

# SNAP:DRGN Cookbook 2.0

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## Executive Summary:

The SNAP:DRGN recommendations posit five scenarios relating to the encoding, publication and linking of ancient person data in RDF, and connecting them to the SNAP graph. These scenarios should not be seen as cumulative or sequential, but may be acted upon independently. (For example, a scholar might create merge statements about two SNAP datasets, neither of which she was responsible for. You might annotate your texts with SNAP uris without having any role in creating or encoding the prosopographies to which you are normalizing.)

Only scenarios 1, 2, 3 and 5 are described in this version of the Cookbook.

## **Scenario 1. Putting your prosopography online**

For you: you have a prosopographical collection in digital form, but need to put it online. This is a precondition for all further contribution to the SNAP graph.

## **Scenario 2. Contributing a summary of your online prosopography to SNAP**

For you (SNAP:DRGN can help): your person database is online, all persons have unique and stable urls, you then need to generate some RDF so that the SNAP graph can import data about your persons.

## **Scenario 3. Establishing alignment between prosopographies within SNAP by means of merge statements**

For SNAP:DRGN (you can help): inevitably different prosopographies will contribute data about the same person. To make the URIs in the SNAP graph useful as a virtual authority of ancient persons, we need to disambiguate and coreference as many of these duplicates as possible (with your help).

***Scenario 4.** Expressing relationships between persons or making other scholarly statements about entries in SNAP*

*To be added in SNAP 2.*

**Scenario 5. Annotating your text or other record with a SNAP uri** to uniquely identify a person

For you: you are publishing a digital edition, corpus, or database which includes personal names, references or fields, and would like to disambiguate these names by linking to the unique person-identifier that SNAP provides. It would be useful if, perhaps in addition to this, you were to produce OAC annotations that tell us (and the world) that this piece of text (passage, line or even word) refers to such-and-such a person (by SNAP URI). Our model for this recommendation has been the Open Annotation format adopted by the Pelagios project.

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## **New in this version**

1. snap:disambiguator property, with sub-properties: associatedDate, associatedPlace, occupation
  2. snap:uncertain (boolean property)
  3. rdfs:label instead of cnt:chars for Place and Bond
  4. rdfs:comments
  5. description of both publisher and project (VoID)
  6. citable identifier ie <dterms:bibliographicCitation>
  7. Scenario 5 added, heavily influenced by Pelagios 3 Cookbook
  8. removed cito:citesAsEvidence -> moved functionality to lawd:represents on Citation
  9. more full examples of RDF (“cava to chocolate”)
- 

## **Scenario 1. Putting your prosopography online**

The first task is to put your prosopography online, with stable URIs for as many entities as you can identify (person, name, source etc.). You need to be able to point to (e.g.) <http://www.example.com/person/1234567> and reliably/persistently find here your record about (e.g.) Procopius. This may be no more than an HTML page intended for human consumption. Getting this far can be done in many ways, for example:

1. A relational database linked to web pages. For example, if you have a MySQL database with columns for id, name, date, place of birth, occupation etc, you might write a PHP script which connects to the database and creates an HTML page. So the URL <http://www.example.com/persondatabase/query.php?ID=53> would look up the ID for person 53 and create a dynamic web page about her. Turning that [persondatabase/query.php?ID=53](http://www.example.com/persondatabase/query.php?ID=53) into a “cool URI” such as [www.example.com/person/53](http://www.example.com/person/53) would be done using rewrites in your web server.
2. Generate a set of static HTML web pages, one for each person, from your data, and put them on a web server.
3. Use an instance of a Content Management System (eg Drupal) and use a structured template for managing the components of your data.

Ask your local IT support for more ideas.

