Metadata Requirement Development for Mural painting

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TOPIC DESCRIPTION

- Background and Rationale

- Research objectives

- Literature Review

- Methodology

- Results

Background
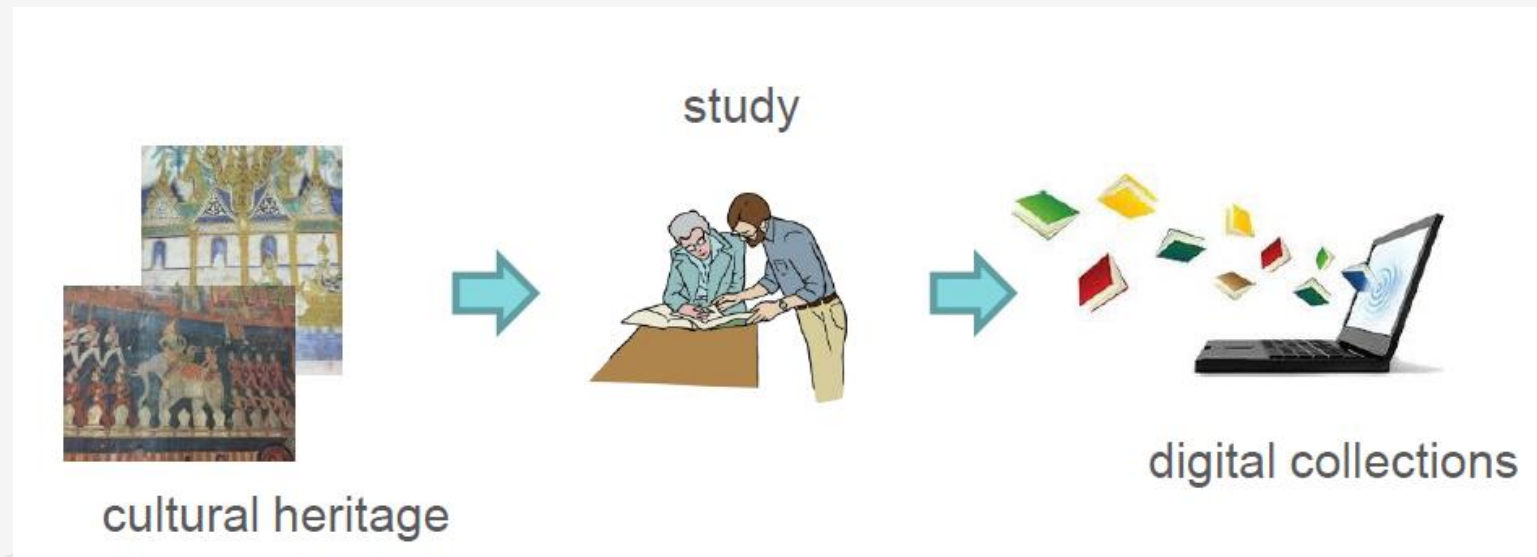
Mural painting is a cultural heritage.

Background

Many murals are poor condition and invisible.

Background

Cultural Heritage Information Management (CHIM) and Digital Humanities is a research issue emerged from integration between computer science and humanities.

