

IBR

spatialhumanities.de

Relating Texts to 3D-Information

A generic software environment for Spatial Humanities

Martin Unold

i3mainz – Institute for Spatial Information and
Surveying Technology Mainz University of Appl.
Science

Felix Lange

Academy of Sciences and Literature Mainz

IBR Lausanne

- French-speaking City
- Mayor is member of Green Party
- 46°31,19'N 6°38,01'E
- Elevation 495m

IBR Lausanne

- French-speaking City
- Mayor is member of Green Party

Expert
Data

- 46°31,19'N 6°38,01'E
- Elevation 495m

IBR Lausanne

- French-speaking City
- Mayor is member of Green Party
- $46^{\circ}31,19'N$ $6^{\circ}38,01'E$
- Elevation 495m

Spatial
Data

IBR Another Example

- Seminar Room
- No Fixed Furniture
- Number 321



IBR Liebfrauenkirche Oberwesel

DIE INSCRIFTEN
DES RHEIN-
HUNSRÜCK-
KREISES II



IBR Liebfrauenkirche Oberwesel

DIO PROJEKT
DEUTSCHE INSCRIFTEN ONLINE Projektinformationen

THEMEN
Inschriften im Kontext

GEOGRAPHIE
Inschriften nach Gebieten

SUCHE
Inschriften finden

DEUTSCHE
INSCRIFTEN
ONLINE
Rheinland-Pfalz / Rhein-
Hunsrück-Kreis I

Einleitung • Inschriften • Abbildungen • Literatur • Broschüren

INSCRIFTENKATALOG: RHEIN-HUNSRÜCK KREIS

KATALOGARTIKEL IN CHRONOLOGISCHER REIHENFOLGE.

« » « » Jahr aufschlagen Eingabe

DI 60: Rhein-Hunsrück-Kreis I (2004)

Nr. 185(f)	Oberwesel, Kath. Pfarrkirche Unserer Lieben Frau	1.V.16.Jh., 1657
------------	--	------------------

Wandmalerei mit Kreuzigung am vierten Pfeiler des nördlichen Seitenschiffs. Hochrechteckiges Bild mit Christus am Kreuz, darunter Maria und Johannes Evangelist, am Kreuzbalken Täfelchen mit schwarz auf Weiß gemaltem Titulus (A). Daneben steht (unbezeichnet) der hl. Valentin im bischöflichen Ornat, den Blick auf ein zu seinen Füßen verdrückt liegendes, epilepsiekrankes Kind gerichtet. In der linken unteren Ecke später hinzugefügter Wappenschild mit Initialen und Jahreszahl (B). Temperamalerei auf Kreidegrund, 1895-98 durch den Kölner Maler W. Batzem ¹⁾ stark überarbeitet.

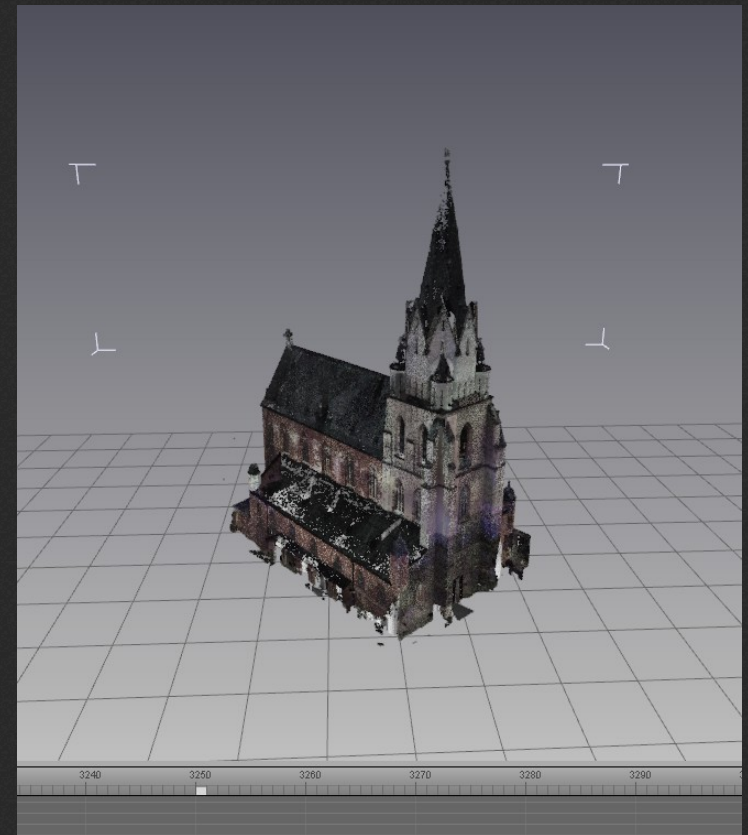
Maße: H. 174, B. 113, Bu. 3 (A), 1,5 (B) cm.

Schriftart(en): Kapitalis.



