

Hiob Ludolf Zentrum
für Äthiopistik



La ‘Syntaxe du codex’ and TEI. Models, mappings and visualization tools

10.5.2018 Hamburg

A. Beta maṣāḥəft: Manuscripts of Ethiopia and Eritrea

Collaborations and metadata interoperation with other projects

(ʾAsir Matirā Dabra ʾĀlamā Qəddəst Maryam^{gez})

> alt: ኣሲር፡ መተራ፡ ግጌጌ (ʾAsira Matirā^{gez})
 > alt: ኣስር፡ መተራ፡ ግጌጌ (ʾAsər Matirā^{gez})
 > alt: ኣሽር፡ መተራ፡ ግጌጌ (ʾAšər Matirā^{gez})
 > alt: ደ-ብረ፡ ዓለማ፡ ግጌጌ (Dabra ʾĀlimā^{gez})
 > alt: ደ-ብረ፡ ዓለማ፡ ግጌጌ (Dabra ʾĀlamā^{gez})

Appellations

Bibliography

Secondary Bibliography

- Nosnitsin, D. 2014. 'Asir Mätira', in *Encyclopaedia Aethiopia*, V (Wiesbaden: Harrassowitz Verlag, 2014), 264a–265a
- Nosnitsin, D. 2013. *Churches and Monasteries of Tagray. A Survey of Manuscript Collections*, Supplement to *Aethiopia*, 1 (Wiesbaden: Harrassowitz Verlag, 2013)

Show attestations

Select one of the keywords listed from the record to see related data

select...

No keyword selected.

Load hypotheses.is public annotations pointing here

Use the tag `BetMas:INS0007AM` in your public hypotheses.is annotations which refer to this entity.

Administrative position

- settlement [Baḥerāwi Kallälāwi Mangašti Tagrāy](#)
- settlement [Aḳḳsbi Wāmbārta](#)
- settlement [ʾAsir Matirā](#)
- region [Baḥerāwi Kallälāwi Mangašti Tagrāy](#)

ITS id.

ID Title

Type a title or an id

Selecting or typing an item id here and clicking on go will take you to that item directly.

The following filters can be applied by clicking on the filter icon below, to return to the full list, click the list, to go to advanced search the cog

date range

languages

en (43860)
gez (39208)
it (42257)

Data provenance

all

keywords

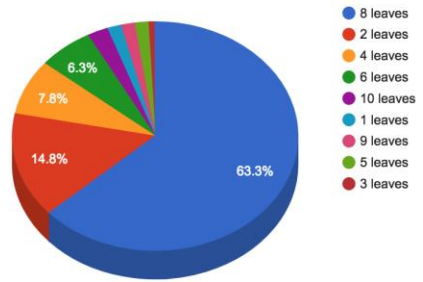
- ApocryphaPseudoepigrapha (
- CanonLaw (56)
- Homily (302)
- Missal (117)

Limit by minimum number of codicological units

Name	Shelfmarks	Images	Textual Units	Manuscript Parts	Hands	Script	Text	Dated	TEL-XML	Analytics	Print
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-002	AM-002, C3-IV-359 (.)		1	1	7	Ethiopic	N/A		XML		
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-003	AM-003, C3-IV-363 (.)		9	1	6	Ethiopic	N/A		XML		
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-004	AM-004		2	1	4	Ethiopic	N/A		XML		
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-007	AM-007		3	1	1	Ethiopic	N/A		XML		
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-012	AM-012, C3-IV-356 (.)		2	1	1	Ethiopic	N/A		XML		
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-015	AM-015		10	1	1	Ethiopic	N/A		XML		
Baḥerāwi Kallälāwi Mangašti Tagrāy, ʾAsir Matirā, AM-040	AM-040		2	1	1	Ethiopic	N/A		XML		

how many per page?

Quires Distribution for the 7 manuscripts in this selection which have a collation with quire descriptions



binding material
 contents

Quires

Composition

General Search Options

Text

Please click on the info button for more information about the text search

Indexes

- Abstracts
- Colophons
- Descriptions
- Explicit

If you don't select anything, the text search will look into **ab**, **persName** and **title**, which are the elements in the XML source files most likely to contain searchable text

choose work to compare manuscripts

Compare manuscripts which contain Hagiography of Lālibalā

They are currently 8.

Vatican City, Biblioteca Apostolica Vaticana, Biblioteca Apostolica Vaticana Cerulli 223 (1830-1974)

- ms_11 (complete), [Hagiography of Lālibalā \(ff. 5r-124va\)](#)
- ms_11.1 (complete), Life of Lālibalā
- ms_11.2 (complete), King Lālibalā and the three Angels (ff. 108va-109vb)
- ms_11.3 (complete), How the river swallowed Lālibalā's honey and then spit it out (ff. 110ra-112va)
- ms_11.4 (complete), How Lālibalā became like a poor (ff. 112va-114rb)
- ms_11.5 (complete), Lālibalā and a rebel (ff. 114rb-116va)
- ms_11.6 (complete), How a prayer to Lālibalā saved a rich woman (ff. 116va-117ra)
- ms_11.7 (complete), How a prayer to Lālibalā saved a man (ff. 117ra-118ra)
- ms_11.8 (complete), Story about virtuous Deeds of Lālibalā (ff. 118ra-124vb)
- ms_12 (complete), [No item: LIT4932Haglal \(ff. 124vb-125rb\)](#)
- ms_13 (complete), [No item: LIT4931MirLal \(ff. 125va-127va\)](#)
- ms_14 (complete), Gadla Yamaḥanna Krastos (ff. 129r-164r)

London, British Library, BL Oriental 718 (1837-1839)

- ms_11 (complete), [Hagiography of Lālibalā \(ff. 1r-130vb\)](#)
- ms_11.1 (complete), Life of Lālibalā (ff. 1r-115rb)
- ms_11.2 (complete), King Lālibalā and the three Angels (ff. 115rb-116vb)
- ms_11.3 (complete), How the river swallowed Lālibalā's honey and then spit it out (ff. 116vb-119ra)
- ms_11.4 (complete), How Lālibalā became like a poor (ff. 119rb-120va)
- ms_11.5 (complete), Lālibalā and a rebel (ff. 120va-122rb)
- ms_11.6 (complete), How a prayer to Lālibalā saved a rich woman (ff. 122va-122vb)
- ms_11.7 (complete), How a prayer to Lālibalā saved a man (ff. 122vb-123vb)
- ms_11.8 (complete), Story about virtuous Deeds of Lālibalā (ff. 123vb-130vb)
- ms_12 (complete), [Hagiography of Lālibalā \(ff. 1r-130vb\)](#)
- ms_12.1, [no ref in title](#)
- ms_12.2, Christology and Lālibalā
- ms_12.3, Praise of King Lālibalā's virtues.
- ms_12.4, Praise of King Lālibalā's virtues.
- ms_12.5, Praise of King Lālibalā's virtues.

London, British Library, BL Oriental 718 (1837-1839)

- ms_11 (complete), [Hagiography of Lālibalā \(ff. 1r-130vb\)](#)
- ms_11.1 (complete), Life of Lālibalā (ff. 1r-115rb)
- ms_11.2 (complete), King Lālibalā and the three Angels (ff. 115rb-116vb)
- ms_11.3 (complete), How the river swallowed Lālibalā's honey and then spit it out (ff. 116vb-119ra)
- ms_11.4 (complete), How Lālibalā became like a poor (ff. 119rb-120va)
- ms_11.5 (complete), Lālibalā and a rebel (ff. 120va-122rb)
- ms_11.6 (complete), How a prayer to Lālibalā saved a rich woman (ff. 122va-122vb)
- ms_11.7 (complete), How a prayer to Lālibalā saved a man (ff. 122vb-123vb)
- ms_11.8 (complete), Story about virtuous Deeds of Lālibalā (ff. 123vb-130vb)
- ms_12 (complete), [Hagiography of Lālibalā \(ff. 1r-130vb\)](#)
- ms_12.1, [no ref in title](#)
- ms_12.2, Christology and Lālibalā
- ms_12.3, Praise of King Lālibalā's virtues.
- ms_12.4, Praise of King Lālibalā's virtues.
- ms_12.5, Praise of King Lālibalā's virtues.

London, British Library, BL Indian Office Collection MS Ethiopic 4 (1838-1842)

- ms_11 (complete), [Hagiography of Lālibalā \(ff. 1r-140v\)](#)
- ms_12 (complete), [Hagiography of Lālibalā \(ff. 140v-162v\)](#)

London, British Library, BL Indian Office Collection MS Ethiopic 4 (1838-1842)

- ms_11 (complete), [Hagiography of Lālibalā \(ff. 1r-140v\)](#)
- ms_12 (complete), [Hagiography of Lālibalā \(ff. 140v-162v\)](#)

Beta masaḥaft

- Home
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- ACHTUNG!
- new issue
- search

special mss

- Golden Gospel
- Miniature Collection

bindingDescription

guards

- Guard
- Centerfold

Virgin and Child

A miniature showing the Mary together with the infant Jesus Christ. It frequently features two angels in the background, generally identified as Gabriel and Michael. In examples of the Second Gondarine Style and Post theme is one of the most frequently depicted subjects in Ethiopian manuscript illustration. It is not surprising, then, a number of typologies are attested in the Ethiopian tradition. These are: Type I Eteusa, Eteusa, Virgin; Type II Galakstrophousa, Nursing Madonna, Virgo Lactans, Madonna Lactans, Type III Hodegetria Type III-b Salus Populi Romani

Bibliography

Chojnacki, S. 1983. *Major Themes in Ethiopian Painting: Indigenous Developments, the Influence of Foreign Models, and Their Adaptation from the 13th to the 18th Century*, *Äthiopistische Forschungen*, 10 (Wiesbaden: Franz Steiner).
 Notes on a Lesser-known Marian Iconography in 13th and 14th century Ethiopian Painting, *Aethiopia*, 5 (2013), 42–66. Welten, G. A. 1961. *Theotokos: Eine ikonographische Abhandlung über das Gottesmutterbild in Frühchristentum*, Spectrum, 1961. Vassilakis, M., ed., 2005. *Images of the Mother of God: Perceptions of the Theotokos in Byzantium* (Aldershot: Ashgate, 2005).

Compare

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DOI: 10.25592/BetaMasaheft

Many thanks for their wonderful work to all the developers of free software for the code we use throughout the website.



