Berkeley Prosopography Services Wiki Home

Introduction

Berkeley Prosopography Services (BPS) is an open-source prosopographical toolkit that generates interactive visualizations of the biological and social connections that link documented individuals, providing a dynamic and heuristic tool for researching historical communities documented in legal and administrative archives.

We are currently exploring and developing a prototype application with a single target corpus, but will soon expand to support multiple corpora. The initial corpus is a set of Hellenistic Babylonian legal texts (cuneiform tablets).

Project Vision

- Build a generalized SNA reasoner
- Build graphical visualization tools for families, social networks, that support what-if and similar workflows.
- Deployment projects build additional recognizers for names, activities, etc., and rule-bases for various languages, corpora
- Communities prepare and import corpora, and share assertions about the corpora, in a model of collaborative research.

Project News

October 28, 2013

Laurie Pearce has been invited to speak about BPS at the Leiden Institute of Area Studies, Leiden University (NL).

September 10, 2013

Patrick Schmitz presented a paper, "Ancient Texts, Modern Tools," in the DH-CASE 2013: Collaborative Annotations in Shared Environments: Metadata, Vocabularies and Techniques in the Digital Humanities Workshop at the DocEng2013 conference in Florence, Italy. The paper, co-authored with Laurie Pearce, was one of three in a session on Prosopography. The slide decks from the workshop papers may be seen here.

May 3, 2013

BPS gets ready to launch a blog: berkeleypros.wordpress.com. We'll post updates, developments in community and services, as they happen. We'll share our progress and the conversations that have prompted our work.

April 23, 2013

We participated in the launch of the campus d-lab with a poster, ppt and live demo**.**

March 22, 2013

On March 22, BPS hosted a webinar, to which individuals who had participated in previous workshops were invited. Laurie Pearce and Davide Semenzin demonstrated the a "state of the project": live connection and use of BPS tools, the graph viz (running on a local stack with live data), and screen shots of features to be developed. The audio/video file is available for download. The Q&A and comments and responses that follow were sent to PM Laurie Pearce following the webinar.

Q: Is the size of corpus limited? 10,000 texts, say?

A: There is no physical limit to the size of the corpus BPS can handle. The back-end of the system scales well, and at this point we have not encountered any issues that suggest we must limit the corpus size. However, very large corpus (such as 10K texts) will consume more computing resources and the reasoning will take longer to complete. A graph visualization of a corpus that large with many citations of the same people would be terribly slow to generate.

Q: Is there or will there be a conventionalized or standardized say of coding prosopographical relationships within TEI or some other format? Perhaps unique IDs for a particular individual in antiquity? This would let people build prosopographical relationships into their corpus in a standard, BPS readable way, even if their corpus is too big to upload or not public. In other words, if there were a convention, people could aim for that, even if there are technical limitations at the moment.

A: There will be standards for the coding of prosopographical relationships, but we have not yet published them.

Part of the process of establishing the unique ID's for individuals will be to declare the citation of that individual in a particular text as canonical and develop a pointer to all other citations of that individual. In the case of a corpus that is entered into BPS with all the assertions made (i.e., all namesakes disambiguated), part of the pre-processing will entail adding ids to the individuals.

Comment: I think one way to make the matrix one step more useful is a richer filtering set of parameters (forgive my language here; I'm not sure if I'm using the right words). I think it would be really useful to limit connections between people that involve, say, more that 1 mina of silver or that involve cultic paraphernalia or the like. This suggestion is probably obvious, but my interests don't have me asking who is connected, but what is connecting them (beyond, say, slave to master, or son to father).

Response: The architecture of the system is designed to handle customization of features that can be grouped by category or property. If the corpus curator can assign that feature an attribute, BPS will be able to filter for it. Filtering for "greater/less than" is not feasible to mark in the TEI. However if the user wanted to assign attributes such as "big/small amount of silver" to text, that could be the basis of filters. We're happy to talk about dealing with specific features on which you would like to filter and about how they would be grouped in cateogries. Compile a list and send it to us!

Comment: I would love to see connections and networks plotted against geography, both local and Mesopotamia-wide.   I think even a simple map with quadrants and the ability to chart connections between two particular quadrants over a span of years could yield some remarkable information.

Response: Geographic markers is one feature for which BPS parses. It is necessary to be able to recognize geographic meta-data as well as be able to associate that with other specific attributes. If the user wants to map where an activity takes place, where a text was found, where a transaction takes place, the TEI must be marked for those features. There is a lot of metadata that needs to be marked, and some functionality needs to be implemented through BPS. Again, compiling lists of geographic features and activity/role/date markers the user would like to explore will provide us with the basis for a discussion of the user's particular needs.

