TibSchol Data Model

# TibSchol Data Model

## Version 0.2

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| Version: | 0.2 |
| Last Changed: | 2023-10-10 |
| Documentation generated: | 2024-09-30T10:02:25.112426Z |

## Graphical Overview

TibScholDataModel

TibSchol Data Model

Instance

[Instance + Attributes](#Instance)

Instance->Instance

[has as source](#InstanceToInstance)

Work

[Work + Attributes](#Work)

Instance->Work

[instance of](#InstanceToWork)

Place

[Place + Attributes](#Place)

Instance->Place

[copied/written down at](#InstancetoPlace)

Person

[Person + Attributes](#Person)

Instance->Person

[owned by/copied by, etc.](#InstancetoPerson)

TEIdocument

[TEI Document + Document ID + TEI Document content + Source URI](#TEIdocument)

Instance->TEIdocument

[has text transliteration in](#InstanceTextRepresentation)

Work->Work

[commentary on](#WorkToWork)

Work->Place

[composed at](#WorkToPlace)

Place->Place

[is located within](#PlaceToPlace)

Person->Work

[is author of](#PersonToWork)

Person->Place

[active at](#PersonToPlace)

Person->Person

[personal/intellectual relation to](#PersonToPerson)

External\_reference

[External reference + Attributes](#External_reference)

Excerpt

[Excerpt + Attributes](#Excerpt)

Excerpt->TEIdocument

[is edited and marked up in](#excerptIsMarkedupInTEIdocument)

Graphical Overview of the data model.  
Dashed lines mean implicit shortcut relations.

## Description

This is the overall data model for the project TibSchol - The Dawn of Tibetan Buddhist Scholasticism (11th-13th c.). This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 101001002). It is hosted at the Institute for the Cultural and Intellectual History of Asia of the Austrian Academy of Sciences. Note: The description below is a work in progress. The graphical overview represents the relations between entities (Place/Work/Person/Instance). "Excerpts" (in TEI documents) and "External references" operate as Support for these relations.

## Classes

### Class: "Instance"

#### Definition

An [<INSTANCE>](#Instance) is the particular embodiment of a specific [<WORK>](#Work).

NOTE

An [<INSTANCE>](#Instance) is notably instantiated in writing in a physical object (manuscript, blockprint, book, etc.). Such resource may or may not be extant, or might be extant but not accessible. In addition to the [<WORK>](#Work), an instance may include paratextual elements and extra-textual elements.

An [<INSTANCE>](#Instance) can be related to another [<INSTANCE>](#Instance); to a [<PERSON>](#Person); or to a [<PLACE>](#Place).

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Attributes** Cardinality: 1 | [short text](#shortText) | Attributes of [<INSTANCE>](#Instance)-entities are: identifier(s) of the instance (e.g., signature on the manuscript, catalogue number, TibSchol number); the title (identical to the name of the [<WORK>](#Work)); the source (bibliographical reference for the instance itself or for a physical or digital copy of the original physical object); external link(s) (e.g., to the online library of the Buddhist Digital Resource Center https://library.bdrc.io/, which provides a link to digital images for numerous items); length (number of folios); indication of proofreading by scribe or reader. Pertinent features of the [<INSTANCE>](#Instance) not already included in the set of attribute fields are recorded in the field "Item description," any additional comments in the field "Comments." |

#### Mapping to Bibframe Version 2.0

bibframe:Item

NOTE Cf. Bibframe definition: "Single example of an Instance" – Instance

#### Mapping to Bibframe Version 2.0

bibframe:Instance

#### Relations (outgoing)

* [<Instance>](#Instance) [copied/written down at (place of scribing for)](#InstancetoPlace) [<Place>](#Place)
* [<Instance>](#Instance) [has as source (is source for)](#InstanceToInstance) [<Instance>](#Instance)
* [<Instance>](#Instance) [has text transliteration in (is text transliteration of)](#InstanceTextRepresentation) [<TEI Document>](#TEIdocument)
* [<Instance>](#Instance) [instance of (has as an instance)](#InstanceToWork) [<Work>](#Work)
* [<Instance>](#Instance) [owned by/copied by, etc. (is owner of/is scribe of, etc.)](#InstancetoPerson) [<Person>](#Person)

#### Relations (incoming)

* [<Instance>](#Instance) [has as source (is source for)](#InstanceToInstance) [<Instance>](#Instance)

### Class: "Work"

#### Definition

The abstract notion of an intellectual creation by one or several [<PERSON>](#Person)s, irrespective of its exact transmitted version, language, form etc.

