



The SyMoGIH project

(Système modulaire de gestion de l'information historique)

and the issue of historical place types

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- Build a collaborative system, with a generic semantic model to produce reusable primary data
- Use available opensource software to visualize and analyze data
- Publish and share our historical and geographical resources using 'classic' web and semantic web technologies

The SyMoGIH project : <http://symogih.org>

1. Aim :

- elaborate a collaborative platform (database, GIS, semantic web) allowing to achieve the Digital history department objectives
- publish and interlink our data with those of other projects using web and semantic web technologies

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- define classes of historical objects (actors, concepts, places, etc.) and create authority records with URIs to identify them
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3. Results

- More than 40 scholars and students are currently using or have used the database and more than 5 research programs are linked to the project
- 3 websites publish our data and a Virtuoso triplestore is available in alpha stage

Project presentation / documentation



The screenshot shows the SYMOGIH website with a navigation bar containing 'Accueil', 'Documentation', and 'Membres'. The 'Références' page is active, displaying a sidebar with links to 'Références', 'Objets', and 'Sites propulsés par SyMoGIH'. The main content area features the title 'Système Modulaire de Gestion de l'Information Historique (SyMoGIH)', a 'Le projet' section describing the platform's purpose, and a list of features under 'La plateforme permet :'. The sidebar lists various categories of historical information and associated sites like GEO-LARHRA.

SYMOGIH
Références

Accueil Documentation Membres

Références

- Arborescence des classes de types d'unités de connaissances
- Types d'informations
- Types de contenus

Objets

- Acteurs
- Acteurs collectifs
- Objets abstraits
- Caractères sociaux

Sites propulsés par SyMoGIH

- GEO-LARHRA

Système Modulaire de Gestion de l'Information Historique (SyMoGIH)

Le projet

Le projet SyMoGIH a développé un modèle générique de stockage des données historiques permettant leur interopérabilité et leur publication sélective. A partir de ce modèle, une **plateforme collaborative** pour la recherche en histoire a été mise en place, utilisée par plusieurs chercheurs et projets.

