# Terminology analysis inspires relations in a knowledge structure

## An experiment on the vocabulary of heritage architecture.

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Understanding the evolution of historic artefacts requires that one takes into account numerous and strongly heterogeneous *sources* (specific pieces of data – like archival documents or findings - and elements of knowledge). As a consequence, the description and structuring of the source's content, their accessibily and relations to one another remain an issue. As an answer, we base on the observation that these sources have something in common: they can be related to an artefact or its sub-parts, *i.e.* objects. We therefore have proposed to establish a triangular relation between objects, documents, and generic architectural concepts that represent the global knowledge level. In this paper, we focus on this level, and on how terminology analysis can fruitfully intervene in the structuring of concepts (in particular in the handling of relations between concepts).

## Introduction and hypotheses

Due the growing amount and heterogeneity of sources on the architectural heritage, people in charge of providing an efficient access to documents on this heritage face a renewed challenge to structure the information, or *clues*, that they handle. Our approach bases on a simple idea: architectural objects, the physical elements the artefact is made of, can be used to structure and sort out the clues in a non-ambiguous, interdisciplinary way[1].

However this hypothesis remains wishful thinking if we cannot, for each object O, find a corresponding, non-ambiguous term T, used to name the object, and acting as an information anchor. But what if we cannot "name" object O? And what if we cannot decide whether object O matches terms T1, T2, or T3? (see figure 1). The variability of the physical objects encountered in the field of heritage architecture raises unanswered research questions, at the intersection of terminology and knowledge representation. Similar objects

[1] Inside a given site under scrutiny, archival texts will be attached to sets of objects they mention (say for instance a vaulting and a gallery) whereas XIXth century photographs will be attached to sets of objects that they show (say for instance a portal and an attic).

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may have different names in different languages, minor physical differences, they may be partly changed and/or reused, their decoration may vary, yet the expert will not doubt in establishing they are similar. Thereby, only if we better understand relations between objects/ terms and what is beyond -a conceptual level- can we expect to "*sort out clues using shapes*".

*Figure 1 Left, the eye identifies this object as an opening, but this object hardly features any of an opening's properties: no opening, only one side wall, no lintel (functionally), so how should we name this object? Right, re-used in a vernacular wall, should these drums of a Roman column now be called barely stones, or still drums?*

And so the challenge is to identify and organise a set of univocal architectural concepts representing the conceptual level of the above mentioned objects, so as to build up a consistent knowledge structure. In the "industrial architecture" age a number of efforts are carried out (see for instance Donath and Petzold, 1997 and more generally the ITcon community). But in historic architecture, a systematic analysis of elements aiming at isolating and structuring univocal concepts remains an issue. As introduced in (Blaise, 2004), terminology could be a tool to do so. And indeed a rich bibliography exists in which architectural objects are identified and named[2]. However when reading these sources one can observe a number of contradictions or local interpretations, and a weak structuring of the collection of objects. And so our hypothesis is that univocal architectural concepts can be identified and structured, provided that they are not mixed up with their linguistic or physical instances (a well identified curved element cover doorways, but it can be called either Roman arch or semi-circular arch, it can be built up with stones or bricks, etc..). Concepts would then act as:

- a mean to name and organise the architectural objects.
- a mean to structure and interface pieces of information.

Both these claims are backed up by a number of research works, and in particular by (Pérouse de Montclos 1988)'s masterly analysis of the architectural vocabulary, or by (El Hadi, 2006) concerning the role of terminology in documentation search and retrieval. Basing on the above hypotheses, we have developed a methodological framework that lets users to organise

[2] See (Ching, 1995), (Harris 1997), (Koch,1996), (Pérouse De Montclos, 1988).

sources about an artefact or a site in a triangular relation associating documents, toponyms and general terms[3]. In the next sections, we introduce the context of this research, and detail where terminology analysis intervenes.

## Context of the research: the DIVA architectural vocabulary tool

The first steps of this research were carried out within the STRABON European programme inside which we were given the task to investigate the benefits of using 2D or 3D web interfaces (Blaise, 2006). As an answer, we developed a document description method in which documents (XML-formatted) are linked to vocabulary items and toponyms.

For each vertex (vocabulary items, documents, toponyms) a number of relations are implemented. They are handled through a generic « catalogue » formalism that allows relations of a vextex to itself or to to another vertex. A class (in the sense of OOP) handles catalogues, with a unique XSLT post-processing sheet applied whatever the calling object is. And at this stage, the notion of vocabulary items has to be better defined: our claim is that we need to distinguish a concept, to which we will attach a unique vocabulary item, and the terms that, in this or that language, at this or that moment in history, correspond to the concept. In short, we view a concept as the idea of an object in the sense of Plato's theory of ideas[4] (Blaise, 2007). Vocabulary items are not connected to a spoken language, they are a unique identifier for a concept. In order to facilitate the reading of this paper, we will when mentioning examples use the notations -*Arch*- when referring to a concept, and [arch] [łuk] [bogen] when referring to terms.