NOTE

A [<WORK>](#Work)is transmitted in one or several [<INSTANCES>](#Instance) - (see "InstanceToWork") (note: The project does not deal with Instances for Indian works). [<WORK>](#Work) are extant or non-extant. A [<WORK>](#Work) is extant if it has at least one currently extant [<INSTANCE>](#Instance).

A [<WORK>](#Work) can be related to a[<PERSON>](#Person)(see "PersonToWork"); to a [<PLACE>](#Place); and to another [<WORK>](#Work).

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Attributes** Cardinality: 1 | [short text](#shortText) | Attributes of a [<WORK>](#Work) are its name (title and alternative titles, including in other languages); subject (what the work is about, from a category list); date (the date it was composed, when known, or between the date of the author's birth +10 and the year of the author's date, if author's dates are known); external link(s) (e.g., to BUDA https://library.bdrc.io/, which records additional instances, to rKTs http://www.rkts.org/ for Indian works). A free field for comments records pertinent features of the [<WORK>](#Work) not included in the set attribute fields. For Indian Works (for which Instances are not considered), the reference number of the sDe dge canon is provided. |

#### Relations (outgoing)

* [<Work>](#Work) [commentary on (has as commentary)](#WorkToWork) [<Work>](#Work)
* [<Work>](#Work) [composed at (place of composition of)](#WorkToPlace) [<Place>](#Place)

#### Relations (incoming)

* [<Work>](#Work) [commentary on (has as commentary)](#WorkToWork) [<Work>](#Work)
* [<Instance>](#Instance) [instance of (has as an instance)](#InstanceToWork) [<Work>](#Work)
* [<Person>](#Person) [is author of (authored by)](#PersonToWork) [<Work>](#Work)

### Class: "Place"

#### Definition

Any kind of location.

NOTE

The project focuses on real locations situated within the human realm. These are e.g., countries, regions, towns and villages, as well as monasteries.

A [<PLACE>](#Place) can be related to another [<PLACE>](#Place); to a [<WORK>](#Work) (see "WorkToPlace"); to an [<INSTANCE>](#Instance) (see "InstanceToPlace"), or to a [<PERSON>](#Person) (see "PersonToPlace").

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Attributes** Cardinality: 1 | [short text](#shortText) | Attributes of a [<PLACE>](#Place) are: name (and alternative names); GPS coordinates; external link. A free field for comments records pertinent features of the [<PLACE>](#Place) not included in the set attribute fields. |

#### Relations (outgoing)

* [<Place>](#Place) [is located within (contains)](#PlaceToPlace) [<Place>](#Place)

#### Relations (incoming)

* [<Person>](#Person) [active at (place of activity of)](#PersonToPlace) [<Place>](#Place)
* [<Work>](#Work) [composed at (place of composition of)](#WorkToPlace) [<Place>](#Place)
* [<Instance>](#Instance) [copied/written down at (place of scribing for)](#InstancetoPlace) [<Place>](#Place)
* [<Place>](#Place) [is located within (contains)](#PlaceToPlace) [<Place>](#Place)

### Class: "Person"

#### Definition

The notion of Person includes human beings as well as Buddhas and Bodhisattvas.

NOTE

The project focuses on persons from the 10th to 15th century who were active in scholastic networks in Tibet - the main roles considered being those of authors and teachers/students, but also those of manuscript owners and donors. Also included are persons acting as links between the preceding persons, or whose connection with them allows putting them on the map, independently of their role.

A [<PERSON>](#Person) can be connected to a [<PLACE>](#Place); a [<WORK>](#Work), an [<INSTANCE>](#Instance) (see "InstanceToPerson"); and to another [<PERSON>](#Person).

