Challenges of Building and Maintaining an Image Database:
a use case based on the Digital Research Archive for Byzantium (DiFAB)

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Digital Research Archive for Byzantium:

- Initiated in 2005 by Prof. Lioba Theis

- Housed at the Department of Art History, University of Vienna

- Uses the long-term digital archiving system PHAIDRA

- Int'l standards, such as Dublin Core, Getty thesauri

- Aims:

  1. to compile photographic documentation of the material culture of the Byzantine cultural sphere in digital form;

  2. to make these images available to researchers, students & public

- Main sources:

  - Historic photographs collection of the AH Department, Vienna

  - Archives of eminent scholars

  - Digital images from recent field trips

Case study: Church of St. Clement, Ohrid

View from SE
(unknown, undated,
http://phaidra.univie.ac.at/o:189386,
Accessed 20.6.2016)

View from W
(Horst Hallensleben, undated,
http://phaidra.univie.ac.at/o:37828,
Accessed 20.6.2016)

Interior toward W
(Department of Art History, undated,
http://phaidra.univie.ac.at/o:251118,
Accessed 20.6.2016)

Metadata goal: Art resource, Archive and more

Art resource
"tombstone"
metadata:

- Object-type

- Work title

- Artist

- Date

- Location

Artstor

Field	Data
Creator	Chagall, Marc, Russian/Ukrainian, 1887-1985
Title	Self-portrait with Seven Fingers
Date	1912
Location	Stedelijk Museum, Amsterdam
Material	o/c
Measurements	128x107cm.
Related Item	Hartt 4: 994 [37-1]
Collection	Art History Survey Collection
Source	Data from: Digital Library Federation Academic Image Cooperative
Rights	© 2009 Artists Rights Society (ARS), New York / ADAGP, Paris

Metadata goal: Art resource, Archive and more

Photographs archive metadata:

- Record number

- Print size and technique

- Photographer

- Date

- Repository

Library of Congress, Prints and Photographs

View Larger
JPEG (36kb) | TIFF (2.0mb)

Item is from this group

b&w film copy neg.
http://hdl.loc.gov/loc.pnp/cph.3b27822

Related

- Browse neighboring items by call number.
Collection: Abdul Hamid II Collection

Fethiye Camii (mosque) in Çarşamba

About This Item | **Obtaining Copies** | **Access to Original**

Title: [Fethiye Camii (mosque) in Çarşamba] / Lieutenant Colonel of the General Staff, Ali Rıza Bey.
Creator(s): Ali Rıza Paşa, -1907, photographer
Date Created/Published: [between 1880 and 1893]
Medium: 1 photographic print : albumen.
Reproduction Number: LC-USZ62-80937 (b&w film copy neg.)
Rights Advisory: No known restrictions on publication.
Call Number: LOT 9515, no. 19 [item] [P&P]
Repository: Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA
Notes:

- Formerly the Church of St. Mary Pammakaristos.
- Title translated from album caption.
- Captioned in Ottoman Turkish and French.
- No. 19.
- In album: Mosques, fountains, mausoleums, and views of Istanbul, Ottoman Empire.
- Forms part of: Abdul-Hamid II Collection (Library of Congress).

Subjects:

- St. Mary Pammakaristos (Church : Istanbul, Turkey)--1880-1900.
- Mosques--Turkey--Istanbul--1880-1900.
- Orthodox churches--Turkey--Istanbul--1880-1900.

Format:

- Albumen prints--1880-1900.

Collections:

- Abdul Hamid II Collection

Bookmark This Record:
http://www.loc.gov/pictures/item/2003652929/

Metadata goal: Art resource, Archive and more

Art resource "tombstone" metadata:

- Object-type
- Work title
- Artist
- Date
- Location

+

Supplementary descriptor metadata:

- Image content
- Historical context
- Comparative works

+

Photographs archive metadata:

- Record number
- Print size and technique
- Photographer
- Date
- Repository

Multiple levels of an image:

1. Physical object: negative, film (sometimes labelled)

2. Physical object: slide, print (sometimes labelled)

3. Digital object: scan, digital photograph

4. Image content: geography, landscape

                         built architecture

                         decoration (wall painting, mosaic)

                         text (inscriptions)

Metadata fields and entry in PHAIDRA:

1. General: title, (alt. titles); description; keywords

2. Lifecycle: photographer, data supplier (expandable)

3. Technical Data: permanent link; installation guide

4. Rights and Licences: licence; image credit

5. Contextual Allegation: source, measurements; reference number,
                                     stamp, note

6. Provenience: Source (digital, analog types), date

Metadata entry: PHAIDRA Bagger

Image content: the 5 "W"s

- WHERE
- WHAT
- WHEN
- WHO
- WHY

View of Church of St. Clement from W
(Horst Hallensleben, undated,
http://phaidra.univie.ac.at/o:37828, Accessed 20.6.2016)

Image content: 3 main axes

- WHERE
  - Physical coordinates
  - Geopolitical location
- WHAT
  - Architectural terms
  - Iconographic terms
  - Text
  - Multiple languages
- WHEN
  - Precise dating
  - Fuzzy dating

View of Church of St. Clement from SE
(unknown, undated, http://phaidra.univie.ac.at/o:189386,
Accessed 20.6.2016)

Location of Ohrid town on Ohrid Lake
(google.at/maps, Accessed 20.6.2016)

Image content: 3 main axes

- **WHERE**
  - Physical coordinates
  - Geopolitical location
- WHAT
  - Architectural terms
  - Iconographic terms
  - Text, inscriptions
  - Multiple languages
- WHEN
  - Precise dating
  - Fuzzy dating

View from south shore of Ohrid Lake to NE
(Galina Fingarova, 2007, http://phaidra.univie.ac.at/o:249429,
Accessed 20.6.2016)

Getty Thesaurus of Geographic Names® Online
Search Results

🔍 New Search   ◀ Previous Page   ❓ Help

Find Name: **ohrid**   **Vernacular Display | English Display**

Place Type:

Nation: 3 results

| View Selected Records | Select All Records | Clear All | ▎◀◀ First   ◀ Previous   Next ▶   Last ▶▶|

Page: 1

Click the ⛬ icon to view the hierarchy.
Check boxes to view multiple records at once.

1. ☑ ⛬ **Ohrid** .... (municipality)
    (World, Europe, The former Yugoslav Republic of Macedonia) [7017378]
    Ohrid district
    Opština Ohrid

2. ☑ ⛬ **Ohrid** .... (inhabited place)
    (World, Europe, The former Yugoslav Republic of Macedonia, Ohrid) [7015329]

3. ☑ ⛬ **Ohridsko Ezero** .... (lake)
    (World, Europe) [1117570]
    Lake Ohrid

🔍 New Search   ▎◀◀ First   ◀ Previous   Next ▶   Last ▶▶

Page: 1

ID: 1117570   **Record Type: physical**

⚬ **Ohridsko Ezero (lake)**

Coordinates:
Lat: 41 00 00 N *degrees minutes*   Lat: 41.0000 *decimal degrees*
Long: 020 45 00 E *degrees minutes*   Long: 20.7500 *decimal degrees*

Names:
   Ohridsko Ezero (**preferred**,C,V)
   Liqeni i Ohrit (C,V)
   Lake Ohrid (C,V,English,U,N)
   Limnē Akhridos (C,V)
   Limnē Akhris (C,V)
   Ohridsko ezero (C,V,Macedonian (transliterated)-P,U,N)
   Lychnidus (C,V)
   Охридско Езеро (C,V)

Hierarchical Position:
   ⚬ World (facet)
   ⚬ .... Europe (continent) (P)
   ⚬ .... Ohridsko Ezero (lake) (P)

Additional Parents:
   ⚬ World (facet)
   ⚬ .... Europe (continent) (P)
   ⚬ .... The former Yugoslav Republic of Macedonia (nation) (P)
   ⚬ .... Ohridsko Ezero (lake)

   ⚬ World (facet)
   ⚬ .... Europe (continent) (P)
   ⚬ .... Albania (nation) (P)
   ⚬ .... Ohridsko Ezero (lake) (P)

Place Types:
   lake (**preferred**, C)

Sources and Contributors:
   Lake Ohrid.......... [VP]
   .... NGA, GEOnet Names Server (2008-) accessed 22 December 2015
   .... Rand McNally Atlas (Reprinted 1994) I-127
   Limnē Akhridos.......... [VP]
   .... NGA, GEOnet Names Server (2008-) accessed 22 December 2015
   Limnē Akhris.......... [VP]
   .... NGA, GEOnet Names Server (2008-) accessed 22 December 2015
   Liqeni i Ohrit.......... [VP]
   .... NGA, GEOnet Names Server (2008-) accessed 22 December 2015

