Practicalities of Hellenistic Ruler Cult (PHRC)
Towards a semantic markup of ritual action and its social underpinnings

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Structure of the presentation

• Introduction to PHRC
• The PHRC semantic annotation of ritual practice and agency
• An example of semantic annotation from PHRC 87: a Decree of the city of Skepsis establishing cultic honours for Antigonus the One-Eyed (OGIS 6)
• PHRC 2.0: Perspectives of further development
What is PHRC?

- A project funded by a Marie Curie Piscopia scholarship, University of Padova, Italy (October 2015 – September 2017), and by the Fonds National de la Recherche Scientifique, University of Liège, Belgium (October 2017-September 2020)
- A research in Greek epigraphy, Hellenistic history, Digital Humanities
- A study of the ritual practice and social agency in cultic honours for Hellenistic benefactors
- It focuses on Asia Minor, Cyprus, Aegean Islands, from the late 4th to the 1st century BC
- It is addressed to scholars, teachers, university students
Which questions does PHRC ask to the sources?

- Which kinds of ritual action are carried out for human beings in Hellenistic communities?
- How are new cults modelled after existing ones?
- How are they embedded in the religious life of communities?
- Which social agents establish, fund, regulate, practise cultic honours for human beings?
- How do these various agents interact?
Which is the documentary corpus of PHRC?

- Religious dedications addressed to human recipients, alone or in association with traditional deities;
- Royal letters commenting upon cultic honours for members of the royal family;
- Civic decrees establishing, motivating and regulating cultic honours for human benefactors;
- Archaeological records (when available) for topographic case studies of the sacred landscape of these cults
Objectives: PHRC aims to promote research and digital learning, by providing

• an augmentable library of textual and visual documentation, which can be browsed via specific queries
• a brief introduction to the themes of philological and historical relevance on which each document sheds light
• fast access to further bibliography (also with direct links to online open access material)
• geo-located structured data that can be exported and embedded in larger platforms
What does PHRC deliver?

- Scientific papers
- PHRC vocabulary and taxonomy for ritual action and agency
- PHRC database of about 150 xml-encoded inscriptions with metadata, images, English commentary, English and Italian translations
- PHRC geo-blog developed with the open-source geoCMS #Mappiamo (based on the geocoder Nominatim, nominatim.openstreetmap.org)
- PHRC/#Mappiamo open-source xml-to-JSON convertor

The PHRC IPR policy is fit for open knowledge: CC-BY-SA 4.0 International license for data and metadata; open APIs; images according to the policy of the owners of the digital assets
What kind of information is associated with PHRC items?

- Individual identifier for each textual source
- Position on map
- Images
- Metadata: description of support, text type, history (time; original location, finding place, present repository, with coordinates), bibliography and external links
- Summary of content with keywords
- Xml-encoded Greek text with semantic markup
- Apparatus
- Translations: English, Italian (French in the future)
- Brief commentary focusing on ritual action for benefactors, with internal and external links for further research
PHRC is searchable via queries based on Greek lemmata and via the following indexes:

- Text number
- Geo-located places
- Persons
- Deities
- Type of support
- Type of text
- Type of structures related to ruler cult
- Types of action (related to ritual practice and to regulation/administration/funding of cults)
- Time
- Region
- Bibliography
The PHRC semantic annotation

Objectives

- Creating a consistent, flexible and augmentable vocabulary and taxonomy for ritual practice and social agency
- Embedding semantics into xml encoding
The PHRC semantic annotation

Who?  ➔ human and divine; individuals, groups, institutions; information on geographical origin and social status of agents

Types of action ➔ ritual; non-ritual

What? ➔ animals, vegetables and derived products used in ritual practice; human-made objects and structures dedicated as part of religious honours

Where? ➔ geographical names; other geo-located points of interest

When? ➔ date; occasion; frequency; duration

Why? ➔ motivation

How? ➔ relation; quality; measures
PHRC (Padova/Liège) builds upon the semantic annotation of the project Collection of Greek Ritual Norms (Liège)

http://cgrn.ulg.ac.be

Collection of Greek Ritual Norms provides a taxonomy of ritual action, encoded into xml with the element `<name type="...">

- PHRC combines ritual action with agency → more information must be embedded in the xml code
- Entity = `<name type="..." subtype="..." ana="...">...

@type = characterizes the element in some sense, using any convenient classification scheme or typology
@subtype = provides a sub-categorization of the element, if needed
@ana = (analysis) indicates one or more elements containing interpretations of the element on which the ana attribute appears

- Describing social entities in interaction: E = `<w, x, y>; E^{int} = `<z`
- `<name type="..." subtype="..." ana="..." n="agent/recipient/benefiting">...

@n = gives a number (or other label) for an element, which is not necessarily unique within the document
Values of @type: identifying agents

- **Title**: indicates that the social entity is an individual holding an official title formally identifying his/her status (e.g. strategos, king, gymnasiarchos)

- **Group**: indicates that the social entity corresponds to a formally recognized social group, without being identifiable as a governmental body (e.g. citizens, foreigners, members of an association)

- **Institution**: indicates that the social entity is an institutional agent acting as a distinctive governmental body (e.g. polis, demos, boule, phyle)
Values of @subtype: contextualizing: polis – kingdom - across systems

<table>
<thead>
<tr>
<th>league</th>
<th>royal (royal house)</th>
<th>profession (professional associations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>polis</td>
<td>royalHierarchy (royal official, member of court, philos, etc.)</td>
<td>ritual (religious associations)</td>
</tr>
<tr>
<td>partition (a subsection of a polis)</td>
<td></td>
<td>army</td>
</tr>
<tr>
<td>foreign (non-resident inhabitants of the polis)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classical Philology goes digital: Working on textual phenomena of ancient texts
University of Potsdam, February 16-17, 2017
### Values of @ana: examples of conventional triplets