Beyond the necessity to identify and organise terms that match a concept, the development of DIVA corresponds to complementary objectives:

- act as an illustrated multilingual lexicon.
- Allow the observation of instances variations, and help understanding their relations to concepts.

[3] -Toponyms localise documents in time and space: they identify a given object O; they are structured as a hierarchy (matching the notion of scale).
-Terms localise documents with regards to the "theory" of architecture, i.e. an ad-hoc terminology, fixing univocal concepts.
-Ultimately, documents are accessible thanks to 2D/3D virtual artefacts, depending on the amount of data we can gather, or simply on the "scale" of the object (Blaise, 2006).

[4] In this theory, beings are distributed along a line that measures their similarity to the idea (the idea itself being unreachable). Accordingly, when looking at heritage architecture, and due to transformations, degradations, local interpretations of the architectural theory, etc., real objects will only match the concept to a certain extent (Blaise, 2005).

- Delineate the morphological tolerance of a concept (i.e « to which extent can the object I see differ from its presumed concept, without demanding the creation of a new concept », see figure 2)

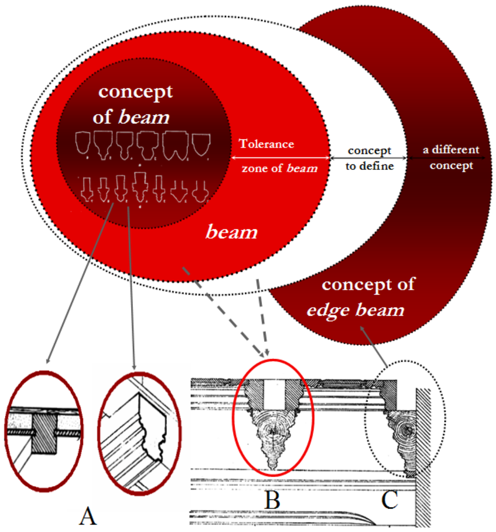


*Figure 2: "Morphological tolerance" on the case of ceilings.*

The tool would act as a support for instance recognition, where the user will be given a mean to classify objects under scrutiny as an instance of an existing concept, or as an object requiring the extension of the collection of concepts (see Figure 3).

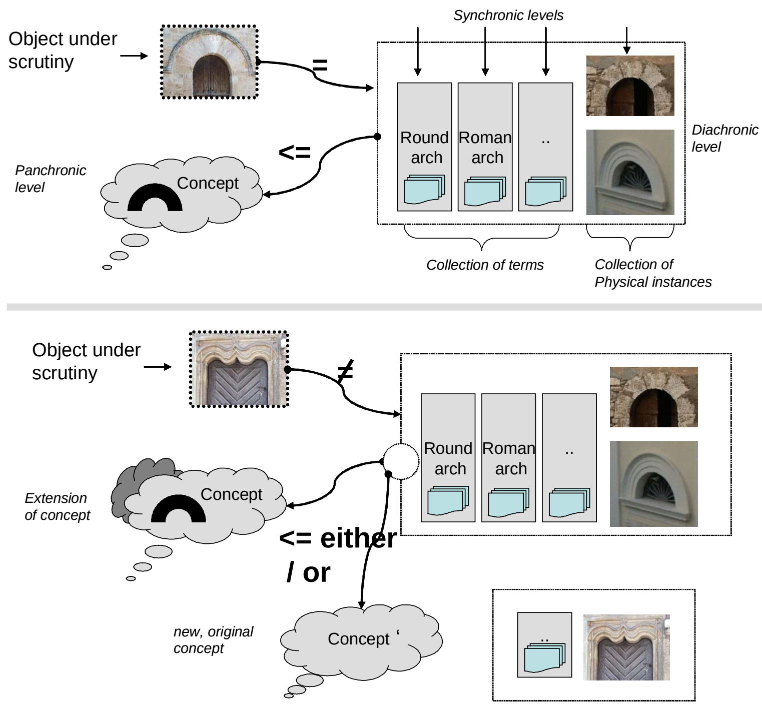


*Figure 3: Comparing an object under scrutiny (synchronic level) to a collection of terms and instances (diachronic level) helps stating whether this object matches a concept (panchronic level), extends its coverage, or calls for the identification of a new concept.*

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The tool's main features can be summed up through five choices:

1. **Distinguish concept/terms:** what we call vocabulary item is in fact the identifier of a concept, to which various terms in various languages may correspond.
2. **A multi-definition, multilingual lexicon:** for a given vocabulary item the system contains a user-chosen number of definitions in various languages, as well as user-chosen number of translations
3. **Referenced data only**: No definition or translation is given by us: the tool quotes references (each definition/translation is connected to existing, relevant, expert works – dictionaries, treaties, etc.)
4. **Relations = browsing**; each item is related to others within the collection, thereby beyond traditional search-modules (such as forms or lists) browsing between items can be done thanks to these relations. (relations corresponding to the semantics of architecture -parent group, parent object - or more general relations - theme, exclusions, item quotation).
5. **Illustration of the concept** by a catalogue of instances: we have for this purpose developed an image analysis platform that allows users to add SVG layers over bitmap images, layers to which we attach vocabulary items (Figure 4).


*Figure 4: Partial screen capture of the web-platform allowing users to identify instances on pictures, create a corresponding SVG layer and attach the layer to a vocabulary item.*

## Tool's shortcomings and extensions

In our first attempts, relations among concepts were limited to ascending parentGroup (resembling "has-part") and parentObject (resembling 'is-a") relations (Blaise, 2005). A number of issues remained to be tackled:

- should there be something like variations of a concept, when the object we are observing only differs from the concept by a specific position, or by non-significant ornamental differences (Figure 5)?
- How can we handle unicity of concepts, and polysemy of terms (one term -> several concepts, whereas the system was designed to handle one concept->several terms)?
- How do we handle synonyms and antonyms at language level (several terms -> one concept) and at architectural semantics level (terms improperly used for several concepts)?

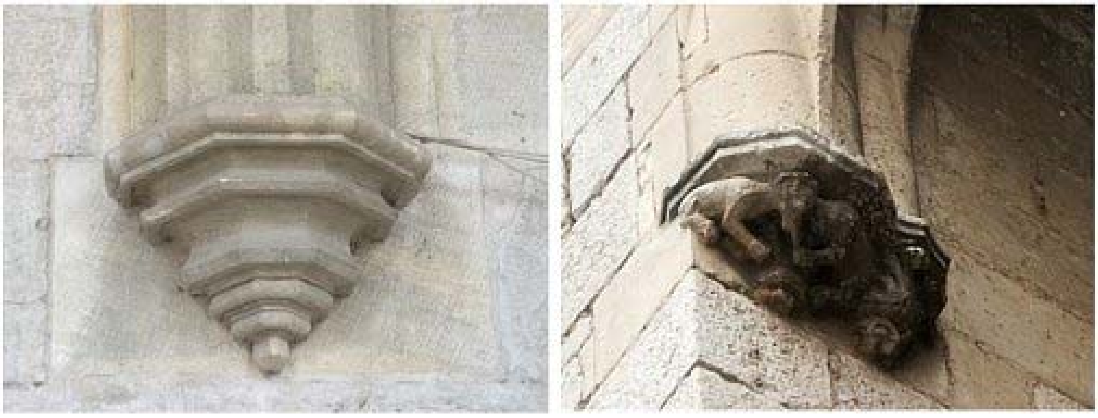

*Figure. 5 Differences and similarities that parentGroup and parentObject relations could not assess: although ornamental features of these two objects differ, their functional role and their overall morphological definition (outline within a semi conical/pyramidal inversed shape) match.*

As an answer, influenced by contributions like (Barriere, 2006), we investigate approaches developed in the field of linguistics, and try to interpret them in the field of the architectural heritage[5]. We present a framework of add-ons to the DIVA platform, thanks to which we expect to better analyse *instances variations*. This framework consists of:

[5] An example of the potentially fruitful influence of terminology can be found in for instance a compound form like [segmental pointed arch]: three terms, each of them with a specific role in identifying non-ambiguously a concept.. In this compound form, arch identifies a structural role (covering an open space); pointed arch adds an indication about the shape of the object (two centres needed, and two curves meeting in a pointed apex), and finally segmental pointed arch indicates that somehow the object is a part only of a standard pointed arch (in fact, branches of the arch are interrupted before the level of the curves' centres). From this simple example one can observe that terms often match major classification schemes in architecture (structural role, shape or morphology, shape/usage/position derivation mechanisms), and furthermore that they implicitly connect objects with one another ([arch] had to exist for [pointed arch] to exist).

