

Hiob Ludolf Zentrum für Äthiopistik



The DTS implementation for Beta maṣāḥəft

and Epigraphy.info

Hamburg 15.7.2019

Summary

1. Beta maşāħeft [5 slides]
2. Beta maşāħeft XML, RDF and GitHub based workflow [4]
3. Main Features of the *Beta mašāħeft* DTS APIs [5]
4. Examples [12]
5. [Epigraphy.info]

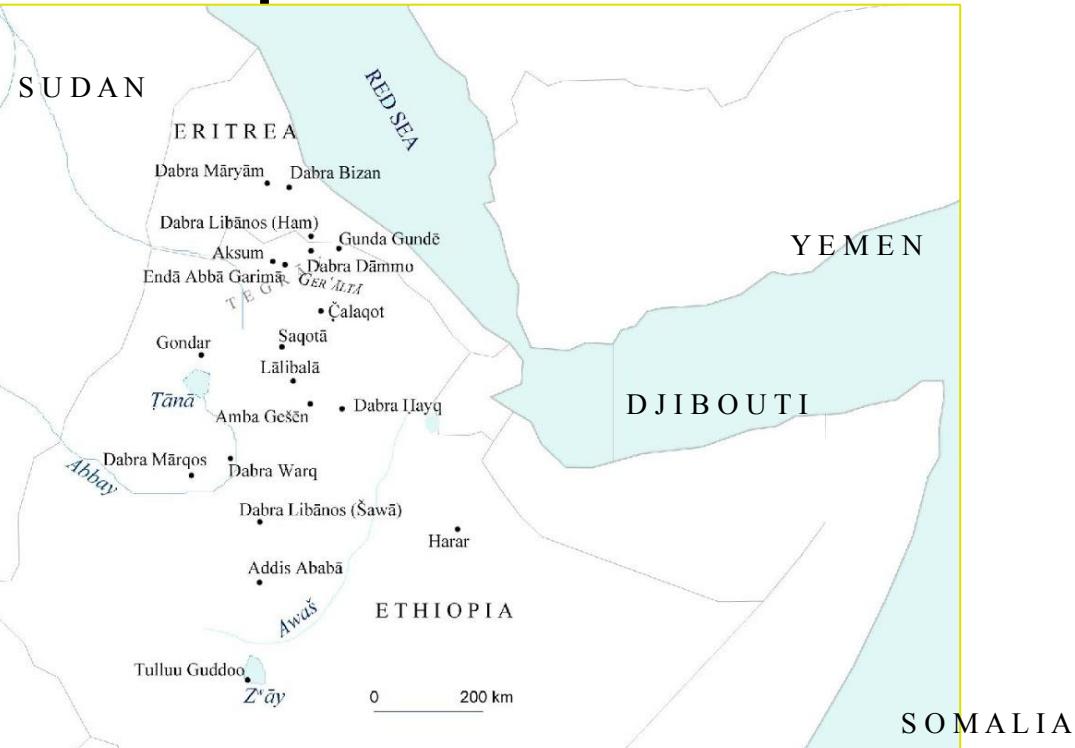
Beta maşāḥəft

<https://youtu.be/bI950izCu2E>

Project team

- PI: Alessandro Bausi, Univ.-Prof. Dr.
- Coordinator: Eugenia Sokolinski, M.A.
- Technical Lead: Pietro Liuzzo, Dr.
- Researchers: Denis Nosnitsin, Dr.
Dorothea Reule, M.A.
Solomon Gebreyes Beyene, Dr.
Massimo Villa, Dr. (up to May 2018)
Daria Elagina, M.A. (from June 2018)
- PhD student: Sisay Sahile Beyene, M.A. (from April 2017)
- Guests and fellows: Jacopo Gnisci, Dr. (2017)
Steven Delamarter, Prof. Dr. (2018)

Ethiopian and Eritrean manuscript culture



Map: centres of Christian manuscript production © E. Sokolinski 2015

- Written culture since the 1st Millennium BCE.
- Language: Ge'ez
- Religions:
 - Christianity
 - Islam
 - Judaism
 - Traditional religions
- Centres:
 - Late Antiquity: Aksum, Adulis
 - Post-Aksumite: Lālibalā, Gondar
 - Modern: Addis Ababā
- Manuscripts:
 - Since the Aksumite times
 - Codex / Parchment
 - Of possibly c.200,000 (up to

Focus of the project *Beta maṣāḥəft*

(lit. *House of Books*, i.e. Library)

- The only manuscript culture in Sub-Saharan Africa since the Antiquity / Late Antiquity
- Enormous material, literary, and documentary cultural heritage
- C.200,000 up to 1,000,000 MSS (codices) from the 5th/6th to 21st century; c.500 Sabaic, Greek, and Ethiopic inscriptions from the Antiquity and Early Middle Ages
- Of them only c.20,000 catalogued

Aims of the project *Beta maṣāḥəft*

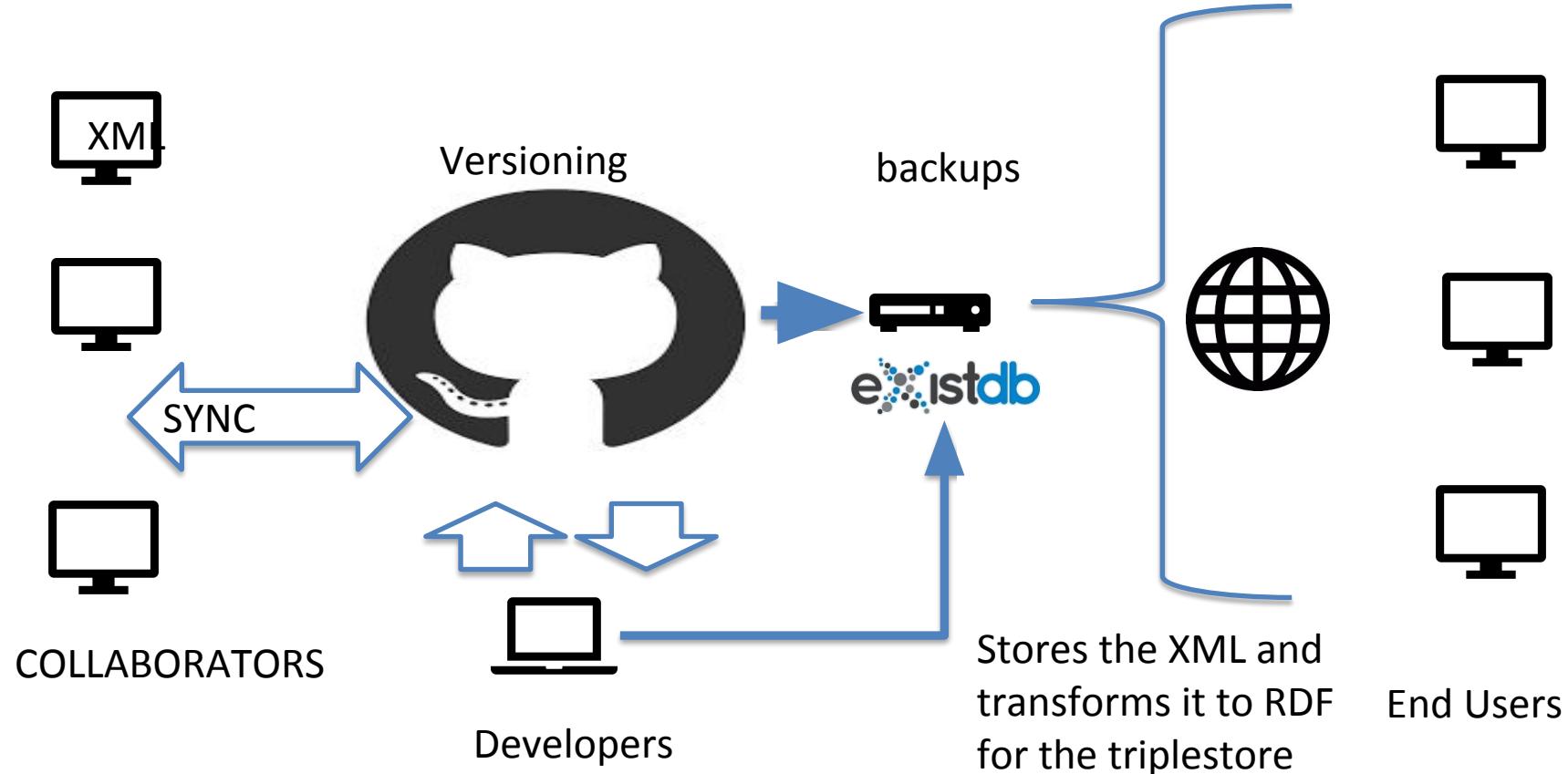
- Study of all aspects of Ethiopian written culture
- History of literature as evidenced by manuscripts
- Accessible, searchable, and analyzable with the help of a digital research environment

Why DTS?