Subscription clauses

Select one or more persons referred to in the document or addition

- Haylā Šallase
- Gabra Mik'el
- Gabra Maryām
- Hayla Gabra'el

d6: f. 8v A miniature of the Ascension of Jesus divided into two framed registers. The upper register features Jesus Christ performing a with his right hand and holding a in his left. He has a cruciform and is placed in a circular mandorla which contains the and is surrounded by the Tetramorph. The Four Beasts are arranged in the Angel>Lion>Eagle>Ox order, identified by the captions 'אֲרָיָה: אֲנֹכְחָא אֲרָיָה אֲנֹכְחָא אֲרָיָה אֲנֹכְחָא אֲרָיָה: AWP'. The lower register features the Mary at its centre. She is in the orans pose and wears a shawl over a spotted tunic fastened at the waist by

number of Sewing stations

Excerpt

Excommunicatio

Beta maßstäblich

Home Clavis Manuscripts Places Persons Resources ACHTUNG! new issue search Search +

Entry TEI/XML Graph Relations Text Compare

Ta'ämmära Märyäm

Edited by CAe 2364 Work in progress, please don't use as reference

Item Navigation

- Description
- Bibliography

Titles

- ጥርጋታዎቹ፣ ማርያም ግብርና፣ (Ta'ämmära Märyäm^{oec}, Miracles of Mary^{en})

General description

A collection of miracles: general record. In the unpublished list compiled by William Macomber, the T.M. in Ethiopian tradition contains up to 640 narratives. The "standard" collection, according to the tradition of the Ethiopian Orthodox Church, should contain 365 miracles, i.e. one for each day of the year. The canonical set includes 33 miracles.

A Work part of Ethiopian Literature

A TEI file converted from the ETHIO-authority google spreadsheet

Show attestations

There are **23** attestations.

Attestation source attestations

- Miracle of the transmigration of the Virgin, the Jews threaten to burn the Virgin's body and cut off the heads of the apostles. **1** pointer only (no date), saws:formsPartOf[relation]
- Another version of the story of Nathan the monk. **1** pointer only (no date), saws:formsPartOf[relation]
- Miracle of the patriarch Denis who asked from the Virgin to know the grave of Mark. **1** pointer only (no date), saws:formsPartOf[relation]
- Miracle of St Minas. **1** pointer only (no date), saws:formsPartOf[relation]
- Miracle of Yohannes Kamä who founded a Convent. **1** pointer only (no date), saws:formsPartOf[relation]
- How a great king in Rome dedicated an altar to Virgin Mary and Her Child. **1** pointer only (no date), saws:formsPartOf[relation]
- Miracle of a European man with a petrified foot. **1** pointer only (no date), saws:formsPartOf[relation]
- Miracle of the old priest Qatir at 'Ilikus. **1** pointer only (no date), saws:formsPartOf[relation]
- How a widow frosook her duties in the Church and lived in sin, how her place had been filled by the Virgin Mary. **1** pointer only (no date), saws:formsPartOf[relation]
- Miracle of Petros who demanded to know the mystery of the trinity after building a Church to the Virgin. **1** pointer only (no date), saws:formsPartOf[relation]

Select one of the keywords listed from the record to see related data

Apocrypha

Bitter Water Ordeal	Ta'amra Salläse	London, British Library, BL Add. 16.223
Annunciation	Nagara Märyäm	London, British Library, BL Add. 16.245
Denial of Peter	Ta'amra Salläse	London, British Library, BL Add. 16.245
On the sepulchre of Our Lady Mary, ark of those who worship her in the day of the Day of the Judgment	Colloquy of Moses with God on Mount Sinai (Christian recension)	London, British Library, BL Add. 16.188
	Ta'ämmära Märyäm	Coronation of Mary
	Ta'ämmära Märyäm	Mary fed her an

This Work is contained in Manuscript records 16 times

- Paris, Bibliothèque nationale de France, BnF Éthiopian 60 (BNFet60) word count: 75
 - content item with id ms_11 [1/2]
- Paris, Bibliothèque nationale de France, BnF Éthiopian 61 (BNFet61) word count: no transcription available
 - content item with id ms_11 [1/1]
- Vatican City, Biblioteca Apostolica Vaticana, Aeth. 12 (BAket12) word count: no transcription available
 - content item with id ms_12, Miracles of Mary, three in number (ff. 27v-33v) [2/2]
- Vatican City, Biblioteca Apostolica Vaticana, Aeth. 24 (BAVet24)

Load hypotheses.is public annotations pointing here

Medieval short narratives between languages and cultures: the Miracles of the Virgin Mary | The Oxford Cartigas de Santa Maria database | View poem data

Use the tag **RelMas:LT2364Taamma** in your public hypotheses.is annotations which refer to this entry.

Main metadata



Main relations to other items



Attestations



other views

items related by keyword

this work in other manuscripts (with word count and title)

external annotations pointing here

Edition by Hommel, F. 1877. *Die aethiopische Uebersetzung des Physiologus nach je einer Londoner, Pariser und Wiener Handschrift* (Leipzig: J. C. Hinrichs'sche Buchhandlung, 1877)

chapter: 4 (On the pelican) [Ugarit Alignment](#) [Versions](#)

sentence: 1
Ugarit Alignment
 ፪፻፲፭፡ በእንተ ፆፍ፡ ዘሰው፡ ጸልቃን፡ ዘውእኑ፡ ግሬብ።

sentence: 2
Ugarit Alignment
 ይቤ፡ ጳዊት፤ ተወስልኩ፤ ጸልቃ፤ ዘንዳሞ።፡፯፣፱።

sentence: 3
Ugarit Alignment
 ይቤ፡ ፈሳላን፤ በእንተ፡ ጸልቃ፡ ከወ፡ መፍቆ፤ ደቂቁ፡ ውእቱ፡ በሕቁ፡ ሰብ፡ ይትወለዱ፡ ደቂቆም፡ ይጸፍ፡ ገዱ፡ ወላደያነያው፡ ወወላደያን፡ ይቈርሱ፡ ርእሱ፡ ውሉዳው፡ ወይቅትሉ።፡፻፱። ወእዉ፡ ሃልስኑ፡ ዐለኑ፡ እሞው፡ ተፈትኩ፡ ገቦን፡ ወንገደጸፍ፡ ደው፡ ሊብ፡ ሞውጋን፡ ደቂቃ፡ ወንታጎሥ።

sentence: 4
Ugarit Alignment
 ከወ፡ ይቤ፡ በእጋይያን፤ ወሉደ፡ ወላደኩ፡ ወእልሀቁ፡ እወጥኑ፡ ዐለዉ፤ ወላደ፡ ገብሬ፡ ኩእ፡ ፍጥርኑ፡ ወጸፋፍህ፡ ወእሞላኩ፡ ፍጥርኑተ፡ ወንደግን፡ ፈጣሪ፡ ውእኑ፤ ገደን፡ ወመጠው፡ ለሞኑ፡ ወድገ፤ ተፈገርን፡ ከወ፡ እሞ፡ ወዐሪን፡ ሊብ፡ ነን፡ መስቀል፡ እንጸፍደ፤ ለነ፡ ደው፡ ወማየ፡ ዘጥሞቁተ፡ ጎሳ፡ ወእሕየው፤ ሠናየ፡ ይቤ፡ ዘይቤ፡ በእንተ፡ ጸልቃን።

Multiple editions



Edition by Massimo Villa

chapter: 4 (On the pelican) [Ugarit Alignment](#) [Versions](#)

sentence: 1
Ugarit Alignment
 ፪፻፲፭፡ በእንተ ፆፍ፡ ዘሰው፡ ጸልቃን፡ ዘውእኑ፡ ግሬብ።

sentence: 2
Ugarit Alignment
 ይቤ፡ ጳዊት፤ ተወስልኩ፤ ጸልቃ፤ ዘንዳሞ።፡፯፣፱።

sentence: 3
Ugarit Alignment
 ይቤ፡ ፈሳላን፤¹ በእንተ፡ ጸልቃ፡ ከወ፡ መፍቆ፤ ደቂቁ፡ ውእቱ፡ በሕቁ፡ ሰብ፡ ይትወለዱ።² ደቂቆም፡ ይጸፍ፡ ገዱ።³ ወላደያነያው፡ ወወላደያን።⁴ ይቈርሱ፡ ርእሱ፡ ውሉዳው፡ ወይቅትሉ።⁵ ወእዉ፡ ሃልስኑ፡ ዐለኑ።⁶ እሞው፡ ተፈትኩ፡ ገቦን።⁷ ወንገደጸፍ፡ ደው፡ ሊብ፡ ሞውጋን፡ ደቂቃ።⁸ ወንታጎሥ።

sentence: 4
Ugarit Alignment
 ከወ።¹ ይቤ፡ በእጋይያን፡² ወላደኩ።³ ወእልሀቁ።⁴ እወጥኑ።⁵ ዐለዉ፤። ወላደን።⁶ ገብሬ። ኩእ። ፍጥርኑ፡ ወጸፋፍህ።⁷ ወእሞላኩ፡ ፍጥርኑተ፡ ወንደግን፡ ፈጣሪ፡ ውእኑ፤ ገደን።⁸ ወመጠው፡ ለሞኑ።⁹ ወድገ።¹⁰ ተፈገርን፡ ከወ፡ እሞ።¹¹ ወዐሪን፡ ሊብ፡ ነን፡ መስቀል፡ እንጸፍደ። ለነ፡ ደው፡ ወማየ፡ ዘጥሞቁተ፡ ጎሳ፡ ወእሕየው፤ ሠናየ፡ ይቤ፡ ዘይቤ፡ በእንተ፡ ጸልቃን።

other versions



- Version Zenä ṭəbab za-Fisə'algos ṭəbib (LIT4917PhysC)**
 Edition: Paris, Bibliothèque nationale de France, BnF Éthiopien d'Abbadie 247
 ጸልቃ፡ ከወእኑ፡ ግሬብ፡ ይቤ፡ ጳዊት፡ ወፍቆ፡ ደቂቁ፡ ውእቱ፡ በሰ፡ ይትወለዱ፡ ደቂቁ፡ ወሉደ፡ ወእዉ፡ ሃልስኑ፡ ዐለኑ፡ እሞው፡ ተፈትኩ፡ ገቦን፡ ወንገደጸፍ፡ ደው፡ ሊብ፡ ሞውጋን፡ ደቂቃ፡ ወንታጎሥ።
- Version Zenä massälēyät za-ṭəbib Fisə'algos (LIT4916PhysB)**
 Edition: Massimo Villa
 ኩ፡ ለእ፡ ሞ፡ ዘይሰው፡ ዘውእኑ፡ ይቤ፡ በእንተ፡ ጸልቃ፡ ከወ፡ መፍቆ፡ ደቂቁ፡ ውእቱ፡ በሕቁ፡ ወላደ፡ ወላደያን፡ በእንተ፡ እሞው፡ ወሉደ፡ ወሉደ፡ ወእዉ፡ ሃልስኑ፡ ዐለኑ፡ እሞው፡ ተፈትኩ፡ ገቦን፡ ወንገደጸፍ፡ ደው፡ ሊብ፡ ሞውጋን፡ ደቂቃ፡ ወንታጎሥ።