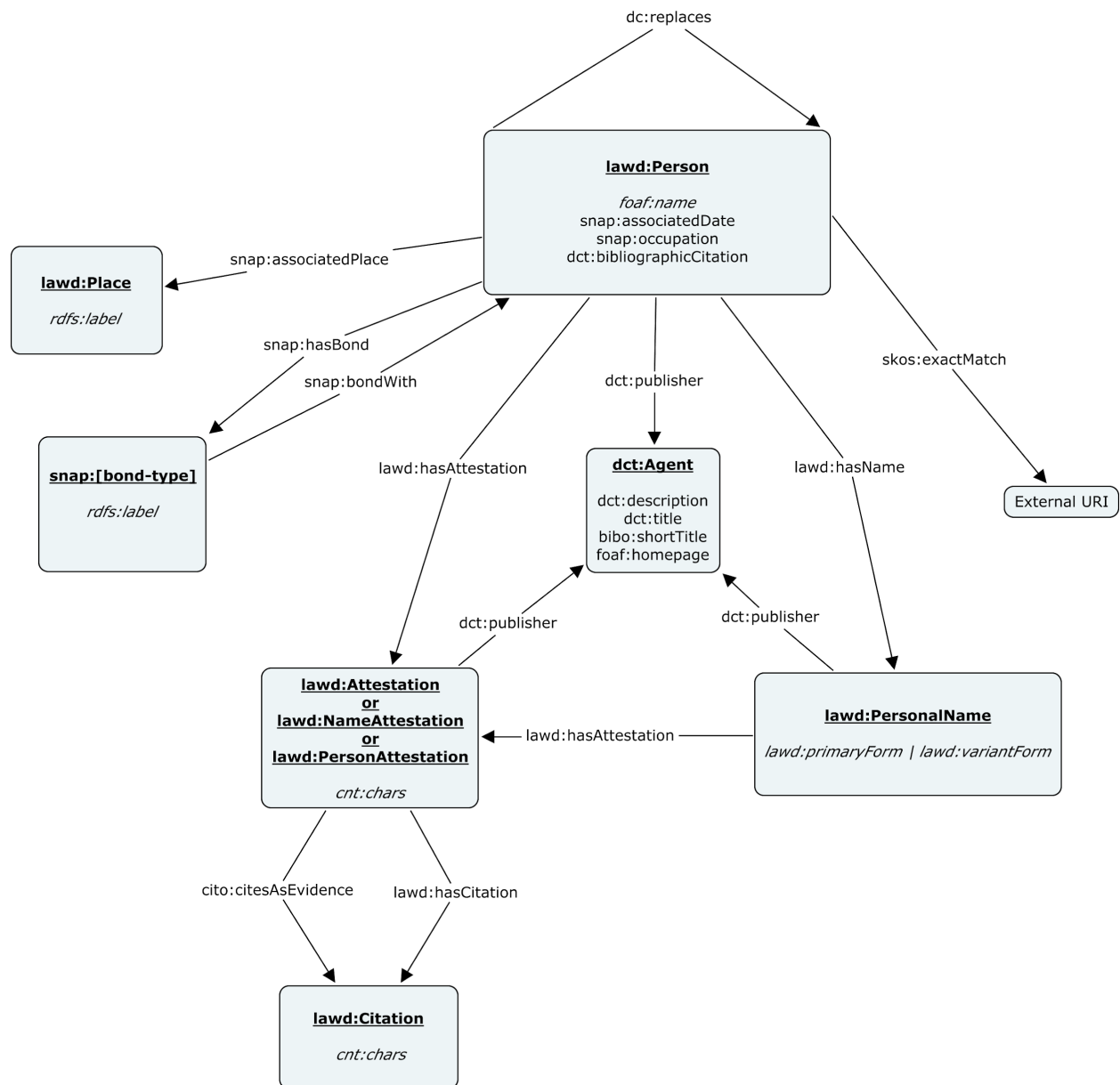
---

## **Scenario 2. Contributing a summary of your online prosopography to SNAP**

You might go further and make the entirety of your prosopography available (or as much of it as you are comfortable with releasing openly) in a more formal way using RDF, using whatever ontology and format you think useful (CIDOC CRM can work well for normal prosopography, cf <http://www.lgpn.ox.ac.uk/id/V5a-35642/rdf>). This will enable software to get at the data as well as humans. To manage this, you'll need some sort of transformation of your data to RDF, using a categorisation of entities, and a set of names for the relationships (properties) between them. How to write a transformation to RDF is beyond the scope of this cookbook; <http://www.w3.org/wiki/ConverterToRdf> has many pointers to useful software.

SNAP:DRGN is interested in building on a finite subset of your data. For each of the person-like entities you want to expose to SNAP, you must have (i.) a URI, (ii.) a type and (iii.) a human-readable identifier or citation. Other properties listed below are recommended or optional.

Overview of SNAP Scenario 2 data structure:



## i. URI (required)

A URI (preferably the dereferenceable URL on your website in 1. above)

## ii. Type (required)

A type drawn from this list:<sup>[1]</sup>

- lawd:Person
- lawd:Deity
- lawd:Group

- lawd:MythologicalCreature

Or, if you cannot distinguish between the above categories, use the catch-all:

- lawd:Agent

(From <http://snapdrgn.net/archives/302>) When contributing your prosopographical dataset in the SNAP RDF format, you should use whichever of these classes best define the people in your database. Most of these will presumably be people; you may also have groups, families and corporate bodies distinguished, or you may have deities so defined. If you are unable reliably to distinguish between these types in your data, or if you have types that do not fit under any of these four headings, you should use the super-class lawd:Agent encode such persons.

```
<http://www.lgpn.ox.ac.uk/id/V5a-35652#this> rdf:type lawd:Person .
```

```
<http://www.trismegistos.org/person/181#this> rdf:type lawd:Person .
```

```
<http://www.paregorios.org/resources/roman-elites/persons/pir2-a-0653>
rdf:type lawd:Person .
```

```
<http://data.perseus.org/people/smith:athena-1> rdf:type lawd:Deity .
```