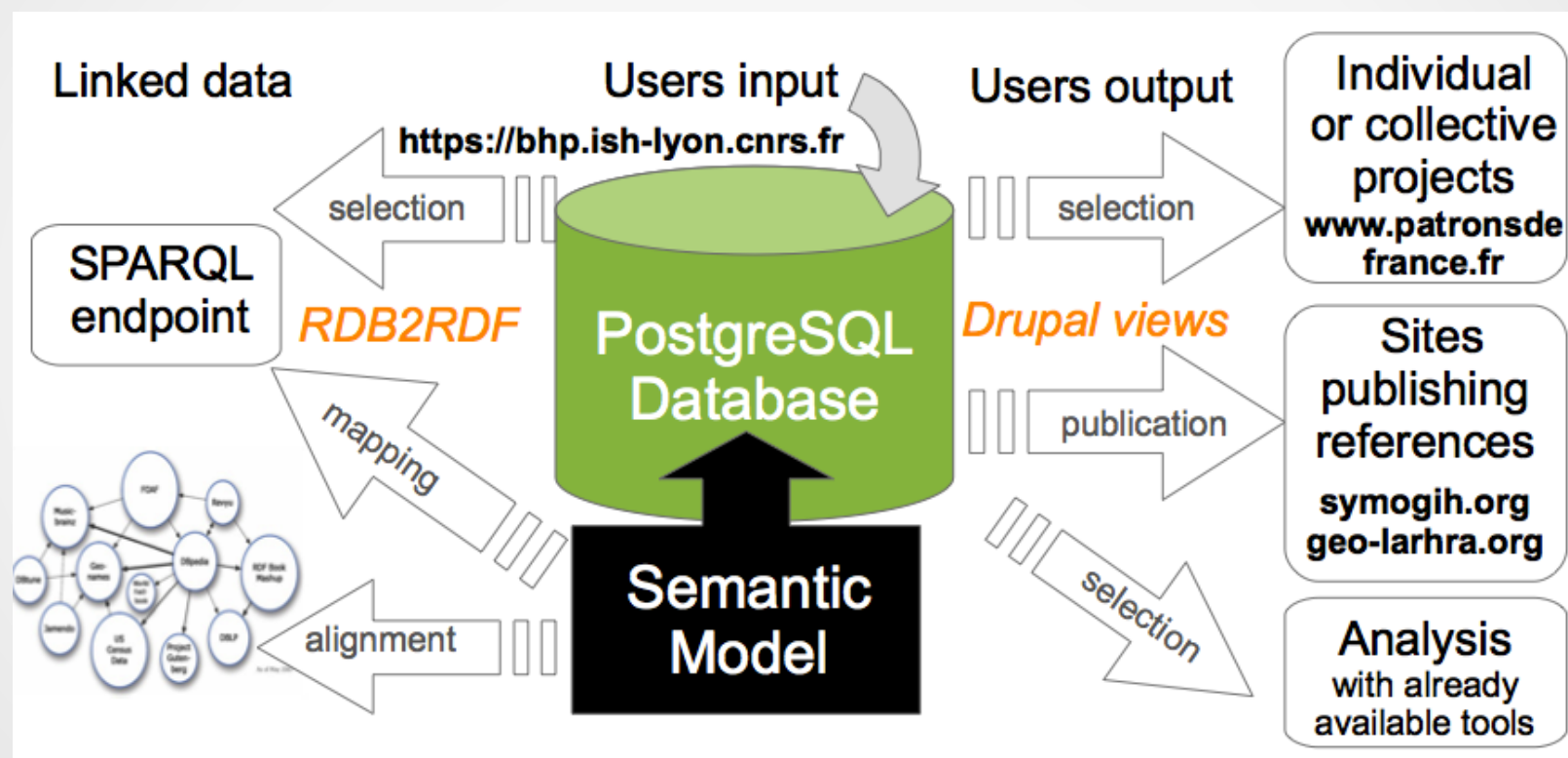
Cette plateforme permet le stockage de données primaires concernant toute activité humaine (sociale, économique, intellectuelle, ...), de textes codés en XML (traités selon le standard proposé par la **Texte Encoding Initiative**), d'images et de leur métadonnées, tout en permettant d'associer à ces différents objets leur 'empreinte spatiale'. La réalisation d'un **système d'information géographique** (SIG) joue un rôle essentiel dans le projet.

La plateforme permet :

- la modélisation progressive et évolutive de l'information historique grâce à un dictionnaire de **types d'unités de connaissances**
- le stockage collaboratif, cumulé
- l'indication précise des sources

<http://symogih.org>

The SyMoGIH collaborative platform – <http://symogih.org>



PostgreSQL, PHP, AJAX, DRUPAL, PostGIS, OpenLayers, TinyOWS, eXist, baseX, D2RQ, Virtuoso, ...

GIS ressources : <http://geo-larhra.org>



GEO-LARHRA
Partage de ressources géo-historiques [Se connecter](#)

[Accueil](#) [Gazetteer](#) [Géocatalogue](#) [Atlas historique](#)


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Bienvenue sur GEO-LARHRA

Animé par l'équipe du [Pôle Histoire Numérique](#) du [LARHRA](#) (Laboratoire de Recherches Historiques Rhône-Alpes - UMR 5190), ce **portail de ressources géographiques** est destiné à l'usage des chercheurs, enseignants et étudiants du laboratoire.

Les données publiées ici sont issues de la *Base d'hébergement de projets* (BHP), base de données collaborative réalisée dans le cadre du [projet SyMoGIH](#) et alimentée en permanence par ses utilisateurs. Les ressources ainsi produites sont mises à la disposition de tous les membres du laboratoire pour permettre la réalisation de productions cartographiques dans le cadre des travaux de recherche, en lien avec les formations en systèmes d'information géographique (SIG) qui sont proposées régulièrement. Une partie de ces ressources sont mises également à la disposition du public.