- A distinction between vocabulary items and qualifiers; a distinction that one can compare with the difference between “nouns” and “adjectives” ([segmental arch]= -*Arch*- + qualifier segmental) .
- A variant mechanism, in charge of handling objects where a master concept features a transversal concept, such as a moulded bracket as shown in Figure 5 (-*Bracket*-: master concept, -*Moulding*-: a transversal concept, since many different objects can be moulded). In a way, a variant can be seen as what endocentric compounds are in linguistics, with a head (master concept) and modifiers (transversal concept) restricting it (here to a given ornamental family, to a given articulation in space, etc.).
- A restriction mechanism, in charge of handling objects where a master concept is refined by a qualifier setting boundaries on the values of its properties.
- A generic semantic relations mechanism, in charge of handling a variety of relations with regards to semantic families (specialisation, aggregation, comparison, quotation), and illustrated in Figure 8. As opposed to variant and restriction mechanisms, these relations are peer-to-peer relations, between concepts, and useful in context assessment rather than in feature assessment.

In the next sections, we will further detail these extensions, and illustrate them using examples chosen in the hierarchy of structural coverings (i.e, arches, vaults, lintels, ..), a part of which being illustrated in Figure 6.

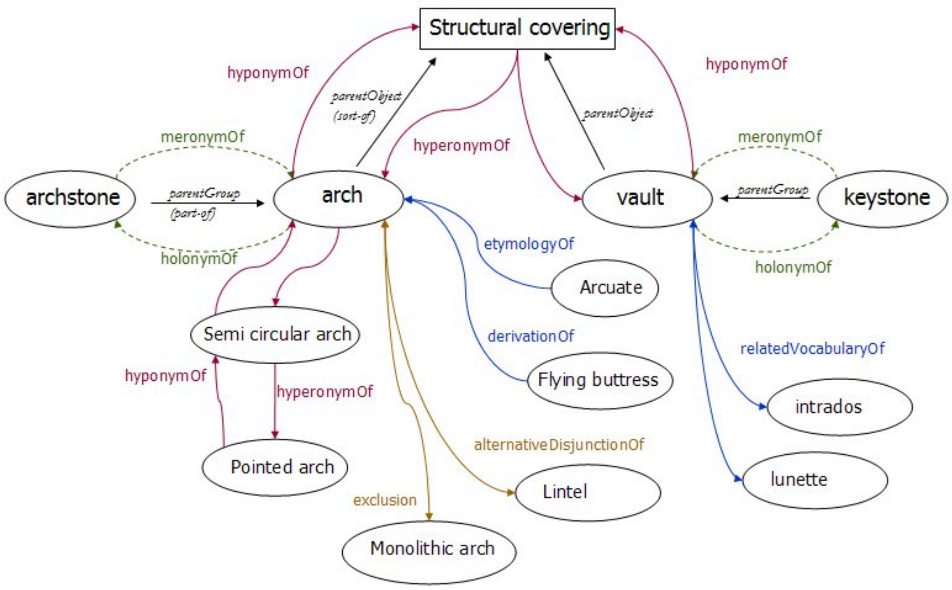


*Figure. 6 a partial view of relations to and fro the concept of arch: black arrows identify the first set of relations implemented in DIVA, the coloured arrows identify the newly added set of relations, each colour corresponding to a given family (tags used here only indicative)*

## Concepts and qualifiers

The main elements handled in DIVA are univocal architectural concepts. Architectural concepts can be seen as the equivalent of nouns: here they do not describe actions nor do they provide optional qualification for an action or another concept. They identify spatial elements used in the making of an artefact, of parts of an artefact, of groups of artefacts. These elements are in general physical objects, such as a capital, an arcade, etc.. They can however also be open spaces, that a specific arrangement of physical elements determine, such as a nave, an absidal chapel, etc..

Architectural concepts identify univocal elements, to which a number of terms may correspond. Similarly, a minimal, univocal set of physical properties corresponds to each architectural concept[6], but additional properties may be observed on instances of these concepts as built here or there. Only an expert analysis of these additional physical properties, and a repetition of these additional physical properties across sites, may lead to the creation of a new concept (as shown in Figure7).