Properties that you may attach to person-like entities, if you have the information available, include:

### iii. Human-readable/citable unique identifier (required)

The human-readable/citable identifier for this person, e.g. LGPN's "V.I Ἀπολλώνιος 123" or TM People's "12345", which is essential to know how the unique person would traditionally be cited (e.g. in print). In some cases, the human-readable citation may be the last few characters of the URI, or a name + a number; in others it may be an unrelated or arbitrary string. **NB: please do not include the project or publisher short title in the bibliographic citation.**

```
<http://www.lgpn.ox.ac.uk/id/V5a-35652#this> rdf:type lawd:Person ;
dct:bibliographicCitation "V.A Ἀπολλώνιος 1240" .
```

```
<http://www.trismegistos.org/person/181#this> rdf:type lawd:Person ;
dct:bibliographicCitation "181" .
```

```
<http://www.paregorios.org/resources/roman-elites/persons/pir2-a-0653>
rdf:type lawd:Person ;
dct:bibliographicCitation "A 653" .
```

```
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#this>
rdf:type lawd:Person ;
dct:bibliographicCitation "Leon 103" .
```

#### iv. Publisher and Collection (required)

Every top-level entity for which you are responsible (lawd:Person, lawd:PersonalName, lawd:Attestation, lawd:Bond, etc.) should include a **dct:publisher** property, specifying the project or publisher that was responsible for the creation or curation of this information. The URI of the publisher is often but not always the home page of the project, and should be defined once in your contributed RDF (see below). Top-level entities that are derived from records in an external project should all have one publisher, and form part of one collection. One publisher may be associated with one or many collections; in the latter case, the URI of the collection needs to be different from, and more specific than, that of the publisher.<sup>1</sup> Each top level entity should therefore also include a **dct:isPartOf** property, pointing to a **prov:Collection** defined in the RDF (see below).

```
<http://www.lgpn.ox.ac.uk/id/V5a-35652#this>
  rdf:type lawd:Person ;
  dct:publisher <http://www.lgpn.ox.ac.uk/> ;
  dct:isPartOf <http://www.lgpn.ox.ac.uk/> .
```

```
<http://www.trismegistos.org/person/181#this> rdf:type lawd:Person ;
  dct:publisher <http://www.trismegistos.org/> ;
  dct:isPartOf <http://www.trismegistos.org/ref/> .
```

```
<http://www.paregorios.org/resources/roman-elites/persons/pir2-a-0653>
  rdf:type lawd:Person ;
  dct:publisher <http://www.paregorios.org/> ;
  dct:isPartOf <http://www.worldcat.org/oclc/15383355> .
```

```
<http://www.paregorios.org/resources/roman-elites/persons/pirl-s-0553>
  rdf:type lawd:Person ;
  dct:publisher <http://www.paregorios.org/> ;
  dct:isPartOf <http://www.worldcat.org/oclc/4164655> .
```

##### iv.a Description of publisher (required once per publisher)

The publisher is the person, project, institution or corporation responsible for creating, curating or hosting the dataset at the heart of the current RDF collection. One publisher may be responsible for multiple collections. Usually a publisher need only be described once in the entire SNAP triplestore.

```
<http://www.trismegistos.org>
  rdf:type dct:Agent ;
  dct:description "An interdisciplinary portal of papyrological and
  epigraphical resources dealing with Egypt and the Nile valley between roughly
  800 BC and AD 800 currently expanding its geographical scope to the Ancient
  World in general." ;
```

---

<sup>1</sup> i.e. Two separate datasets contributed by a single institution should be considered two collections, although they would presumably share a single publisher. Trismegistos People <http://www.trismegistos.org/ref/> and Trismegistos Authors <http://www.trismegistos.org/author/> are two collections, with separate URIs and VoID summaries, but both are published by Trismegistos <http://www.trismegistos.org/>.

```
dct:title "Trismegistos" ;
bibo:shortTitle "TM" ;
foaf:homepage <http://www.trismegistos.org/> .
```

```
<http://www.lgpn.ox.ac.uk/>
rdf:type dct:Agent, prov:Collection ;
dct:title "Lexicon of Greek Personal Names" ;
bibo:shortTitle "LGPN" ;
foaf:homepage <http://www.lgpn.ox.ac.uk/> .
```