Editions Bibliography

- Hommel, F. 1877. *Die aethiopische Uebersetzung des Physiologus nach je einer Londoner, Pariser und Wiener Handschrift* (Leipzig: J. C. Hinrichs'sche Buchhandlung, 1877)

Translation Bibliography

- Hommel, F. 1890. 'Die äthiopische Physiologus', *Romanische Forschungen*, 5 (1890), 13-36
- Conti Rossini, C. 1951. 'Il Fisiologo etiopico', *Rassegna di Studi Etiopici*, 10 (1951), 5-51
- Sumner, C. 1982. *The Fisalg' os*, Ethiopian Philology, 5 (Addis Ababa: Commercial Printing Press, 1982)

Secondary Bibliography

- Weninger, S. 2005. 'Fisalgs', in *Encyclopaedia Aethiopica*, II (Wiesbaden: Harrassowitz Verlag, 2005), 549b-550a

A digital born TEI file

Digital text of Extra with id based on Hommel 1877.



click on word
to open search
in dictionary



critical apparatus

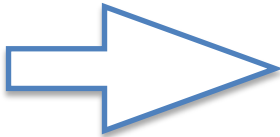
Vatican City, Biblioteca Apostolica Vaticana, Biblioteca Apostolica Vaticana
Cerulli 37
Edited by Najfa Valieva

Entry

TEI/XML Graph Relations Transcription

Sub Vatican City, Biblioteca Apostolica Vaticana
Collection: Cerulli

contents and physical description for each unit



Item Navigation

Navigate section

- General
- Description
- Physical desc of ms
 - Codicological unit 1
 - Codicological unit 2
- Transcription
- Authors

Show more links

General description

"Life", "Miracles", "Image" of Lalibala and "Storia della Passione" Number of Text units: 11 Number of Codicological units: 2

Codicological Unit 1

Contents

Hagiography of Lalibala = Cae 1470 = BHO 560 / Item p1_11

ff. 1r-110ra Hagiography of Lalibala = Cae 1470 = BHO 560 Ca

Life of Lalibala = Cae 4922 / Item p1_11.1

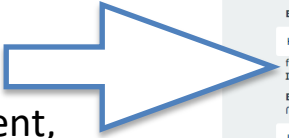
ff. 1r-94ra Life of Lalibala = Cae 4922 Ca

Incipit (Gəʿəz): f. 1r110b ጳጳሳይ፣ ወወገደሰ፣ ቅዱስ፣ ደ ጳጳስ፣ ሥላሴ፣ ዋልደ፣ ዕርጌ፣ ዚይደይ፣ ታላ፣ ዚይደይ፣ ዘሁ፣ ጳጳሳይ፣ ጳጳስ፣ ሥላሴ፣

Form of support of codicological unit 1
Parchment Codex
Extent of codicological unit 1
155 225
Collation of codicological unit 1
Signatures: Quires are numbered with Ethiopic numerals on the top left corner recto

Quires Table Diagrams

direct link to each text, placement, clickable text



(you have seen this and the following slide on Monday)

Grottaferrata, Exarchic Greek Abbey of St. Mary of Grottaferrata, Crypt. Aet. 7
Edited by Elena Dal Sasso

General description

Psalter, Mahäläya nabyät, Mahäläya za-Salomon, Waddäse Märäyäm, Anqäsa barhan Number of Text units: 4 Number of Codicological units: 1

Summary

Extracted summary of contents Given summary of contents

ms_1,1, Psalter (Ethiopic Psalter = Cae 2201) Ca
ms_1,1.1 (ff. 1r-175v), Psalms of David = Cae 2000 Ca
ms_1,1.2 (ff. 176r-192v), Mahäläya nabyät = Cae 1828 Ca
ms_1,1.3 (ff. 193r-201v), Mahäläya za-Salomon
ms_1,1.4 (ff. 202ra-216v), Waddäse Märäyäm = Cae 2509 Ca
ms_1,1.5 (ff. 217ra-221v), Anqäsa barhan = Cae 1113 Ca

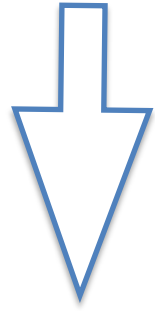
Form of support
Parchment Codex
Extent
222 (lea), 0 (leaf, blank), 24 (quire).
Physical description
Outer dimension
H: 263mm x W: 253mm x D: 100mm
(proportion height/width: 1.0395)
265 255 120 (binding).
The depth of the spine is greater than the depth of the fore-edge due to the presence of the sewing thread.

Collation

Quires Table Diagrams Collation Formula

State of preservation
deficient
Condition
Binding
The book is sewn on four sewing stations (two pairs) linked to uncovered wooden boards. On the inner side of the left board is pasted a textile inlay and there are traces of a leather cover.
Binding decoration
Parchment guards are found in and . They are placed along the and held in their position by with a thread of vegetable origin.
Binding material
wood textile silk
Original binding
No

continues...



📄

Entry

TEI/XML

Graph

Relations

Transcription

Paris, Bibliothèque nationale de France, BnF Éthiopien 165

Edited by Dorothea Reule

Stub

Paris, Bibliothèque nationale de France

Collection: Manuscrits orientaux Fonds éthiopien

Other identifiers: Éth. 127

Item Navigation

Dated

General description

Fragments of chants, Exodus, the Pauline Epistles, Prayers, Weddäse Märjäm

Number of Text units: 11

[Hide/show codicological information](#) [Hide/show contents](#)

Number of Codicological units: 6

Navigate section

General

Description

Physical desc of ms

- Codicological unit 1
- Codicological unit 2
- Codicological unit 3
- Codicological unit 4
- Codicological unit 5
- Codicological unit 6

Catalogue

Authors

Show more links

Form of support

Codex

Extent

29 (leaf).

Codicological Unit 1

Origin of codicological unit 1

Before 1877

Contents

Fragment of a chant book for feasts (?) / Item p1_1

ff. 1-6 Fragment of a chant book for feasts (Daggwä = CAe 3178-ጵ (work)?)

Language of text: Gə'əz

Catalogue Bibliography of codicological unit 1

- Zotenberg, H. 1877. *Catalogue des manuscrits éthiopiens (gheez et amharique) de la Bibliothèque nationale*, Manuscrits Orientaux (Paris: Imprimerie nationale, 1877) , page 265b-266a.

Summary of codicological unit 1

Extracted summary of contents

Given summary of contents

p1_1 (ff. 1-6), Fragment of a chant book for feasts (Daggwä = CAe 3178-ጵ (work)?)

Extent of codicological unit 1

6 (leaf).

Physical description of codicological unit 1

Outer dimension of codicological unit 1

H: 215mm x W: 165mm

(proportion height/width: 1.303)

Hand

Ethiopic Before 1877

Codicological Unit 2

Origin of codicological unit 2

Before 1877

Contents

Exodus 20:12-21 / Item p2_1

f. 7 Exodus 20:12-21 (Exodus = CAe 1367)  

Language of text: Gə'əz

Catalogue Bibliography of codicological unit 2

Summary of codicological unit 2

Extracted summary of contents

Given summary of contents

p2_1 (f. 7), Exodus 20:12-21 (Exodus = CAe 1367)  

Extent of codicological unit 2

1 (leaf).

Physical description of codicological unit 2

Outer dimension of codicological unit 2

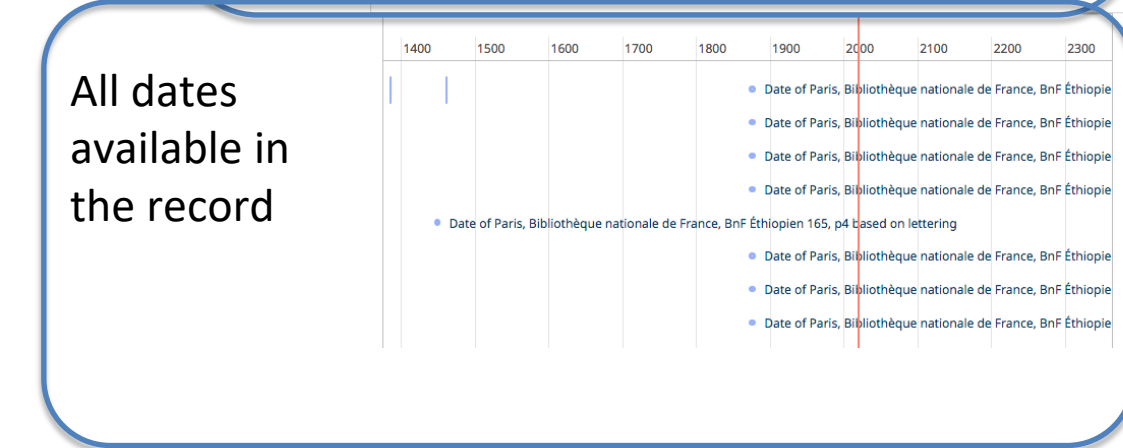
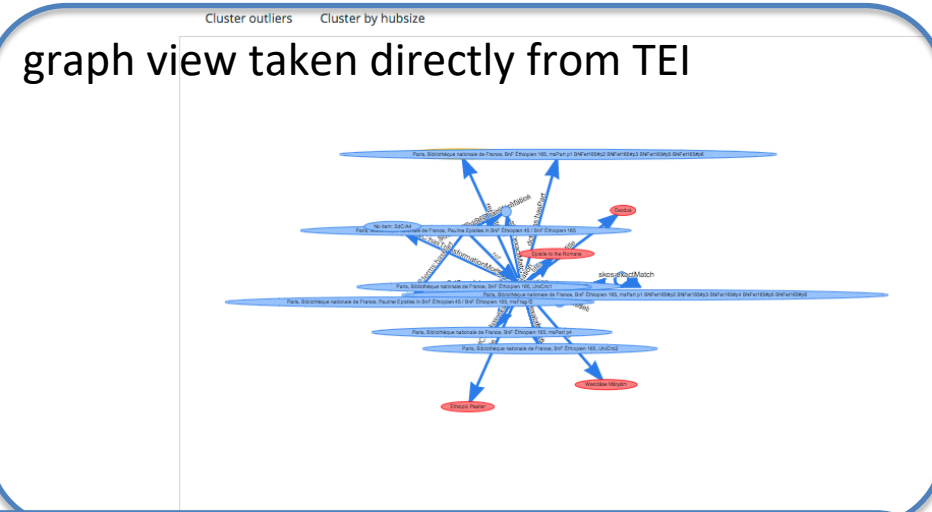
H: 230mm x W: 152mm

Paris, Bibliothèque nationale de France, BnF Éthiopien 165

Edited by Dorothea Reule

Paris, Bibliothèque nationale de France
 Collection: Manuscrits orientaux Fonds éthiopien
 Other identifiers: Éth. 127

- Item Navigation
- Navigate section
- General
 - Description
 - Physical desc of ms
 - Codicological unit
 - Codicological unit
 - Codicological unit
 - Codicological unit
 - Codicological unit
 - Codicological unit
 - Catalogue
 - Authors
- Show more links



Subject	Relation	Object	Description
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p1Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p2Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p3Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p5Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p6	dcterms:hasPart	Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p1Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p2Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p3Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p5Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p6	
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, UniCirc1	SdC:undergoesTransformation	Paris, Bibliothèque nationale de France, BnF Éthiopien 165, transformation tr1	
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p4	SdC:undergoesTransformation	Paris, Bibliothèque nationale de France, BnF Éthiopien 165, transformation tr1	
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, transformation tr1	SdC:hasTransformationModel	La Syntaxe du Codex A4	
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, transformation tr2	skos:exactMatch	Paris, Bibliothèque nationale de France, Pauline Epistles in BnF Éthiopien 45 / BnF Éthiopien 165, transformation tr2	
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, transformation tr1	SdC:produces	Paris, Bibliothèque nationale de France, BnF Éthiopien 165, UniCirc2	
Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p1Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p2Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p3Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p4Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p5Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p6	dcterms:hasPart	Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p1Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p2Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p3Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p4Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p5Paris, Bibliothèque nationale de France, BnF Éthiopien 165, msPart p6	

explicitly stated relations

B. Beta maṣāḥeḥft and *La Syntaxe du Codex*



XML

XQuery

Graphs

RDF

SPARQL

AHEAD!!

