/sources/gsp/index.php?page=sommaire>

Online catalogue BL:

[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Add\\_MS\\_10289](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Add_MS_10289)  
<http://www.bl.uk/catalogues/illuminatedmanuscripts/record.asp?MSID=19373&CollID=27&NStart=26876>

# Roman du Mont Saint Michel

Electronic edition in TEI P5 compiling the two textual witnesses (“A” and “B”)

Translation into modern french in TEI P5

No use of <surface> and <zone> (in 2006),  
digitisation realised end of 2013 by BL

# Electronic Editions in TEI-P5

- Chapter 11 of the TEI-Guidelines:  
[Representation of the Primary Source](#)
  - 11.1 Digital Facsimile
  - 11.2.2 Embedded Transcription
- => use of <sourceDoc> in the case where such **images** are complemented by a **documentary transcription**

# Electronic Editions in TEI

[facsimile](#) contains a representation of some written source in the form of a set of images rather than as transcribed or encoded text.

[sourceDoc](#) contains a transcription or other representation of a single source document potentially forming part of a dossier génétique or collection of sources.

[surface](#) defines a written surface as a two-dimensional coordinate space, optionally grouping one or more graphic representations of that space, zones of interest within that space, and transcriptions of the writing within them.

[surfaceGrp](#) defines any kind of useful grouping of written surfaces, for example the recto and verso of a single leaf, which the encoder wishes to treat as a single unit.

[zone](#) defines any two-dimensional area within a [surface](#) element.

# Technical details MIRADOR / TEI

MIRADOR displays TEI-transcriptions line by line transformed to JSON-LD

[JSON-LD](#) (= RDF Serialization)

# Technical details MIRADOR / TEI



<http://demos.biblissima-condorcet.fr/mirador/>

1. Go to “BL Add MS 10289”
2. Click on the icon i(nfo)
3. [http://sanddragon.bl.uk/IIIFMetadataService/add\\_ms\\_10289.json](http://sanddragon.bl.uk/IIIFMetadataService/add_ms_10289.json)



# JSON-LD for a Canvas

```
{ "@id": "http://sanddragon.bl.uk/IIIFMetadataService/canvas/folio-8v.json",
  "@type": "sc:Canvas",
  "label": "f 8v",
  "height": 8552,
  "width": 6049,
  "images": [
    { "@id": "http://sanddragon.bl.uk/IIIFMetadataService/annotation/a-folio-8v.json",
      "@type": "oa:Annotation",
      "motivation": "sc:painting",
      "resource": {
        "@id": "http://sanddragon.bl.uk/IIIFImageService/add_ms_10289_f008v/full/full/0/native.jpg",
        "@type": "dctypes:Image",
        "format": "image/jpeg",
        "height": 8552,
        "width": 6049,
        "service": { "@id": "http://sanddragon.bl.uk/IIIFImageService/add_ms_10289_f008v",
          "profile": "http://library.stanford.edu/iiif/image-api/1.1/compliance.html#level2"
        },
        "on": "http://sanddragon.bl.uk/IIIFMetadataService/canvas/folio-8v.json"
      },
      "otherContent": [ { "@id": "http://demos.biblissima-condorcet.fr/iiif/metadata/BL_Add_10289/list/transscript_8v.json",
        "@type": "sc:AnnotationList"
      } ]
    }
  ]
}
```



# TEI 2 JSON-LD for transcriptions

For each `<pb>` (= for each canvas) we  
create an `AnnotationList`.

That list contains several resources, here  
transcriptions per line.

# Technical details MIRADOR / TEI

{

```
"@context": "http://www.shared-canvas.org/ns/context.json",  
"@id": "http://demos.biblissima-condorcet.fr/iiif/metadata/BL_Add_10289/list/transscript_8v.json",  
"@type": "sc:AnnotationList",  
"resources":[
```

{

```
"@id": "http://demos.biblissima-condorcet.fr/iiif/metadata/BL_Add_10289/Annotation/8v_line449.json",  
"@type": "oa:Annotation",  
"motivation": "sc:painting",  
"resource": {  
  "@type": "cnt:ContentAsText",  
  "chars": "De la forest a fait areine",  
  "format": "text/plain",  
  "language": "fr-FR"  
},
```



```
"on": "http://sanddragon.bl.uk/IIIFMetadataService/canvas/folio-8v.json#xywh=1950,400,3500,220"
```

