

Archimedes Palimpsest Transcription Annotations Metadata Standard

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DRAFT

INTRODUCTION

1. Objectives. This standard is intended to provide a common set of terminology and definitions for annotations of the transcriptions of the manuscript titled: *The Archimedes Palimpsest*. This standard establishes the names and definitions of data elements, specifies the types and ranges of values these elements may contain, and defines requirements for the entry of metadata for these elements.

The primary uses of this metadata are to:

- a) maintain a standard for transcriptions to be linked to digital imagery or scanned data;
- b) provide information about transcriptions to external data catalogs;
- c) provide information needed to process and interpret transcriptions to be transferred to an external source.

2. Scope. This standard is intended to support the transcription metadata. It is intended for use by scholars studying the Archimedes Palimpsest and hosts of the transcriptions. The standard is not intended to reflect an implementation design. Its development draws from existing standards that allow four criteria provided by metadata to be determined:

- a) availability: data needed to determine the sets of data that exist for a given location;
- b) fitness for use: data needed to determine if a transcription meets a specific need;
- c) access: data needed to acquire a transcription and its associated data set;
- d) transfer: data needed to process, share and use transcriptions and the data set.

This standard establishes the names of data elements and compound elements to be used for these purposes, definitions of these data elements and compound elements, and information about the values that are to be provided for the data elements. This standard does not specify how this information is organized in a system, nor how it is stored, accessed, disseminated, or presented to the users.

4. Related Standards. These standards were developed to allow the transfer of digital transcription data sets between data holdings. They draw from the standards used in related fields having features and goals in common with the Archimedes Palimpsest Project, in particular:

- a) *Dublin Core Metadata Initiative Element Set* (ISO Standard 15836) ¹;
- b) *Content Standard for Digital Geospatial Data* (FGDC-STD-001-1998)₂;

DEFINITION OF METADATA

Metadata are data elements about the content, quality, condition, and other characteristics of the data sets that make up the digital holdings. Metadata records are to be produced according to rules and definitions governing several subtypes:

1. Identification Information
2. Spatial Data Reference Information
3. Not Used
4. Data Type Information
5. Data Content Information
6. Metadata Reference Information

METADATA PRODUCTION RULES

Sections 1, 2 and 4-6 define the production rules used for constructing metadata records from these subtypes. Conventions used in these rules are:

CORE: required metadata

TYPE: single or multiple (compound) entries may be present

DOMAIN: permissible metadata formats and values

1. Identification Information: basic information about the data set; domain must accord with external standard standards (e.g. Dublin Core).

1.1 Resource Identifier: A unique data identification number used to reference the data set.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

1.1.1 File Name: Unique identifier for the data file or files assigned to the original image or scanned data.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

1.2. Date: Date of creation of resource.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

1.3. Author or Creator: The individual or individuals responsible for acquiring content for the data set.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

1.4 Subject and Keywords: Description of object type

CORE: YES TYPE: COMPOUND

DOMAIN: TEXT

1.5. Publisher: Organization sponsoring the data set

CORE: NO TYPE: SINGLE

DOMAIN: TEXT

1.6. Other Contributor(s): Other contributors to the content of the resource or data study

CORE:NO TYPE: SINGLE
DOMAIN: TEXT

1.7. Resource Type: Type of data set based on the content of the data

CORE:YES TYPE: SINGLE

DOMAIN: "Image"
"Annotation"

1.8 Source Lineage: information about the events, parameters, and source data that constructed the data set, and information about the responsible parties.

CORE: YES TYPE: COMPOUND

DOMAIN: TEXT

1.9. Rights Management: Information about rights held in or over the resource

CORE:YES TYPE: COMPOUND

DOMAIN: TEXT

2. Spatial Data Reference Information or Coverage: the spatial extent or scope of the data set

2.1 Coordinate Units: unit type used in quantitative spatial metadata

CORE:YES TYPE: SINGLE

DOMAIN: "pixel"
"centimeters"
"millimeters"
"micrometer"

2.2 X Resolution: number of resolution elements per coordinate unit in the x-direction

CORE:YES TYPE: SINGLE

DOMAIN: REAL NUMBER

2.3 Y Resolution: number of resolution elements per coordinate unit in the y-direction

CORE:YES TYPE: SINGLE

DOMAIN: REAL NUMBER

2.4 Upper Left XY Coordinates: upper left coordinate of the limit of imaging expressed in resolution units.

CORE:YES TYPE: COMPOUND

DOMAIN: x= n and y= n

2.5 Lower Right XY Coordinates: lower right coordinate of the limit of imaging expressed in resolution units.

CORE:YES TYPE: SINGLE

DOMAIN: x= n and y= n

2.6 Bounding Coordinates: the limits of coverage of the complete data set for the entire sample expressed by Cartesian coordinate values assigned by the x:y table software in the order upper left,

lower right.

CORE: YES TYPE: COMPOUND

DOMAIN: REAL NUMBER

2.7 Bounding Coordinates: the limits of coverage of the complete data set of the entire sample expressed by Cartesian coordinate values assigned by the x:y table software in the order upper left, lower right.

CORE: YES TYPE: COMPOUND

DOMAIN: TEXT

2.8 Grid Coordinate System: Orientation of and definition of Cartesian coordinate so that spatial positions can be readily transformed to and from plane coordinates.