Starting needs

- Encode that something happened rather than something can be observed
- This part is later than this other part
- The quire was added inside this quire later
- This part of manuscript comes from another manuscript
- This manuscripts is made of several pieces of other manuscripts
- etc.

“mettre en relation ces éléments pour comprendre comment le codex *‘tient ensemble’* et se modifie avec le temps”
(Andrist, Canart, and Maniaci 2013, 9)

Steps

1. decide on the workflow
2. translate *La Syntaxe* to a formal ontology
3. produce annotations from manuscript descriptions in TEI using the entities and relations in the ontology
4. visualise the annotations as suggested in *La Syntaxe*
5. *Examples TEI to Visualization and back again*

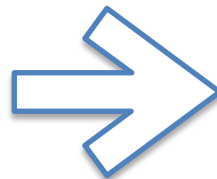
Principles

- The technology should support
 - speed
 - laziness
 - collaboration
 - complexity
 - I do not know
 - data not available
 - I do not want to say
 - maybe...
- The data models and standard used should support **diversified input over time** (i.e. quite often and as a default **incomplete data, sometimes even erroneous**)
- The logic and **scripts** should make as **little assumptions** as possible at each stage and if they do make assumptions those should be stupid enough not to generate clever mistakes
- Needs to be reusable, based on **widely used and supported standards** and using technologies which are as **software independent** as possible.
- Publishing and using Linked Open Data means we can do thing with other data which we do not yet know. And they can do with our data things we do not yet know. **We are making connections we do not even know about.**

1. Workflow - La Syntaxe du Codex

STEP 1 = List discontinuities (observation)

- Add to a flat **list**
- Draw a **table** where converging discontinuities (*discontinuités convergentes*) can become visible

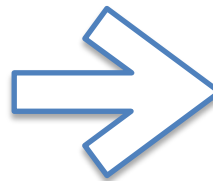


Data from observation can be encoded in TEI and used to produce the table

OR Data in TEI can be transformed to RDF to produce the table from that format

STEP 2 = Enrich the table (further research)

with chronological and geographical information in order to verify the relevance of the discontinuities and consequently recognize production units and circulation units (see below).
Make an hypothesis.

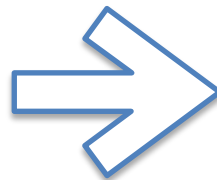


Data can be encoded in TEI and used to enrich the table

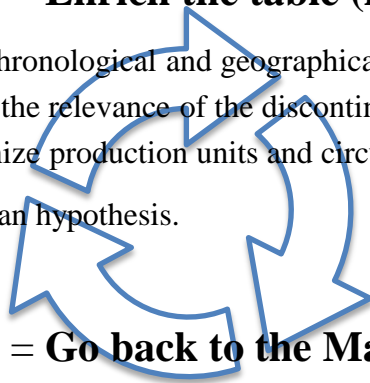
The hypothesis on the identifications of UniProd and UniCirc and their **relations** are much better represented by a graph, as in the book, so RDF.

STEP 3 = Go back to the Manuscript

check theoretical results and hypothesis with archeological analysis



To be able to iterate the process in one workflow I need to encode in TEI the relations



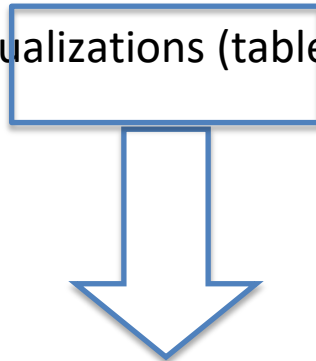
1. Workflow - La Syntaxe du Codex



STEP 1 : the cataloguer encodes in TEI both description and hypotheses

STEP 2 : the cataloguer checks visualizations (table, graphs)

STEP 3 : verifying, good if there are images linked in the table

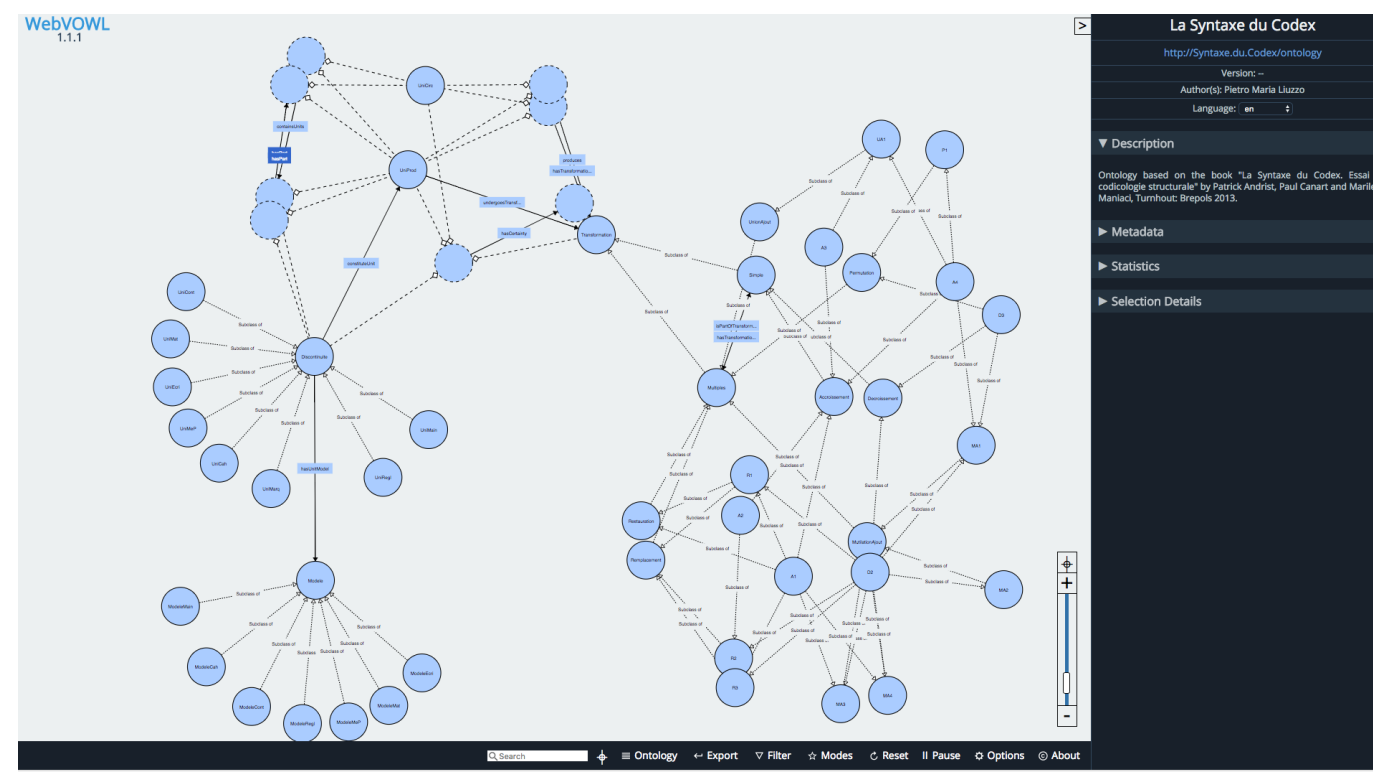


These are produced from the RDF!

- one could produce the same RDF and make the same visualisations using data from a db and not TEI
- the RDF can be reused for many other applications

2. La Syntaxe du Codex as Ontology in OWL

- declare a class for each Unit type and transformation
- declare relations between them
- already all done in the book!



The screenshot shows the WebVOWL interface for the ontology 'La Syntaxe du Codex'. The main area displays a complex class hierarchy with nodes like 'Discontinuite', 'Transformation', and 'Modele' connected by 'subClassOf' relationships. A metadata panel on the right provides details such as the URL 'http://Syntaxe.du.Codex/ontology', version, author (Pietro Maria Liuzzo), and language (en). A search bar and navigation controls are visible at the bottom.

- owl:Thing
 - Certain
 - Discontinuite
 - UniCah
 - ElCah
 - UniCont
 - UniEcri
 - UniMain
 - UniMarq
 - UniMat
 - UniMeP
 - UniRegl
 - Hypothetique
 - Modele
 - ModeleCah**
 - Cah1
 - Cah2
 - Cah3
 - Cah4
 - ModeleCont
 - ModeleEcri
 - ModeleMain
 - ModeleMarq
 - ModeleMat
 - ModeleMeP
 - ModeleRegl
 - Transformation
 - Multiples
 - Simple
 - UniCirc
 - UniProd
 - UniProd-C
 - UniProd-C-MC
 - UniProd-M
 - UniProd-MC

3. Using TEI to encode structural analysis

- there are elements which could be taken one to one to describe a Unit: <layoutNote> = UniMep or <handNote> = UniMain
- UniMat might already be different, as the material of a part is usually indicated inside <support> which is nested in the <physDesc>, so could have a different scope
- UniProd and UniCirc can be assigned looking at the TEI programmatically only in very few cases, e.g. the ms being described is always a UniCirc.
- mapping element name to Unit is impossible, as e.g. we use <item> both to list additions (UniCont), quires (UniCah) and foliation (UniMarq)
- transformation and their types are nowhere to be encoded