IBR Liebfrauenkirche Oberwesel

```
<?xml-model
  href="http://localhost/inschriften.net/typo3conf/ext/dio/Documentation/Schema/tei-epidoc.rng"
  type="application/xml" schematypens="http://relaxng.org/ns/structure/1.0"
?>
<TEI xml:space="preserve" xml:lang="en">
- <fileDesc>
- <titleStmt>
  <title>di060-0185</title>
- <respStmt>
  <resp>herausgegeben von</resp>
- <orgName>
  Akademie der Wissenschaften und der Literatur | Mainz
  </orgName>
</respStmt>
</titleStmt>
+ <publicationStmt></publicationStmt>
- <sourceDesc>
- <msDesc>
- <msIdentifier>
  <repository>Deutsche Inschriften Online</repository>
  <idno type="signature">di060-0185</idno>
- <altIdentifier>
  <idno type="uid">183</idno>
  </altIdentifier>
</msIdentifier>
- <physDesc>
- <objectDesc>
- <supportDesc>
  <support>
    Wandmalerei mit Kreuzigung am vierten Pfeiler des nördlichen Seitenschiffs.
    Hochrechteckiges Bild mit Christus am Kreuz, darunter Maria und Johannes
    Evangelist, am Kreuzbalken Täfelchen mit schwarz auf Weiß gemaltem Titulus (A)
    Daneben steht (unbezeichnet) der hl. Valentin im bischöflichen Ornat, den Blick auf
    ein zu seinen Füßen verdreht liegendes, epilepsiekrankes Kind gerichtet. In der
    linken unteren Ecke später hinzugefügter Wappenschild mit Initialen und Jahreszahl
    (B). Temperamalerei auf Kreidegrund, 1895-98 durch den Kölner Maler W. Batze
  </support>
  </msDesc>
</TEI>
```



IBR This is who we are...

- IBR = Inschriften im Bezugssystem des Raumes
= Inscriptions and their Spatial Context
- www.spatialhumanities.de

IBR This is who we are...