ID: 7015329   **Record Type: administrative**

⚬ **Ohrid (inhabited place)**

Coordinates:
Lat: 41 07 00 N *degrees minutes*   Lat: 41.1167 *decimal degrees*
Long: 020 48 00 E *degrees minutes* Long: 20.8000 *decimal degrees*

Note: Located on Lake Ohrid; site of Greek Colony Lychnidos during 3rd cen. BC; seized by
Romans ca. 100 & rebuilt after earthquake in 518; was seat of Bulgarian patriarchate in 9th cen.;
ruled by Byzantine & Ottoman empire.

Names:
  Ohrid (**preferred**,C,V)
  Ochrid (C,V)
  Ochrida (C,V)
  Orchid (C,V)
  Okhrida (C,V)
  Lychnidus (H,O)
  Lychnidos (H,O)   .... ancient

Hierarchical Position:
  ⚬ World (facet)
  ⚬ .... Europe (continent) (P)
  ⚬ .... The former Yugoslav Republic of Macedonia (nation) (P)
  ⚬ .... Ohrid (municipality) (P)
  ⚬ .... Ohrid (inhabited place) (P)

Place Types:
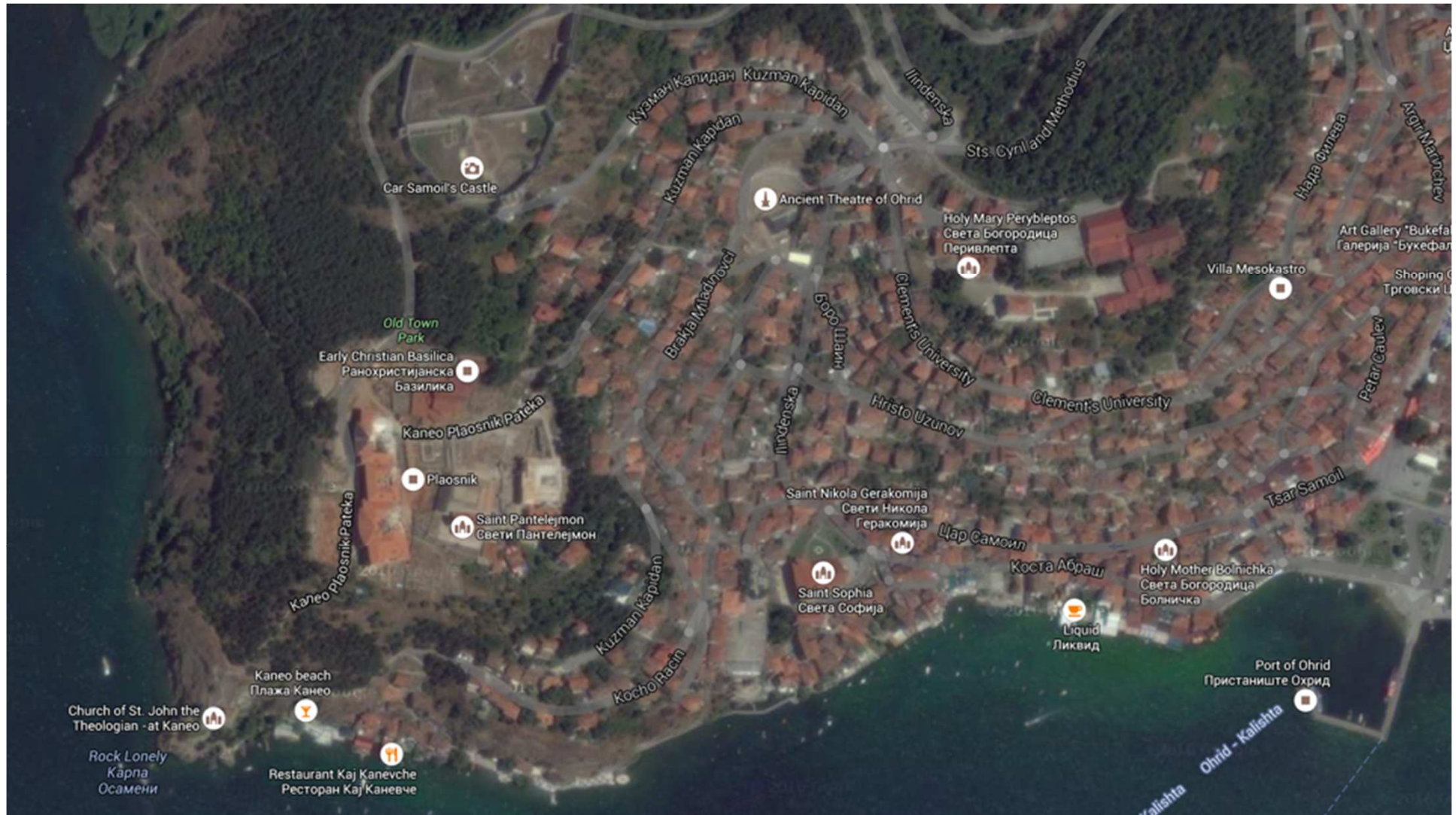 inhabited place (**preferred**, C) .... from 3rd cen. BC
  town (C)
  transportation center (C)   .... in 2nd cen. was a post on Via Aegnatia to Bitola &
                                                      Greece, now has rail, road & air links
  agricultural center (C)
  fishing community (C)
  tourist center (C)   .... is chief resort area of Macedonia for Lake Ohrid & for
                                                      medieval & Turkish buildings & frescoes
  archaeological site (C)
  episcopal see (C)   .... established by 4th cen., with 1st Slav bishop being St.
                                                      Clement (died 916) who translated Scriptures from
                                                      Greek into Slavonic
  cultural center (H)   .... under St. Clement who founded 1st Slavic school of
                                                      higher education & wrote earliest Slavic literature
  capital (H)   .... under Bulgarian tsar in late 10th & early 11th cen.