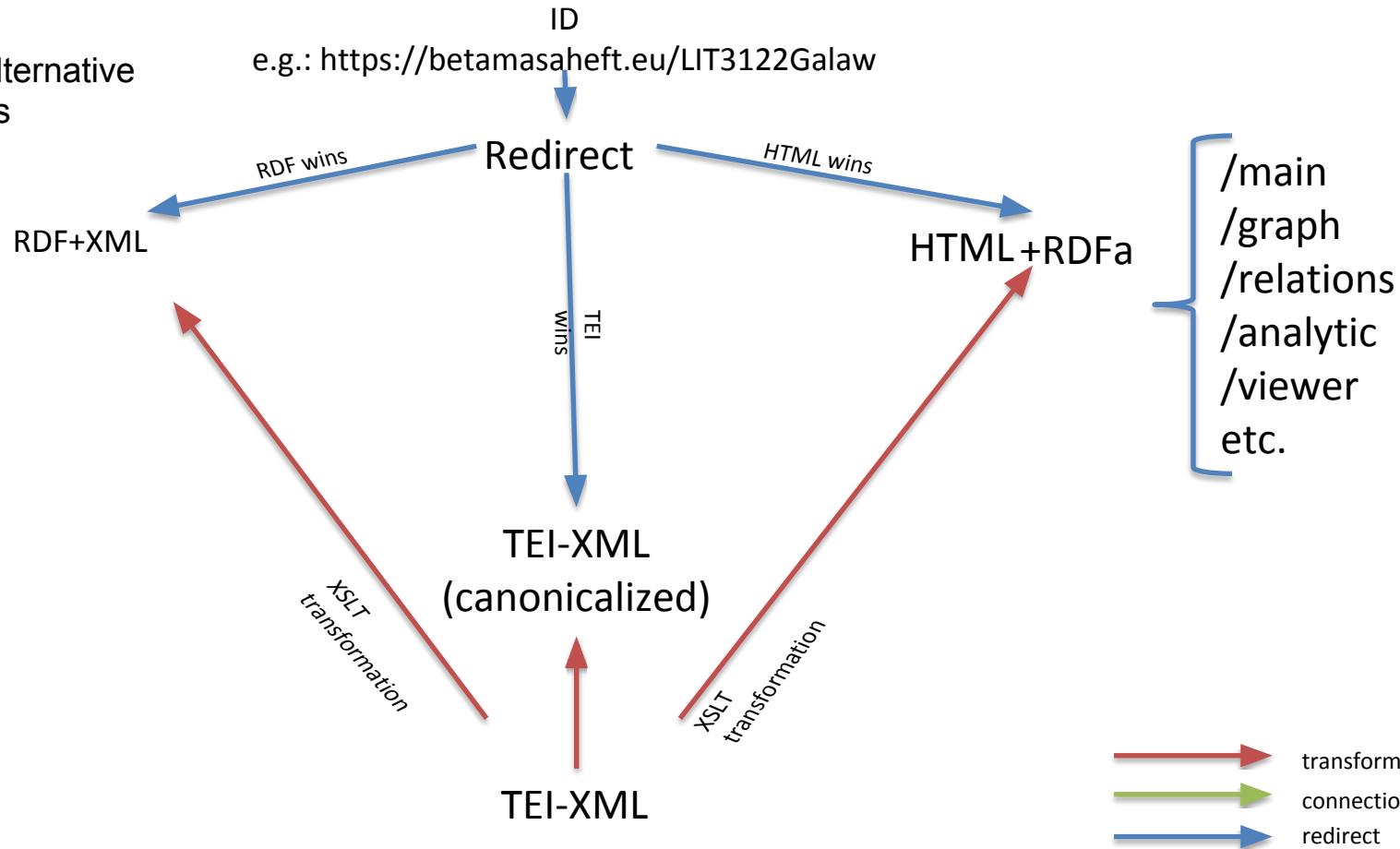
- Expose a non hierarchical canon
- Present text data in a machine reusable way
 - Where we have no text (only the structure)
 - Where we have some text
- Retrieve precise passages
 - For collation (BM)
 - For solution of citations (Dillmann)
- Interact with other collections