Akademie
der Wissenschaften
und der Literatur
Mainz

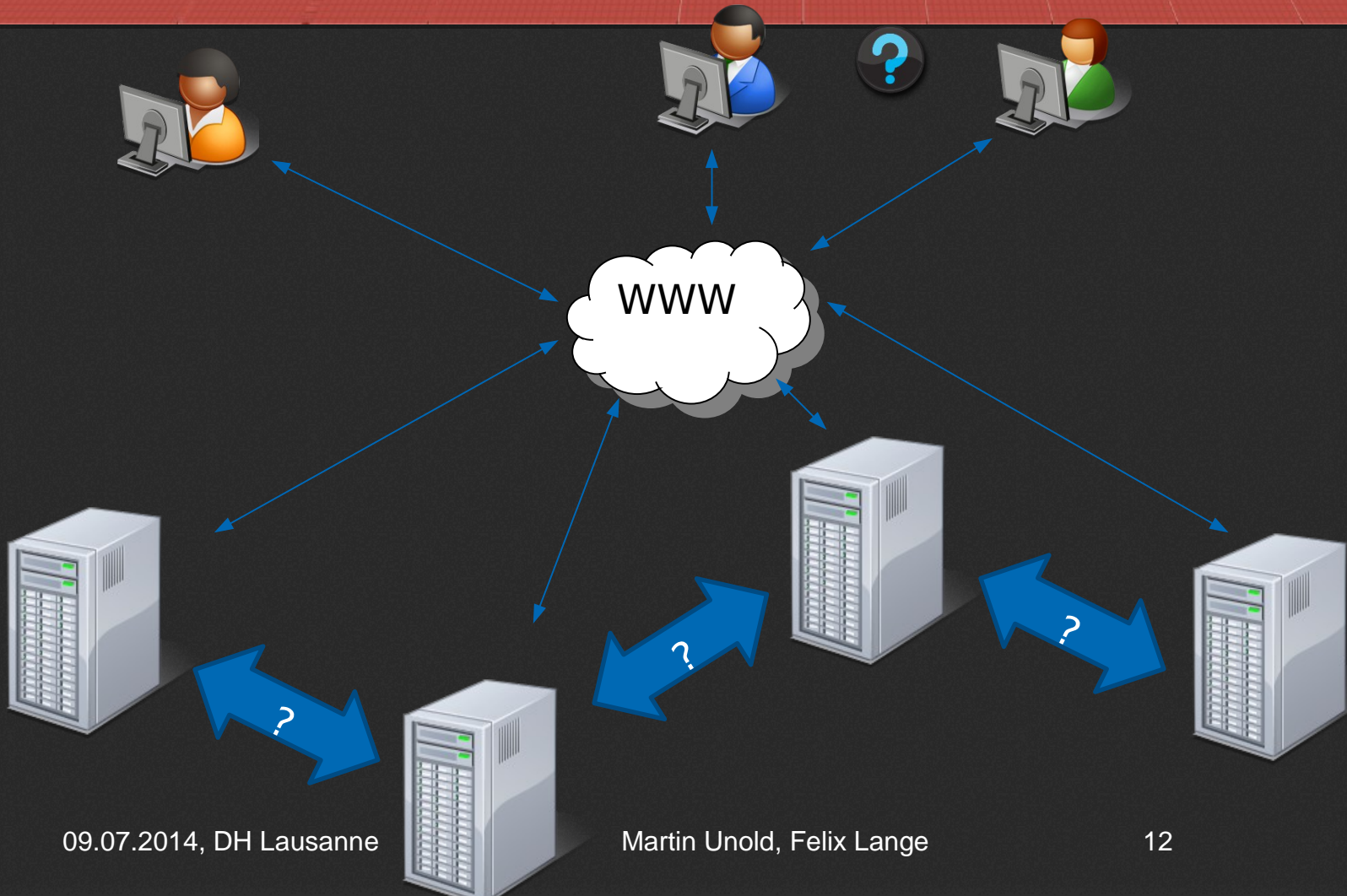


**Institut für raumbezogene
Informations- und Messtechnik
Fachhochschule Mainz**

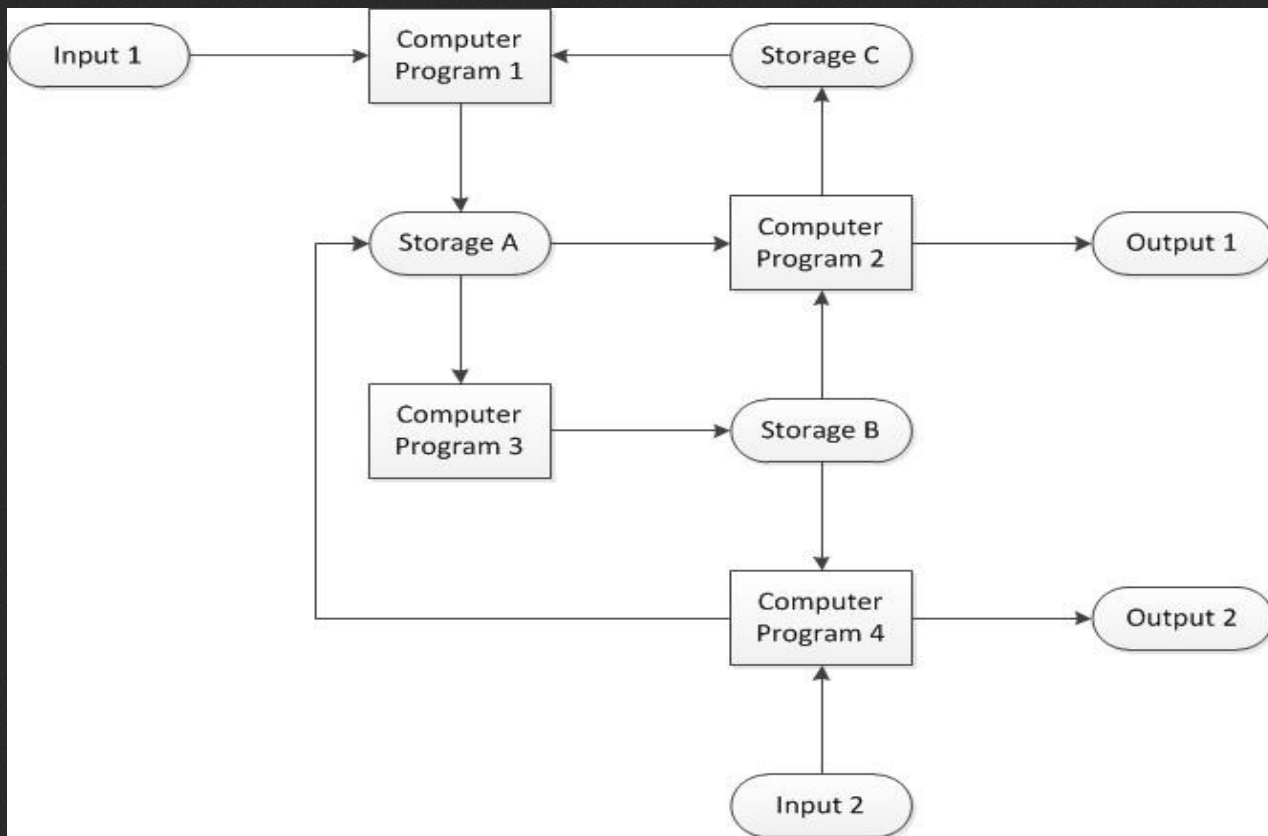
IBR Questions

- Who was addressed by the Inscription of Foundation?
- Where was the original place of the Epitaph of Petrus Lutern?
- In which areas are Inscriptions with font Gothic Majuscule?

IBR Data Infrastructure



IBR Data Infrastructure



IBR Expert Data

```
<?xml-model
href="http://localhost/inschriften.net/typo3conf/ext/dio/Documentation/Schema/tei-epidoc.rng"
type="application/xml" schematypens="http://relaxng.org/ns/structure/1.0"
?>
<TEI xml:space="preserve" xml:lang="en">
- <fileDesc>
- <titleStmt>
  <title>di060-0185</title>
- <respStmt>
  <resp>herausgegeben von</resp>
- <orgName>
  Akademie der Wissenschaften und der Literatur | Mainz
  </orgName>
  </respStmt>
</titleStmt>
+ <publicationStmt></publicationStmt>
- <sourceDesc>
- <msDesc>
- <msIdentifier>
  <repository>Deutsche Inschriften Online</repository>
  <idno type="signature">di060-0185</idno>
- <altIdentifier>
  <idno type="uid">183</idno>
  </altIdentifier>
  </msIdentifier>
- <physDesc>
- <objectDesc>
- <supportDesc>
- <support>
  Wandmalerei mit Kreuzigung am vierten Pfeiler des nördlichen Seitenschiffs.
  Hochrechteckiges Bild mit Christus am Kreuz, darunter Maria und Johannes
  Evangelist, am Kreuzbalken Tafelchen mit schwarz auf Weiß gemaltem Titulus (A)
  Daneben steht (unbezeichnet) der hl. Valentin im bischöflichen Ornat, den Blick a
  ein zu seinen Füßen verdreht liegendes, epilepsiekrankes Kind gerichtet. In der
  linken unteren Ecke später hinzugefügter Wappenschild mit Initialen und Jahresza
  (B). Temperamalerei auf Kreidegrund, 1895-98 durch den Kölner Maler W. Batze
  </support></msDesc>
```

```
<rdf:RDF>
- <rdf:Description rdf:about="http://www.inschriften.net/rest/di060/articles/di060-0027">
  <dc:title>DI 60, Nr. 27</dc:title>
  <dc:creator>Eberhard J. Nikitsch</dc:creator>
  <owl:seeAlso rdf:resource="http://nbn-resolving.de/urn:nbn:de:0238-di060mz08k0002707"/>
  <owltime:intervalStarts>1308-01-01</owltime:intervalStarts>
  <owltime:intervalFinishes>1345-12-31</owltime:intervalFinishes>
  <cdwa:condition>0</cdwa:condition>
  <dbpedia:width/>
  <dbpedia:height/>
  <dbpedia:Settlement>Oberwesel</dbpedia:Settlement>
  <dbpedia:Place>Kath. Pfarrkirche Unserer Lieben Frau</dbpedia:Place>
  <cdwa:typeface>Gotische Majuskel</cdwa:typeface>
- <cdwa:inscription>
  + I[NC]HO[A]T[A FV]I·T· ECCL[E]SI[A] S(AN)C(T)[E] MARIE· ·AN(N)O [D(OM)NI MC]CC· ·OCT·AVO·
  </cdwa:inscription>
- <cdwa:translation>
  Begonnen wurde die Kirche der heiligen Maria im Jahre des Herrn 1308.
  </cdwa:translation>
</rdf:Description>
- <rdf:Description rdf:about="http://www.inschriften.net/rest/di060/articles/di060-0157">
  <dc:title>DI 60, Nr. 157</dc:title>
  <dc:creator>Eberhard J. Nikitsch</dc:creator>
  <owl:seeAlso rdf:resource="http://nbn-resolving.de/urn:nbn:de:0238-di060mz08k0015704"/>
  <owltime:intervalStarts>1490-01-01</owltime:intervalStarts>
  <owltime:intervalFinishes>1514-12-31</owltime:intervalFinishes>
```

