Modelling a Prosopography for the Roman Republic The Digital Prosopography of the Roman Republic Project

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In this abstract we describe the development of a web application for a prosopography of the Roman Republic, focusing on the data modelling, data harvesting and user interface. The web application offers fine-grained data about the elite of the Roman Republic, allowing the detailed study of its attested individuals, including familial composition, office-holding patterns, internal hierarchies, property and wealth.

The Digital Prosopography of the Roman Republic (DPRR) is an AHRC (Arts and Humanities Research Council) funded project, running from 2013 to May 2017. It is a collaborative project being developed by King's Digital Lab, together with the Classics and the Digital Humanities Departments from King's College London.

The project was developed to allow users easy access to complex data to enable them to answer questions such as:

- list the individuals who were praetors between 200-100 BCE with nomen Caecilius;
- list proconsuls in Gallia between 100-80 BCE;
- show all persons who were both consul and pontifex between 123 and 100 BCE (i.e. consuls who were also pontifices);
- visualise the composition of the the senate in the year 100 BCE;
- persons with a birth date and a death date between 250-100 BCE;
- women that died of violent death.

To preserve the richness of the data, while allowing answering research questions as above, the DPRR data model was designed to store the prosopographical data using the principles of the Factoid Model (Bradley and Short, 2002; Pasin and Bradley, 2012). This builds upon previous experience acquired developing similar projects (Prosopography of the Byzantine Empire, Clergy of Anglo-Saxon England Database, Prosopography of Anglo-Saxon England, Prosopography of the Byzantine World, People of Medieval Scotland, Making of Charlemagne's Europe).

The data model is organised around four main entities: *Person*, *PostAssertion*, *StatusAssertion* and *RelationshipAssertion*. The main entity, *Person*, stores information about each individual, such as names, gender, life dates, patrician indicator, etc. The *PostAssertion* entity stores data related to offices/posts held by individuals (such as praetor, consul, legate, etc), while the *StatusAssertion* stores senatorial and equestrian class information. The *RelationshipAssertion* represents personal relationships (brother of, son of, etc), connecting two different individuals within the database. All these entities are linked, as represented in Figure 1. All Assertion models are linked to a *SecondarySource* entity with details about the bibliographical references supporting the data.
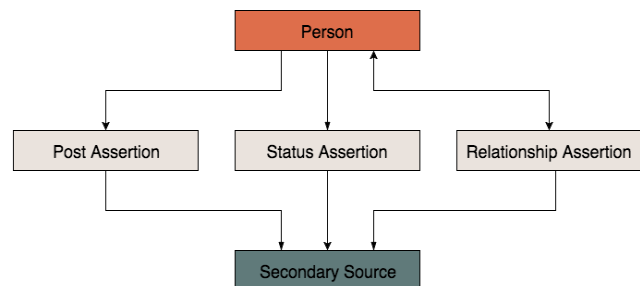

Figure 1 – Simplified database model

The data for the project has been harvested from multiple sources – mainly from Broughton's Magistrates of the Roman Republic (1951-86), Ruepke's Fasti Sacerdotum (2005) and Zmeskal's Adfinitas (2009). The data was automatically loaded using scripts developed for each source (Fig. 2). There's also a data editing interface, which was mostly used to make corrections to the automatically loaded data, as well as adding new information when needed.
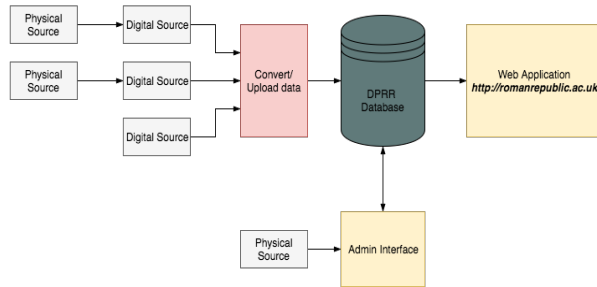
Figure 2 – Data workflow

Besides loading and entering data directly into the database, the project also has rules to infer new information about personal relationships and senators. An example is, the application creates a Senator object for a person that held a specific post in a given year, such as consul, praetor, aedile, tribunus plebis, censor, princeps senatus.

The database, which stores all this information in an easily searchable format, is fronted by a web application (see the public version of the website). This website allows the public to explore the data using a faceted search interface with different filters that can be applied. This guides the user to achieve answers to the research questions above. By selecting individual results, it is possible to see all the information about a person, including visualisations of their relationship networks (Fig. 3).

Visualisations of the senate composition on a yearly basis are also being created. We are currently working towards integrating the database with Linked Data technologies as part of the Standard for Networking Ancient Prosopographies (see the SNAP:DRGN project).
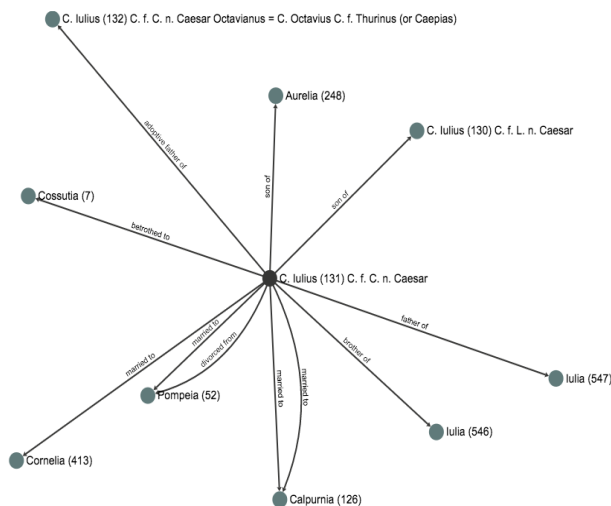
The project is built using open source tools and technologies, mainly the Django application framework with a PostgreSQL database. The search interface is implemented using the Solr search engine together with the django-haystack search package for Django. The visualisations are created with _d3plus_ and _linkurious._ The project source code is also available as open source in a GitHub repository.

Our poster will illustrate the model that supports this digital resource, the methods used to retrieve the data and populate it, as well its usage for data exploration and visualisation.

Bibliography

Bradley, J., Short, H. (2002) Using formal structures to create complex relationships: the prosopography of the Byzantine Empire - a case study. _Resourcing Sources Prosopographica et Geneologica_ 7

Pasin, M, and Bradley, J. (2013) Factoid-based prosopography and computer ontologies: towards an integrated approach _Digital Scholarship in the Humanities_ 30.1 (2013): 86-97.

Figure 3 – Network visualisation for _C. Iulius (131) C. f. C. n. Caesar_