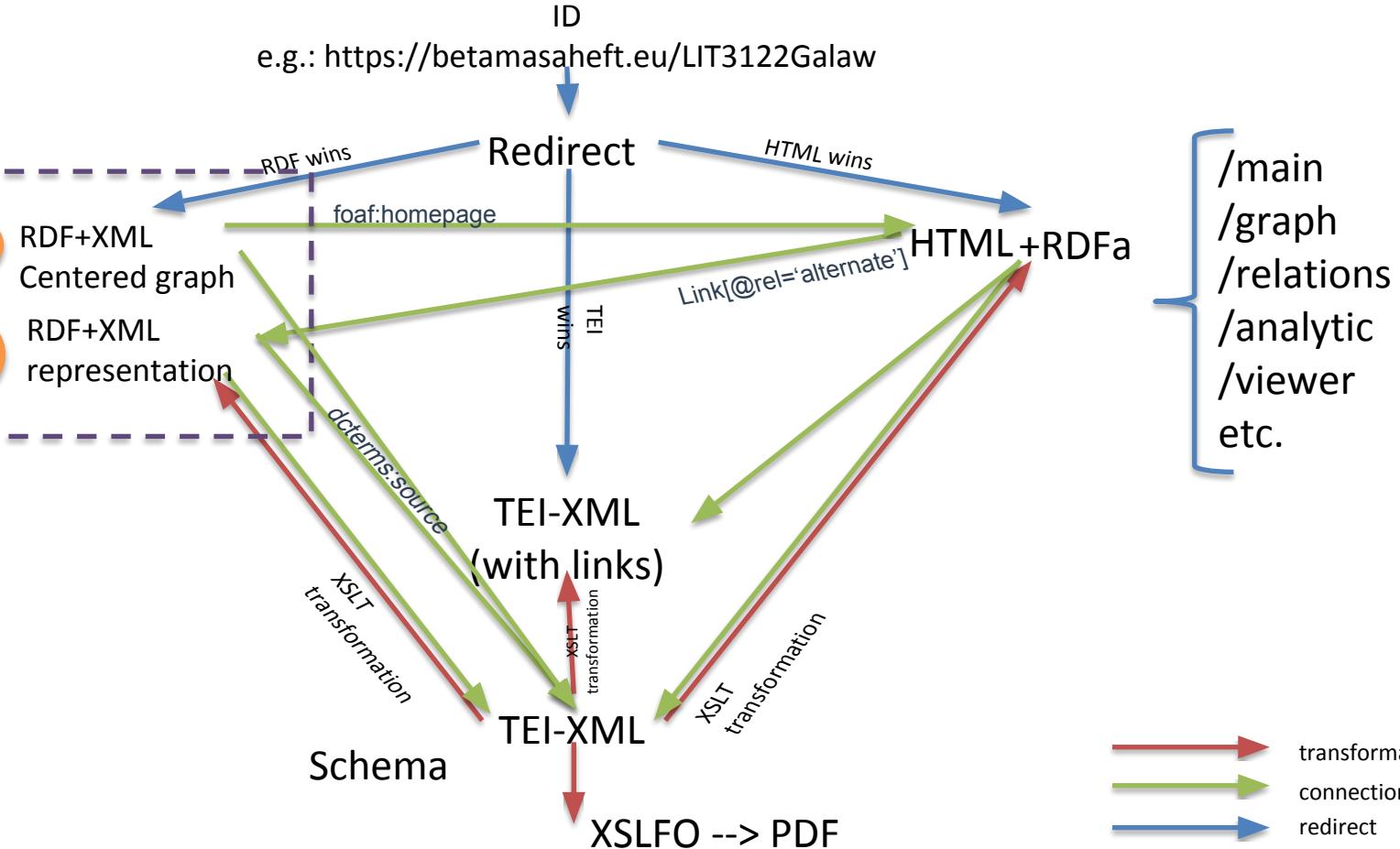
BM XML and RDF from GitHub

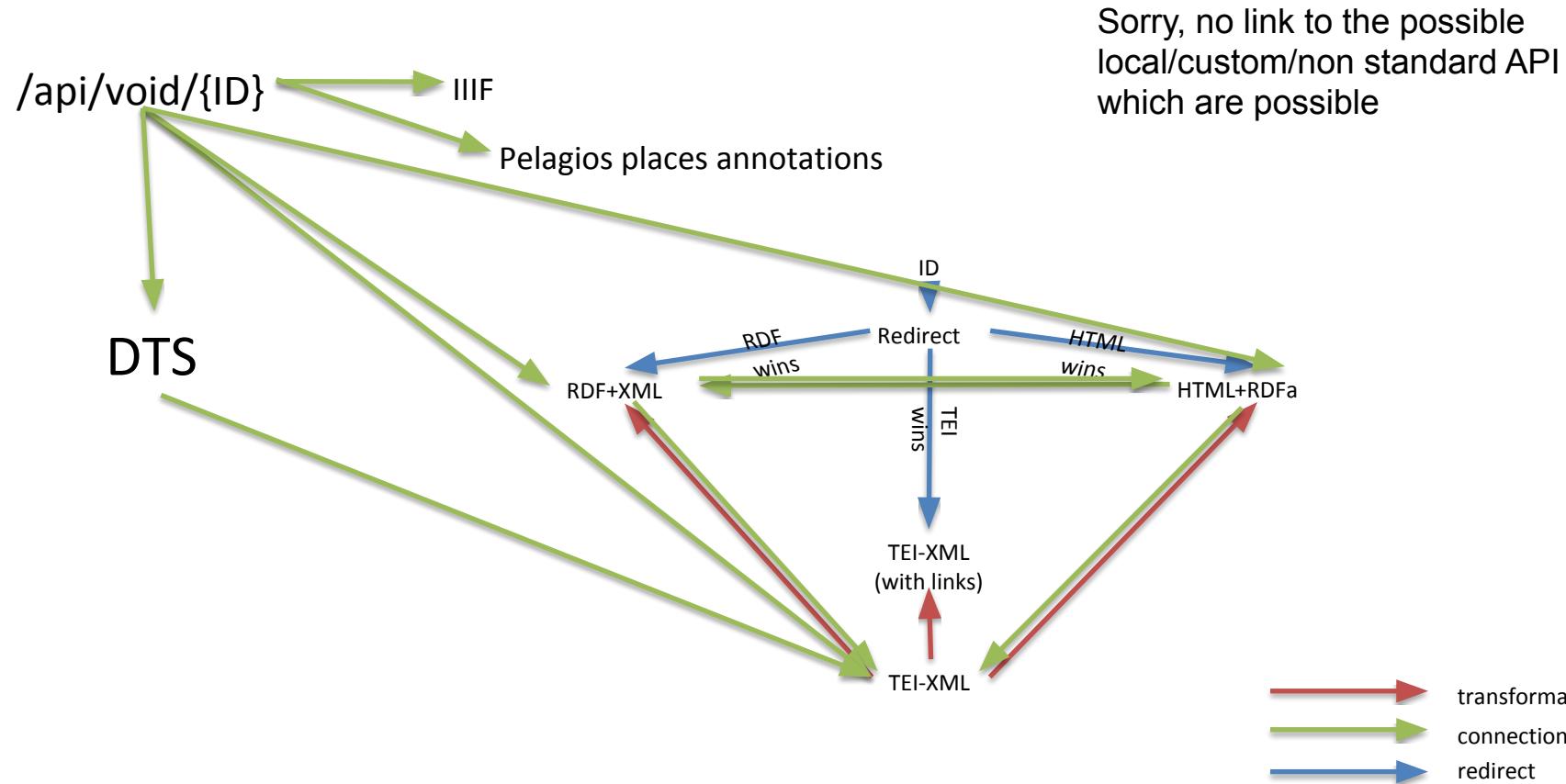
GitHub based Workflow



Findability of alternative representations
=
Links to follow...



SPARQL
QueryOntology +
Vocabularies



Main features of the *Beta mašāḥəft* DTS APIs

Standard API and what you may not expect

THERE IS NO TEXT!

sometimes we only know the structure, or have only a fragment

weird , but real...

All three APIs

<https://github.com/BetaMasaheft/BetMas/blob/master/BetMas/modules/dts.xqm>

Example 3

Exodus

/api/dts/collections?id=urn:dts:betmas:LIT1367Exodus

/api/dts/navig

The screenshot shows a web-based interface for navigating through a collection of manuscripts. At the top, there's a search bar with the text 'flumen' and a count of '568' results. Below the search bar are buttons for 'pdf' and 'TEI/XML'. The main content area displays a list of entries, each with a title (e.g., 'Dillmann'), a brief description, and a link to the full text. A tooltip or pop-up window is overlaid on one of the entries, titled 'Text Passage', which contains the text of Exodus 1:22 and a link to 'See full text'.

/api/dts/docu

Fragment return
schema and i
project. Unus

We do not use this, **it is for you!**
Uses XQuery to query the source
TEI and SPARQL to query the
RDF triplestore to populate
information

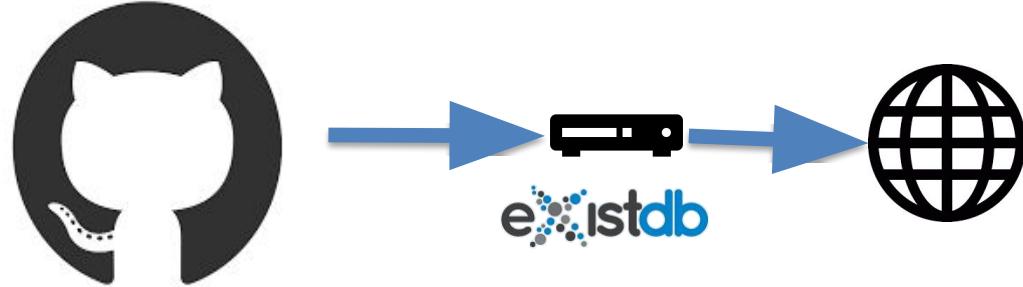
We do not use this, **it is for you!**

We use this to retrieve citations for
the Online Dillmann

If there is no text yet, then
nothing is retrieved.

Versioning and citability of the data

Example 3



History for Works / 4001-5000 / LIT4033Senkessar.xml

Commits on Jul 11, 2019

Update LIT4033Senkessar.xml
PietroLiuzzo committed 2 days ago

141e117

Commits on Jul 8, 2019

merging, sorry
thea-m committed 5 days ago

3c4dff8

added date

thea-m committed 5 days ago

49871a5

Commits on Jul 3, 2019

xml:base and prefixDefs
PietroLiuzzo committed 10 days ago

7169abe

Commits on Jul 2, 2019

subscription--> subscription
PietroLiuzzo committed 11 days ago

adc6979

Commits on Jun 28, 2019

Permalinks
YOU ARE LOOKING AT VERSION eed5e03b3ec15ceb77934696194fb8619c8389e. See all permalinks.

permalinks), then import the metadata or copy the below, with the correct link.