<http://xtriples.spatialhumanities.de>

IBR Expert Data

The screenshot shows the XTriples web service interface. The browser window title is "xtriples.spatialhumanities.de/index.html". The page has a navigation bar with links for "About", "Documentation", "Examples", and "GitHub". The main content area is titled "XTriples" and describes it as a generic webservice to extract RDF statements from XML resources. It includes sections for "Quickstart", "Form-style POST requests", "Direct POST requests", "Design principles", "Documentation", "Helpful links", and "Funding".

XTriples

A generic webservice to extract rdf statements from XML resources offered over RESTful APIs.

Quickstart

With the XTriples webservice you can crawl the web and extract RDF statements from XML repositories and/or files over http using a simple configuration with XPATH expressions. The service can be used with direct POST, form-style POST or GET requests. [See the examples...](#)

Form-style POST requests

Example for the form-style POST API. Set your output format and submit the form.

Output Format:

Configuration:

Design principles

- Generic - works on any XML
- Simple - easy to configure
- Powerful - for building complex statements
- Flexible - returns several formats
- RESTful - uses http for retrieval and response

Documentation

Check out the [full documentation](#) of the service including all configuration details. If you would like to create your own instance of this service you can fork our repository on [GitHub](#).

Helpful links

- [Apache Any23](#)
- [Rhizomik - RDF to SVG](#)
- [prefix.cc](#)

Funding

This service is being developed by the project [IBR - Inscriptions in their spatial context](#). The project is jointly conducted by the [Academy of Sciences and Literature | Mainz](#) and the [Institute for Spatial Information and Surveying Technology FH Mainz - University of Applied Sciences](#). It is funded by the [German Federal Ministry of Education and Research](#).