Sources and Contributors:
  Lychnidos.......... [GRLPSC, VP]
          .... GRI Photo Archive, Authority File (1998) 5828
          Princeton Encyclopedia of Classical Sites (1979) 536

Ohrid town on Ohrid Lake
(google.at/maps, Accessed 20.6.2016)

Image content: 3 main axes

- WHERE
  - Physical coordinates
  - Geopolitical location
- WHAT
  - Architectural terms
  - Iconographic terms
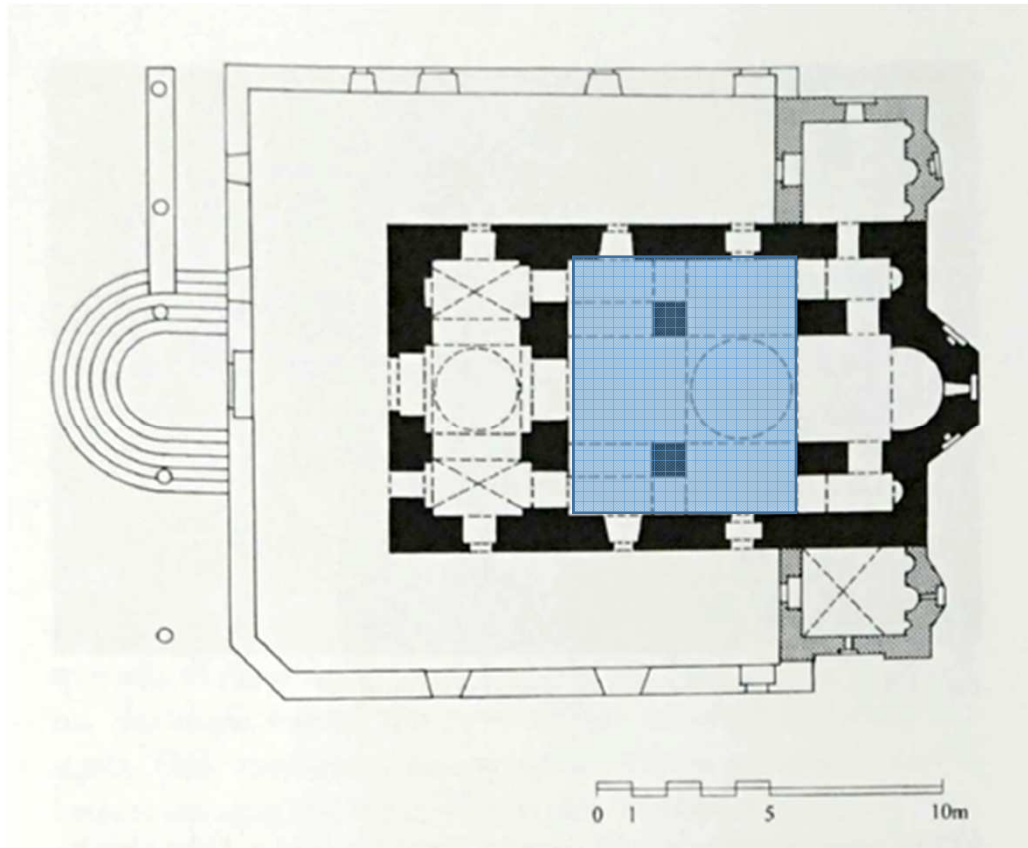 - Text, inscriptions
  - Multiple languages
- WHEN
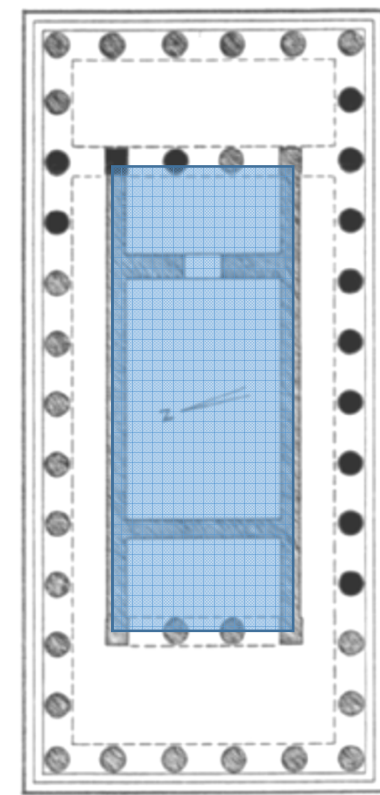 - Precise dating
  - Fuzzy dating