Eugenia Sokolinski, Pietro Maria Liuzzo, Massimo Villa, Dorothea Reule, Alessandro Bausi, Andreas Ellwardt, 'Epistle of Eusebius to Carpianus (generic record)', in Alessandro Bausi, ed., *Die Schriftkultur des christlichen Athiopien und Eritreas: Eine multimediale Forschungsumgebung / Beta mašāḥēft* (Last Modified: 27.11.2018)
<https://betamasaheft.eu/permanent/eed5e03b3ec15ceb77>
[Accessed: 2019-07-13+02:00]

Revisions of the data

- Dorothea Reule Specified clavis on 27.11.2018
- Eugenia Sokolinski added metadata for traces on 2.7.2018
- Eugenia Sokolinski added relation on 20.6.2018
- Massimo Villa Added keywords, clavis ID, and bibl on 19.12.2017
- Pietro Maria Liuzzo Created file from google spreadsheet on 21.3.2016
- Eugenia Sokolinski CREATED: text record on 9.2.2016

SHA: 141e117dc177d9d33a04d12002505c141230847ced

committed to github by PietroLiuzzo with the following message: Update LIT4033Senkessar.xml

<https://github.com/BetaMasaheft/Documentation/issues/1171>

<https://betamasaheft.eu/permanent/141e1170179da33ab4a126b29d3e14f23db47cea/works/LIT4033Senkessar/main>

<https://raw.githubusercontent.com/BetaMasaheft/Works/141e1170179da33ab4a126b29d3e14f23db47cea/4001-5000/LIT4033Senkessar.xml>

SHA: 3c4dff86e99ab58f4d332f5943ab2c389851ef5a

committed to github by thea-m with the following message: merging, sorry

<https://betamasaheft.eu/permanent/3c4dff86e99ab58f4d332f5943ab2c389851ef5a/works/LIT4033Senkessar/main>

<https://raw.githubusercontent.com/BetaMasaheft/Works/3c4dff86e99ab58f4d332f5943ab2c389851ef5a/4001-5000/LIT4033Senkessar.xml>

<https://github.com/BetaMasaheft/Works/blob/3c4dff86e99ab58f4d332f5943ab2c389851ef5a/4001-5000/LIT4033Senkessar.xml>

SHA: 49071a50dae1adc74add86d41cf8067c82eeff2ad

committed to github by thea-m with the following message: added date

<https://betamasaheft.eu/permanent/49071a50dae1adc74add86d41cf8067c82eeff2ad/works/LIT4033Senkessar/main>

<https://raw.githubusercontent.com/BetaMasaheft/Works/49071a50dae1adc74add86d41cf8067c82eeff2ad/4001-5000/LIT4033Senkessar.xml>

<https://github.com/BetaMasaheft/Works/blob/49071a50dae1adc74add86d41cf8067c82eeff2ad/4001-5000/LIT4033Senkessar.xml>

SHA: 7169abeacbf927dc1ea9666dc819e1778cd6a4

committed to github by pietro with the following message: xml:base and prefixDefs

<https://betamasaheft.eu/permanent/7169abeacbf927dc1ea9666dc819e1778cd6a4/works/LIT4033Senkessar/main>

Versioning and citability of the API

Example 3

/api/dts/collections?id=urn:dts:betmas:LIT1367Exodus

```
{
  "dts:citeType" : "chapter",
  "dts:level" : 1,
  "@context" : {
    "dts" : "https://w3id.org/dts/api#",
    "@vocab" : "https://www.w3.org/ns/hydra/core#",
    "dc" : "http://purl.org/dc/terms/"
  },
  "@base" : "dts/api/document/",
  "dts:citeDepth" : 2,
  "dts:passage" : "dts/api/document?id=urn:dts:betmas:LIT1367Exodus?level=1",
  "dc:hasVersion" : [ "/permanent/7169abeacb64f927dc1ea9666dc819e17",
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/1d18dc9d022d59d73cd1f8579da96aea8
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/f9f11acd03e557a100159ffffdc029ee8:
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/a6800dc0f15e71232ffd1944b8eabd6b1:
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/7361041aa4cf766114ddd593ffc7835656:
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/7361041aa4cf766114ddd593ffc78356660c5db0/dts/api/document/":
  "member" : [
    {
      "ref" : "1",
      "dts:dublincore" : {
        "dc:title" : "Exodus 1"
      }
    },
    {
      "ref" : "2",
      "dts:dublincore" : {
        "dc:title" : "Exodus 2"
      }
    },
    {
      "ref" : "3",
      "dts:dublincore" : {
        "dc:title" : "Exodus 3"
      }
    },
    {
      "ref" : "4",
      "dts:dublincore" : {
        "dc:title" : "Exodus 4"
      }
    },
    {
      "ref" : "5",
      "dts:dublincore" : {
        "dc:title" : "Exodus 5"
      }
    },
    {
      "ref" : "6",
      "dts:dublincore" : {
        "dc:title" : "Exodus 6"
      }
    }
  ]
}
```

[/permanent/7361041aa4cf766114ddd593ffc78356660c5db0/api/dts/navigation?id=urn:dts:betmas:LIT1367Exodus?level=1](https://permanent/7361041aa4cf766114ddd593ffc78356660c5db0/api/dts/navigation?id=urn:dts:betmas:LIT1367Exodus?level=1)

How to model
these versions?

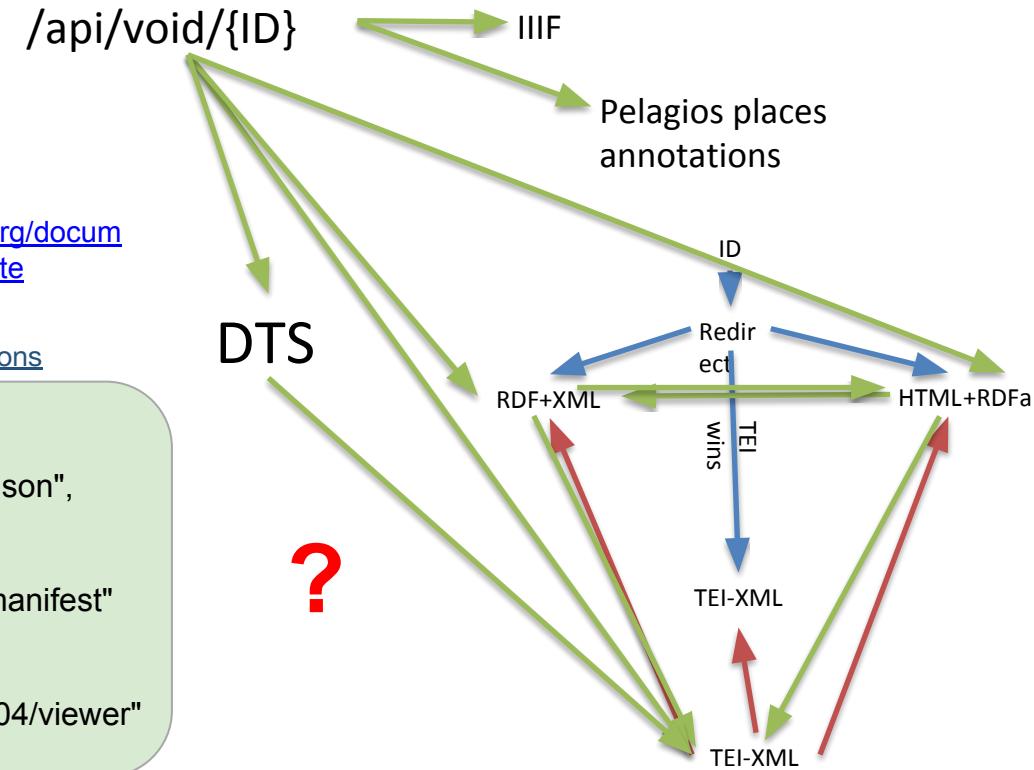
```
{
  "dts:citeType" : "chapter",
  "dts:level" : 1,
  "@context" : {
    "dts" : "https://w3id.org/dts/api#",
    "@vocab" : "https://www.w3.org/ns/hydra/core#",
    "dc" : "http://purl.org/dc/terms/"
  },
  "@base" : "permanent/7361041aa4cf766114ddd593ffc78356660c5db0/dts/api/document/",
  "dts:citeDepth" : 2,
  "dts:passage" : "permanent/7361041aa4cf766114ddd593ffc78356660c5db0/dts/api/document",
  "dc:hasVersion" : [ "/permanent/eed5e03b3ec15cebe77934696194fdb8619c8389e/api/dts:
  /permanent/7169abeacb64f927dc1ea9666dc819e1778cd6a4/api/dts/navigation?id=urn:dts
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/9051097f06cb107eefd77e42bba52b36a
  /permanent/1d18dc9d022d59d73cd1f8579da96aea81360868/api/dts/navigation?id=urn:dts
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/26da3206c225b77fe42bba52b36a
  "/permanent/f9f11acd03e557a100159ffffdc029ee889a5472/api/dts/navigation?id=urn:dts
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/c69aa71b29d45e87e28da3b3fb26
  "/permanent/a6800dc0f15e71232ffd1944b8eabd6b1e819096/api/dts/navigation?id=urn:dts
  id=urn:dts:betmas:LIT1367Exodus?level=1", "/permanent/2b40d73de5c2a5fe4703dc3d4f9
  "/permanent/7361041aa4cf766114ddd593ffc78356660c5db0/api/dts/navigation?id=urn:dts
  id=urn:dts:betmas:LIT1367Exodus?level=1",
  "member" : [ {
    "ref" : "1"
  },
  {
    "ref" : "2"
  }
],
  "@id" : "permanent/7361041aa4cf766114ddd593ffc78356660c5db0/api/dts/navigation?id=urn:dts:betmas:LIT1367Exodus?level=1"
}
```