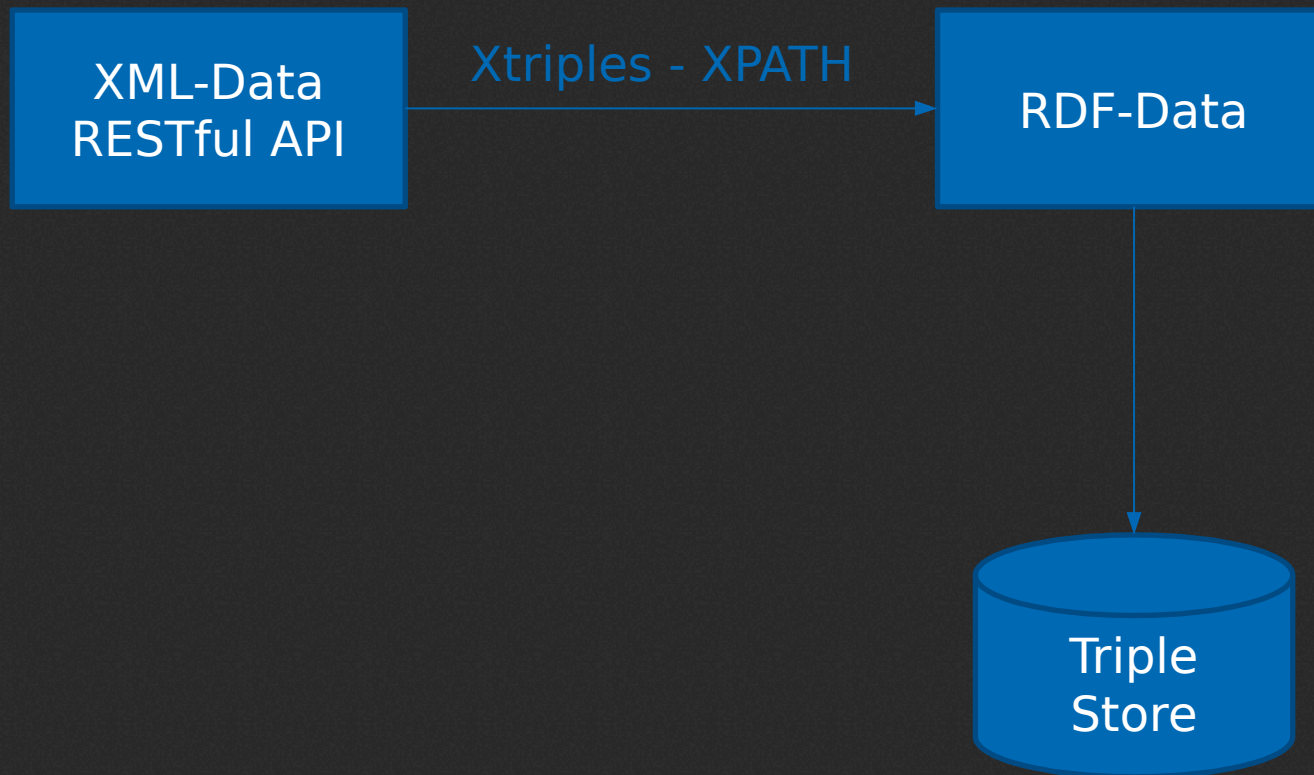
Direct POST requests

You can also submit direct POST requests to <http://xtriples.spatialhumanities.de/extract.xml>

The request body should contain your XTriples configuration. Additionally, you need to send the **Content-Type** HTTP header with a value of `application/xml` and the **format** HTTP header with one of the following values:

value	result
rdf	returns extraction result as RDF
ntriples	returns extraction result as N-Triples (urlencoded)
svg	returns extraction result as SVG