#### iv.b Description of contributing project (required once per dataset)

A summary of the essential information describing your project, including the full title, the standard abbreviation, and the URL of the homepage. You only need to provide this information once per project (not repeated for each person, e.g.). This format is closely based on the VoID data structure.

```
<http://www.trismegistos.org/ref/>
rdf:type prov:Collection ;
dct:title "Trismegistos People" ;
bibo:shortTitle "TM People" ;
foaf:homepage <http://www.trismegistos.org/ref/> .
```

```
<http://www.worldcat.org/oclc/4164655>
rdf:type prov:Collection ;
dct:title "Prosopographia Imperii Romani (first edition)" ;
bibo:shortTitle "PIR1" ;
dcterms:source <http://pir.bbaw.de/> .
```

```
<http://www.worldcat.org/oclc/15383355>
rdf:type prov:Collection ;
dct:title "Prosopographia Imperii Romani (second edition)" ;
bibo:shortTitle "PIR2" ;
dcterms:source <http://pir.bbaw.de/> .
```

#### **v. Name (recommended)**

It is recommended you provide a human-readable and searchable name string as a **foaf:name** (even if you also have unambiguous and machine-actionable URIs for names). It may be useful to provide this in several languages or transliteration schemes (e.g. original language; Latin transliteration; common English or other modern language form).

```
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#this>
rdf:type lawd:Person ;
foaf:name "Leon Diabatenos, protovestēs"@en ,
"κυρῶ Λέοντι"@grc .
```



```
<http://catalog.perseus.org/catalog/urn:cts:greekLit:tlg0003>
  rdf:type lawd:Person ;
  foaf:name "Thucydides"@en ,
    "Θουκυδίδης"@grc .
```

You may also link to a name entity which has more information, e.g. on normalized/declined forms and other name variants, using the **lawd:hasName** property.

```
<http://www.lgpn.ox.ac.uk/id/V5a-35652#this>
  foaf:name "Απολλώνιος"@grc , "Apollwnios"@grc-Latn ,
    "Apollonius"@en , "ابولونيوس"@ar
  lawd:hasName <http://www.lgpn.ox.ac.uk/nym/nApollwnios> .
```

```
<http://www.trismegistos.org/person/181#this>
  foaf:name "Πετεαρσεμθευς"@grc ;
  lawd:hasName <http://www.trismegistos.org/name/860#this> .
```

If you have other tables, i.e. of personal names, these may also be encoded in SNAP RDF as top-level entities with type **lawd:PersonalName**, e.g.:

```
<http://www.lgpn.ox.ac.uk/nym/nSuntulch>
  rdf:type lawd:PersonalName ;
  lawd:primaryForm "Συντύχη"@grc ,
    "Suntuch"@grc-Latn .
```

```
<http://www.paregorios.org/resources/roman-elites/names/pir2/a-0653>
  rdf:type lawd:PersonalName ;
  lawd:primaryForm "APPIVS ANNIVS GALLVS"@lat .
```

```
<http://www.trismegistos.org/name/860#this>
  rdf:type lawd:PersonalName ;
  lawd:primaryForm "Πετεαρσεμθευς"@grc ,
    "Peteharsomtous"@en .
```

Names can have primary and variant forms, and can, like Persons, have Attestations:

```
<http://www.trismegistos.org/name/509#this>
  rdf:type lawd:PersonalName ;
  dct:publisher <http://www.trismegistos.org> ;
  lawd:primaryForm "Νεχθανούπιος"@grc , "Nechtanoupis"@en ;
  lawd:variantForm ""@egy-Egyd ;
  lawd:hasAttestation <http://www.trismegistos.org/ref/852#this> .
```

If you do not have uris for names in your database, the **lawd:hasName** property above may be omitted.

## vi. Attestation and Citation (recommended)

### vi.a Person Attestation

To cite a plain-text bibliographic reference, either to the primary source in which the person appears, or the secondary work that describes the existence of the person,

```
<http://www.lgpn.ox.ac.uk/id/V5a-57002#this>
  rdf:type lawd:Person ;
  lawd:hasAttestation <http://www.lgpn.ox.ac.uk/id/V5a-57002#personref-1>.
<http://www.lgpn.ox.ac.uk/id/V5a-57002#personref-1>
  rdf:type lawd:Attestation ;
  dct:publisher <http://www.lgpn.ox.ac.uk/> ;
  lawd:hasCitation <http://www.lgpn.ox.ac.uk/id/V5a-57002#ref-1> .
<http://www.lgpn.ox.ac.uk/id/V5a-57002#ref-1>
  rdf:type lawd:Citation , cnt:ContentAsText ;
  cnt:chars "IG XII Suppl. p. 132 no. 796, 2" .
```