Findability of IIIF API

Example 2

from	
TEI	Yes
VoID	Yes
RDF	Yes
DTS	?

```
"foaf:depiction" : {  
    "svcs:has_service" : {  
        "doap:implements" : "http://iiif.io/api/image/2/level1.json",  
        "dcterms:conformsTo" : "http://iiif.io/api/image",  
        "@type" : "svcs:Service",  
        "@id" : "https://betamasahaft.eu/api/iiif/ESqdq004/manifest"  
    },  
    "@type" : "edm:WebResource",  
    "@id" : "https://betamasahaft.eu/manuscript/ESqdq004/viewer"  
}
```



Examples from the *Beta maṣāḥəft* DTS Collection API

1. Multiple titles
2. Alternative authors
3. Versions in two different languages
4. Multiple recensions (versions)
5. Inscription preserved only in manuscript tradition
6. Multiple ancient copies of multiple texts

Periplus of the Erythrean Sea : URIs of multiple titles

Example 1

```
/api/dts/collections?id=urn:dts:betmas:LIT2170Peripl
```

```
<title xml:id="t1">Periplus of the Erythraean Sea</title>
<title corresp="#t2" type="normalized">Períplous tês Erythrâs thalássēs</title>
<title xml:id="t2" xml:lang="gr">ΠΕΡΙΠΛΟΥΣ ΤΗΣ ΕΡΥΘΡΑΣ ΘΑΛΑΣΣΗΣ</title>
```

```
"dts:extensions" : {
    "crm:P102_has_title" : [
        "https://betamasaheft.eu/LIT2170Peripl/title/t2",
        "https://betamasaheft.eu/LIT2170Peripl/title/t1"
    ]
}
```

```
"dc:title" : [ {
    "@lang" : "gr",
    "@value" : "ΠΕΡΙΠΛΟΥΣ ΤΗΣ ΕΡΥΘΡΑΣ
    ΘΑΛΑΣΣΗΣ"},
    {"@value" : "Períplous tês Erythrâs thalássēs"}, 
    {"@value" : "Periplus of the Erythraean Sea"} ]
```

Periplus of the Erythrean Sea : multiple citation structures

Example 1

[/api/dts/navigation?id=urn:dts:betmas:LIT2170Peripl](https://api.dts/navigation?id=urn:dts:betmas:LIT2170Peripl)

Periplus of the Erythraean Sea

Pietro Maria Liuzzo

Witnesses of
the edition

P:
Sammelhandschrift
— Konstantinopel.
[letztes Viertel 9. Jh.]

L:
http://www.bl.uk/manuscripts/MS_19391_f0

Compare

how many per page? See full text

1 2 3 4 5 6 7 8 9 10

chapter: 1 |¹ |⁵¹ |²⁵⁷ |^{9r} |^{40v} Τῶν ἀποδειγμένων δρυμῶν τῆς Ἐρυθρᾶς θαλάσσης,⁷ καὶ τῶν περὶ αὐτὴν ἐμπορίων πρῶτος ἔστιν λημὴν τῆς Αἰγύπτου Μυός,⁷ δρυμὸς, μετὰ δὲ αὐτὸν εἰσιλεόντων ἄπο χιλίων ὀκτακοσίων σταδίων ἐν δεξιᾷ ἡ Βερνίκη⁷. ἀμφοτέρων <δέ> οἱ λιμένες ἐν τῷ ἐσχάτῳ τῆς Αἰγύπτου κόλποι {δέ} τῆς Ἐρυθρᾶς θαλάσσης,⁷ κείντα.

Translation

Of the designated ports on the Erythraean Sea, and the market-towns around it, the first is the Egyptian port of Mussel Harbor [=Myos Hormos]. To those sailing down from that place, on the right hand, after eighteen hundred stadia, there is Berenice. The harbors of both are at the boundary of Egypt, and are bays opening from the Erythraean Sea.

Change Layout Full Screen

Sammelhandschrift

• Einband vorn



• Leerseiten

• Anonymus,

```
<div type="edition" xml:lang="gr" resp="#frisk">
<head>
    <surplus>APPIANOY</surplus>
    ΠΕΡΙΠΛΟΥΣ ΤΗΣ ΕΡΥΘΡΑΣ ΘΑΛΑΣΣΗΣ
</head>
<div type="textpart" subtype="chapter" n="1" xml:id="chapter1">
    <ab>
        <pb n="1" corresp="#frisk"/>
        <pb n="51" corresp="#casson"/>
        <pb n="257" corresp="#mueller"/>
        <pb n="9r" corresp="#L"/>
        <pb n="40v" corresp="#P"/>
        facs="https://digi.ub.uni-heidelberg.de/diglit/iiif/cpgraec398/canvas/0084.json"/>
        Τῶν ἀποδεδειγμένων δρυμῶν τῆς
        θαλάσσης</placeName>
        καὶ τῶν περὶ αὐτὴν ἐμπορίων πρῶτος ἔστιν λημὴν
        ...
    </ab>
</div>
```

URIs of multiple titles, alignment of versions in different languages

Example 1

<https://betamasaheft.eu/LIT1697Jubilees/title/t3greek> **Titles**
Defaults on the html at

<https://betamasaheft.eu/works/LIT1697Jubilees#t3greek>

Unless RDF requested, which will return a graph centered at this URI

We make this statement using the URIs of title, because there is no better URI available!

See example 3

- **ԹԾԻՒՀ: ԻԿԱԼԵՐԵՅ** (Mašhafa kufāle^{gez}, Book of Jubilees^{en})
- Hebrew Book of Jubilees^{he} ()
- Greek Book of Jubilees^{grc} ()
- Latin Book of Jubilees^{la} ()
- short: Kuf.

```

1 <krdf:RDF xmlns:pleiades="https://pleiades.stoa.org/" xmlns:xsd="http://www.w3.org/2001/XMLSchema#" xmlns:skos="http://www.w3.org/2004/02/skos/core#" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:bm="https://betamasaheft.eu/" xmlns:wd="https://www.wikidata.org/" xmlns:geo="http://www.w3.org/2003/01/geo/wgs84_pos#" xmlns:oa="http://www.w3.org/ns/oa#" xmlns:rel="http://purl.org/vocab/relationship/" xmlns:dcterms="http://purl.org/dc/terms/" xmlns:pelagios="http://pelagios.github.io/vocab/terms#" xmlns:syriaca="http://syriaca.org/documentation/relations.html#" xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:crm="http://www.cidoc-crm.org/cidoc-crm/" xmlns:saws="http://purl.org/saws/ontology#" xmlns:gn="http://www.geonames.org/ontology#" xmlns:agrelon="http://d-nb.info/standards/elements/agrelon.owl#" xmlns:lawd="http://lawd.info/ontology/" xmlns:scd="https://w3id.org/sdc/ontology#" xmlns:t="http://www.tei-c.org/1.0#" xmlns:erl="http://erlangen-crm.org/current/" xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:snap="http://data.snapdrgn.net/ontology/snap#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
2   <rdf:Description rdf:about="https://betamasaheft.eu/LIT1697Jubilees">
3     <crm:P102_has_title rdf:resource="https://betamasaheft.eu/LIT1697Jubilees/title/t3greek"/>
4   </rdf:Description>
5   <rdf:Description rdf:about="https://betamasaheft.eu/LIT1697Jubilees/title/t4latin">
6     <saws:isVersionInAnotherLanguageOf rdf:resource="https://betamasaheft.eu/LIT1697Jubilees/title/t3greek"/>
7   </rdf:Description>
8   <rdf:Description rdf:about="https://betamasaheft.eu/LIT1697Jubilees/title/t1">
9     <saws:isVersionInAnotherLanguageOf rdf:resource="https://betamasaheft.eu/LIT1697Jubilees/title/t3greek"/>
10  </rdf:Description>
11  <rdf:Description rdf:about="https://betamasaheft.eu/LIT1697Jubilees/title/t3greek">
12    <saws:isVersionInAnotherLanguageOf rdf:resource="https://betamasaheft.eu/LIT1697Jubilees/title/t2hebrew"/>
13  </rdf:Description>
14 </rdf:RDF>
```