IBR Expert Data



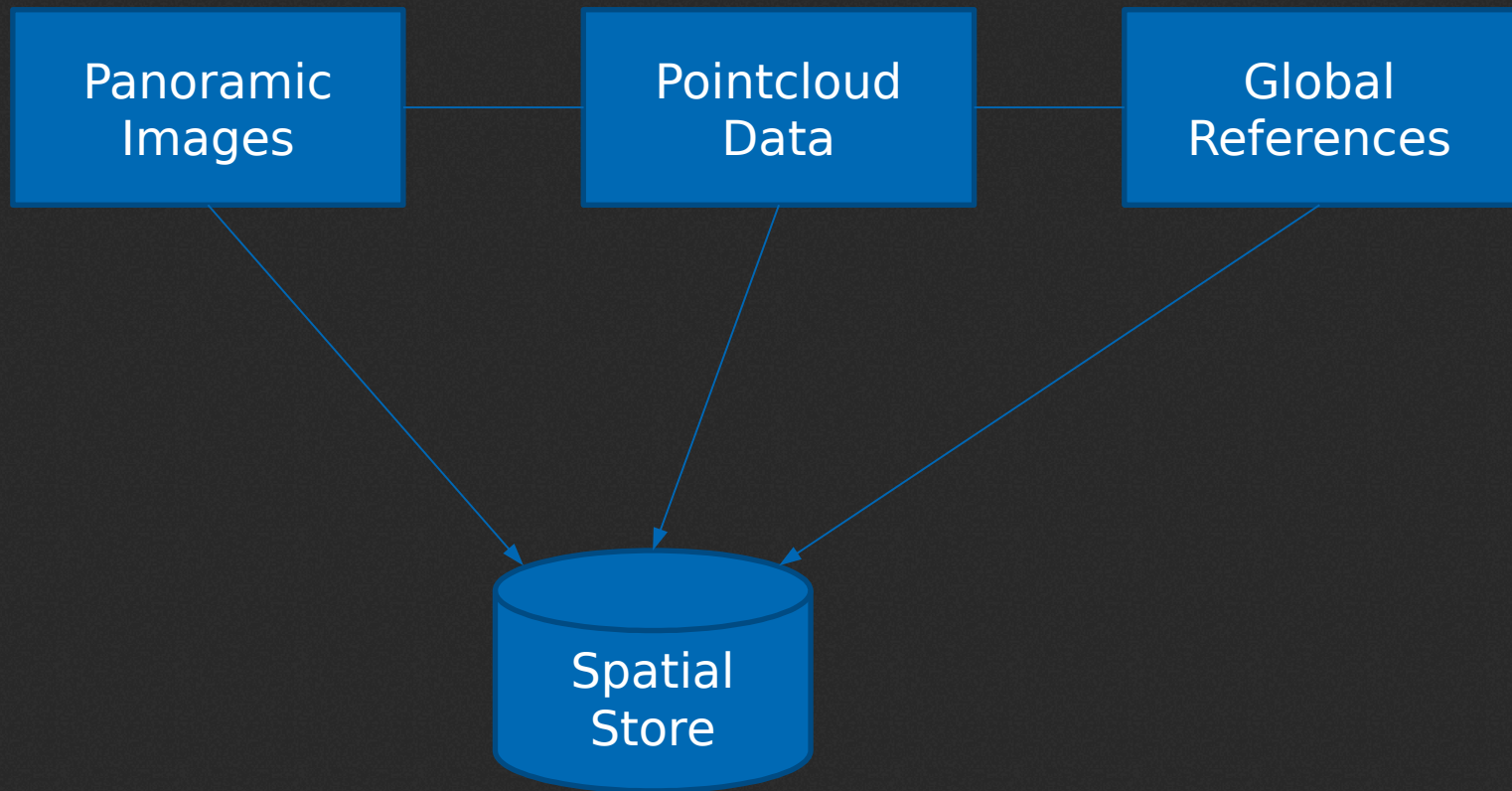
IBR Spatial Data



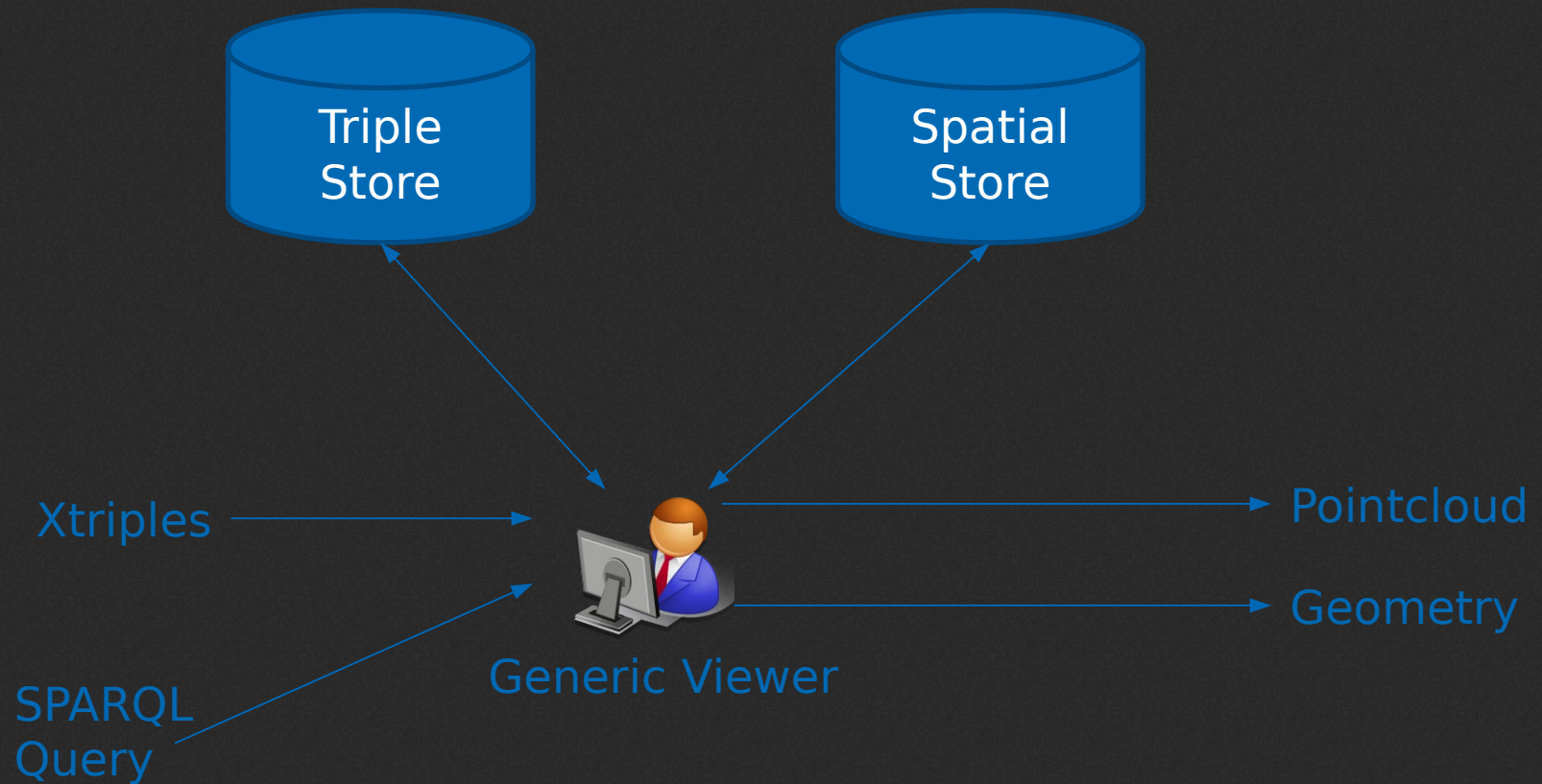
IBR Spatial Data



IBR Spatial Data



IBR Generic Viewer

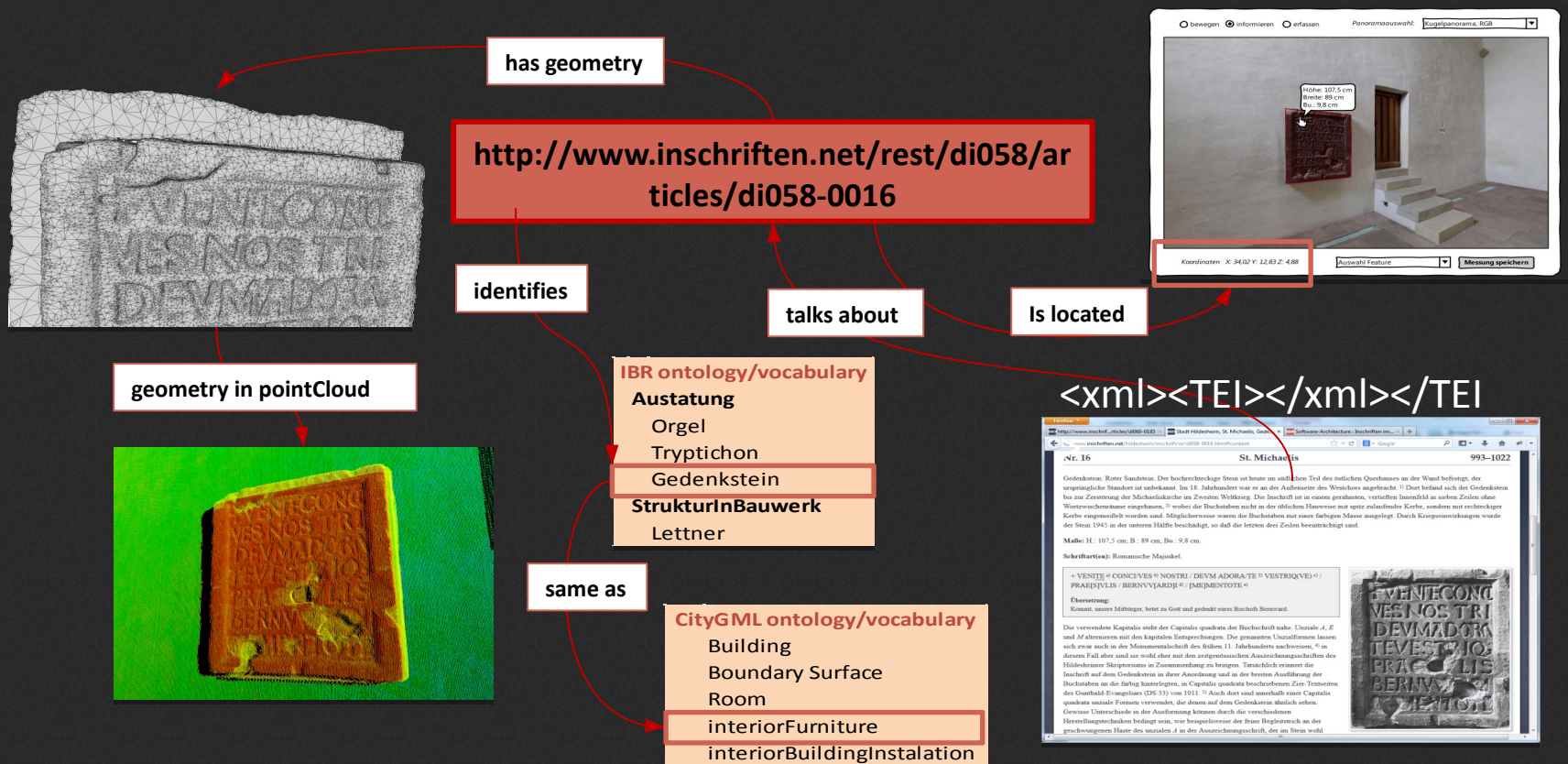


IBR Generic Viewer

- Measure Geometry from Pointcloud
- Link Geometry to Expert Data
- Add additional Semantic Data

- SPARQL-Query