Dans ce portail vous trouverez:

- **Un [gazetteer](#)** : Un dictionnaire des lieux (noms, type et coordonnées).
- **Un [géocatalogue](#)** : Un catalogue (ou répertoire) des plans, cartes ou images, géoréférencés ou non, pouvant être intégrés et utilisés dans un logiciel SIG ou de cartographie. Le géocatalogue a pour but de connaître les ressources et les métadonnées associées dont disposent le Larhra.
- **Un [Atlas historique](#)** : Un atlas historique en cours de construction. L'objectif est de mettre à la disposition des historiens un atlas historique à différentes échelles, sous forme de vecteurs géoréférencés utilisables dans un logiciel SIG pour représenter de l'information historique sur un découpage territorial adapté chronologiquement.

L'accès à une partie de ces ressources est réservé aux méthodes pour avoir plus d'informations.

- Gazetteer
- Spatial data catalogue
- Historical atlas

A use case : displaying data from the web on the historical atlas

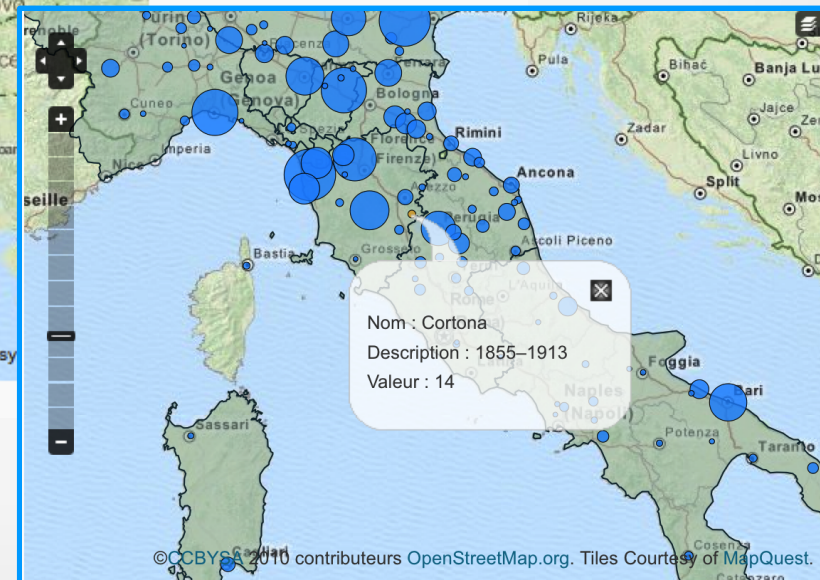
Evolution des territoires en Italie

Site expérimental. Données non exhaustives, en cours de production.



Dates significatives

1815-06-09
1829-12
1847-12
1859-11-10
1860-03-24
1860-11-05
1861-03-17
1866-10-03
1870-10-02
1920-11-12
1929-02-11
1947-02-10



SPARQL – endpoint B3Kat

Bayerische Staatsbibliothek, Bibliotheksverbund
Bayern, Kooperative Bibliotheksverbund
Berlin-Brandenburg
<http://lod.b3kat.de/sparql>

Places and their historical development

What is a place ?

"In the context of the TGN, a geographic place is an administrative entity or a physical feature that has a proper name, is of the type recorded in atlases and gazetteers, and is required for cataloging art and architecture."

(Getty Thesaurus of Geographic Names (TGN): Editorial Guidelines 1.1.3)

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A more general definition :

A place is a portion of the earth's surface to which we assign some characteristics. Therefore, a place is a conceptual construct.

From a historical point of view, we are interested in the temporal evolution of the place's characteristics, including its toponymic, typologic and spatial evolution.