Background

Access to and use of digital content. There is a need to develop metadata to describe the content, context, and structure of information resources.
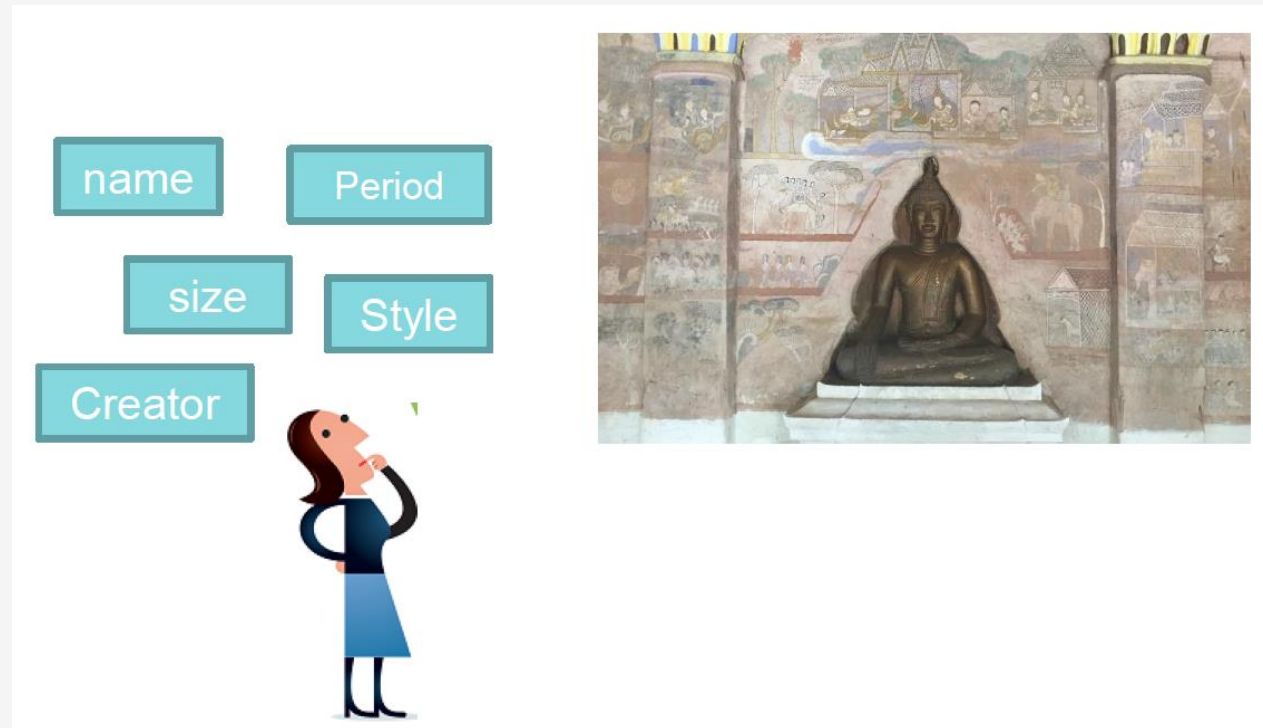
Objectives

1 To study and analyze physical characteristics and content knowledge in murals.

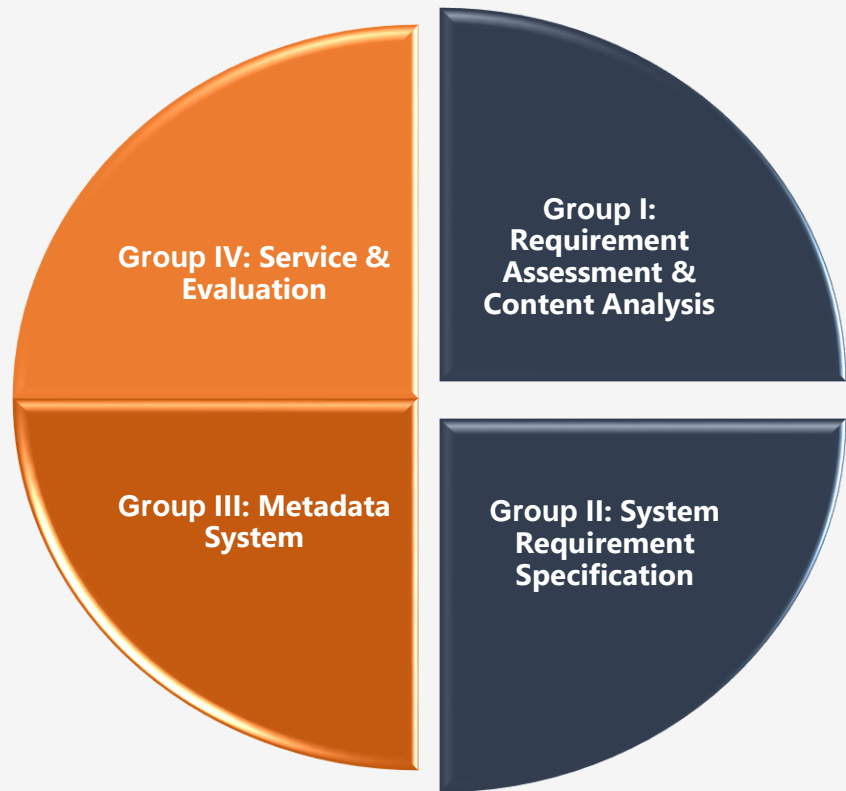**2** To study the need to search and access data murals of users.