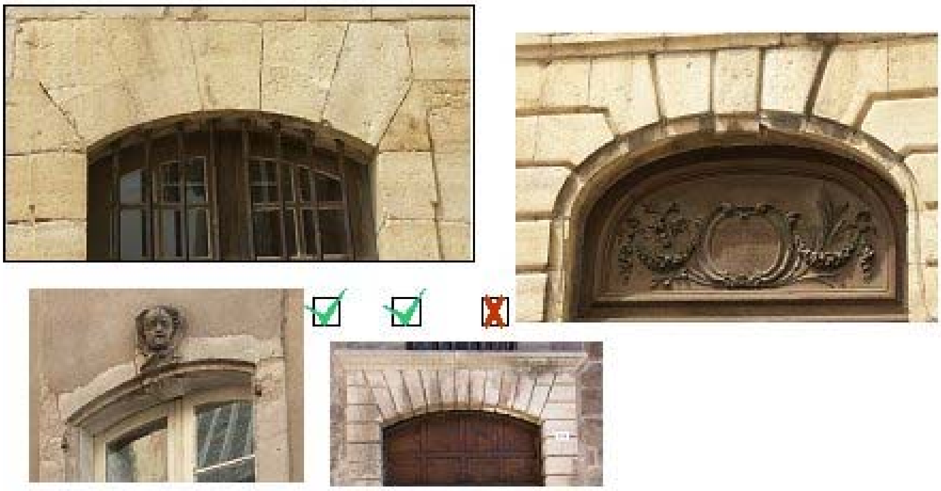

*Figure. 7 Top left, a typical instance of –segmentalRoundArch-. The two bottom objects, although they differ from the typical instance by additional properties (such as the figure carved on the –Archstone- in the left example), match the minimal and univocal properties of a –segmentalRoundArch- (round curve with one center). The top right object, although it apparently resembles the top left object more than the bottom ones, cannot be classified as an instance of –segmentalRoundArch- since its curve differs (three-centers): it calls for the creation of a new concept – basketHandleArch- .*

6 a –*SemiCircularArch*- is fully determined by a center (X,Y,Z), two radii (intrados and extrados), a width, and by a set of indications on its physical composition (voussoirs, keystone, springer, archivolt, etc..)

Besides architectural concepts, that identify spatial elements, DIVA contains elements called qualifiers that can be seen as the equivalent of adjectives. They provide optional qualification for a concept, refining it in a specific way (for instance, the qualifier semi applied to *–Arch-* identifies a specific restriction of the concept, known under the term [semi-arch])[7].

## The variants mechanism

The identification of new concepts is as shown from example in Figure 7 done by differentiating properties of concepts, with a classification procedure inspired from refinement or specialisation mechanism as described in (Ducournau, 1998). But a strict specialisation mechanism often is not enough to express complexity. In our case the variant mechanism is primarily designed to handle concept refinements that cannot be handled in a clear manner using specialisation relations (for instance when multiple inheritance would corrupt the readability of the collection of concepts). Variants substitute to multiple inheritance a master/slave compounding mechanism. Variants are identified by compound terms (ex: [stilted arch]) created from a main concept (ex: -*Arch-* ) associated to a secondary concept (ex *–Stilting-* ). A variant therefore associates two concepts like in the case of relations, but introduces a hierarchy between the main concept, whose properties remain unchanged, and a secondary concept whose properties introduce specifications such as to decorative sub-parts, decorative particularities, a specific positioning of the main concept, etc. A variant cannot supplement the main concept with new structural or morphological properties. Thereby, when encountering a compound term, the fact that its components already exist as independent concepts does not imply that the term corresponds to a variant: it may as well need to be seen as a new, independent, third party concept. When the secondary (slave) element of the compound term is not a concept but acts only as an adjective, the restriction mechanism applies rather that the variant mechanism.

[7] It should be noted that qualifiers are identified as such if and only if they are used to refine several independent concepts. If a candidate qualifier does not refine other concepts than A, then A itself should be refined in a sub-item. In other words, identifying qualifiers makes sense only if a qualifier can be linked to a number of concepts and thereby be an actor in the knowledge structure, helping the user for instance to search for ”all types of arches that can be semi-arches”. Consequently, qualifiers are represented at implementation level like concepts are, with for each qualifier a user-chosen number of definitions in various languages, as well as user-chosen number of translations (all referenced data).

## The restrictions mechanism

A restriction is denoted by a compound term created from a main concept (ex: -*Arch*- ) associated to a qualifier (ex segmental) that introduces a constraint on the values of one or several properties of the concept. The qualifier is not itself a concept, and acts as an adjective, further refining the definition of the concept (see example in Figure 8). The restriction of a concept is not a new concept: we will use the notation –*semi*Arch- so as to avoid misunderstandings. The number and nature of the main concept's properties remain unchanged by the restrictions mechanisms.

In a majority of cases restrictions that apply to a father concept apply to its children (-*Arch*- can be restricted to –*semi*Arch-; its child –*Rib*- can be restricted to –*semi*Rib-). However a majority does not make a rule, and concepts like a semi-moorish arch, or a semi-rampant arch hardly make any sense. Accordingly, no automatic propagation of restrictions appears feasible.