If you have a web page with information about this attestation (as Trismegistos does, for example) you may use that address as the URI rather than the #personref-n link above. Likewise, if there is a direct link to the primary or secondary text (Papyri.info, Jstor, EDH, etc.), that can also be linked, as in the following example. In any case, it is useful to include the plain text (“ContentAsText”) citation as well as any pages or links.

```
<http://www.trismegistos.org/person/1234#this>
  lawd:hasAttestation <http://www.trismegistos.org/ref/4321> .
<http://www.trismegistos.org/ref/4321>
  rdf:type lawd:Attestation ;
  lawd:hasCitation <http://www.trismegistos.org/ref/4321#citation> .
<http://www.trismegistos.org/ref/4321#citation>
  rdf:type lawd:Citation, cnt:ContentAsText ;
  cnt:chars "BGU I, 100" ;
  lawd:represents <http://papyri.info/ddbdp/bgu;1;100> .
```

```
<http://www.lgpn.ox.ac.uk/id/V5a-35652#personref-1>
  rdf:type lawd:Attestation , cnt:ContentAsText ;
  dct:publisher <http://www.lgpn.ox.ac.uk/> ;
  lawd:hasCitation <http://www.lgpn.ox.ac.uk/id/V5a-35652#ref-1> ;
  cnt:chars "Ἀπολλώνιος" .
```

```
<http://www.trismegistos.org/ref/965#this>
  rdf:type lawd:NameAttestation, lawd:PersonAttestation, cnt:ContentAsText
;
  dct:publisher <http://www.trismegistos.org> ;
  lawd:hasCitation <http://www.trismegistos.org/ref/965#citation> ;
  cnt:chars "Πετεαρσεμθεύς" .
<http://www.trismegistos.org/ref/965#citation>
  rdf:type lawd:Citation, cnt:ContentAsText ;
  cnt:chars "BGU 3 994, col. 1, 4" ;
  lawd:represents <http://papyri.info/ddbdp/bgu;3;994> .
```

## vi.b Name Attestation

If you separately record the attestation of the name, either as a bibliographic citation, a link to a bibliographic reference, or a link to the primary text itself, please encode this attestation as follows:

```
<http://www.trismegistos.org/ref/1661#name>
  rdf:type lawd:Attestation, cnt:ContentAsText ;
```

```

lawd:conjunctOf <http://www.trismegistos.org/ref/1661#person> ;
dct:publisher <http://www.trismegistos.org> ;
lawd:hasCitation <http://www.trismegistos.org/ref/1661#citation> ;
cnt:chars "Ἀπολλώνιος" .
<http://www.trismegistos.org/ref/1661#citation>
rdf:type lawd:Citation, cnt:ContentAsText ;
cnt:chars "BGU 3 993, col. 3, 14" ;
lawd:represents <http://papyri.info/ddbdp/bgu;3;993#this>.

```

## vi.c Citation

A Citation is a bibliographic reference to a resource like a book or an article. The Citation contains both the text of the reference and, if possible, a link to an online version of the resource.

```

<http://www.trismegistos.org/ref/965#citation>
rdf:type lawd:Citation, cnt:ContentAsText ;
cnt:chars "BGU 3 994, col. 1, 4" ;
lawd:represents <http://papyri.info/ddbdp/bgu;3;994> .

<http://www.lgpn.ox.ac.uk/id/V5a-36352#ref-1>
rdf:type lawd:Citation , cnt:ContentAsText ;
cnt:chars "ISmyrna 690 III, 3" .

```

## vii. Disambiguators (date, place, occupation) (optional)

### vii.a Date

Your database may express a complex set of dating information related to your person, the sources for her, specific or approximate, certain or otherwise, etc.; or it may contain only a document date, only a date of death, an undifferentiated “floruit”, or no dating information at all. Many large datasets will not have the capacity to distinguish between dates relating to a person and associated dates relating to events or documents, and so the SNAP:DRGN RDF will only contain a single date in as simple a form as possible, using the property **snap:associatedDate** to record a best-guess date range that can reasonably be assumed to overlap with the life of the person. Please express this date as an ISO 8601 date (YYYY[-MM-DD]) or time interval (<start>/<end>), as follows:

```

<http://www.example.com/person/123#this>
snap:associatedDate "0101/0200" .
(example of a “second century” person)

<http://www.example.com/person/456#this>
snap:associatedDate "0212-03-15/0270-12" .
(example of a person known to have been born on March 15th 212 CE, and to have died some time in
December 270.)

<http://www.trismegistos.org/person/181#this>
snap:associatedDate "-0199/-0062" .

<http://www.lgpn.ox.ac.uk/id/V5a-47783>
snap:associatedDate "0183/0183" .