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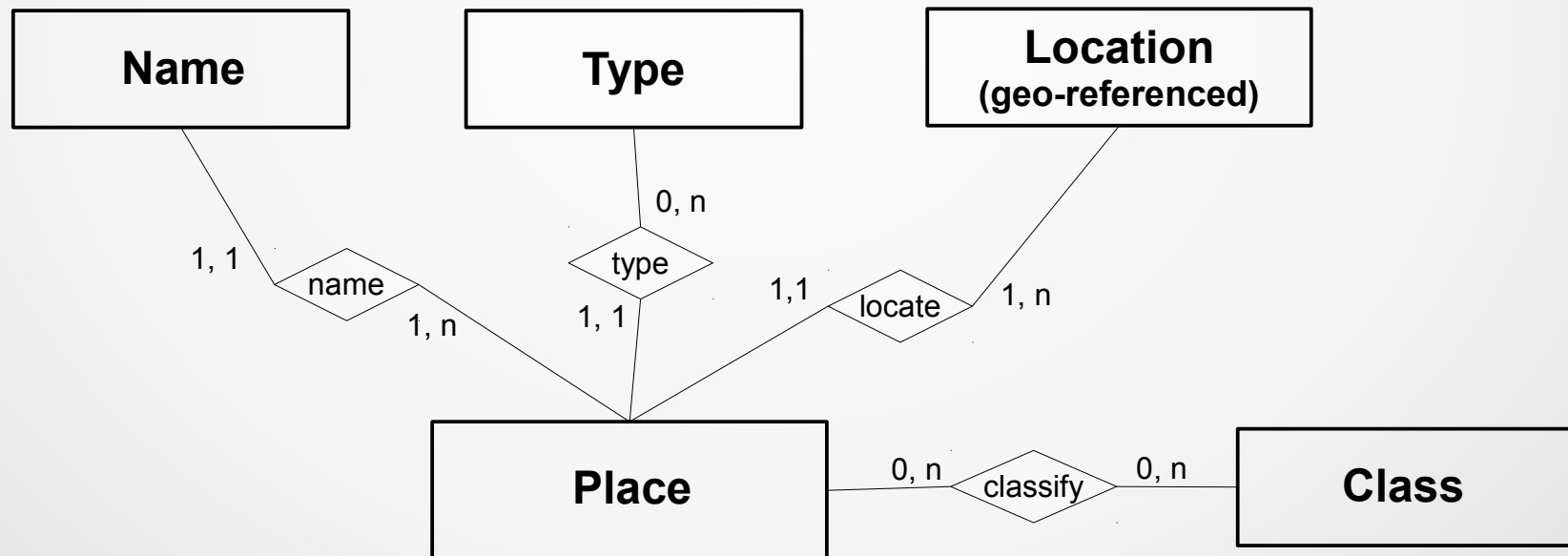
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What kind of characteristics shall we provide to identify a place and compare our data with those produced by other projects ?

Basic properties allowing to identify a place

- Standard gazetteer properties : name, location, type
- More specific typology : classification
- Properties treated as associated objects, identified by URIs



Sets of places (SyMoGIH project)

Two disjoint sets of 'places'

→ **Named-places** :

Places that can be conceived as a portion of the earth' surface: natural geographical elements (forests, mountains, rivers, ...), limits of surface resulting from human activity (inhabited place, administrative division, country borders)

→ **Immovables constructions** :

Every building or construction resulting from human activity that can be represented as a relief on the surface of the earth (building, church, telegraph pole, ...)

A controlled vocabulary of place types (SyMoGIH project)

Place **types** state essential characteristics of a place.

Classifying places with types produces disjoint sets including objects that share the same basic characteristics.

Therefore, basic types are very important to identify and compare places.

→ **Named-places**

- Inhabited place
- Territory
- Geographic region
- Geographical natural area
- Infrastructure area
- Address

→ **Immovables constructions**

- Infrastructure
- Building
- Part of a building
- Collection of buildings

Adding a more detailed, open classification (SyMoGIH project)

Place **classes** state more detailed characteristics of a place.

Classifying places with classes produces sets that **can include the same objects considered under different perspectives**.

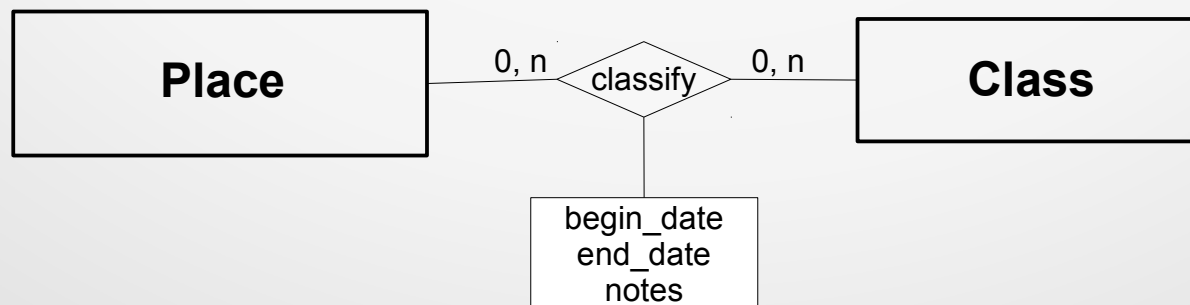
This classification can also be related to a specific period by indicating a start and end date in the association to a class.