3 Preparation of the Metadata Requirement Specification

Literature Review

Metadata Life Cycle (The Metadata Architecture and application Team, 2008)

Group I: Requirement Assessment & Content Analysis
1. The study and analysis of the physical characteristics and content of knowledge appearing in murals painting from the temple in the Northeastern.
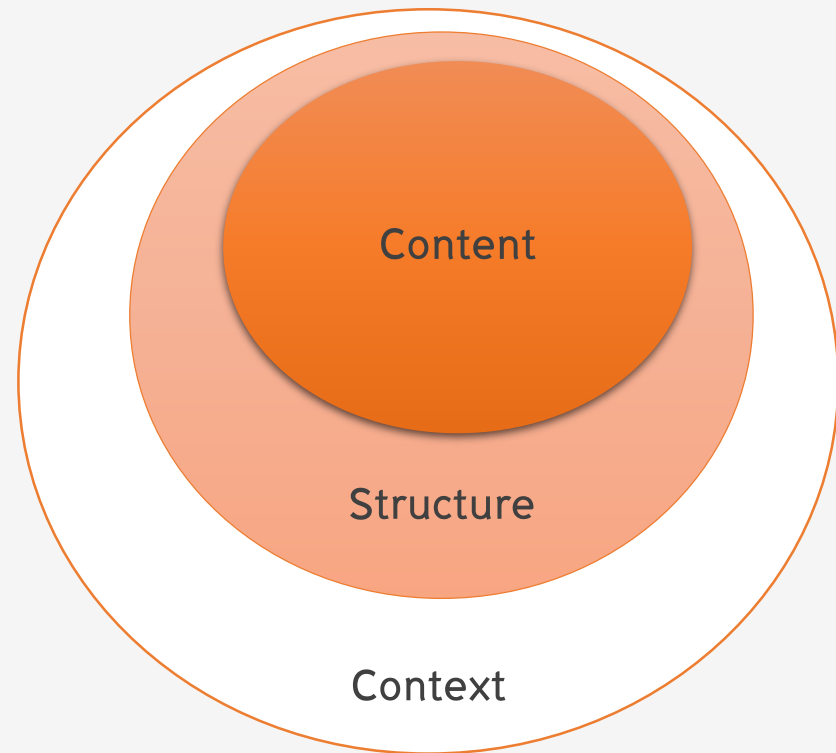2. The User studies need information about murals.

Group II: System Requirement Specification
3. Metadata requirements will be derived from the results of Steps 1 and 2 Bring those results to the analysis as metadata properties and primary metadata scheme.

Literature Review

Features of information (Baca & Getty Research Institute., 2008)

Content
Basic information that describes the meaning of a document, such as how it is created, preservation, place found.

Context
Information related to the external appearance and management of the content of resources, such as location, size, etc. (Extrinsic)

Structure
Story recorded in the resource (Intrinsic)

Literature Review

The VRA Core is a data standard for the description of works of visual culture as well as the images that document them.

- It outlines metadata for describing visual arts. that can present descriptive information about works and pictures

- Standardization with flexibility to implement

- The VRA Core stereotype can enable the sharing of records that depict the original artwork and photographs.

- It can be represented as XML, allowing data to be encoded for use and transfer through various software, and to share files as XML.

VRA Core 4.0 Outline

Global Attributes
- dataDate
- extent
- href
- pref
- refid
- rules
- source
- vocab
- xml:lang

Syntax (using date element as example)

```
<work id="">
    <dateSet>
        <display></display>
        <notes></notes>
        <date type="">
            <earliestDate></earliestDate>
            <latestDate></latestDate>
        </date>
    </dateSet>
</work>
```

ELEMENTS

- work, collection, or image (id)
- agent
  - attribution
  - culture
  - dates (type)
    - earliestDate (circa)
    - latestDate (circa)
  - name (type)
  - role
- culturalContext
- date (type)
  - earliestDate (circa)
  - latestDate (circa)
- description
- inscription
  - author
  - position
  - text (type)
- location (type)
  - name (type)
  - refid (type)
- material (type)

- measurements (type, unit)
- relation (type, refids)
- rights (type)
  - rightsHolder
  - text
- source
  - name (type)
  - refid (type)
- stateEdition (count, num, type)
  - description
  - name
- stylePeriod
- subject
  - term (type)
- technique
- textref
  - name (type)
  - refid (type)
- title (type)
- worktype