View from W
(Horst Hallensleben, undated,
http://phaidra.univie.ac.at/o:37828,
Accessed 20.6.2016)

Cultural specificity of architectural terms:

NAOS: Church of St. Clement,
Ohrid, 14th c. CE
(Curcic 2010, 572)

NAOS: Poseidon temple,
Kap Sunion, 444-440 BCE
(Schmitt 2013, 81)

Art & Architecture Thesaurus® Online
Full Record Display

🔍 New Search   ◂ Previous Page   ❓ Help

Click the ⊹ icon to view the hierarchy.

Semantic View (JSON, JSONLD, RDF, N3/Turtle, N-Triples)

ID: 300004658   **Record Type:** concept

⊹   **naos (cellae)** (cellae, temple spaces, ... Components (hierarchy name))

Note: Most often used to refer to the principal interior chamber in a Greek temple, containing the statue of the deity, though it is sometimes considered synonymous with 'cella.'

Terms:

   naos (cellae) (**preferred**,C,U,English-P,D,U,PN)
                  (Spanish-P,D,U,PN)
         (Dutch-P,D,U,U)
   naoi (C,U,English,AD,U,SN)
         (Spanish,AD,U,SN)
         (Dutch,AD,U,U)
   cellas (naos) (C,U,English,UF,U,N)
   neos (C,U,English,UF,U,N)

Facet/Hierarchy Code: V.PJ

Hierarchical Position:

   ⊹   Objects Facet
   ⊹   .... Components (hierarchy name) (G)
   ⊹   .... components (objects parts) (G)
   ⊹   .... <components by specific context> (G)
   ⊹   .... building divisions (G)
   ⊹   .... rooms and spaces (G)
   ⊹   .... <rooms and spaces by building type> (G)
   ⊹   .... religious building spaces (G)
   ⊹   .... temple spaces (G)
   ⊹   .... cellae (G)
   ⊹   .... naos (cellae) (G)

Image content: 3 main axes

- WHERE
  - Physical coordinates
  - Geopolitical location
- WHAT
  - Architectural terms
  - Iconographic terms
  - Text, inscriptions
  - Multiple languages
- WHEN
  - Precise dating
  - Fuzzy dating

Interior toward W
(Department of Art History, undated,
http://phaidra.univie.ac.at/o:251118,
Accessed 20.6.2016)