For example

→ Place set : Named-place

→ Type : Territory

→ Classes : town, municipality, administrative division,...



An example of 'place' : le centre Berthelot

Le centre Berthelot (Berthelot center)

http://fr.wikipedia.org/wiki/Centre_Berthelot

→ Place identification / description :

- **Place set** : Immovable construction
- **Name 1** : Le centre Berthelot [lang:fra] ; **Name 2** : Berthelot center [lang:eng]
- **Location** : 4° 50' 8.06" E 45° 44' 47.9" N
- **Type** : Collection of buildings
- **Classes** : Historical building, hospital (1894-1981), army medical school (1894-1981), prison (1943-1944), research center (1999), ...

→ Historical informations :

- **1888** : Construction of the buildings
- **1894 - 1981** : Army Medical Corps School occupation
- **1943** : A building occupied by the Gestapo from the Spring of 1943 to 26 May 1944
- **1944** : Bombing and destruction of buildings
- **1958 -1962** : Reconstruction of the buildings
- **1992** : Inauguration of the Centre d'Histoire de la Résistance et de la Déportation (Resistance and Deportation Museum)
- **1999** : Occupation of the buildings by Institute of the Science of Man and Society (SHS), housing the headquarters of the LARHRA (since 2003)

Aim of the DARIAH's project : creating a thesaurus or an information system ?

Substantial difference between :

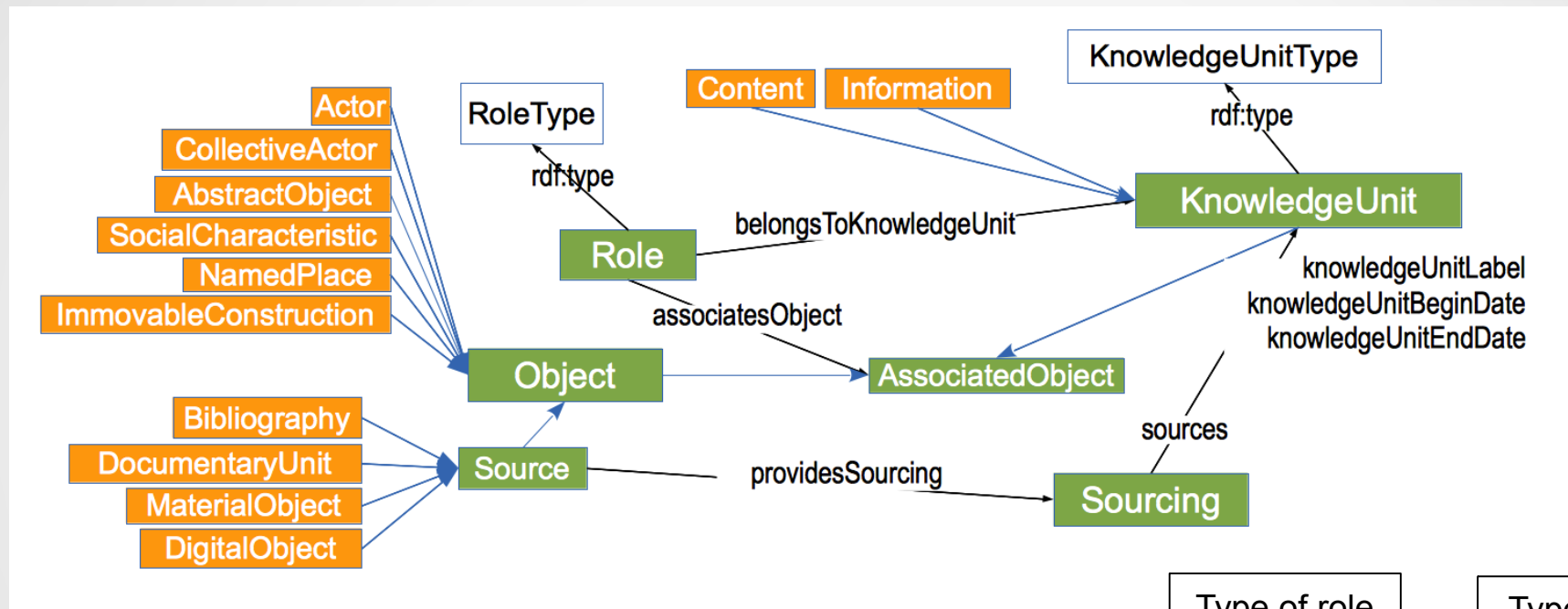
1. developing a controlled vocabulary allowing to identify and classify historical places
2. creating an information system for storing and managing historical events and evolutions related to places.