CORE: YES TYPE: COMPOUND

DOMAIN: TEXT

2.9 Vertical Coordinate System Definition: the reference frame or system from which vertical distances (altitudes or depths) are measured.

CORE: NO TYPE: COMPOUND

DOMAIN: TEXT

2.10 X-Positional Accuracy: an estimate of accuracy of the horizontal positions of the spatial objects.

CORE: YES TYPE: SINGLE

DOMAIN: REAL NUMBER

2.11 Y-Positional Accuracy: an estimate of accuracy of the horizontal positions of the spatial objects.

CORE: YES TYPE: SINGLE

DOMAIN: REAL NUMBER

2.12 Vertical Positional Accuracy: an estimate of accuracy of the vertical positions in the data set.

CORE: NO TYPE: SINGLE

DOMAIN: REAL NUMBER

3. NOT USED

4. Data Type Information

4.1 Data File TYPE: File type of the data file.

CORE: YES TYPE: SINGLE

DOMAIN: "Unicode" Unicode Character Encoding Standards
"ASCII" American Standard Code for Information Interchange

4.2 Format Version Number: Version number of the data file format.

CORE:NO TYPE: SINGLE
DOMAIN: TEXT

4.3 Format Version Date: date of the version of the data file format.

CORE:NO TYPE: SINGLE
DOMAIN: TEXT

4.4 File Size: The size of the data set in Kilobytes.

CORE:YES TYPE: SINGLE
DOMAIN: REAL

4.5 File Processing Techniques: Description of word processing tools and techniques that contributed to the creation of the data file.

CORE:NO TYPE: COMPOUND
DOMAIN: TEXT

5 Content Description Information: a general assessment of the content of the data set.

5.1 Content Keyword: word or phrase used to describe the name of the text in the data set.

CORE:YES TYPE: SINGLE
DOMAIN: "Archimedes"
 "Euchologion"
 "Hyperides"
 "Aristotle Commentary"
 "Unknown"

5.1.1 Transcription Convention: Convention used to render the transcription

CORE:YES TYPE: SINGLE
DOMAIN: "Leiden"
 "Other"

5.2 Source Information: Source documents that served as the basis for the transcription.

CORE:YES TYPE: COMPOUND
DOMAIN: "Palimpsest images"
 "Heiberg photograph images"
 "Both"

5.3 Foliation Scheme: Reference for the type of foliation used.

CORE:YES TYPE: COMPOUND
DOMAIN: "Palimpsest foliation"
 "Netz name"

5.3.1 Secondary Foliation Scheme: Reference for the type of foliation used.

CORE:NO TYPE: COMPOUND

DOMAIN: "Palimpsest foliation"
"Netz name"

5.4 Foliation Number: Reference number for the location of the original source for the image or scanned data in the source object

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

5.4.1 Secondary Foliation Number: Secondary reference number for the location of the original source for the image or scanned data in the source object

CORE: NO TYPE: SINGLE

DOMAIN: TEXT

5.5 Source Citation: Reference for a source document.

CORE: NO TYPE: COMPOUND

DOMAIN: TEXT

5.6 Cross Reference: Information about related or derived data sets; includes original images or printed data.

CORE: NO TYPE: COMPOUND

DOMAIN: TEXT

6 Metadata Reference Information: Information on the validity and state of the metadata information, and the responsible party.

TYPE: compound

6.1 Metadata Status: flag for presence and validity of all core metadata.

CORE: YES TYPE: SINGLE

DOMAIN: "Valid"
"Incomplete"

6.2 Metadata Date: The date that the metadata were created or last updated.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

6.3 Metadata Review Date: The date of the latest review of the metadata entry.

CORE: NO TYPE: SINGLE

DOMAIN: TEXT

6.4 Metadata Future Review Date: The date by which the metadata entry should be reviewed.

CORE: NO TYPE: SINGLE

DOMAIN: TEXT

6.5 Metadata Contact: The party responsible for the metadata information.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

6.6 Metadata Standard Name: The name of the metadata standard used to document the data set.

CORE: YES TYPE: SINGLE

DOMAIN: "Archimedes Palimpsest Metadata"

6.7 Metadata Standard Version: Identification of the version of the metadata standard used to document the data set.

CORE: YES TYPE: SINGLE

DOMAIN: TEXT

6.8 Metadata Extensions: a reference to extended elements to the standard which may be defined by a metadata producer or the academic community. Extended elements are subjective elements outside the Standard, but needed by the metadata producer or user, sometimes referred to as dynamic metadata. If extended elements are created to the Archimedes Digital Multispectral imagery metadata, they must follow the geospatial and/or Dublin Core guidelines for Creating Extended Elements and this document format.

CORE: NO TYPE: COMPOUND

DOMAIN: TEXT

Appendix A. References

1. Dublin Core Metadata Initiative

<http://dublincore.org/documents/2001/04/12/usageguide>

2. Federal Geographic Data Committee. FGDC-STD-001-1998. Content standard for digital geospatial metadata (revised June 1998),

http://www.fgdc.gov/standards/status/csdgm_rs_ex.html

Appendix B. Further Guidelines (TBD)