```

## vii.b Place

You may have several places of different kinds associated with a person, recorded in your RDF as attributes or associated with events. SNAP is only concerned with a place association that might help to identify a person, which we ask that you record as follows:

```
<http://www.trismegistos.org/person/1234#this>
  snap:associatedPlace <http://pleiades.stoa.org/places/246474#this> .
```

```
<http://www.lgpn.ox.ac.uk/id/V5a-41349>
  snap:associatedPlace <http://pleiades.stoa.org/places/550496#this> ;
  foaf:name "Aristoboulos"@grc-Latn .
<http://pleiades.stoa.org/places/550496#this>
  rdf:type lawd:Place ;
  rdfs:label "Chios"@en .
```

```
<http://www.trismegistos.org/person/181#this>
  snap:associatedPlace <http://www.trismegistos.org/place/1628#this> .
<http://www.trismegistos.org/place/1628#this>
  rdf:type lawd:Place ;
  rdfs:label "Egypt, U04a - Pathyris (Gebelein)" .
```

If you only have a text string, rather than a Pleiades uri, for the place, you should mint a uri for this purpose, to which a text string will be attached:

```
<http://iospe.kcl.ac.uk/person/789#this>
  snap:associatedPlace <http://iospe.kcl.ac.uk/person/789#place1> .
<http://iospe.kcl.ac.uk/person/789#place>
  rdf:type lawd:Place ;
  rdfs:label "Chersakes"@en , "Χέρσακες"@grc .
```

```
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#this>
  rdf:type lawd:Person ;
  snap:associatedPlace
    <http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#place-1> ,
    <http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#place-2> ,
    <http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#place-3> ;
```

```
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#place-1>
  rdf:type lawd:Place ;
  rdfs:label "Mesembria (Bulgaria)" ;
  rdfs:comment "Is this the Mesemvriya at http://www.geonames.org/729147/ ?".
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#place-2>
  rdf:type lawd:Place ;
  rdfs:label "Radolibos (Macedonia)" .
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#place-3>
  rdf:type lawd:Place ;
  rdfs:label "Soudaga (Macedonia)" .
```

## vii.c Occupation/Title

You may have one or several occupations or titles, describing the everyday activity of a person or some kind of honour bestowed on him or her. Again SNAP is only concerned with occupations or titles that might help to identify a person, which we ask that you record as follows:<sup>2</sup>

```
<http://db.pbw.kcl.ac.uk/pbw2011/entity/person/107658#this>
  rdf:type lawd:Person ;
  snap:occupation "Katepano" , "Protovestēs" , "Vestarchēs" , "Vestēs" .

<http://catalog.perseus.org/catalog/urn:cts:greekLit:tlg0003>
  rdf:type lawd:Person ;
  foaf:name "Thucydides"@en ;
  snap:occupation "Historian" .
```

#### vii.d General Disambiguators

If you have general disambiguation terms that either do not fit into the three above categories, or which you cannot programmatically divide between them across a large dataset, you may use the superclass property, **snap:disambiguator**.

```
<http://data.perseus.org/catalog/urn:cts:greekLit:tlg2627>
  rdf:type lawd:Person ;
  snap:disambiguator "Larissaeus" , "Philosophos" .
```

#### **viii. Relationship(s) (optional)**

Familial relationships and similar bonds that are part of the identity of a person may be expressed by means of the **snap:hasBond** property, pointing to a generated identifier for each relationship. The relationships are then defined by means of (1) one or more classes (e.g. “FatherOf”, “WifeOf”, “AdoptedFamilyRelationship”)<sup>[2]</sup>; (2) a target with the property **snap:bondWith**, indicating the person with whom this relationship is held.

```
<http://www.trismegistos.org/person/181#this>
  snap:hasBond <http://www.trismegistos.org/person/181#rel-father-180> ;
  snap:hasBond <http://www.trismegistos.org/person/181#rel-son-531> ;
  snap:hasBond <http://www.trismegistos.org/person/181#rel-spouse-13423>.
<http://www.trismegistos.org/person/181#rel-father-180>
  rdf:type snap:SonOf ;
  snap:bondWith <http://www.trismegistos.org/person/180#this> ;
  rdfs:label "Father: Panebchounis" .
<http://www.trismegistos.org/person/181#rel-son-531>
  rdf:type snap:SonOf ;
  snap:bondWith <http://www.trismegistos.org/person/531#this> ;
```

---

<sup>2</sup> The occupation information will be especially useful for a cataloguing project such as VIAF, who will be interested in ingesting information about persons with creative occupations such as “writer”, “poet”, “historian”, “sculptor”, “actor”, etc.

```

    rdfs:label "Mother: Maithoytes alias Kobaethesis" .
<http://www.trismegistos.org/person/181#rel-spouse-13423>
    rdf:type snap:SpouseOf ;
    snap:bondWith <http://www.trismegistos.org/person/13423#this> ;
    rdfs:label "Wife: Senesis" .

```

In the next example, we do not have formal identifiers for a father and mother, just their names, so use only the **rdfs:label** notation, without a **snap:bondWith**.

```

<http://www.lgpn.ox.ac.uk/id/V5a-52993>
    snap:hasBond <http://www.lgpn.ox.ac.uk/id/V5a-52993#relationship-1> ,
    <http://www.lgpn.ox.ac.uk/id/V5a-52993#relationship-2> .
<http://www.lgpn.ox.ac.uk/id/V5a-52993#relationship-1>
    rdf:type snap:DaughterOf ;
    rdfs:label "d. Ἀπολλώνιος" .
<http://www.lgpn.ox.ac.uk/id/V5a-52993#relationship-2>
    rdf:type snap:DaughterOf ;
    snap:uncertain "yes" ;
    rdfs:comment "The source is not explicit, but scholars generally assume she
was the daughter of Apphias." .
    rdfs:label "d. Ἀφφιάς" .