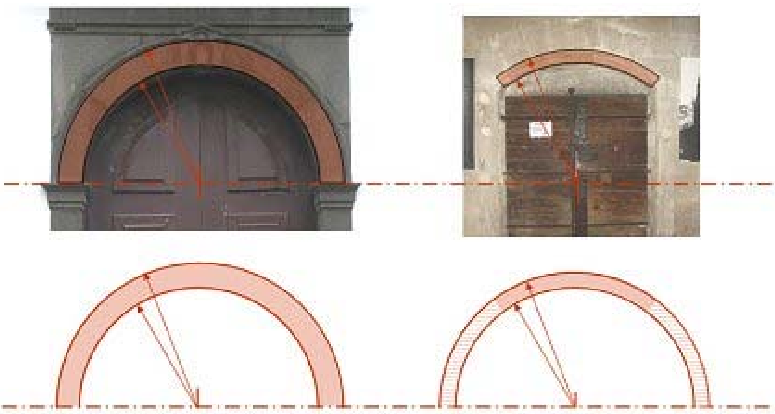

*Figure. 8 : Illustrations of the–SemiCircularArch- concept (left) and of the -segmentalSemiCirculaArch- (right). A constraint is imposed on the angle covered in the latter case, but no additional property is needed to describe the former when descrinbing the latter.*

## Extending relations mechanisms

We hereafter give an overview of the four families of relations we have identified at this stage (specialisation, aggregation, comparison, quotation), with indications on what they have been inspired by. Relation tags written in italic are equivalent of the system's default tags, written in a standard way.

***Specialisation: Hyponymy/hyperonymy.*** This family of relations interprets the notion of *generality of a term*. Each concept is described from the point of view of its morphology, of its functional role, and of possible temporal constraints (period of use of the concept in history). The more attributes needed to describe the concept, the less general it is (the more specialised it is). Accordingly, some concepts play the role of abstract classes such as structural coverings. Concept B is said to be ***hyponymOf*** concept A if each and every property of A is a property of B, and if one or several of the following conditions are met:

- B has additional properties
- Values for properties B inherits from A are constrained.
- B appears before A in history, and their overlapping on a time scale is only partial .

This family of relations consists of two, reverse, relations that are irreflexive , asymmetric and antitransitive.

| Relation tags | Example of use |
|---|---|
| ParentObject<br>*hyponymOf* | semi-circular arch : one centre, one radius; pointed arch: two centres, one radius<br>=> *pointed arch has parent object semi circular arch* |
| ChildObject<br>*hypernymOf* | Arch : at least one radius; semi-circular arch : one centre, one radius<br>=> *arch has child object semi circular arch* |

***Aggregation: Meronymy/ holonymy.*** This family of relations interprets the notion of *part of a whole*. Each concept is linked to those concepts the constituent of which it can (possibly) be. In other words, this relation can be compared to the aggregation mechanism of OOP languages, but one should keep in mind that it is an optional relation: arches without a keystone exist, although a keystone may be a part of an arch. This aggregation relation identifies a grouping or compositional mechanism in which concept B is ***meronymOf*** concept A if and only if B is one of the known constituents of A, but:

- This condition does not imply that A always has as constituent B
- This condition does not imply that B is a constituent of A and only of A: B can be a known constituent of other concepts.
- B can also be a standalone concept.

This family also consists of two, reverse relations that are irreflexive, asymmetric and antitransitive.

| Relation tags *(alternative possible knowledge pattern)* | Example of use |
|---|---|
| ParentGroup<br>*meronymOf* | A keystone can be a part of an arch<br>=> *keystone has parent group arch* |
| HasComponent<br>*holonymOf* | An archstone can be a part of an Arch<br>=> *arch has component* archstone |

***Comparison: Exclusions/alternativeDisjunctions/Synonyms***

This family of relations interprets the notion of *similarity / opposition in meaning*. The notion of synonym could apparently be transferred rather plainly (terms *archstone* and *voussoir* for instance refer to one unique architectural element, see figure 10). But since a concept is identified by differentiating it from other concepts, there can be no such notion as “synonymy” among concepts. Still, concepts are represented by terms, and terms may have synonyms. In order to avoid ambiguities of the terminology to remain unsolved in the identification of concepts, a mechanism is implemented that allows the linkage of each concept to:

- Definitions of various terms that match the properties of the concept (such definitions are then marked as “main”, and all terms sharing this value are consequently seen as **synonyms**)
- Definitions of various terms that do not match the properties of the concept (such definitions are then marked as “different”, and terminological ambiguities pointed out)

This mechanism is implemented as a property of terms, and therefore can only be accessed by examining a concept’s set of terms. It is illustrated (see Figure 9) on the example of the English term “Tympanum”.