3. Using TEI to encode structural analysis - <locus>

<CO

Persons Resources

<

ototeca Ap

eral description

ter, Maḥālaya nabi

igin

iginal Location: ↗

00 - 1499

ontents

Psalter / Item ms_i1 2

<ff. 1r-119v Psalter (Ethio

</c

Psalms of Davi

ff. 1r-119v Psal

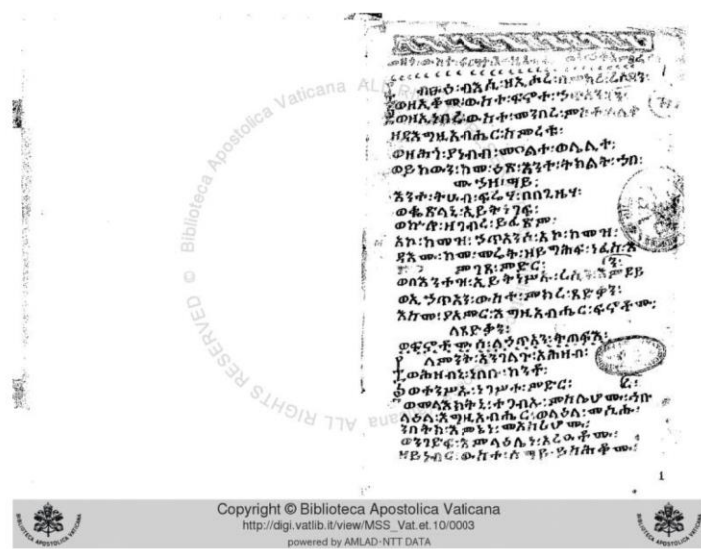
Titles of Psalms

Psalms 118 =

Maḥālaya nabi

Images from Close

http://digi.vatlib.it/iiif/MSS_Vat.et.10/manifest.json



Copyright © Biblioteca Apostolica Vaticana
http://digi.vatlib.it/view/MSS_Vat.et.10.0003
 powered by AMLAD-NTT DATA

Close

essential to be able to produce tabulation as in the book that are indications of placement in manuscript

us/> is used in BM also to express exact folia and the lines, as well the corresponding facsimile.

et="#28v #33r #49r #50v #55v

83r #83v #84v #85r"/>

= "31" facs="f62"/>

3. TEI to RDF - xml:id structure

To be able to assign URIs dynamically and build a graph, the IDs in the TEI file need to be stable and semantically recognisable.

Element	ID pattern
msPart	p\d+[\.\d+]+
msItem	p\d+[\.\d+]+_\d+[\.\d+]+
binding decoNote	b\d+
decoNote	d\d+
addition	a\d+
extra	e\d+
quire	q\d+
foliation unit	fol\d+
hand	h\d+
title	t\d+
name	n\d+
edition	ed\d+
transformation	tr\d+
Uni\w+ (SdC)	Uni\w+\d+ (SdC)

3. TEI to RDF - URIs

For example in *Beta maṣāḥaft* encoding of Vatican City, Biblioteca Apostolica Vaticana, Aeth. 1 and the Gospel of Luke (CAe 2713)

- The Gospel of Luke as an abstract and organized intellectual product (**œuvre**) is the entity <http://betamasaheft.eu/LIT2713Luke>
- The Biblioteca Apostolica Vaticana Ethiopic Manuscript 1 is a manuscript, the entity <http://betamasaheft.eu/BAVet1>
- The Gospel of Luke in the above manuscript is the entity http://betamasaheft.eu/BAVet1/msitem/ms_i1.4.2
- The Calendaric note on folio 219r is the entity <http://betamasaheft.eu/BAVet1/addition/a3>
- Additionally, each of these is assigned to a class (and it can be added to as many as one wishes)
- <http://betamasaheft.eu/LIT2713Luke> is an instance in the class <http://lawd.info/ontology/ConceptualWork>
- <http://betamasaheft.eu/BAVet1> is an instance in the class <http://lawd.info/ontology/AssembledWork>
- http://betamasaheft.eu/BAVet1/msitem/ms_i1.4.2 is an instance in the class <http://betamasaheft.eu/msitem> and might be an instance in the class UniCont
- <http://betamasaheft.eu/BAVet1/addition/a3> is an instance in the class <http://betamasaheft.eu/addition> and might be an instance in the class UniCont

3. TEI to RDF - <relation>

<relation>

Home
C Elements

<relation> (relationship) describes any kind of relationship or linkage amongst a specified group of places, events, persons, objects or other items. [13.3.2.3 Personal Relationships]

Module	namesdates — Names, Dates, People, and Places
Attributes	<p>att.global (@xml:id, @n, @xml:lang, @xml:base, @xml:space) (att.global.rendition (@rend, @style, @rendition)) (att.global.linking (@corresp, @synch, @sameAs, @copyOf, @next, @prev, @exclude, @select)) (att.global.analytic (@ana)) (att.global.facs (@facs)) (att.global.change (@change)) (att.global.responsibility (@cert, @resp)) (att.global.source (@source)) (att.dateable (@calendar, @start-date, @end-date, @start-time, @end-time, @start-datetime, @end-datetime, @start-month, @end-month, @start-year, @end-year, @start-week, @end-week, @start-quarter, @end-quarter, @start-century, @end-century, @start-millennium, @end-millennium, @start-second, @end-second, @start-minute, @end-minute, @start-hour, @end-hour, @start-day, @end-day, @start-month-day, @end-month-day, @start-year-month-day, @end-year-month-day, @start-year-month-day-hour, @end-year-month-day-hour, @start-year-month-day-hour-minute, @end-year-month-day-hour-minute, @start-year-month-day-hour-minute-second, @end-year-month-day-hour-minute-second)) (att.dateable.iso (@when-iso, @notBefore-iso, @notAfter-iso, @notBefore-custom, @notAfter-custom, @from-custom, @to-custom, @start-datetime, @end-datetime, @start-month, @end-month, @start-year, @end-year, @start-week, @end-week, @start-quarter, @end-quarter, @start-century, @end-century, @start-millennium, @end-millennium, @start-second, @end-second, @start-minute, @end-minute, @start-hour, @end-hour, @start-day, @end-day, @start-month-day, @end-month-day, @start-year-month-day, @end-year-month-day, @start-year-month-day-hour, @end-year-month-day-hour, @start-year-month-day-hour-minute, @end-year-month-day-hour-minute, @start-year-month-day-hour-minute-second, @end-year-month-day-hour-minute-second)) (att.sortable (@sortKey)) (att.typed (@type, @subtype))</p> <p>@name ⓘ supplies a name for the kind of relationship of which this is an instance. Status Optional Datatype teidata.enumerated</p> <p>@active ⓘ identifies the 'active' participants in a non-mutual relationship, or all the participants in a mutual one. Status Optional Datatype 1-∞ occurrences of teidata.pointer separated by whitespace</p> <p>@mutual ⓘ supplies a list of participants amongst all of whom the relationship holds equally. Status Optional Datatype 1-∞ occurrences of teidata.pointer separated by whitespace</p> <p>@passive ⓘ identifies the 'passive' participants in a non-mutual relationship. Status Optional</p>

http://betamasaeft.eu/BAVcerulli37#p1

http://betamasaeft.eu/BAVcerulli37/UniProd/UniProd1

```
<relation
  active="http://betamasaeft.eu/BAVcerulli37#p1"
  name="http://http://Synthax.du.Codex/ontology#constituteUnit"
  passive="http://betamasaeft.eu/BAVcerulli37/UniProd/UniProd1"/>
```

```
<relation
  active="BAVcerulli37#p1"
  name="SdC:constituteUnit"
  passive="BAVcerulli37#UniProd1"/>
```


4. Visualizing the RDF

[Entry](#)
[TEI/XML](#)
[Graph](#)
[Relations](#)
[Transcription](#)

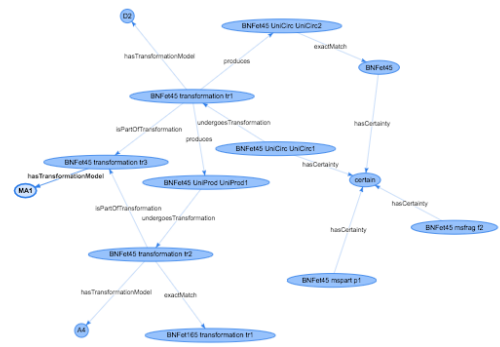
Paris, Bibliothèque nationale de France, Pauline Epistles in BnF Éthiopien 45 / BnF Éthiopien 165
 Edited by Dorothea Reule

Paris, Bibliothèque nationale de France
 Collection: Manuscrits orientaux Fonds éthiopien
 Other identifiers: Éth. 27, Saint-Germain 509, Éth. 127

Item Navigation	Quires	folios	UniMat	UniMarq	UniCah	UniCont	addition	UniMain	UniEcri	UniRegl	UniMep	decoration	UniProd
		1r - 12r											
		12v - 16v				msitem f2 i1							
		17r - 17v				msitem f2 i1.4							
		18r - 23r				msitem f2 i1.5							
		23v				msitem f2 i1							
		24r - 161v					addition a1						
		162r - 162v											
		163r - 174v											

[Show more links](#)

Some of the informations are extracted from the TEI encoding, some others need to be stated in relation elements.



- the visualization is part of the workflow and needs to:
- dynamically update as more content is added
 - be available also when some data is lacking

4. Visualizing the RDF - Table of non concomitant discontinuities

Tableau 1 : présence de deux discontinuités non concomitantes⁷

cahiers	folios	UniMat	UniMarq	UniCah	UniCont	UniMain	UniÉcri	UniRégl	UniMep
1. (1-8)		/Mat1	/Mq1	/Ch1	/Ct1	/Mn1	/Éc1	/Rg1	/Mp1
2. (9-16)	10v med. 11r sup.				Ct1/vidé /Ct2				
3. (17-24)									
4. (25-32)	28v inf. 32v inf.								Mp1/ Mp2
gard. ant.		/Mat2			vidé				
gard. post.		Mat2/			vidé				

- there are no bars like in /Mat1, Mat1/ because the exact column and line can be indicated
- Quires are treated the same way as other units. Actually only 10% of the

Quires	folios	UniMat	UniMarq	UniCah	UniCont	addition	UniMain	UniÉcri	UniRégl	UniMep	UniPro
quire q1	1r 1v					addition e1					
quire q2	2r 2v - 9v				msitem.p1.i1.1		hand h1				
quire q3	10r - 17v										
quire q4	18r - 20v 21r - 21v										
quire q5	22r - 30v				msitem.p2.i1.2		hand h2				
quire q6	31r - 36v										
quire q7	37r - 43v										
quire q8	44r - 56v										
quire q9	57r - 60v										
quire q10	61r - 67v										
quire q11	68r - 73v										
quire q12	74r - 79r 79v										
quire q13	80r 80v - 83r 83v 84r 84v				msitem.p1.i2		hand h1			decoration d2	decoration d3

descriptions in BM have a collation

- no display yet for guards and binding data
- sometimes the grouping of the rows goes wrong

4. Visualizing the RDF - Enriched Table

click the Enrich button and some data is picked up from the TEI and stucked into the table