- Export Geometry
- Export Parts of Pointcloud

IBR Generic Viewer



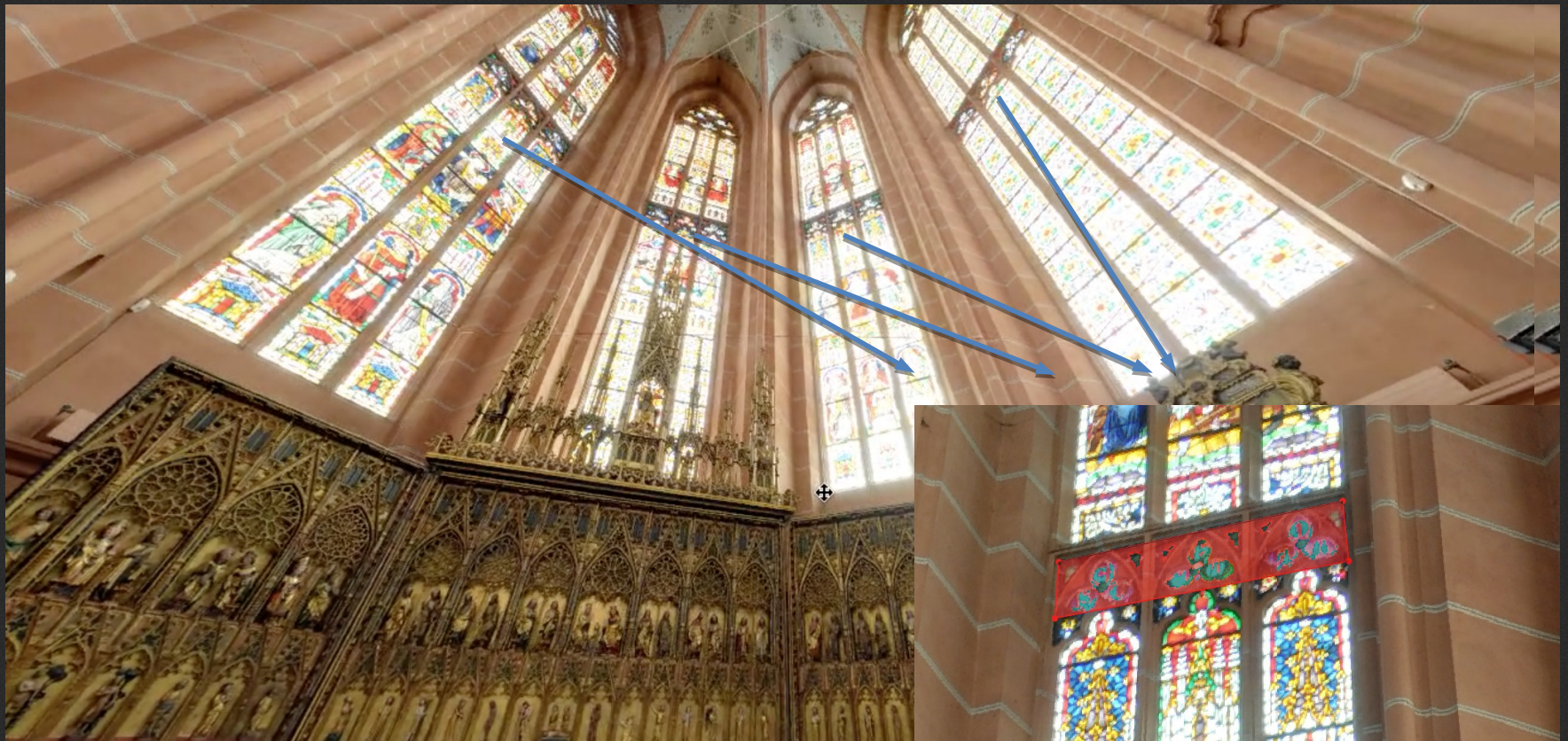
IBR Export Pointcloud



IBR SPARQL-Query

- SELECT ?geometry
WHERE {
?di cdwa:heraldry "Lutern".
?geometry shrel:describedIn ?di.
}
- *Returns all Geometries that carry the coat of arms of the family of medieval dean Petrus Lutern.*