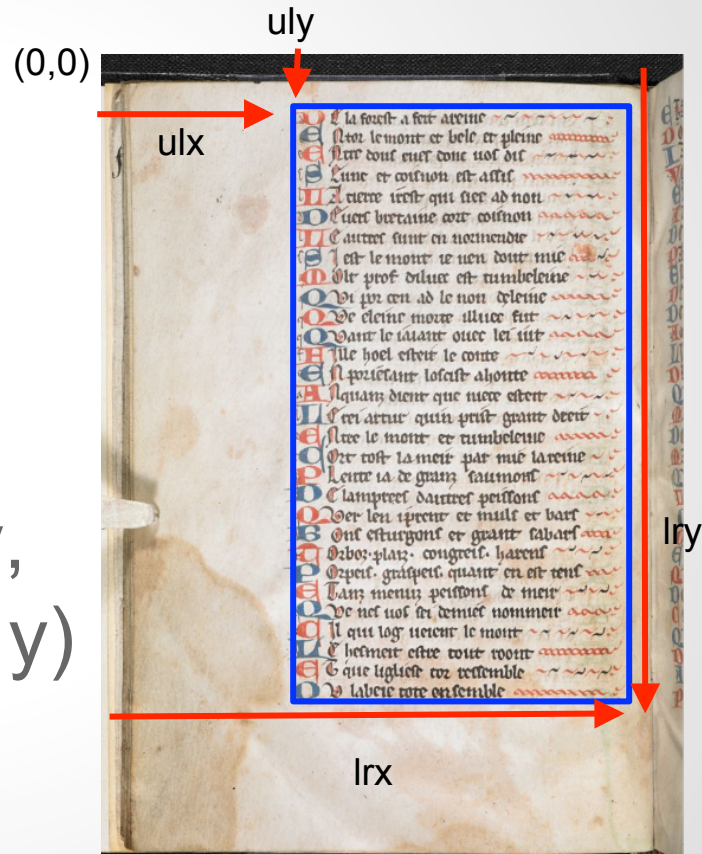
}

,

# TEI-P5 <surface> and <zone>

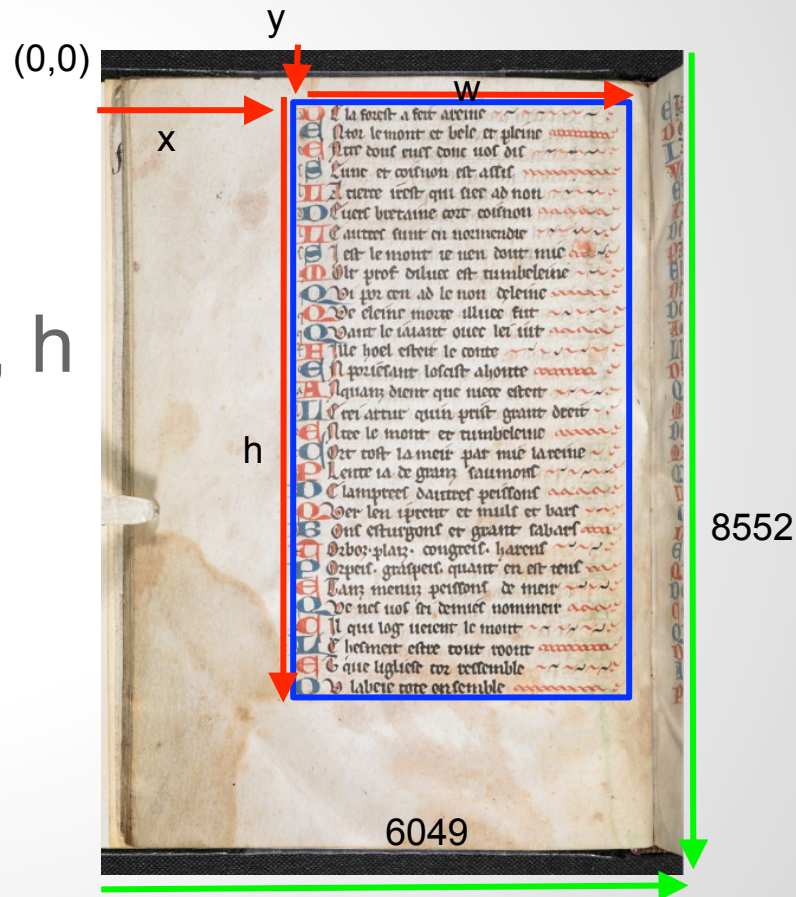
TEI-P5:

@ulx, @uly, @lrx, @lry  
(upper left x, upper left y,  
lower right x, lower right y)



# TEI-P5 versus Shared Canvas

Shared Canvas :  $x, y, w, h$   
( $x, y, \text{width}, \text{height}$ )