Methodology

Objective	Method	Sources of Information	Tools	Outcome
To study and analyze physical characteristics And content knowledge in murals.	-Document analysis -Content analysis -Interview	-Books, textbooks and research papers related to Murals -19 mural paintings -Abbot and Officer of Fine Arts Department.	-Document analysis form -Content analysis form -A semi-structured interview	A data set Features of information.
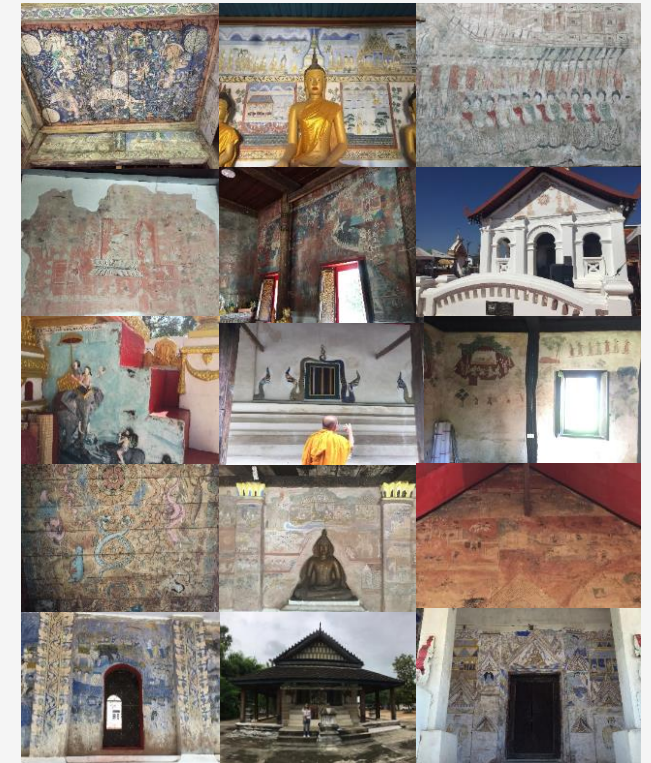
Methodology

Objective	Method	Sources of Information	Tools	Outcome
To study the need to search and access data murals of users.	Interview	The worker in organizations that handle murals. -Researcher, Higher education students. That use information about murals in thesis.	-A semi-structured interview	Primary data about user requirement of digital collection of murals.

Methodology

Objective	Method	Sources of Information	Tools	Outcome
To prepare metadata requirements for murals.	R&D	Result of Objective 1 and Objective 2	A data set Features of information and Primary data about user requirement.	Metadata Requirement of Mural painting.

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Results according to objective 1 :
The study and analyze the information features of murals.

Content	Context	Structure
1) The content group of murals 2) The name of the murals 3) The era of murals 4) Painter or the owner of the murals 5) Inscriptions in murals	1) Murals registration 2) Murals restoration 3) The owner of the painting 4) The location of the painting	1) Art form of murals 2) Style Period of murals 3) Structure of murals 4) Types of murals 5) The location of the murals 6) The painting sequence

Results according to objective 2 :
The study the behavior of information on murals users.

The results of the study found that the data suggested by the user were 6 elements. They expect in accessing the desired contents and the physical murals, users required reasonable access points.

1) Registration number of painting

2) The name of the temple is the location of the murals.

3) Content or content group of murals

4) The era of murals

5) Techniques for creating murals

6) Abstracts or description of murals

Comparison of the elements from the information features and user study.

Elements from VRA Core.	Elements from Information features of mural.	Elements from user study.	Elements from the registration data list.
Work, Collection, or Image (id)	Content	Number (id)	Number (id)
Agent	Title	Name of temple	Location
Cultural Context	Date	Content	Project
Date	Agent	Date	Position
Description	Inscription	Technique	Status of temple
Inscription	Register	Description	Register
Location	Conserve		Owner
Material	Agent		Content
Measurements	Location		Pattern name
Relation	Technique		Date
Right	StylePeriod		Agent
Source	Structure		StylePeriod
StateEdition	Type		Technique
StylePeriod	Position		Conserve
Subject	Sequencing		Date time
Technique			Notation
Textref			Textref
Title			
Worktype			

Comparison table of elements and meanings based on VRA Core standards.