IBR Case Study: The foundational inscription



IBR Foundational inscription

+ IN[C]HOATA [F][V]IT
ECCLESIA SCE MARIE
A[N]O DNI [MC]CC OCTAVO

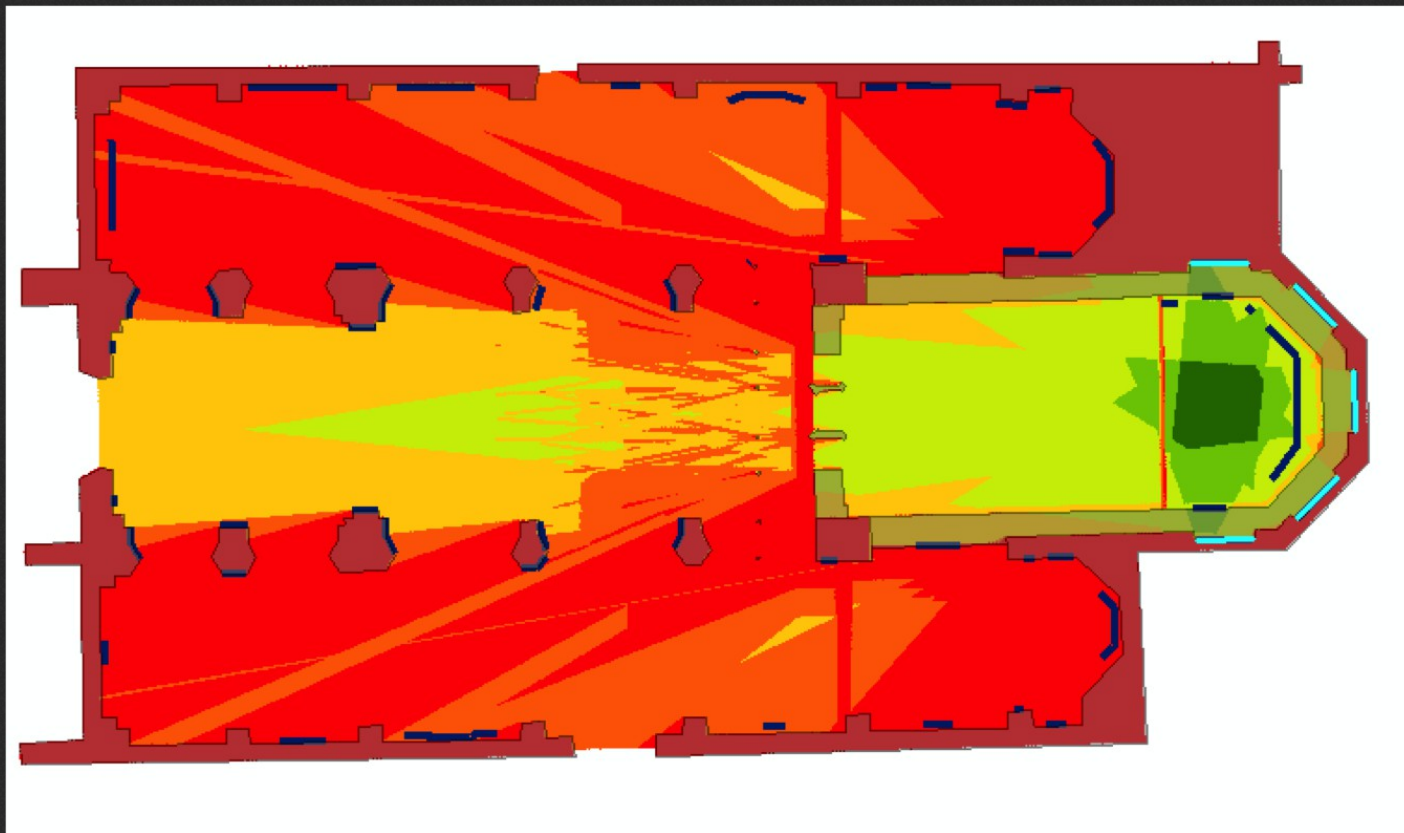
*This church of Mother Mary
was begun in 1308.*



IBR Historical context

- City of Oberwesel was pawned by the king to archbishop Balduin v. Trier in Jan. 1309
- Consecration of the altar 1331, possibly by Balduin
- Inscription established long time after 1308
- Extraordinary features: stained-glass window, reference to the founder missing
- Supposedly best seen from the main altar, where the archbishop stood during the consecration

IBR Visibility analysis of the foundational inscription



IBR Implications ?

- The church was designed and (co-)financed by the citizenry directly.
- The inscription is a self-assured message from the citizens to the archbishop, reminding him of their former power and wealth.
(Nikitsch 1996, Müller 2008)



IBR Outlook

- More user-friendly Interaction
- Capable for komplex Research
- Include Geometric Aspects

- Other Applications ???

IBR Thank You

For Your Attention!

Visit

WWW.SPATIALHUMANITIES.DE