# Adding #xywh to resources (JSON-LD)

Approximate semiautomatic approach to surfaces and zones for transcripts

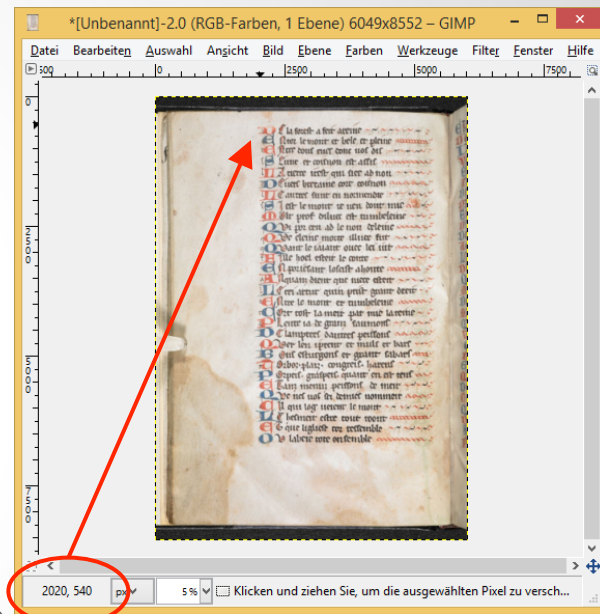
- + easy to use

- not exact, works only for very regular manuscripts

# Adding #xywh to resources (JSON-LD)

Use any image manipulation program, e.g. Gimp to determine the average location of the text on the images.

In the image manipulation program the cursor's position is usually displayed below the image.



# Adding #xywh to resources (JSON-LD)

Differentiate between recto and verso pages

```
...
    <xsl:variable name="lx"><xsl:choose>
        <xsl:when test="contains($pg,'r')">
            <xsl:value-of select="$r_x"/></xsl:when>
            <xsl:otherwise><xsl:value-of select="$v_x"/></xsl:otherwise>
        </xsl:choose>
    </xsl:variable>
...
```

Compute the average height of a line

$line\_height = text\_height / number\_of\_lines$

Line n starts at

$y = text\_y + (n - 1) * line\_height$

→ `<xsl:text>"on": "http://sanddragon.bl.uk/IIIF/MetadataService/canvas/folio-</xsl:text><xsl:value-of select="$pg"/>`  
`<xsl:text>.json#xywh=</xsl:text><xsl:value-of select="($lx)"/><xsl:text>,</xsl:text><xsl:value-of select="($y)"/><xsl:text>,</xsl:text><xsl:value-of select="($text_width)"/><xsl:text>,</xsl:text><xsl:value-of select="($line_height)"/>`  
`<xsl:text>"</xsl:text>`



# Adding <zones> and <surfaces> in TEI

Parallel approach to transscript -  
<facsimile>

referencing via @xml:id and #facs

- + high level of detail possible
- + text can be encoded with more possibilities
- + text and image data can be seperated
- complexity is difficult for transformation and display

# Technical details TEI

... <facsimile>

...

<surface ulx="0" uly="0" lrx="6049" lry="8552">

<zone xml:id="f8v">

ulx="0" uly="0" lrx="6049" lry="8552">

<graphic url="http://sanddragon.bl.uk/IIIFImageService/add\_ms\_10289\_f008v/full/full/

0/native.jpg"/>

</zone>

<zone xml:id="vers449">

ulx="2023" uly="540" lrx="5363" lry="736"/>

<zone xml:id="vers450">

ulx="2023" uly="737" lrx="5363" lry="944"/>

...

</facsimile> ...

...<div><div><lg> ...

<l n="449" aid:pstyle="txt\_Original\_Vers" xml:id="vers449" facs="#vers449">

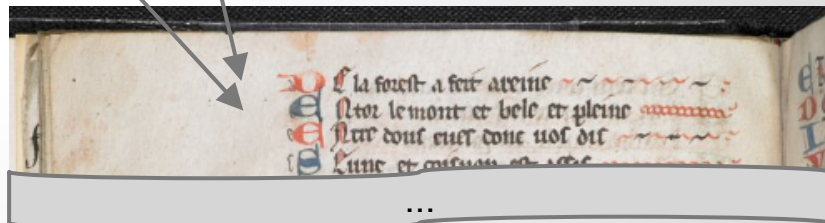
<pb ed="A" n="8v" xml:id="f8v" facs="#f8v"/>De la forest a fait areine</l>

<l n="450" aid:pstyle="txt\_Original\_Vers" xml:id="vers450" facs="#vers450">

Entor le mont, et bele et pleine<note type="marginal" xml:id="AFRftn207">

areigne.</note>.</l> ...

</div></div></lg>...