<table>
<thead>
<tr>
<th>Social entity/species</th>
<th>Type</th>
<th>Subtype</th>
<th>Ana</th>
</tr>
</thead>
<tbody>
<tr>
<td>βασιλεύς</td>
<td>title</td>
<td>royal</td>
<td></td>
</tr>
<tr>
<td>ἄρχων (city)</td>
<td>title</td>
<td>city</td>
<td></td>
</tr>
<tr>
<td>πρεσβευτής</td>
<td>title</td>
<td>cityOR league ORroyalHierarchy</td>
<td>communication</td>
</tr>
<tr>
<td>ἱερεύς (city)</td>
<td>title</td>
<td>city</td>
<td>ritual</td>
</tr>
<tr>
<td>γυμνασίαρχος</td>
<td>title</td>
<td>city</td>
<td>partition</td>
</tr>
<tr>
<td>πολίται (also πάντες)</td>
<td>group</td>
<td>city</td>
<td></td>
</tr>
<tr>
<td>νέοι</td>
<td>group</td>
<td>city</td>
<td>age</td>
</tr>
<tr>
<td>θίασος</td>
<td>group</td>
<td>ritual</td>
<td></td>
</tr>
<tr>
<td>Βασιλισταί (on Thera)</td>
<td>group</td>
<td>army</td>
<td>ritual</td>
</tr>
<tr>
<td>ξένοι</td>
<td>group</td>
<td>foreign</td>
<td></td>
</tr>
<tr>
<td>δήμος</td>
<td>institution</td>
<td>city</td>
<td></td>
</tr>
<tr>
<td>φυλή</td>
<td>institution</td>
<td>city</td>
<td>partition</td>
</tr>
</tbody>
</table>
Values of @ana: examples of fine-grained annotation

- strategos (civic military commander) = <title, city, army>
- phourachos (royal garrison commander) = <title, royalHierarchy, army>

From semantic tagging to multiple queries

<table>
<thead>
<tr>
<th>1-key query</th>
<th>2-key query</th>
<th>3-key query</th>
<th>4-key query</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>subtype</td>
<td>ana</td>
<td>agent</td>
</tr>
</tbody>
</table>
PHRC 87: a Decree of the city of Skepsis establishing cultic honours for Antigonus the One-Eyed (OGIS 6)

Lines 20-26: ἀφορίσαι | αὐτῷ τέμενος καὶ βωμὸν ποهىσαι καὶ ἄγαλμα | στησαι ως κάλλιστον
“to delimit for him a sacred precinct, to build an altar, and to erect a cult statue as beautiful as possible.”

<br n="20"/> <name type="curation"><w lemma="ἀφορίζω">ἀφορίζω</w></name>
<br n="21"/> <w lemma="αὐτός" ref="persons.xml#Antigonus1">αὐτῶι</w>
<br n="21"/> <name type="building" ref="space.xml#precinct"><w lemma="τέμενος">τέμενος</w></name>
<br n="21"/> <w lemma="καὶ">καὶ</w>
<br n="21"/> <name type="structure" ref="space.xml#altar"><w lemma="βωμὸς">βωμὸν</w></name>
<br n="21"/> <name type="curation"><w lemma="ποهىσαί">ποهىσαί</w></name>
<br n="21"/> <w lemma="καὶ">καὶ</w>
<br n="22"/> <name type="curation"><w lemma="στησαί">στησαί</w></name>
<br n="22"/> <name type="quality"><w lemma="ως">ως</w></name>
<br n="22"/> <w lemma="κάλλιστος">κάλλιστος</w>
ἐπιμελήθηναι δὲ τὸν γραμματέα· δοῦναι δὲ καὶ εἰς ταῦτα τὸ ἀνάλωμα τὸν ταμίαν

“The secretary shall supervise (this); the treasurer will provide the funds for these (expenses)”

<lb n="41"/> <name type="management">
  <w lemma="ἐπιμελέομαι">ἐπιμελέομαι</w><supplied reason="lost">μελή</supplied><supplied reason="lost">θήναι</supplied></name>
  δὲ τὸν <name type="title" subtype="city">
    <w lemma="γραμματεύς">γραμματεύς</w></name>

<lb n="42" break="no"/> ματέα</name>:
  <name type="management">
    <w lemma="δίδωμι">δίδωμι</w><supplied reason="lost">δοῦναι</supplied></name>
  <supplied reason="lost">δὲ</supplied> καὶ <w lemma="εἰς">εἰς</w><supplied reason="lost">ταῦτα</supplied>
  τὸ <name type="funding" subtype="city">
    <w lemma="ἀνάλωμα">ἀνάλωμα</w></name>

<lb n="43" break="no"/> μα</name>
  τὸν <name type="title" subtype="city">
    <w lemma="ταμίας">ταμίας</w></name>
Further developments: PHRC 2.0

- FNRS, University of Liège (October 2017 – September 2020)
- Consolidation of the vocabulary and taxonomy → collaboration with similar projects to co-design a more abstract and portable ontology of ancient Greek and Roman polytheisms
- More documents (about 250)
- New areas: the Levantine Coast, Egypt, Cyrenaica, mainland Greece
- New supports: Greek papyri and ostraka

- Outreach agenda: citizen science and cultural tourism
- Development of a PHRC bot for the free messenger app Telegram for in situ mobile browsing
www.phrc.it (release scheduled in October 2017)

Epipap – Laboratorio di Epigrafia Antica e Papurologia, Padova

https://github.com/mappiamo

Contact: ste.caneva@gmail.com