Elements from VRA Core	Metadata mural composition requirements		
	Elements from Information features of mural	Elements from user study	Elements from the registration data list
Work, Collection, or Image (id)	-	Number (id)	Number (id)
Agent	Agent	-	Owner/ Agent
Cultural Context	-	-	-
Date	Date	Date	Date
Description	-	Description	Notation
Inscription	Inscription	-	-
Location	Location	Name of temple	Location /Status of temple
Material	-	-	-
Measurements	-	-	-
Relation	-	-	-
Right	Register	-	Register
Source	-	-	Textref
StateEdition	-	-	-
StylePeriod	StylePeriod	-	-
Subject	Content	Content	Content/ Pattern name
Technique	Technique	Technique	Technique
Textref	-	-	Project
Title	Title	-	-
Worktype	Specific elements specify the type of WORK, COLLECTION or IMAGE specified in the record. Is an element that cannot be eliminated		

Name of element	Definition
ID type of record	Numbers and letters that are designated as numbers for work or image.
Agent	Name of the person or organization that created the work or image.
Date	Date or range of dates associated with the creation of the work or image.
Description	A free-text note about the Work, Collection, or Image.
Inscription	All marks or written words added to the object at the time of production or in its subsequent history, including signatures, dates, dedications, texts, and colophons, as well as marks.
Location	The geographic location and/or name of the repository, building, site, or other.
Right	Information about the copyright status and the rights holder for a work, collection, or image.
StylePeriod	A defined style, historical period, group, school, dynasty, movement, etc.
Subject	Terms or phrases that describe, identify, or interpret the Work or Image.
Technique	The production or manufacturing processes, techniques, and methods incorporated in the fabrication or alteration of the work or image.
Textref	Contains the name of a related textual reference and any type of unique identifier that text assigns to a Work or Collection that is independent of any repository.
Title	The title or identifying phrase given to a Work or an Image.
Worktype	Identifies the specific type of WORK, COLLECTION, or IMAGE being described in the record.
Conserve	Restoration information from individuals or corporation.
Position	Identification of buildings found murals.
Structure	An overview of the mural paintings to illustrate all the elements found in the murals.
Type	Explanations about the types and characteristics of murals.
Sequencing	Description of the sequence of the painting
Date time	Information on the date and time of recording data into the system.

The metadata elements for murals

1. Work, Collection, or Image (id)
2. Agent
   2.1 attribute
   2.2 culture
   2.3 date
       2.3.1 earliestDate
       2.3.2 latestDate
   2.4 name
   2.5 role
3. Date
   3.1 earliestDate
   3.2 latestDate
4. Description
5. Inscription
   5.1 author
   5.2 position
   5.3 text
6. Location
   6.1 name
   6.2 refid
   6.3 Address
7. Right
   7.1 rightHolder
   7.2 text
8. StylePeriod
   8.1 style
   8.2 period
9. Subject
   9.1 term
10. Technique
    10.1 colors
    10.2 special technique
    10.3 description
11. Textref
    11.1 name
    11.2 refid
12. Title
13. Worktype
14. Conserve
    14.1 name
    14.2 date
        14.2.1 earliestDate
        14.2.2 latestDate
    14.3 description
15. Position
16. Structure
    16.1 dominant
    16.2 subdominant
    16.3 subordinate
17. Type
18. Sequencing
19. Date time
    19.1 register
    19.2 position

Data entry example >>> http://www.dhrg.huso-kku.org/
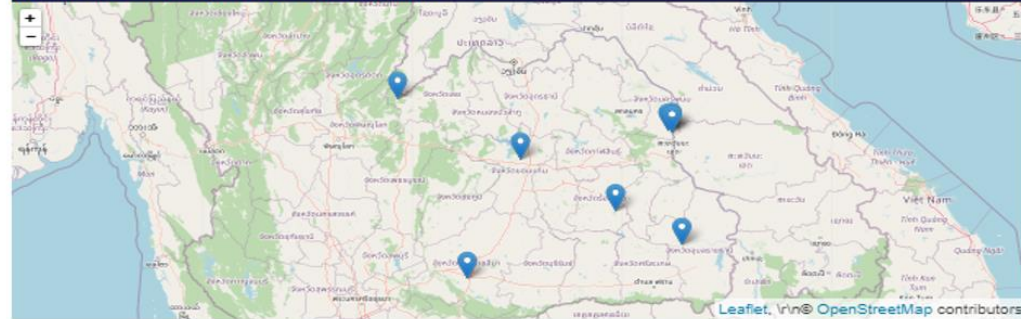
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Thank you for your attention