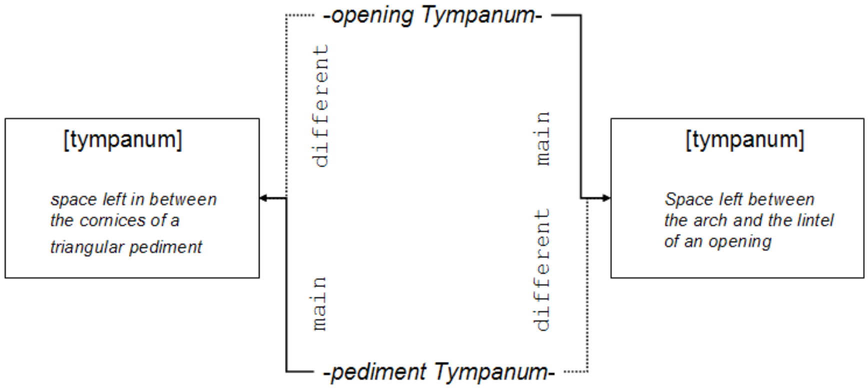


*Figure. 9: Synomyms distributed across concepts with a specific synonymy marker, the example of [Tympanum] .*

Besides synonyms, the notion of antonym also requires a critical examination. When looking at relevant literature, one can find in (Pérouse De-Montclos, 1988) a first interpretation of antonym, that we call “**exclusion**” relation (see figure 10): the idea is that *“you should not mix concept A with concept B since they differ for reason R”*. **Exclusion** is a relation that points out the difference between concepts that confusingly resemble each other. (see example on Figure 10). **AlternativeDisjunction** is another interpretation of antonym meaning that “*for purpose P you can use either concept A or concept B*”. Exclusion and AlternativeDisjunction relations are two complementary interpretations of the notion of antonym, where the shape and function of a concept are considered as its *meaning*. Oppositions are then established either on the first or the second feature. Both relations are bi-directional, irreflexive and symmetric.

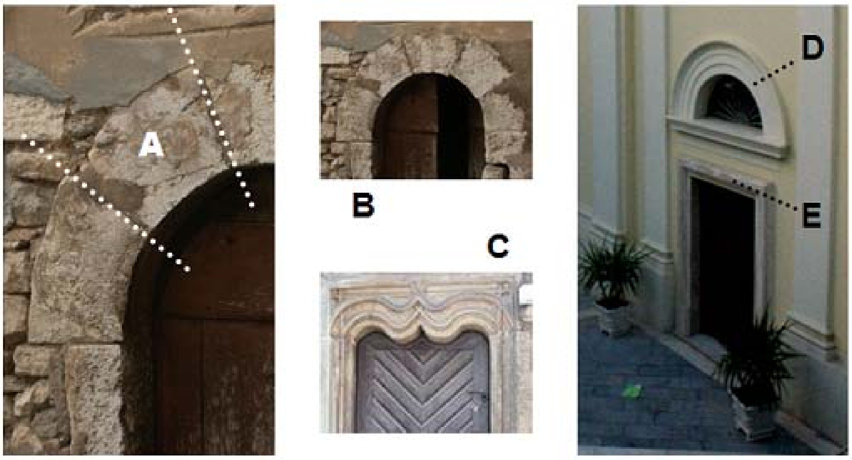


*Figure. 10 Left, terms archstone and voussoir both "mean" object A (according to Ching). Middle, "do not mix the arch (B) and the monolithic arch (C) since the latter only has in common with the former its curvilinear features". The monolithic arch, built of one single stone, does not act (structurally) as an arch but as a lintel: arch and monolithic arch are* **exclusions** *of one another. Right, either objects like D, arch, or like E, lintel, can be used to cover an opening: they are* **AlternativeDisjunctions** *of one another.*

| Relation tags *(alternative possible knowledge pattern)* | Example of use |
|---|---|
| exclusion | The monolithic arch should not be mixed up with the arch<br>=> *arch has exclusion monolithic arch* |
| alternativeDisjunction | The arch can be use as an alternative to a lintel<br>=> *arch has alternativeDisjunction lintel* |

***Quotation: derivation/etymology/relatedVocabulary:*** This family is used to handle looser semantic proximities. Derivation is used to form new words, and not variants of words. Alike, we use derivation to link concepts where "concept A had to exist for concept B to emerge". A good example of this mechanism is the -*flying buttress*-: flying buttresses have little to do, from the morphological or functional points of view, with –*arches*-, or with –*buttresses*-. However it took the invention of –*arches*- and of –*buttresses*- to think out -*flying buttresses*-. Accordingly, Concept B is a **derivationOf** concept A if concept A had to exist for concept B to emerge as a new morphological or structural solution. Consequences are that:

- B is partly described by a sub-set of A's properties.
- B can be partly described by a sub-set of properties of one or several third party concepts.
- B is partly described by its own, specific, properties.