# Technical details MIRADOR / TEI

XSL code “ulx, uly, lrx, lry” (TEI - facsimile)  
to “x, y, w, h” (Shared Canvas)

```
...
<xsl:for-each-group select="/TEI/text/body//lg/l" group-starting-with="/TEI/text/body//lg/l[pb]">
...
    <xsl:for-each select="current-group()">
    ...
    <xsl:variable name="id"><xsl:value-of select="substring-after(@facs,'#')"/></xsl:variable>
    <!-- width = lower right x - upper left x -->
        <xsl:variable name="width"><xsl:value-of select="/TEI/facsimile/surface/zone[@xml:id=$id]/@lrx -
            /TEI/facsimile/surface/zone[@xml:id=$id]/@ulx"/></xsl:variable>
    <!-- height = lower right y - upper left y -->
        <xsl:variable name="height"><xsl:value-of select="/TEI/facsimile/surface/zone[@xml:id=$id]/@lry -
            /TEI/facsimile/surface/zone[@xml:id=$id]/@uly"/></xsl:variable>
        <xsl:text>"on"."http://sanddragon.bl.uk/IIIFMetadataService/canvas/folio-</xsl:text><xsl:value-of
select="$pg"/><xsl:text>.json#xywh=</xsl:text><xsl:value-of select="@lrx"/><xsl:text>,</xsl:text><xsl:value-of select="@lry"/
><xsl:text>,</xsl:text><xsl:value-of select="($width)"/><xsl:text>,</xsl:text><xsl:value-of select="($height)"/><xsl:text>"</xsl:text>
    ...
    </xsl:for-each>
...</xsl:for-each-group> ...
```

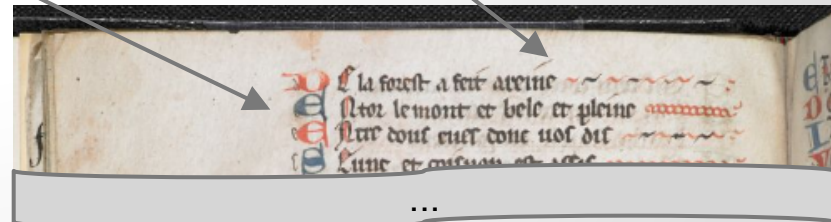
# Technical details MIRADOR / TEI

Embedded approach to transscript -  
<sourceDoc>

- + direct approach
- + clarity due to the limitation to transscripts only
- + simpler for XSLT transforms
- mixing of text and image data

# Technical details TEI

```
... <sourceDoc>
...
<surface ulx="0" uly="0" lrx="6049" lry="8552">
  <zone xml:id="f8v" ulx="0" uly="0" lrx="6049" lry="8552">
    <graphic url="http://sanddragon.bl.uk/IIIFImageService/add_ms_10289_f008v/full/full/0/native.jpg"/>
  </zone>
  <zone ulx="2023" uly="540" lrx="5363" lry="736" >>
    <line n="449" aid:pstyle="txt_Original_Vers" xml:id="vers449" >
      <pb ed="A" n="8v" xml:id="f8v" facs="#f8v"/>De la forest a fait areine</line>
    </zone>
    <zone ulx="2023" uly="737" lrx="5363" lry="944" >>
      <line n="450" aid:pstyle="txt_Original_Vers" xml:id="vers450">Entor le mont,
        et bele et pleine<note type="marginal" xml:id="AFRftn207">areigne.</note>.</line>
    </zone>
  ...
</sourceDoc> ...
```



# Technical details MIRADOR / TEI

XSL code “ulx, uly, lrx, lry” (TEI - sourceDoc)  
to “x, y, w, h” (Shared Canvas)

```
...
<xsl:for-each select="/TEI/sourceDoc//surface" group-starting-with="TEI/sourceDoc//surface">
...
    <xsl:for-each select=" ../line">
    ...
    <xsl:variable name="id"><xsl:value-of select="@xml:id"/></xsl:variable>
    <!-- width = lower right x - upper left x -->
        <xsl:variable name="width"><xsl:value-of select=" ../zone/@lrx - ../zone/@ulx"/></xsl:variable>
    <!-- height = lower right y - upper left y -->
        <xsl:variable name="height"><xsl:value-of select=" ../zone/@lry - ../zone/@uly"/></xsl:variable>
        <xsl:text>"on": "http://sanddragon.bl.uk/IIIF/MetadataService/canvas/folio-</xsl:text><xsl:value-of
select="$pg"/><xsl:text>.json#xywh=</xsl:text><xsl:value-of select=" ../zone/@lrx"/><xsl:text>,</xsl:text><xsl:value-of select=" ../zone/
@lry"/><xsl:text>,</xsl:text><xsl:value-of select="($width)"/><xsl:text>,</xsl:text><xsl:value-of select="($height)"/><xsl:text>"</xsl:text>
    ...
    </xsl:for-each>
...
</xsl:for-each-group>...
```