In the SyMoGIH project we draw a fundamental distinction between **identifying a place** (or any other object) and **collecting historical information** about the evolution of the place in time and space.

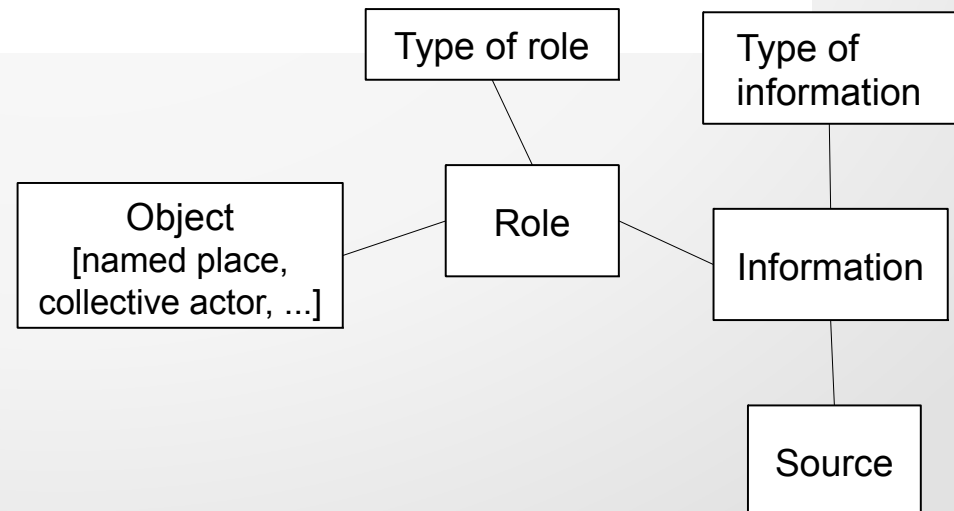
To treat historical information we use a **generic data model** allowing to :

- define classes of historical objects (actors, concepts, places, etc.)
- create informations as atomized knowledge units documenting relationships between objects at a given time
- provide source for each information

The data model of SyMoGIH's information system



- Generic data model
- Informations conceived as dated and sourced relationships between objects