```

The **snap:uncertain** property is a simple boolean whose only meaningful value is “yes”, meaning that the relationship here declared is in some way insecure or uncertain. **Rdfs:comment** may be used here (or attached to any top-level entity—person, name, attestation, citation, place, relationship, etc.) to make a general comment or prose description that is not catered for by the ontology, but which might be useful to a human reader.

## ix. Other Identifiers (optional)

If your database links to one or more external identifiers from other resources for your person, please include this information in the form:

```

<http://www.example.com/person/1234#this>
    skos:exactMatch <http://viaf.org/viaf/18013086> ,
    <http://dbpedia.org/resource/Augustus> .

```

## Scenario 2, adfix: our part

SNAP:DRGN will then generate a new SNAP identifier, at which human-readable HTML information on the person may be displayed, for all person-like entities in the form:

```

<http://data.snapdrgn.net/person/1>
    rdf:type lawd:Person ;
    prov:wasDerivedFrom <http://www.lgpn.ox.ac.uk/id/V3a-40899> .

```

### Scenario 3. Establishing alignment between prosopographies by adding annotations to SNAP

```
<http://data.snapdrgn.net/person/1001234>
  rdf:type lawd:Person, snap:MergedResource ;
  dct:replaces <http://data.snapdrgn.net/person/1231> ;
  dct:replaces <http://data.snapdrgn.net/person/1232> ;
  dct:publisher <http://snapdrgn.net> ;
  prov:wasAttributedTo <http://orcid.org/0000-0001-5186-0738> ;
  rdfs:comment "Both sources cite the same inscription, IG II2 4321." .
```

The “replaced” persons are both SNAP identifiers derived from partner project IDs. The merge is done on the derived SNAP Persons rather than on the partner source data (see <http://snapdrgn.net/archives/152> for discussion of the reasons for this). Merging is accomplished by the creation of a new lawd:Person which replaces two or more existing ones. Such resources have the additional type snap:MergedResource (signaling that they are the result of a merge operation) and the additional property snap:reason, which can point at evidence or justification for the merge. The dct:publisher of this new, merged person is the entity responsible for the merge; the prov:wasAttributedTo should be the individual or individuals who ....

### Scenario 4. Structured scholarly commentary (to follow)

Coming in SNAP 2

### Scenario 5. Annotating your text or other record with a SNAP uri

A SNAP:DRGN annotation on an external text, object or record is effectively a label saying, “This fragment contains the name or other representation of a person, who can be disambiguated with the following unique identifier.” In other word, the annotation attaches to the text fragment, and contains the SNAP URI of the person to be identified. Each annotation is made up of two parts: (i) a definition of the object being annotated; and (ii) the Open Annotation statement pointing at a SNAP URI.

#### i. Define your object

The definition of the object should contain as many of the following pieces of information as possible, but the only statement that is required is the URI.

```
<http://insaph.kcl.ac.uk/iaph2007/iAph120614.html>
  dct:title "Inscriptions of Aphrodisias 12.614" ;
  dct:identifier "IAph 12.614" ;
  dct:description "Honours for Titus Caesar" ;
  foaf:homepage <http://insaph.kcl.ac.uk/iaph2007/iAph120614.html> ;
  foaf:primaryTopicOf
    <http://epigraphy.packhum.org/inscriptions/oi?ikey=257826> ;
  dct:temporal "A.D. 69-79" ;
  dct:creator <viaf.org/viaf/25924/> ;
  dct:language "grc" ;
  foaf:depiction <http://insaph.kcl.ac.uk/images/photo/full/78_G_19.jpg> ;
```

```
dct:bibliographicCitation "Inscriptions of Aphrodisias 12.614";
dct:subject "inscription", "emperor", "statue base shaft" .
```

```
<viaf.org/viaf/25924/> rdf:type foaf:Person ;
foaf:name "Joyce M. Reynolds" .
```