Alternative authors of the Homily on the Archangel Michael (for Miyāzyā)

Example 2

</api/dts/collections?id=urn:dts:betmas:LIT3962Homily>

```
"dts:extensions" : {  
    "saws:isAttributedToAuthor" : [  
        "https://betamasaheft.eu/PRS8121RetuaH",  
        "https://betamasaheft.eu/PRS10425Yohanne"  
    ],  
    "saws:formsPartOf" :  
        "https://betamasaheft.eu/LIT1295Dersan"  
}
```

<https://betamasaheft.eu/LIT1295Dersan> OR

</api/dts/collection?id=urn:dts:betmas:LIT1295Dersan>
?? or perhaps all the urn staff should simply go ??

</api/dts/collections?id=urn:dts:betmas:LIT1295Dersan>

```
..  
    "dts:extensions" : {  
        "saws:contains" : [ "https://betamasaheft.eu/LIT1637Homily",  
            "https://betamasaheft.eu/LIT3959Homily",  
            "https://betamasaheft.eu/LIT3961Homily",  
            "https://betamasaheft.eu/LIT3964Homily",  
            "https://betamasaheft.eu/LIT3967Homily",  
            "https://betamasaheft.eu/LIT3962Homily",  
            "https://betamasaheft.eu/LIT3965Homily",  
            "https://betamasaheft.eu/LIT3960Homily",  
            "https://betamasaheft.eu/LIT3968Homily",  
            "https://betamasaheft.eu/LIT3963Homily",  
            "https://betamasaheft.eu/LIT3958Homily",  
            "https://betamasaheft.eu/LIT3966Homily" ],  
        "crm:P102_has_title" : [  
            "https://betamasaheft.eu/LIT1295Dersan/title/t1".  
            "https://betamasaheft.eu/LIT1295Dersan/title/t2" ],  
        "dcterms:hasPart" : "https://betamasaheft.eu/LIT1637Homily"  
    },
```

```
<div type="textpart"  
    subtype="chapter" xml:lang="gez"  
    corresp="LIT1637Homily"  
    xml:id="HomilyHedar">...</div>
```

History of the Episcopate of Alexandria - versions in two different languages

Example 3

/api/dts/collections?id=urn:dts:betmas:LIT5064HEpA

Saws:hasVersionInAnotherLanguage
Would point me to the eventually
existing latin version, and how would
the alignment between the two
navigations be done? How would a
DTS reader know that a particular
piece in the navigation corresponds to
another in the structure of the parallel
text?

In the following example this is done with narrative units, which here would not be appropriate.

www.IBM.com

PP. CRIT. LAT.: 1.1.4 simplici[te] ratione simplici ratione *MaffeiRouth*; simplici[te] ratione *Turner* simpliciter ratione (scilicet ex aliis) *Kettler*; simpliciteratione *V (fortasse ex eis quaque lato)* | simpliciter... | ...12 incertos| paratagmatae tonum prois, quis et bimodulus et tenueruntur ita non debet periphrasis, alioquin de eius etiam et canone epilogisticae non, prout cum nos aduersi, locutus aduersariis, oportet toti eis eorum epilogia, apertelegit, et uti per se tunc epilogia, et tunc epilogia, abhinc retrorsum *Kettler* | 5 | audiatur enim *Puffo* *Turner* *Kettler*, fortasse interpolatum | 7 <numt> nuntiabit ex et mittiambis simpliciter at *Kettler*, sed non script, | Sc: nuntiabit *MaffeiRouth* *Turner*, mutaret *V (kettler)* | aliena... | 8 moe

BAUSI & CAMPLANI - *HEpA* §§ 30 - 34

useful, there were people of the church of 'Alaksöndäry who run and reported to the bishops in prison the insolence of Melitis. Having heard, they became extremely sorrowful because of the gravity of his obstinacy and considering that this would not have resulted for usefulness, they wrote him a letter that said as follows:

BEGINNING OF THE EPISTLE OF THE 1.1 Kettler
BISHOPS

31 Asakis, Pakume, Tewodros and Falyis to Mellets, our beloved brother with whom we share our service,
32 greeting in the Lord. At first since it seemed to us an account of falsehood and a neglectable word, what those who arrived from you had told us, contrary to the divine [Law], an insolence towards the rule of the Church, yet it had been committed on your part and with our ears we did not want to listen to it, looking at the enormity of the insolence and at the # fearful who were being appointed; #
33 and since many had come to us, ascertained their reliability and they witnessed to what had been done and they did not deny. For this reason, being surprised, we deemed it necessary Hesychius, Pachomius, Theodoreus, and Phileas, to Meletius, our beloved and fellow-minister, greeting in the Lord. Considering as worthless and unreliable the words which were spoken about you by certain individuals who came to us and reported actions were reported attempted by you, indeed committed, contrary to the divine order and the ecclesiastical rule — to which we would not listen with our ears, looking at the enormity of the audacity and the uncertain purposes — since however many who just now came have corroborated the reliability of these rumours) and did not hesitate to witness to what had been done, we were forced, exceedingly amazed, to write to you this letter

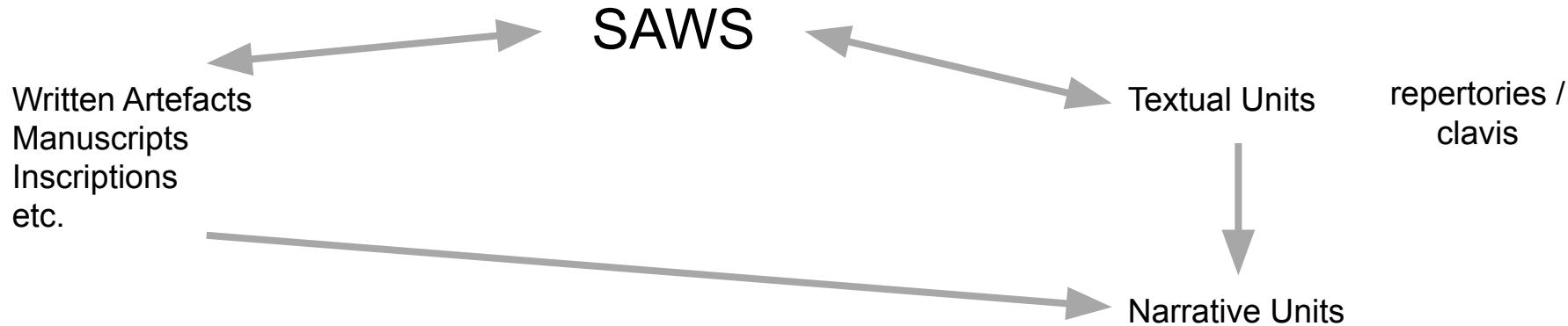
ing surprised, we decided it necessary to write this letter to you of what agitation and pain for all of us and everyone was any appointment (carried out) by you in a diocese where is not your see, although we are not able to (express it), yet in bearing on few points, as follows, in our capacity, we being unwise to write you this letter.

What agitation and what pain were caused to all of us together and to each of us individually by the ordination carried out by you in dioceses wholly unconnected to you, we are not able to express; however, we will

LOCIPARALLEL: 31.1 'Aspis' Fabvás] GUAR MartPetLat c. 458D ubi quattuor episcoli nominantur.