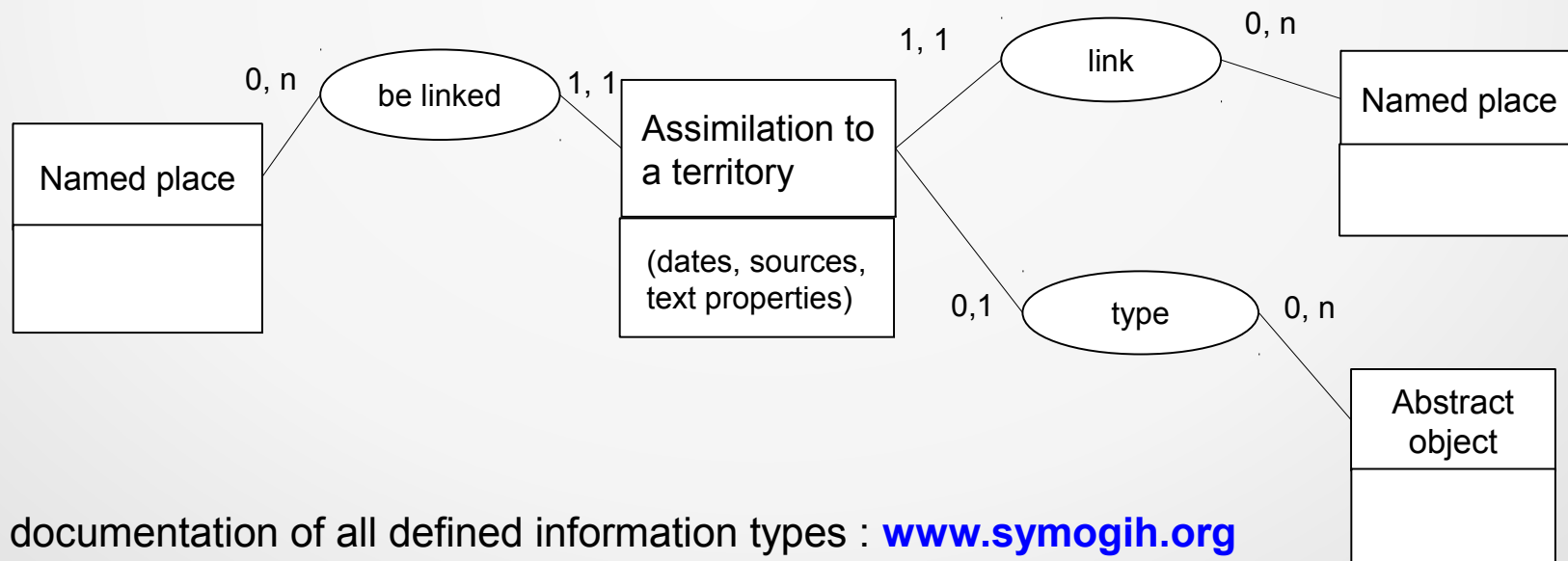


Modeling specific historical informations (SyMoGIH project)

The generic data model is instantiated to specific, user defined information types.

These instantiated models express the semantic meaning of the produced data.

For instance : assimilation of a place (type:territory) to another one



Public documentation of all defined information types : www.symogih.org

Give access to our objects and their description (knowledge units)

- identify objects using URIs
- dereference objects at symogih.org
- gather information (knowledge units) about objects i.e. linking them

SYMOGIH
Références

<http://symogih.org/resource/Actr195>

Who is that Kepler ?

Kepler, Johannes
Actr195
Année de naissance: 1571 - Année de mort: 1630

Biographie – documentation

Biographie Informations Contenus Carte Documentation Liens

Libellé	Date de début	Date de fin	Clé
Kepler, Johannes - Naît à Weil der Stadt	1571-00-00		Info29659
Kepler, Johannes - Formation (suivre une)	1586-00-00		Info33270
Kepler, Johannes - Formation (suivre une)	1587-00-00		Info33271
Kepler, Johannes - Formation (suivre une)	1581-00-00	1594-00-00	Info33272
Kepler, Johannes - Enseigne : Mathématiques	1594-00-00	1600-00-00	Info33273

1 2 suivant » dernier »

Sites propulsés par SyMoGIH

Kepler, Johannes - Enseigne : Mathématiques

Info33273

Type d'information: Enseignement - TyIn97

Date: 1594

Composantes de l'information

Rôles Textes Sources

Libellé de l'objet	Type de rôle
Mathématiques	enseigné (être)
Ecole luthérienne du Stift (Graz)	localiser
Kepler, Johannes	exercer

SPARQL endpoint (D2RQ) to query them

Query retrieving all available knowledge units about this actor

```
SELECT ?date ?libelle ?type
WHERE
{
  ?role symogih:associatesObject db:Actr195 .
  ?role symogih:belongsToKnowledgeUnit ?info .
  ?info symogih:knowledgeUnitStandardDate ?date .
  ?info symogih:knowledgeUnitLabel ?libelle .
  ?info symogih:hasKnowledgeUnitType ?type
}
ORDER BY ?date
```

What do we know about Kepler ?

Our proposal : a thesaurus and a separate information system