Enrich Table

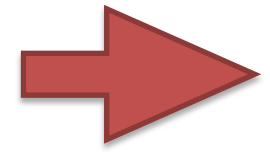
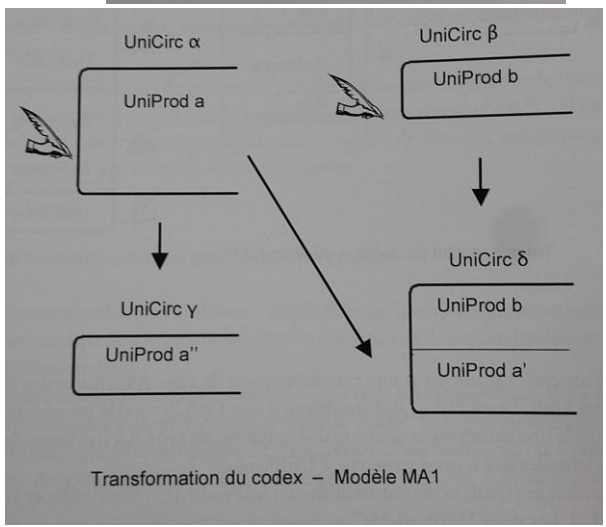
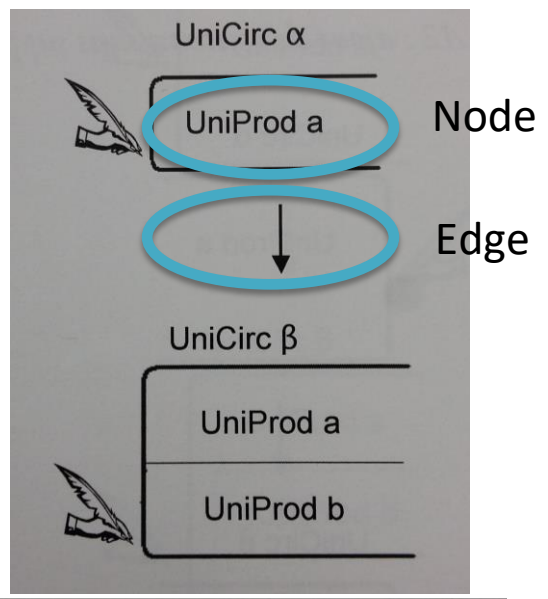
Quires	folios	UniMat	UniMarq	UniCah	UniCont	addition	UniMain	UniEcri	UniRegl	UniMep	decoration	UniProd
	1r					addition e1	hand h1					
	1v - 94r				msitem ms_i1.1							
	94v - 95r				msitem ms_i1.2.1							
	95v - 97v				msitem ms_i1.2.2							
	98r - 98v				msitem ms_i1.2.3							
	99r - 103r				msitem ms_i1.2							
	103v - 105v				msitem ms_i1.2.11							
	106r - 106v				msitem ms_i1.2							
	107r - 112v				msitem ms_i1.3							
	113r - 113v											

Enrich Table

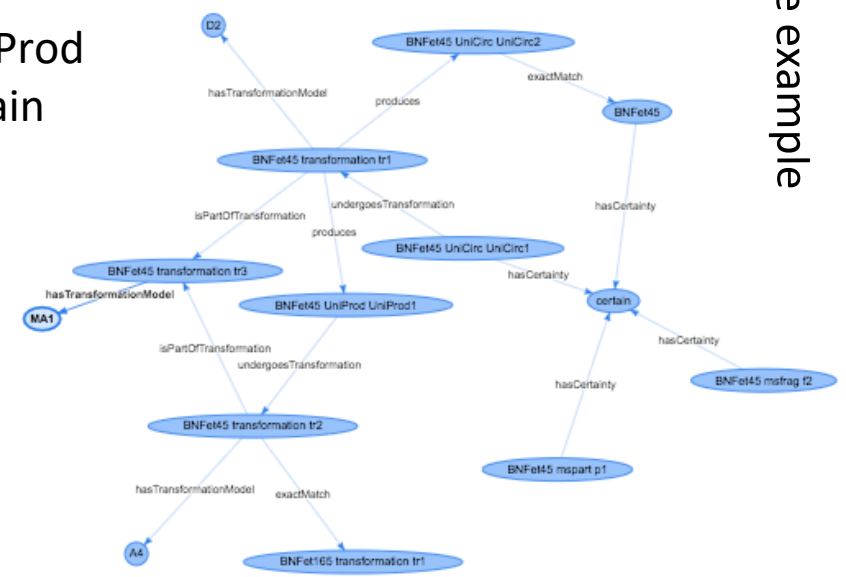
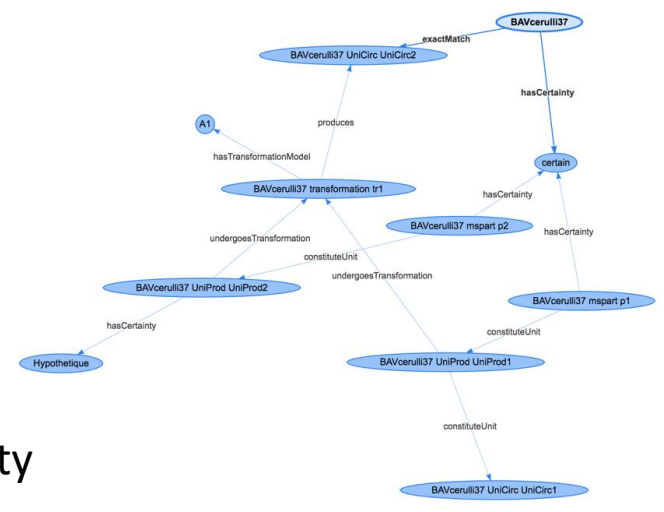
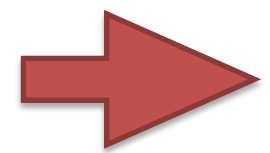
Quires	folios	UniMat	UniMarq	UniCah	UniCont	addition	UniMain	UniEcri	UniRegl	UniMep	decoration
	1r					addition e1 elementName item note The French words ; X; e; siècle; are written in a recent hand. id e1	hand h1 elementName handNote id h1				
	1v - 94r				msitem ms_i1.1 elementName msitem note title Psalms of David links Named Entities: Psalms of David Terms: References: id ms_i1.1						

4. Visualizing the RDF- Transformation models

Transformation models



there is a property which connects UniCirc and UniProd Classes as Domain and Range



Real world instances of the example

5. Example 1- Oxford, Bodleian Library, Bodleian Aeth. e. 8

none of the three <msPart> has an internal date and the dating is in general uncertain, but we know that <msPart> 1 and 2 were added later to the manuscript.

<listRelation>

<relation

active="BDLaethe8#p3"

name="SdC:constituteUnit"

passive="BDLaethe8#UniCirc1"/>

<relation

active="BDLaethe8#p3"

name="SdC:undergoesTransformation"

passive="BDLaethe8#tr1"/>

<relation

active="BDLaethe8#p1"

name="SdC:undergoesTransformation"

passive="BDLaethe8#tr1"/>

<relation

active="BDLaethe8#p2"

name="SdC:undergoesTransformation"