Schematic rendering of the south half of Church of St. Clement, Ohrid,
(Hamann-MacLean/Hallensleben 1963, plan 21)

"KOIMESIS": West wall, Church of St. Clement, Ohrid,
(http://phaidra.univie.ac.at/o:128516, Accessed 20.6.2016)

Iconclass

Options · Help · About · Login ·

Outline · Edits · **Clipboard**

0 Abstract, Non-representational Art
1 Religion and Magic
2 Nature
3 Human Being, Man in General
4 Society, Civilization, Culture
5 Abstract Ideas and Concepts
6 History
7 Bible
73 New Testament
73E events from Resurrection to Pentecost (Matthew 28; Mark 16; Luke 24; John 20-21; Acts 1:3-11); Mary's and Joseph's death
73E7 Mary's death, assumption and coronation (sometimes some of the 'daughters of the Hebrews' present)

    73E74 the Dormition: Mary on her deathbed; the apostles are gathered around her (John the Evangelist may be shown sleeping or dreaming)
    Acts 01 · Christ · Dormition · John (St.) · John 20-21 · Luke 24 · Mark 16 · Mary (Virgin) · Matthew 28 · New Testament · apostle · bible · candle · daughters of the Hebrews · deathbed · disciple · sleeping

73E74(+0) (+ variant)
73E74(+1) (+ Holy Trinity)
73E74(+2) (+ Mary)
73E74(+3) (+ angel(s))
73E74(+4) (+ devil(s))
73E74(+5) (+ donor(s), supplicant(s), whether or not with patron saint(s))
73E741 Christ appears and takes Mary's soul ('assumptio animae')
73E742 other representations ~ Mary's death, e.g.: Mary kneeling before her

8 Literature
9 Classical Mythology and Ancient History

"DORMITION" in ICONCLASS
(http://www.iconclass.org/rkd/73E74/, Accessed 20.6.2016)

Image content: 3 main axes

- WHERE
  - Physical coordinates
  - Geopolitical location
- WHAT
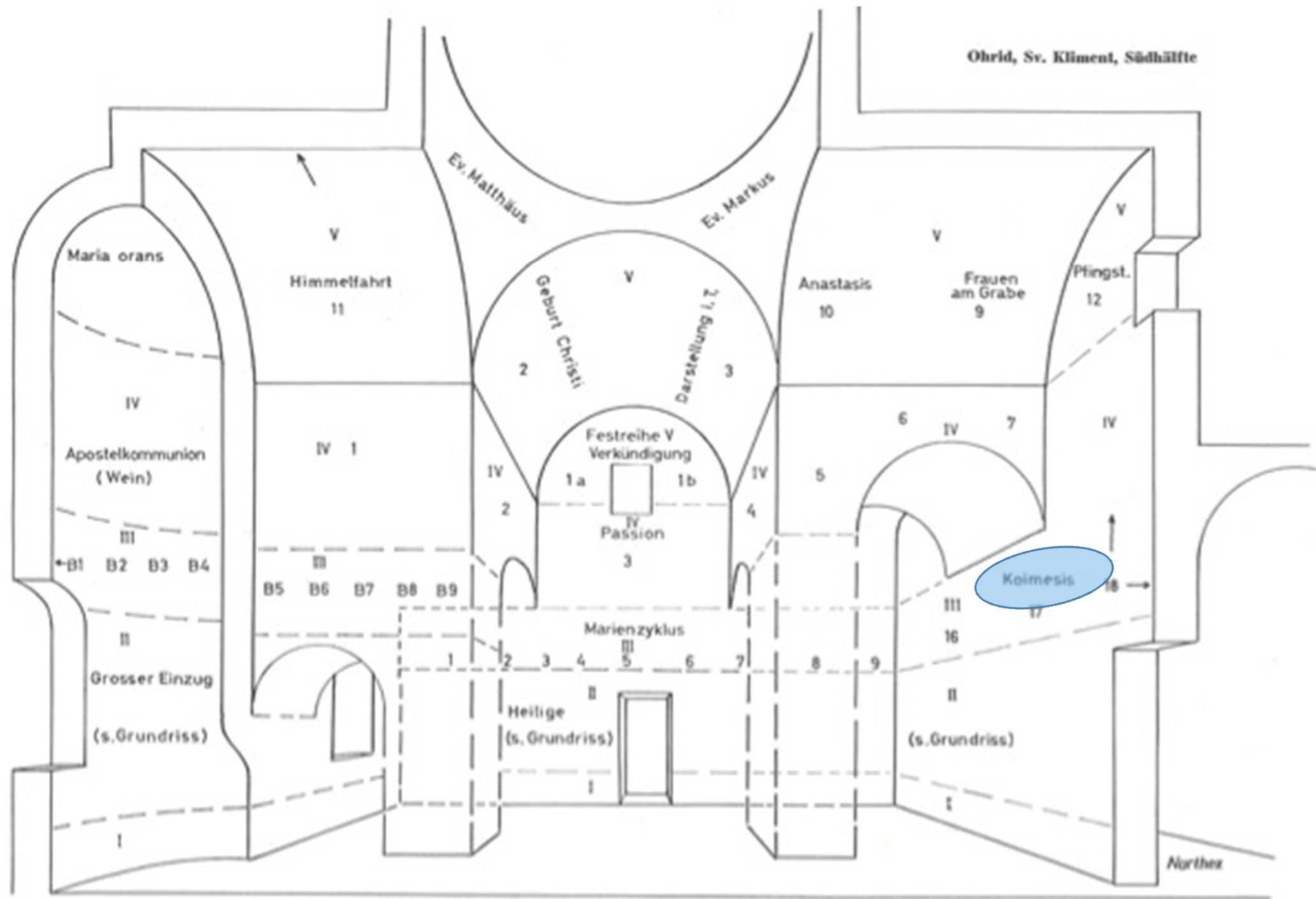 - Architectural terms
  - Iconographic terms
  - Text, inscriptions
  - Multiple languages
- WHEN
  - Precise dating
  - Fuzzy dating