DISTINCTIO LAT.: **1,1,10** uellemus] uellemus: V **12** incertos] incertos: V **13** aduenientes] aduenientes: V **14** impo-
suerunt] imposuerunt: V **15** dubitabant] dubitabant: V **17** te] te: V **1,2,5** preualemus] preualemus: V

Organisation of BM DTS endpoint



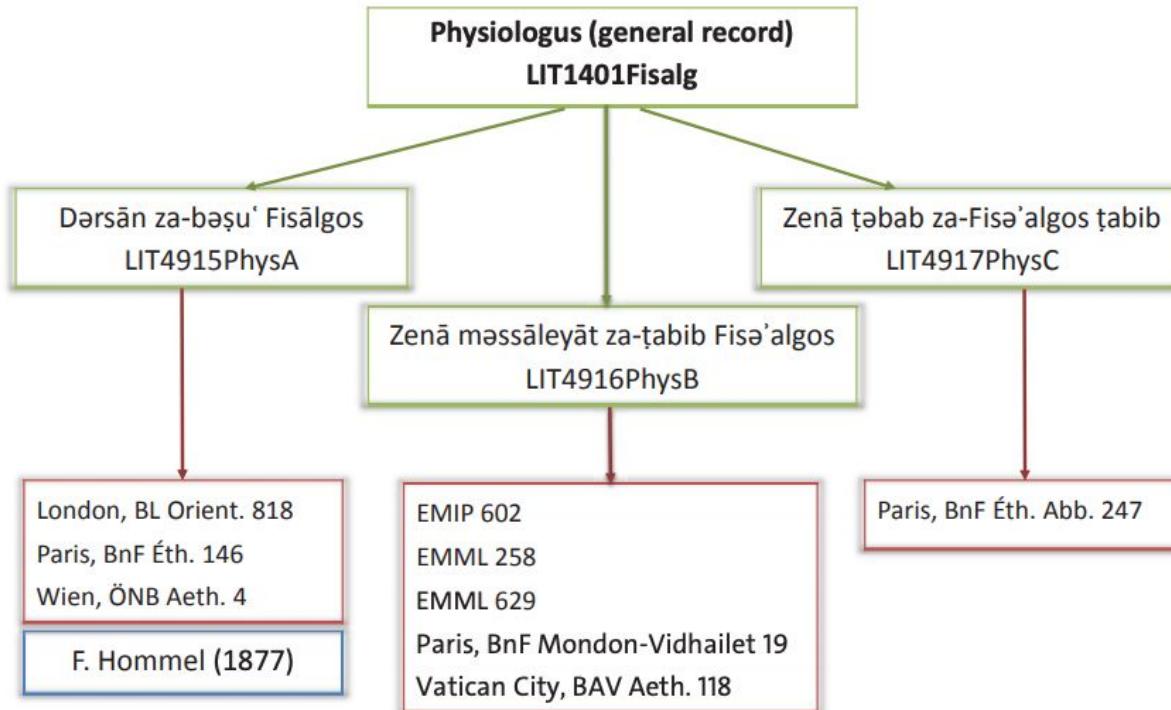
<https://betamasahaft.eu/api/dts/collections?id=urn:dts>

</api/dts/collections?id=urn:dts:betmasMS>

</api/dts/collections?id=urn:dts:betmas>

Physiologus - multiple recensions

Example 4



From: Villa 2018, 145
<https://www.aai.uni-hamburg.de/en/comst/pdf/bulletin4-1/143-150.pdf>

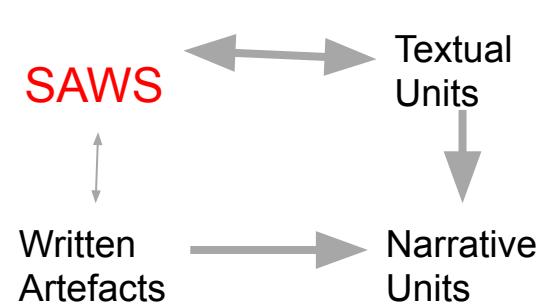


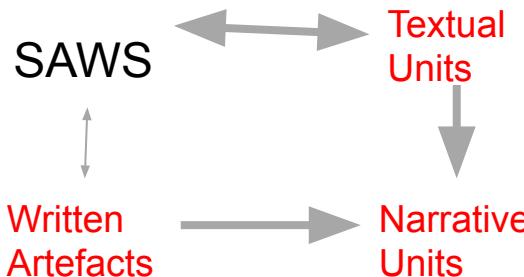
Fig. 1. Diagram illustrating the textual tradition of the Ethiopic *Physiologus*.

The data in TEI

Example 4

The general record has no text, only some structure

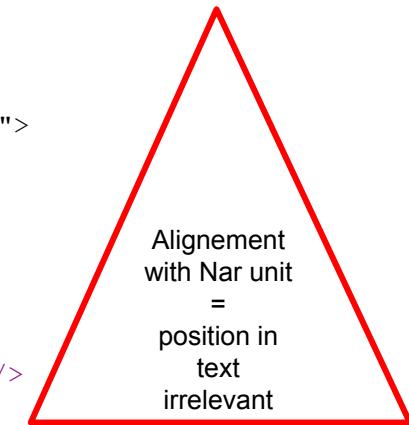
Each version has parts of transcription and one or more edition



```

<div type="textpart" subtype="chapter" n="4"
xml:lang="gez" xml:id="Chapter4"
corresp="https://betamasaheft.eu/NAR0013pelican">
  <label xml:lang="en">On the pelican</label>
</div>

<relation
name="saws:isVersionOf"
ref="http://purl.org/saws/ontology#isVersionOf"
active="https://betamasaheft.eu/LIT4915PhysA"
passive="https://betamasaheft.eu/LIT1401Physio"/>
  
```



```

<div n="4" xml:id="ed1ch4" type="textpart"
subtype="chapter"
corresp="https://betamasaheft.eu/NAR0013pelican">
  <div n="1" xml:id="ed1ch4sel1" type="textpart"
  subtype="sentence">
    <ab> ደቃኬ፡ በአንተ፡ የፌ፡ ዘስዴ፡ ይልቅ፡ ከወለቱ፡ ግራብ፡ </ab>
  </div>
  ...
</div>
  
```

Findability on the website

Example 4

Physiologus, findability of the three versions

Example 4

From The URI <https://betamasahaft.eu/LIT1401Physio> for the generic record

- Requesting the RDF representation will give no statements about version
- requesting RDF **will return** also the version in a triple
- requesting the html and then the versions, will return the versions

The alignment with narrative units is not surfaced in the navigation endpoint at the moment

Physiologus, findability of the three versions in DTS

Example 4

Normally versions of the text are visible only where the statements are made (in the versions)

</api/dts/collections?id=urn:dts:betmas:LIT1401Physio> : Will not tell me anything

Reasoning in the script to look for triples where this is object and reproduce them using the inverse of the property in use if needed

```
"saws:hasVersion" : [ "https://betamasaheft.eu/LIT4916PhysB",
    "https://betamasaheft.eu/LIT4915PhysA",
    "https://betamasaheft.eu/LIT4917PhysC" ]
```

Which is nowhere else in the data, is a transposition of the **saws:isVersionOf** statements

</api/dts/collections?id=urn:dts:betmas:LIT4915PhysA> : Will tell me it is a version of LIT1401Physio only.

```
"dts:extensions" : {
    "crm:P102_has_title" : "https://betamasaheft.eu/LIT4915PhysA/title/t1",
    "saws:isVersionOf" : "https://betamasaheft.eu/LIT1401Physio"
}
```

RIE 277 - a lost inscription attested only in a manuscript

Example 5

</api/dts/collections?id=urn:dts:betmas:LIT5019MonumentumAdulitanum2>

```
"dc:source" : [ {  
    "fabio:isManifestationOf" :  
    "https://digi.vatlib.it/view/MSS_Vat.gr.699",  
    "@type" : "lawd:AssembledWork",  
    "@id" :  
    "https://digi.vatlib.it/view/MSS_Vat.gr.699"  
} ]
```