Derivation exploits a multiple inheritance mechanism, but is an intransitive, antisymmetric relation.

Another, yet looser, relation is **relatedVocabulary**, where we investigate possible quotation links between concepts. An example is the relation between the concept of *vault* and this of *lunette* (the latter defined by (Ching, 1995) as an *area in the plane of a wall framed by an arch or a vault, containing a window..*). As seen from this example; **relatedVocabulary** is a flexible and efficient context-assessment relation. It is used in the following cases:

- Concept B is quoted is the textual definition of concept A.
- Concept A appears in canonical, or merely usual, compositions comprising concept B.
- There is a remarkable formal or structural resemblance between Concept B and concept A.

Finally, the etymology relation is taken into account when terms do have a common root, but no architectural relations, such as the verb "*arcuate*" and the concept of *arch*. An etymology relation is established if and only if no other relation of any kind can be established between concepts B & A. In other words, etymology identifies relations that with time remain in the language, but have ceased to make sense in the analysis of architecture itself.

| Relation tags *(alternative possible knowledge pattern)* | Example of use |
|---|---|
| derivationOf | The flying buttress derives from the arch<br>=> *flying buttress derivationOf arch* |
| seeAlso<br>*relatedTo* | Finding a lunette means a vault or an arch frame the wall.<br>=> *lunette relatedTo vault* |
| etymologyOf | The arch can be use as an alternative to a lintel<br>=> *arch has alternativeDenial lintel* |

## Implementation and limitations

The developments we present are all based on the same principles: hierarchy of classes (in the sense of OOP), XML sheets that are transformed (XSLT) in textual interfaces. An RDBMS acts as a safeguard storage zone for instances. Querying, browsing and updating the instances is processed either through Perl XML parsing modules or through regular Perl/SQL interfaces. Visual interfaces are produced at query time by methods of the above mentioned classes. Relations within the vocabulary tool are handled at two levels: on one hand each item contains an indication of its closest relatives, on the other the whole hierarchy of the item is computed dynamically thanks to a specific controller class (XML dynamic files). Among the remaining issues is a dynamic representation of the relations as full OWL ontology.

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The vocabulary tool we have presented is an experimental one, with a limited number of entries (833 items, with more or less 2500 translations in 6 languages, based on 27 different bibliographical sources). It is exclusively dedicated to the architectural heritage, and needs a number of extensions, in particular in terms of visual interfacing. The research we present should therefore be considered as ongoing work, with remaining limitations. However it already has opened new research directions, on the borderline between terminology, knowledge representation and information search and retrieval, with relations of a lexicon to its corpus as a central issue (Kageura, 2007).

At this stage a number of limitations remain, and a number of issues still need to be tackled. In terms of method, the existence of “abstract classes” concepts is not taken into account (the concept of -*structural covering*- is handled just like –*pointedArch*-, -*barrelVault*-, etc.). Problems like the automatic propagation of restrictions remain unsolved, thereby requiring cumbersome expert interventions, a problem that we see today as a weakness but that may in the end prove solutionless.

In terms of coverage, the system has with the introduction of qualifiers “added adjectives to nouns”, but would need the introduction of action concepts (“verbs”). Naturally, the number of entries in the system would also need further extension. In terms of implementation, a strong effort will be needed to ensure a better interactivity of the platform. Moreover, our technical choices (basic, opensource, freeware solutions) may prove a limit when facing big numbers.

Nevertheless, this development appears as a good field of experimentation, where methodological & technological issues end up clearly laid down on the table, as food for thinking. In that sense, the DIVA platform shows that in the field of historic architecture knowledge handling can benefit from terminology analysis, and this partly because both the language and the artefact are time-layered, ambiguous, context-rich. The former statement is not a surprise, the latter should not be neither (but sometimes is...).

## Conclusion

The methodological framework we have experimented lets users to organise documents in a triangular relation associating documents, toponyms and terms. The application of the method to real-case problems has shown that a gain of readability is at hand if information one needs to deliver or retrieve are exploited using ontological structures. This contribution demonstrates that numerous comparisons between terminology analysis and architectural analysis can be useful in building up such an ontological structure. Vocabulary can then act as an efficient *filter* in the analysis of a global system : the artefact. Although somehow ambiguous, it can be a starting point in the identification of “mental concepts” to use in a diachronic analysis of the architectural heritage. Accordingly, this research shows methodological bridges can be fruitful between terminology and the analysis of built artefacts, with ideas from the former helping to solve problems on the latter.

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