Detail of St. Demetrios
(Horst Hallensleben, undated,
http://phaidra.univie.ac.at/o:128537,
Accessed 20.6.2016)

Image content: 3 main axes

- WHERE
    - Physical coordinates
    - Geopolitical location

- **WHAT**
    - Architectural terms
    - Iconographic terms
    - Text, inscriptions
    - **Multiple languages**

- WHEN
    - Precise dating
    - Fuzzy dating

ALLGEMEIN	**LEBENSZYKLUS** **TECHNISCHE ANGABEN** **DIDAKTISCHE A**
KONTEXTUELLE ANGABEN	**PROVENIENZ** **DIGITALES BUCH**

Persistente Signatur: o:128494

Titel: Ohrid, Sveti Kliment
(Deutsch)

alternativer Titel: Ohrid, Mother of God Peribleptos
(Englisch)

Externalview:

alternativer Titel: Ohrid, Sveta Bogorodica Perivlepta
(Mazedonisch)

Sprache:

**Beschreibung oder
zusätzliche Angaben:**   Beschriftung Hallensleben:"Sv. Kliment, Ohrid, / Beweinung / [Bild] / "
(Deutsch)

Stichwörter: Hallensleben, Christus-Zyklus, Beweinung Christi
(Deutsch)

Stichwörter: Lamentation of Christ
(Englisch)