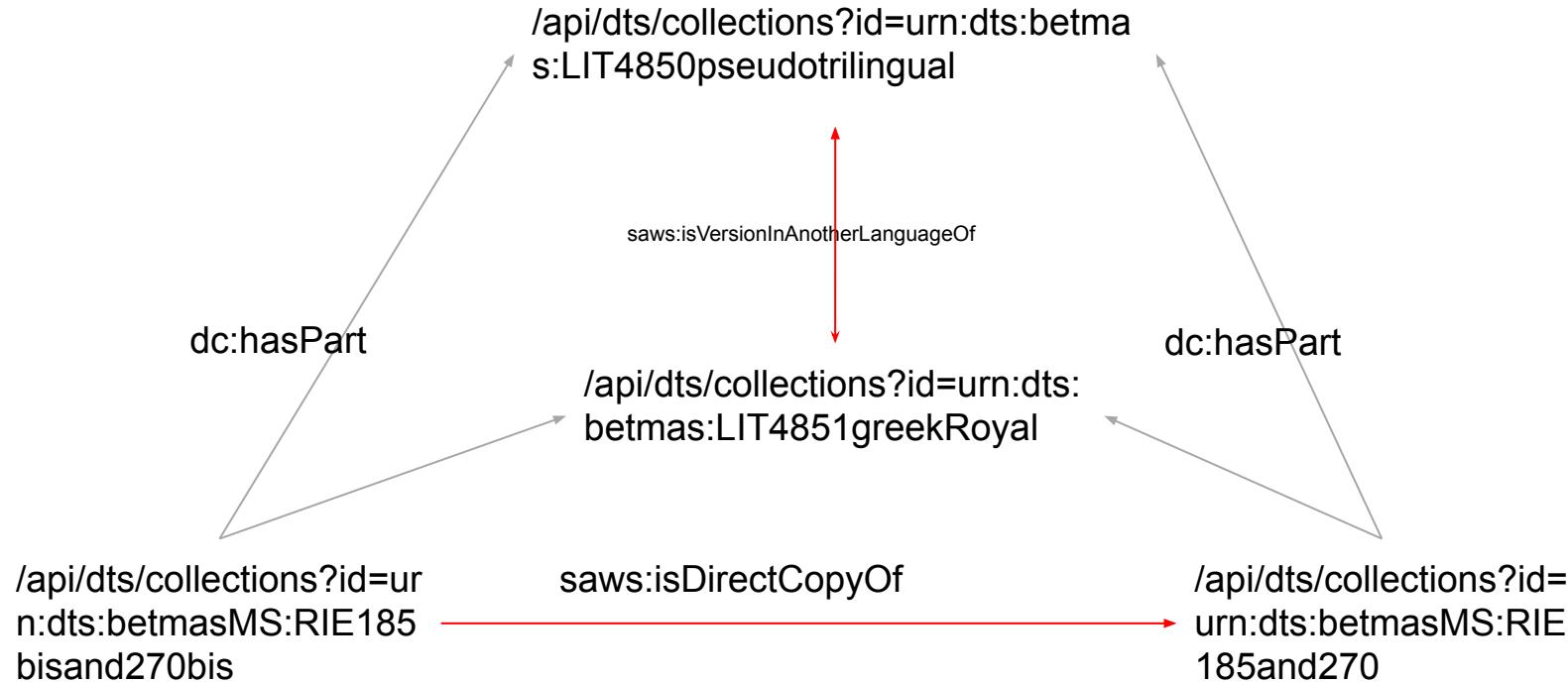
</api/dts/collections?id=urn:dts:betmasMS:RIE277>

```
"dts:extensions" : {  
    "crm:P1_is_identified_by" : [ "PH219054",  
    "RIÉ 277", "103009" ],  
    "dc:hasPart" :  
    "https://betamasaheft.eu/LIT5019Monumentu  
mAdulitanum2"  
}
```

ONE
WAY!

RIE 185 and 270, RIE 185bis and 270bis - Multiple ancient copies of multiple texts

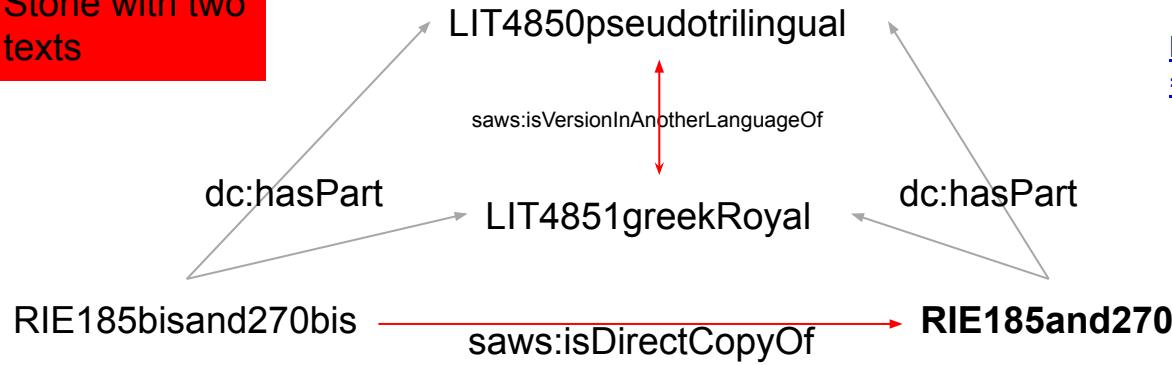
Example 6



RIE 185 and 270, RIE 185bis and 270bis - Multiple ancient copies of multiple texts

Example 6

Stone with two texts



<https://betamasaheft.eu/api/dts/collections?id=urn:dts:betmasMS:RIE185and270>

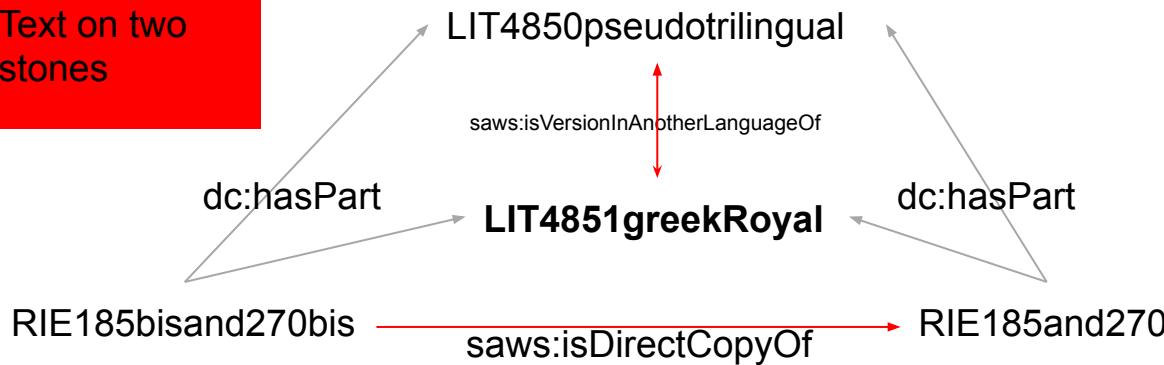
```

"dtc:extensions" : {
    "crm:P1_is_identified_by" : [ "102470", "103010", "RIÉ 185 and 270", "RIÉ 185", "RIÉ 270",
    "102469" ],
    "saws:hasDirectCopy" : "https://betamasaheft.eu/RIE185bisand270bis",
    "dc:hasPart" : [ "https://betamasaheft.eu/LIT4851greekRoyal",
    "https://betamasaheft.eu/LIT4850pseudotrlingual",
    "https://betamasaheft.eu/LIT4850pseudotrlingual" ]
}
  
```

RIE 185 and 270, RIE 185bis and 270bis - Multiple ancient copies of multiple texts

Example 6

Text on two stones



```

"dt�:extensions" : {
  "saws:hasVersionInAnotherLanguage" :
  "https://betamasaheft.eu/LIT4850pseudotrlingual",
  "saws:isVersionInAnotherLanguageOf" :
  "https://betamasaheft.eu/LIT4850pseudotrlingual",
  "crm:P102_has_title" :
  "https://betamasaheft.eu/LIT4851greekRoyal/title/t1"
}
  
```

<https://betamasaheft.eu/api/dts/collections?id=urn:dts:betmas:LIT4851greekRoyal>

```

"dc:source" : [ {
  "fabio:isManifestationOf" :
  "https://betamasaheft.eu/RIE185and270",
  "@type" : "lawd:AssembledWork",
  "@id" :
  "urn:dts:betmasMS:RIE185and270"
}, {
  "fabio:isManifestationOf" :
  "https://betamasaheft.eu/RIE185bisand270bis",
  "@type" : "lawd:AssembledWork",
  "@id" :
  "urn:dts:betmasMS:RIE185bisand270bis"
} ]
  
```

Epigraphy.info