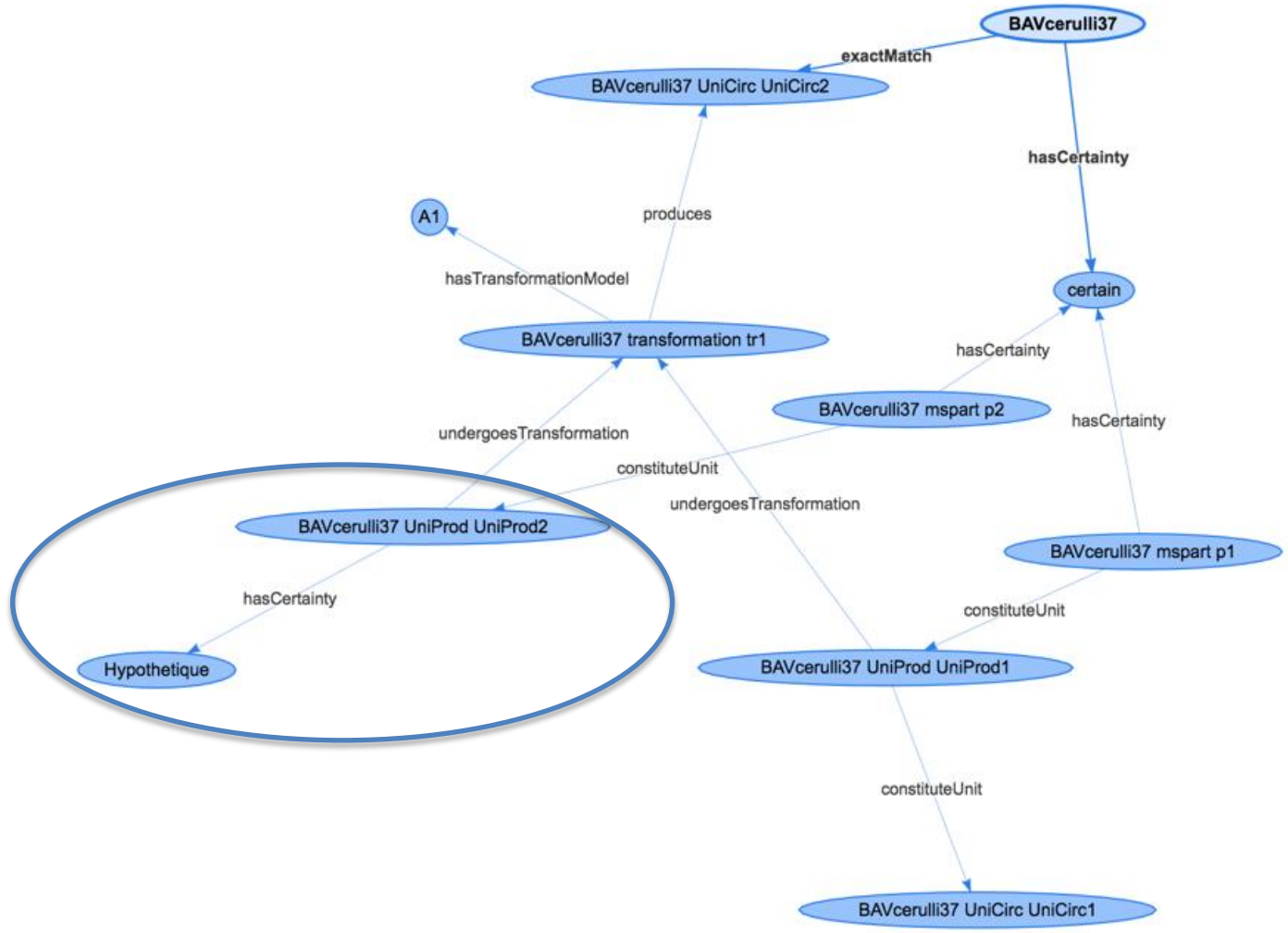
passive="BDLaethe8#tr1"/>

<relation



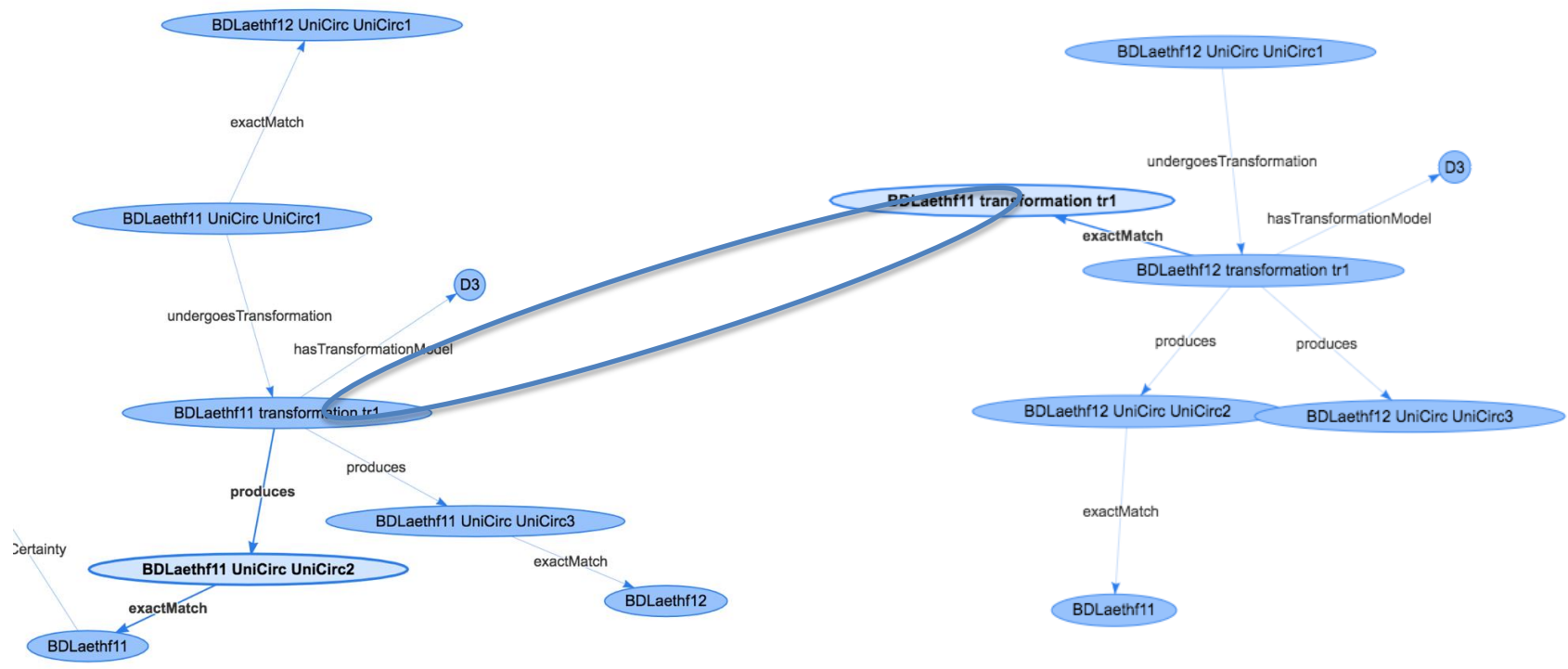
<skos:exactMatch rdf:resource="http://betamasahett.eu/BDLaethe8"/>
</rdf:Description>

5. Example 2 - Vatican City, Biblioteca Apostolica Vaticana, Cerulli 37 a manuscript part has probably been added to the manuscript



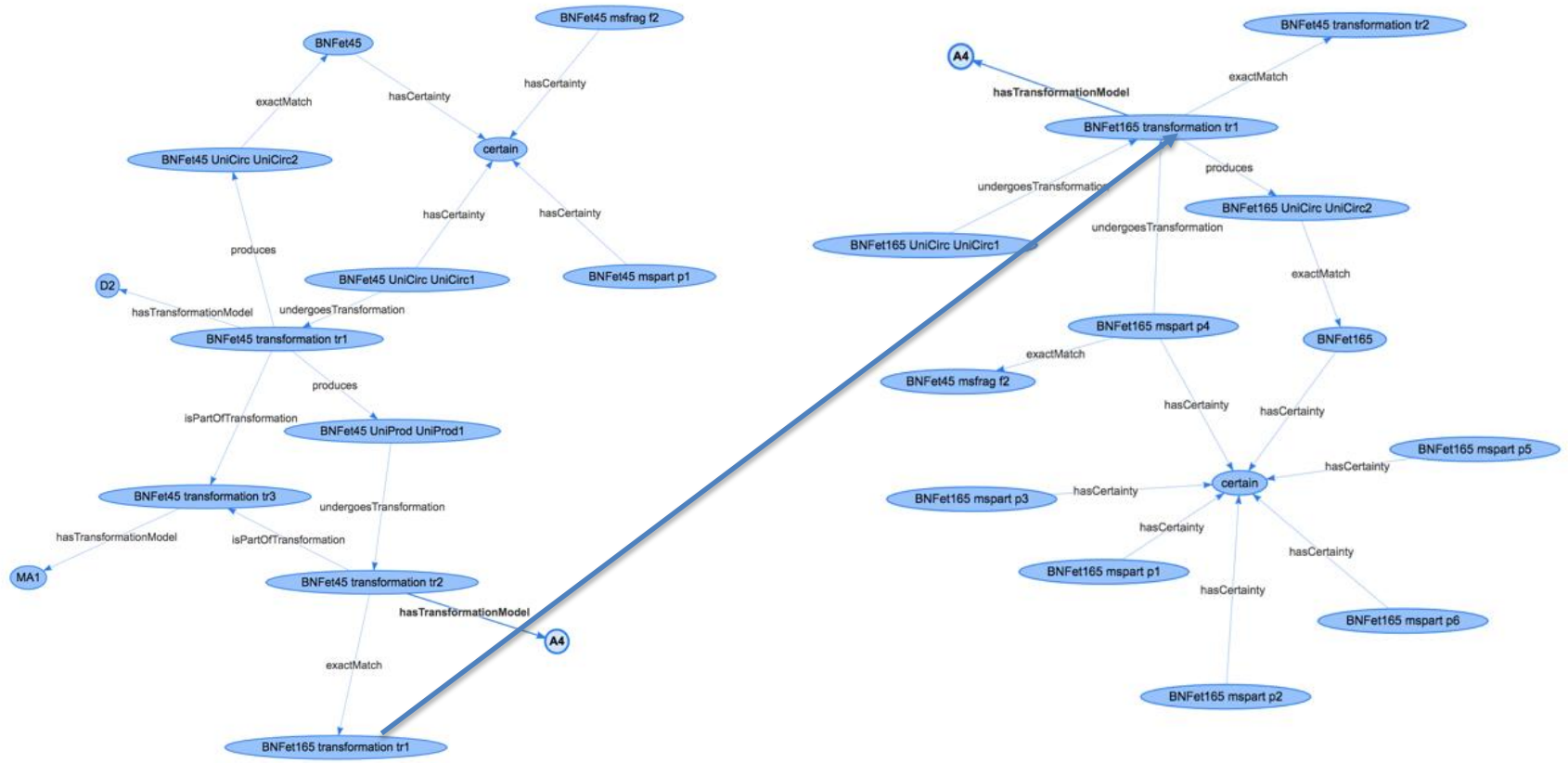
5. Example 3 - - Oxford, Bodleian Library, Bodleian Aeth. f. 11 (R) and Oxford, Bodleian Library, Bodleian Aeth. f. 12 (R)

both are scrolls containing magic prayers which belonged to the same owner and writes at the end of his description of Oxford, Bodleian Library, Bodleian Aeth. f. 11, "Continuation in no. 91" where n.91 is Oxford, Bodleian Library, Bodleian Aeth. f. 12. The research team has discussed this and convened that the two scrolls were once one.



5. Example 4 - Paris, Bibliothèque nationale de France, BnF Éthiopien 45 and Paris, Bibliothèque nationale de France, BnF Éthiopien 165

Paris, Bibliothèque nationale de France, BnF Éthiopien 45 (BNFet165) **contains leaves detached from** Paris, Bibliothèque nationale de France, BnF Éthiopien 45 (BNFet45)



C. Additional benefits and further potential of Linked Open Data

Further potential of the RDF data - Query data about a UniCirc

```
SELECT DISTINCT *  
WHERE  
{bm:BAVcerulli37 a SdC:UniCirc ;  
  dcterms:hasPart ?msPart .  
  ?msPart a SdC:UniProd .}
```

```
SELECT DISTINCT *  
WHERE  
{bm:BAVcerulli37/UniCirc/UniCirc1 a SdC:UniCirc ;  
  dcterms:hasPart ?msPart .  
  ?msPart a SdC:UniProd .}
```

```
SELECT DISTINCT *  
WHERE  
{bm:BAVcerulli37/UniCirc/UniCirc2 a SdC:UniCirc ;  
  dcterms:hasPart ?msPart .  
  ?msPart a SdC:UniProd .}
```

MsPart

<http://betamasaheft.eu/BAVcerulli37/mspart/p1>

<http://betamasaheft.eu/BAVcerulli37/mspart/p2>

MsPart

<http://betamasaheft.eu/BAVcerulli37/mspart/p1>

MsPart

<http://betamasaheft.eu/BAVcerulli37/mspart/p1>

<http://betamasaheft.eu/BAVcerulli37/mspart/p2>

I can ask about any UniCirc using the same query, no subordinate entities

Further potential of the RDF data - Query data about a UniCirc

which manuscripts
have parts
which have
undergone some
change?

```
SELECT DISTINCT *
WHERE
{?AnyUniCirc a SdC:UniCirc ;
 dcterms:hasPart ?AnyUniProd .
?AnyUniProd a SdC:UniProd ;
 SdC:constituteUnit ?UniProdID .
?UniProdID SdC:undergoesTransformation ?AnyTransformation .
?AnyTransformation SdC:hasTransformationModel ?model
} LIMIT 25
```

AnyUniCirc	AnyUniProd	UniProdID	AnyTransformation	Model
http://betamasaheft.eu/BAVcerulli37	http://betamasaheft.eu/BAVcerulli37/mspart/p1	http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd1	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BAVcerulli37	http://betamasaheft.eu/BAVcerulli37/mspart/p2	http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd2	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BDLaethe8	http://betamasaheft.eu/BDLaethe8/mspart/p3	http://betamasaheft.eu/BDLaethe8/UniCirc/UniCirc1	http://betamasaheft.eu/BDLaethe8/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BAVcerulli37/UniCirc/UniCirc1	http://betamasaheft.eu/BAVcerulli37/mspart/p1	http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd1	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BAVcerulli37/UniCirc/UniCirc2	http://betamasaheft.eu/BAVcerulli37/mspart/p1	http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd1	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BAVcerulli37/UniCirc/UniCirc2	http://betamasaheft.eu/BAVcerulli37/mspart/p2	http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd2	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1

I can ask about all UniCirc then filter by, e.g. date, or material, etc.
because BAVcerulli37, is actually the same as BAVcerulli37/UniCirc/UniCirc2,
we could filter out those which have a skos:exactMatch relation

Further potential of the RDF data - Query data about a UniCirc

which UniCirc have the same ModelCah?