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Attributes** Cardinality: 1 | [short text](#shortText) | Attributes of a [<PERSON>](#Person) include: name (the name of the person and alternative names and titles, including in other languages); dates (birth, death, floruit - exact or approximation to be mapped to a date range); type (gender, nationality, monastic/lay status); external link (link to external resources providing additional information about that person, such as BUDA https://library.bdrc.io/). A free field for comments records pertinent features of the [<PERSON>](#Person) not included in the set attribute fields. |

#### Mapping to Bibframe Version 2.0

bibframe:Person

#### Relations (outgoing)

* [<Person>](#Person) [active at (place of activity of)](#PersonToPlace) [<Place>](#Place)
* [<Person>](#Person) [is author of (authored by)](#PersonToWork) [<Work>](#Work)
* [<Person>](#Person) [personal/intellectual relation to (personal/intellectual relation to)](#PersonToPerson) [<Person>](#Person)

#### Relations (incoming)

* [<Instance>](#Instance) [owned by/copied by, etc. (is owner of/is scribe of, etc.)](#InstancetoPerson) [<Person>](#Person)
* [<Person>](#Person) [personal/intellectual relation to (personal/intellectual relation to)](#PersonToPerson) [<Person>](#Person)

### Class: "External reference"

#### Definition

A passage in a historical work or a publication that supports the relation between two entities.

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Attributes** Cardinality: 1 | [short text](#shortText) | The attributes of an external reference are its type (Zotero entry or another type of support) and for Zotero entries the Zotero ID of the publication in TibSchol Zotero library in which the passage supporting the relation is found. |

#### Relations (outgoing)

No outgoing relations defined.

#### Relations (incoming)

No outgoing relations defined.

### Class: "Excerpt"

#### Definition

A textual passage from an [<INSTANCE>](#Instance), as represented in a [<TEI DOCUMENT>](#TEIdocument).

NOTE Excerpts that are thematically relevant or can play the role of support for the relation between entities are marked up with the tag "seg" in the TEI document. Their content is critically edited.

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Attributes** Cardinality: 1 | [short text](#shortText) | Attributes of an [<EXCERPT>](#Excerpt) in the [<TEI DOCUMENT>](#TEIdocument) include: the identifier; the status (unreviewed to finalized); and optionally a topic (what an excerpt is about - controlled vocabulary). |

#### Relations (outgoing)

* [<Excerpt>](#Excerpt) [is edited and marked up in (contains)](#excerptIsMarkedupInTEIdocument) [<TEI Document>](#TEIdocument)

#### Relations (incoming)

No outgoing relations defined.

### Class: "TEI Document"

#### Definition

a TEI-XML document instance

#### Properties

|  |  |  |
| --- | --- | --- |
| Property Name / Cardinality | Data Type | Remarks |
| **Document ID** Cardinality: 1 | [short text](#shortText) |  |
| **Source URI** Cardinality: 1 | [URI](#uri) | The location of the authoritative version of this document. |
| **TEI Document content** Cardinality: 1 | [TEI-XML fragment](#TEIFragment) | The TEI consists of a Header section (including information about the Instance extracted from the database), and a partial or complete transliteration of the text (as well as paratext and extra-textual elements), to which tags are added. |

#### Relations (outgoing)

No outgoing relations defined.

#### Relations (incoming)

* [<Instance>](#Instance) [has text transliteration in (is text transliteration of)](#InstanceTextRepresentation) [<TEI Document>](#TEIdocument)
* [<Excerpt>](#Excerpt) [is edited and marked up in (contains)](#excerptIsMarkedupInTEIdocument) [<TEI Document>](#TEIdocument)

## Relations

##### instance of

has as an instance

**Cardinality:** 1-n / 1-n  
**Source Class:** [<INSTANCE>](#Instance)  
**Target Class:** [<WORK>](#Work)  
**Properties:**

* 1 **locus:** Datatype: [short text](#shortText)

##### has as source

is source for

**Cardinality:** 1-n / 1-n  
**Source Class:** [<INSTANCE>](#Instance)  
**Target Class:** [<INSTANCE>](#Instance)

NOTE When a manuscript instances indicates that it was copied from another manuscript instance (or instances). When a book instances indicates that it is based on a manuscript instance (or instances). When a blockprint indicate the manuscript(s) considered for the carving blocks.

##### owned by/copied by, etc.

is owner of/is scribe of, etc.

**Cardinality:** 1-n / 1-n  
**Source Class:** [<INSTANCE>](#Instance)  
**Target Class:** [<PERSON>](#Person)

NOTE The main relations considered are of manuscript instances being owned by a particular person, or having been written down or copied by a particular person. Other Instance to Person relations include cases when a person sponsored the making of an instance, illustrated an instance, or edited an instance.

##### copied/written down at

place of scribing for

**Cardinality:** 1-n / 1-n  
**Source Class:** [<INSTANCE>](#Instance)  
**Target Class:** [<PLACE>](#Place)

NOTE This relation applies to manuscript instances exclusively. Actual location of the instance is provided by the "source"-attribute of the instance. When Instance is linked to Place, the scribe-Person is also linked to Place.