## ii. Annotate your object with SNAP uris

The annotation itself needs to record all of: (a) the **Target**, i.e. the text or object in which the reference is being annotated; (b) the **Body**, i.e. the URI of the person being used to disambiguate the reference; (c) a URI identifying the person of the annotator (the example below uses a VIAF identifier, which is further expanded beneath); (d) the date of the creation of the annotation. All of these elements are **required**, although in the case of a person-reference for which no SNAP URI exists, the Body might be a non-URI resource (see second example below).

```
<http://example.org/annotations/01> rdf:type oa:Annotation ;
  oa:hasTarget <http://insaph.kcl.ac.uk/iaph2007/iAph120614.html#a11> ;
  oa:hasBody <http://data.snapdrgn.net/person/6293/> ;
  oa:annotatedBy <http://viaf.org/viaf/106795353> ;
  oa:annotatedAt "2014-11-18T12:07:00+00:00Z"^^xsd:date .

<http://viaf.org/viaf/106795353> a foaf:Person ;
  foaf:name "Gabriel Bodard" ;
  foaf:workplaceHomepage <http://www.kcl.ac.uk/> .
```

Example of a person-reference with no SNAP URI; in this case, only the name is given in the RDF as **cnt:chars**, allowing further annotation to be found and added at a later time if possible:

```
<http://example.org/annotations/02> rdf:type oa:Annotation ;
  oa:hasTarget <http://insaph.kcl.ac.uk/iaph2007/iAph120614.html#a13> ;
  oa:hasBody [ cnt:chars "Zenon" ; a lawd:PersonalName ] ;
  oa:annotatedBy <http://viaf.org/viaf/106795353> ;
  oa:annotatedAt "2014-11-18T12:07:02+00:00Z"^^xsd:date .
```

---

## FAQ

### Can I merge persons within SNAP:DRGN?

If you want to help improve the SNAP:DRGN graph by providing joins between records that unambiguously refer to the same person, you could do so in one of the three following ways:

1. If you are contributing your dataset to SNAP (via Scenario 2, above), please include as many alternative identifiers for your person entries as you can. If you have a record for Apollonios whom you know to be TM 1234 and LGPN I Apollonios 567, include the **skos:exactMatch** property and point to the URIs of these persons. This will allow us to merge both your dataset and the two existing records, if we have not already done so.



2. If you want to create links between person records in two databases already in SNAP and for which you are not responsible, please provide us with a table or CSV in two columns, giving the URIs of the persons that should be merged, so that we can create merge records as per Scenario 3, above. E.g.

<http://www.lgpn.ox.ac.uk/id/V1-63536>, <http://www.trismegistos.org/person/18084>

<http://www.lgpn.ox.ac.uk/id/V2-15037>, <http://www.trismegistos.org/person/17793>

<http://www.lgpn.ox.ac.uk/id/V2-29911>, <http://www.trismegistos.org/person/17791>

<http://www.lgpn.ox.ac.uk/id/V3a-23671>, <http://www.trismegistos.org/person/8935>

3. If you want to suggest identification between persons that are not as straightforward as the above (which are two prosopographies citing the same primary references in the most part), you will need to wait until we have designed Scenario 4, “Expressing relationships between persons or making other scholarly statements about entries in SNAP.” This will be a deliverable for a future phase of the project.

## Namespaces

The namespace prefixes used in this document are:

bibo	<a href="http://purl.org/ontology/bibo/">http://purl.org/ontology/bibo/</a>
cito	<a href="http://purl.org/spar/cito">http://purl.org/spar/cito</a>
cnt	<a href="http://www.w3.org/2011/content#">http://www.w3.org/2011/content#</a>
dct	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
foaf	<a href="http://xmlns.com/foaf/0.1/">http://xmlns.com/foaf/0.1/</a>
lawd	<a href="http://lawd.info/ontology/">http://lawd.info/ontology/</a>
prov	<a href="http://www.w3.org/ns/prov#">http://www.w3.org/ns/prov#</a>
rdf	<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#">http://www.w3.org/1999/02/22-rdf-syntax-ns#</a>
rdfs	<a href="http://www.w3.org/2000/01/rdf-schema#">http://www.w3.org/2000/01/rdf-schema#</a>
skos	<a href="http://www.w3.org/2004/02/skos/core#">http://www.w3.org/2004/02/skos/core#</a>
snap	<a href="http://onto.snapdrgn.net/snap#">http://onto.snapdrgn.net/snap#</a>

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<sup>[1]</sup> The namespace prefixes used in these examples are listed at the end of this document.

<sup>[2]</sup> The common relationship classes available in the SNAP ontology include: MotherOf, FatherOf, DaughterOf, SonOf, SisterOf, BrotherOf, WifeOf, HusbandOf, SpouseOf, AuntOf, UncleOf, NieceOf, NephewOf, GrandmotherOf, GrandfatherOf, GranddaughterOf, GrandsonOf, SlaveOf, FreedmanOf, FreedwomanOf. Optionally you can dual class the bond to indicate the relationship axis. Examples include: AdoptedFamilyRelationship, StepFamilyRelationship, InLawFamilyRelationship, MaternalFamilyRelationship, PaternalFamilyRelationship. (See the ontology for the full list of currently defined classes: <http://snapdrgn.net/ontology>).