XQuery the TEI?

I could get all those which have a collation whose item always have the same number of leaves....

collection(/location/of/TEI)//collation[count(distinct-values(descendant::item/dim[@unit='leaf'])) = 1]

in BM: 56 out of 1287 which have any collation information at all.

or I could, e.g., tabulate all collations making a CSV

```

for $collation in collection($config:data-rootMS)//t:collation[t:list]
let $msID := string($collation/ancestor::t:TEI/@xml:id)
let $repoID := string($collation/ancestor::t:TEI//t:repository/@ref)
let $NumberOfQuires := count($collation//t:item)
let $QuireSizes := for $quire in $collation//t:item return $quire/t:dim[@unit='leaf']/text()
let $quiresizesstring := string-join($QuireSizes, '|')
order by $NumberOfQuires
return
$repoID || ',' || $msID || ',' || $NumberOfQuires || ',' || $quiresizesstring
  
```

0	INS0129DMD	ESdmd003	1
1	INS0178QMM	ESqmm013	2 8 8
2	INS0165DSM	ESdsm021b	2 2 10
3	INS0039MY	ESmy026a	2 8 8
4	INS0039MY	ESmy023	2 3 9
5	INS0131DMB	ESdmb007	2 8 2
6	INS0017UM	ESum035	2 7 4
7	INS0317Frank	FSUor16	2 8 3
8	INS0314ONB	ONBAeth4	2 8 8
9	INS0003BAV	BAVet53	2 8 8
10	INS0198QS	ESqs016	2 12 6
11	INS0159QQM	ESqmq021	2 6 6
12	INS0034DZ	ESdz003	3 1 8 8
13	INS0071FBM	ESfbm007	3 2 10 11
14	INS0093AGM	ESagm009	3 11 10 10
15	INS0119MQM	ESmqm019	3 2 10 10
16	INS0111SSB	ESsbs017a	3 4 4 2
17	INS0097AQQ	ESagg016	3 6 6 8
18	INS0003BAV	BAVet41	3 10 10 1
19	INS0133QMB	ESqmb007	3 2 10 12
0	INS0108GKM	ESgkm020	3 4 8 6
1	INS0198QS	ESqs011	3 3 8 6
2	INS0105DD	ESdd046	3 7 6 3
3	INS0144MHG	ESmhg006	4 2 10 2 6
4	INS0177SDM	ESsdm023	4 10 10 10 8
5	INS0103AKM	ESakm007	4 7 8 9 7
6	INS0042MR	ESmr006	4 6 1 6 4
7	INS0030AP	ESap013	4 1 1 7 9
8	INS0196WQ	ESwq006	4 9 8 8 10

but one could get already to the filtered result...

Further potential of the RDF data - Query data about a UniCirc

which UniCirc
have the same
ModelCah?

```
<relation  
  active="BAVcerulli37"  
  name="SdC:hasUnitModel"  
  passive="SdC:Cah1"  
>
```

```
SELECT DISTINCT *  
WHERE  
{  
  ?Anything SdC:hasUnitModel SdC:Cah1.  
}
```

in BM: 0 out of all, because nobody has yet added this kind of annotation.

Further potential of the RDF data - get summary information about transformations

what can ever happen to a
manuscript sitting on a shelf?
Tell me about all transformations

```
SELECT *
WHERE {
  ?transformation a SdC:Transformation;
    SdC:produces ?UnitProduct;
    SdC:hasTransformationModel ?model .
}
```

Transformation	UnitProduct	Model
http://betamasaheft.eu/BNFet165/transformation/tr1	http://betamasaheft.eu/BNFet165/UniCirc/UniCirc2	http://Syntaxe.du.Codex/ontology#A4
http://betamasaheft.eu/BDLaethe8/transformation/tr1	http://betamasaheft.eu/BDLaethe8/UniCirc/UniCirc2	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BNFet45/transformation/tr1	http://betamasaheft.eu/BNFet45/UniProd/UniProd1	http://Syntaxe.du.Codex/ontology#D2
http://betamasaheft.eu/BNFet45/transformation/tr1	http://betamasaheft.eu/BNFet45/UniCirc/UniCirc2	http://Syntaxe.du.Codex/ontology#D2
http://betamasaheft.eu/BDLaethf12/transformation/tr1	http://betamasaheft.eu/BDLaethf12/UniCirc/UniCirc2	http://Syntaxe.du.Codex/ontology#D3
http://betamasaheft.eu/BDLaethf12/transformation/tr1	http://betamasaheft.eu/BDLaethf12/UniCirc/UniCirc3	http://Syntaxe.du.Codex/ontology#D3
http://betamasaheft.eu/BDLaethf11/transformation/tr1	http://betamasaheft.eu/BDLaethf11/UniCirc/UniCirc2	http://Syntaxe.du.Codex/ontology#D3
http://betamasaheft.eu/BDLaethf11/transformation/tr1	http://betamasaheft.eu/BDLaethf11/UniCirc/UniCirc3	http://Syntaxe.du.Codex/ontology#D3
http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://betamasaheft.eu/BAVcerulli37/UniCirc/UniCirc2	http://Syntaxe.du.Codex/ontology#A1

As in any query, with any data model, to get further information the query will become more com

Further potential of the RDF data - get summary information about transformations

what has been subject to transformation? and of which?

```

SELECT DISTINCT ?AnyUnit ?type ?AnyTransformation ?model
WHERE
{?AnyUnit SdC:undergoesTransformation ?AnyTransformation ;
a ?type .
BIND(STR(?type) as ?t)
FILTER(strStarts(?t, 'http://Syntaxe.du.Codex/ontology#') )
?AnyTransformation SdC:hasTransformationModel ?model
} LIMIT 25
  
```

AnyUnit	Type	AnyTransformation	Model
http://betamasaheft.eu/BNFet165/UniCirc/UniCirc1	http://Syntaxe.du.Codex/ontology#UniCirc	http://betamasaheft.eu/BNFet165/transformation/tr1	http://Syntaxe.du.Codex/ontology#A4
http://betamasaheft.eu/BNFet165/mspart/p4	http://Syntaxe.du.Codex/ontology#UniProd	http://betamasaheft.eu/BNFet165/transformation/tr1	http://Syntaxe.du.Codex/ontology#A4
http://betamasaheft.eu/BNFet45/UniProd/UniProd1	http://Syntaxe.du.Codex/ontology#UniProd	http://betamasaheft.eu/BNFet45/transformation/tr2	http://Syntaxe.du.Codex/ontology#A4
http://betamasaheft.eu/BDLaethe8/mspart/p1	http://Syntaxe.du.Codex/ontology#UniProd	http://betamasaheft.eu/BDLaethe8/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BDLaethe8/mspart/p2	http://Syntaxe.du.Codex/ontology#UniProd	http://betamasaheft.eu/BDLaethe8/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BDLaethe8/UniCirc/UniCirc1	http://Syntaxe.du.Codex/ontology#UniCirc	http://betamasaheft.eu/BDLaethe8/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BNFet45/UniCirc/UniCirc1	http://Syntaxe.du.Codex/ontology#UniCirc	http://betamasaheft.eu/BNFet45/transformation/tr1	http://Syntaxe.du.Codex/ontology#D2
http://betamasaheft.eu/BDLaethf12/UniCirc/UniCirc1	http://Syntaxe.du.Codex/ontology#UniCirc	http://betamasaheft.eu/BDLaethf12/transformation/tr1	http://Syntaxe.du.Codex/ontology#D3
http://betamasaheft.eu/BDLaethf11/UniCirc/UniCirc1	http://Syntaxe.du.Codex/ontology#UniCirc	http://betamasaheft.eu/BDLaethf11/transformation/tr1	http://Syntaxe.du.Codex/ontology#D3
http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd2	http://Syntaxe.du.Codex/ontology#UniProd	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1
http://betamasaheft.eu/BAVcerulli37/UniProd/UniProd1	http://Syntaxe.du.Codex/ontology#UniProd	http://betamasaheft.eu/BAVcerulli37/transformation/tr1	http://Syntaxe.du.Codex/ontology#A1

One can get comparable results also if the statements are done slightly differently

Further potential of the RDF data - federated queries

```
SELECT *
```

```
WHERE
```

```
{
```

```
{
```

```
  SERVICE <http://wwwb.library.vanderbilt.edu/exist/apps/srophe/api/sparql>
```

```
  {
```

```
    ?relatedID <http://purl.org/dc/terms/relation> <https://pleiades.stoa.org/places/6584
```

```
  }
```

```
}
```

```
UNION
```

```
{
```

```
  ?relatedID <http://purl.org/dc/terms/relation> <https://pleiades.stoa.org/places/658457>.
```

```
}
```

```
}
```

Available data can be joined
for specific queries

Vielen Dank

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and to all the team of Beta Masaheft

Hiob Ludolf Zentrum für Äthiopistik



Emergency Slides!

This is not finished, it is work in progress.



Can I reuse it?

Yes please!

<https://github.com/BetaMasaheft>

Can I contribute?

Yes please!

<https://github.com/BetaMasaheft>

<http://betamasaheft.eu/Guidelines/>

Why "not" CIDOC-CRM?

True. But:

You can construct your
CIDOC on the fly with
a CONSTRUCT query

```
CONSTRUCT
{
  ?transformation a <http://www.cidoc-crm.org/cidoc-crm/E11_Modification> ;
                  <http://www.cidoc-crm.org/cidoc-crm/P31_has_modified> ?AnyUniCirc;
                  <http://www.cidoc-crm.org/cidoc-crm/P108_has_produced> ?AnyUni .
  ?AnyUniCirc a <http://www.cidoc-crm.org/cidoc-crm/E24_Physical_Man-Made_Thing>
}
WHERE
{
  ?AnyUniCirc a <http://Syntaxe.du.Codex/ontology#UniCirc>;
              <http://Syntaxe.du.Codex/ontology#undergoesTransformation> ?transformation .
  ?transformation <http://Syntaxe.du.Codex/ontology#produces> ?AnyUni
}
```

we use cidoc-crm/E11_Modification for each Transformation and so on, providing an internal mapping

With federated query, knowing what mapping you want to apply, results can be obtained any