##### has text transliteration in

is text transliteration of

**Cardinality:** 1 / 1  
**Source Class:** [<INSTANCE>](#Instance)  
**Target Class:** [<TEI DOCUMENT>](#TEIdocument)

##### commentary on

has as commentary

**Cardinality:** 1-n / 1-n  
**Source Class:** [<WORK>](#Work)  
**Target Class:** [<WORK>](#Work)

NOTE The notion of "commentary" encompasses several Tibetan genra, including topical outlines (the Tibetan genre known as "bsdus don" or "don bsdus"). Other types of WorkToWork relations, such as a Work re-using parts of another Work (in the form of quotation or silent reuse), are in the database but not implemented at this stage of the project.

##### composed at

place of composition of

**Cardinality:** 1-n / 1-n  
**Source Class:** [<WORK>](#Work)  
**Target Class:** [<PLACE>](#Place)

NOTE Work was composed by author in a specified location. When Work is linked to Place, the author-person is also linked to that Place.

##### is located within

contains

**Cardinality:** 1-n / 1-n  
**Source Class:** [<PLACE>](#Place)  
**Target Class:** [<PLACE>](#Place)

NOTE To express the inclusion of a given location within a larger location.

##### active at

place of activity of

**Cardinality:** 1-n / 1-n  
**Source Class:** [<PERSON>](#Person)  
**Target Class:** [<PLACE>](#Place)

NOTE The period of activity is indicated in a comment field. Activities can consist, for instance, in being abbot of a monastery, teaching or studying in a location, composing a work, copying a manuscript, being born, die, or reside in a place.

##### is author of

authored by

**Cardinality:** 0-n / 0-n  
**Source Class:** [<PERSON>](#Person)  
**Target Class:** [<WORK>](#Work)

NOTE Other Person-Work relations are for a Person requesting a [<WORK>](#Work) to be composed, a Person sponsoring its composition, for Persons having their teaching recorded in a [<WORK>](#Work) (the person recording the teaching qualifies as the author), and for addressee of the [<WORK>](#Work).

##### personal/intellectual relation to

personal/intellectual relation to

**Cardinality:** 0-n / 0-n  
**Source Class:** [<PERSON>](#Person)  
**Target Class:** [<PERSON>](#Person)

NOTE Person-Person relations include a set of personal relations, with a focus on relations that may support transfer of knowledge (teacher/student, predecessor/successor in lineage, aunt-uncle/nephew, mother-father/child, etc.) and a set of intellectual relations (currently only considering a Person quoting the views of another Person, with or without mentioning their name). When the relation has a known specific duration or time, this is indicated in a comment field. When it has a known location, this is indicated in a comment field, and the two Persons are linked with the given Place.

##### is edited and marked up in

contains

**Cardinality:** 1 / 1  
**Source Class:** [<EXCERPT>](#Excerpt)  
**Target Class:** [<TEI DOCUMENT>](#TEIdocument)

## Vocabularies

|  |  |  |
| --- | --- | --- |
| Vocabulary Name | Example Values | Remarks |
| Curation Mode Vocabulary | manual / generated |  |
| a vocabulary of topics |  |  |
| the procedural status an excerpt can have during the editing process |  |  |

## Datatypes

|  |  |  |
| --- | --- | --- |
| Name | Used by | Remarks |
| TEI-XML fragment | [TEIdocument.TEI Document content](#TEIdocument.content) | An XML fragment conforming to the TEI All Schema |
| URI | [TEIdocument.Source URI](#TEIdocument.sourceURI) | any URI |
| Vocabulary Term |  | A term from a controlled vocabulary. |
| Year |  |  |
| long text |  |  |
| long text with annotations |  |  |
| short text | [Excerpt.Attributes](#excerpt.attributes), [External\_reference.Attributes](#external_reference.attributes), [Instance.Attributes](#instance.attributes), [InstanceToWork.locus](#InstanceToWork.locus), [Person.Attributes](#person.attributes), [Place.Attributes](#place.attributes), [TEIdocument.Document ID](#TEIdocument.id), [Work.Attributes](#work.attributes) |  |

## References

Bibframe Version 2.0[Overview of the BIBFRAME 2.0 Model](https://www.loc.gov/bibframe/docs/bibframe2-model.html)