Phaidra view
(http://phaidra.univie.ac.at/o:128494,
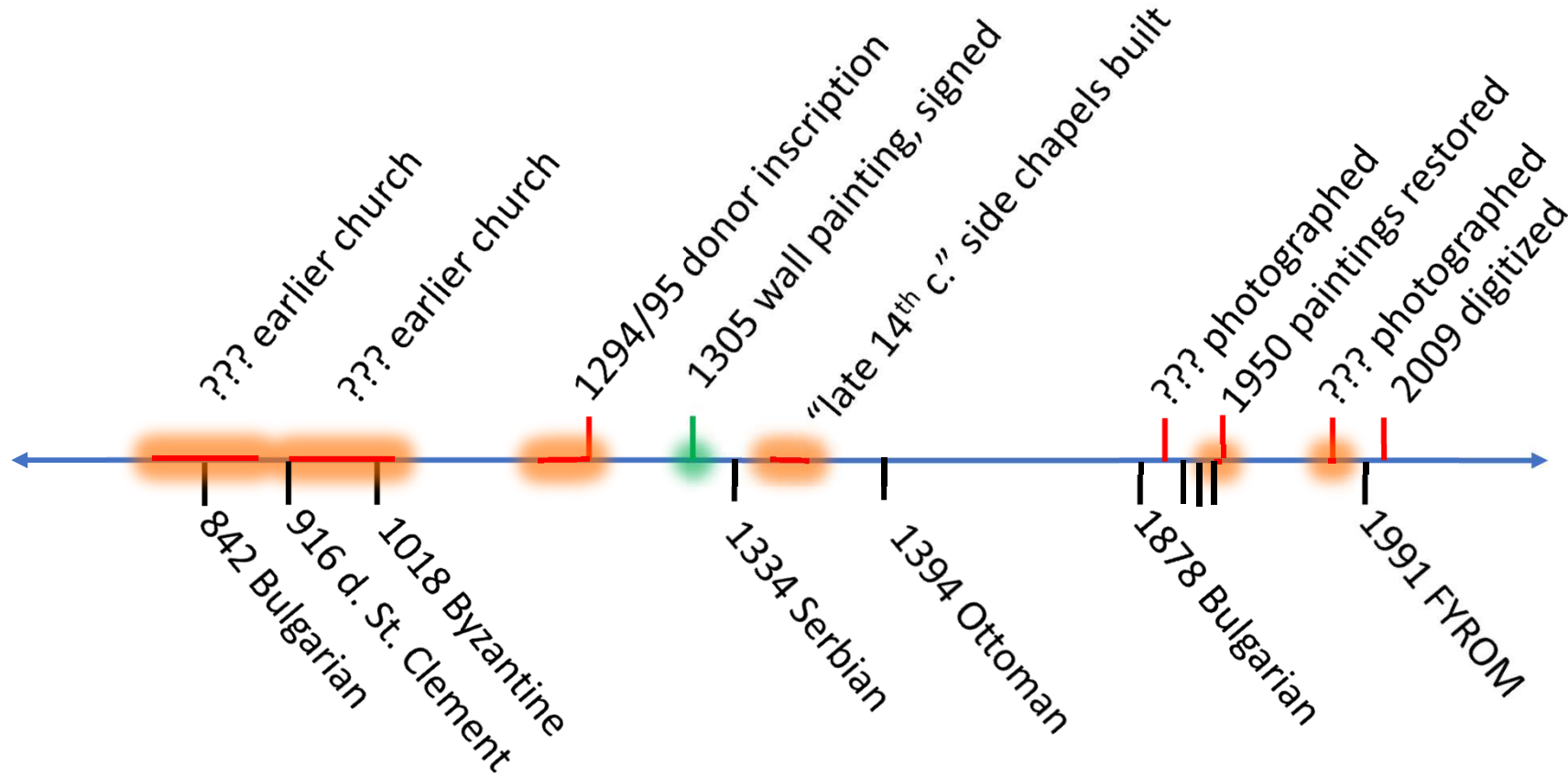Accessed 20.6.2016)

Image content: 3 main axes

- WHERE
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  - Geopolitical location

- WHAT
  - Architectural terms
  - Iconographic terms
  - Text, inscriptions
  - Multiple languages

- WHEN
  - Precise dating
  - Fuzzy dating

??? earlier church

??? earlier church

1294/95 donor inscription

1305 wall painting, signed

"late 14th c." side chapels built

??? photographed

1950 paintings restored

??? photographed

2009 digitized

842 Bulgarian

916 d. St. Clement

1018 Byzantine

1334 Serbian

1394 Ottoman

1878 Bulgarian

1991 FYROM

- WHEN
  - Precise dating
  - Fuzzy dating

Image content: the 5 "W"s

- WHERE ✓
- WHAT ✓
- WHEN ✓
- WHO
- WHY

Image content: the 5 "W"s

- WHERE ✓
- WHAT ✓
- WHEN ✓
- WHO ⟶
- WHY

Donor, 1294/95 : Progonos Sguros, Eudokia
Donor inscription: Andronikos Palaiologos,
  Eirene (empress);
  Archbishop Makarios

Painters, 1305? : Eutychios,
  Michael
  (Astrapas)
Probable donor : King Stephan Uros Milutin

Photographer, ??? : Horst Hallensleben

Digital image, 2009: ???

Conclusions

- The "WHY" is left for researchers:

- Continuous work on standards;

- Continuous contributions to thesauri / other controlled vocabularies is needed.

- Documentation and metadata standards should remain open and make future projects possible.