Comment: Will one be able to work with professions separately (or, perhaps I'd say overlapping-ly)? It would be interesting to me (especially in temple contexts) to work up a matrix filtered in whatever way, and then view the results not as individuals but by their clan- or professional affiliation as a sort of meta-overlayer.

Response: Yes. At this point, BPS has a limited number of role/profession/clan filters operating. But these are all to be implemented, and depend primarily on providing our technical team with the data on which to filter and the means to recognize it. You can help us by providing lists of terms on which you would like to perform such a search (ideally, send as much information as possible, e.g.: normalized Akkadian and orthographies subsumed under that citation form). We need to consider the taxonomy of professions and whether several professional designations could/should be rolled up into generic categories. Another point for consideration is whether a profession is a life-role or an activity (or both), as that will impact how the TEI gets marked.

Comment: This is probably a small matter but potentially interesting … there's an opportunity here for people interested in the names themselves (that is, to run tests on theophoric or grammatical elements in names, that sort of thing). It may be worth thinking through a separate element for Namenforschung (study of names). Jan Tavernier would have some ideas on what tools would be useful to people with those interests.

 Response: Although this sort of research is a legitimate and valuable component of prosopographical research, on first look, onomastic parsing and analysis appears to be beyond BPS's scope and mission of identifying individuals, relationships, social networks and creating graph visualizations of the results. However, since features of names (inclusion of theophoric elements, morphological and syntactic features of the source language of the name) can be important diagnostics in establishing correlations between standard name forms and hypocoristica (nicknames, shortened forms of names), there is value in exploring the incorporation of such a component into BPS.

December 9, 2012

BPS will present in the Knowledge Infrastructure for Humanities session at the PNC Annual Conference and meetings, co-sponsored with ECAI. UC Berkeley.

November 15, 2012

Laurie spoke at the Round Table and, along with Patrick and Niek, presented a poster and demo of BPS at a program sponsored by Doreen B. Townsend Center for the Humanities digital humanities working group, in collaboration with the Bancroft Library, the College of Arts and Humanities, and Berkeley IS&T. You can view pictures of that event here.

October 30, 2012

Davide and Patrick completed code check-in and hand off.

October 24, 2012

Davide and Laurie presented this powerpoint at the Brown Bag Lunch Talks sponsored by the department of Near Eastern Studies. Patrick Schmitz was in attendance, as were members of the Berkeley IST team (Fernando Alvarez, Steve Masover) and Hearst Museum of Anthropology staff members Michael Black and Natasha Johnson.

October 12, 2012

Patrick, Laurie and Davide presented this powerpoint to the Friday Seminar at the UC Berkeley I-School. The presentation included a live demonstration of the BPS website and a real-time demo of the SNA Graph-viz running on a local stack on Davide's laptop.

August 8, 2012: In-house demonstration

Davide, Niek, Patrick, Laurie

July 9, 2012, Seeing the light

Development of the SNA reasoner has started after nearly a month an a half of requirements elicitation, user stories development and services engineering. Screenshots will be available soon.

May 31 - June 2, 2012

Laurie Pearce participated in the NEH-sponsored LAWDI at the Institute for the Study of the Ancient World (NYU). The program may be viewed here. Notes and observations will be posted soon.

April 8-9, 2011 Workshop

BPS held another workshop on the Berkeley campus. Participants: Patrick Schmitz, Laurie Pearce, Niek Veldhuis, Jay Crisostomo, Yoram Cohen, Mike Kozuh, Cornelia Wunsch, John Nielsen; via Skype: Caroline Waerzeggers, Allon Wagner. Also in attendance from Berkeley IST Data Services: David Greenbaum, Steve Masover, Fernando Alvarez.
April 8: Laurie presented a brief review of the history and development of BPS in a Powerpoint presentation. Patrick then presented the current version of the BPS tools. He described the content and functionality of the Corpora and Workspace areas of the website. Features include the ability to load corpora, identify individuals, roles and activities. The functionality to weight assertions made in the context of documents, inter-documents and intra-documents is in place and will be active soon. The afternoon session was "hands-on" exploration of the tools. Participants loaded corpora and explored both the corpora and workspace features of the service. They successfully loaded, sorted names, viewed name citations, and entered into the workspace.
April 9: Schmitz, Pearce, Nielsen, Crisostomo, Wunsch, Kozuh and Waerzeggers (via Skype) assessed the relative importance of each item in a list of desiderata Schmitz compiled on the basis of participant reactions and comments during yesterday's hands-on. The ranking of their votes will allow Pearce and Schmitz to evaluate specific items for near-term development and resolution. A view of the features discussed in this context is here.

In August 2010, Professor Andrea Seri returned to Berkeley for training in the preparation of texts for inclusion in the Oracc consortium and in the development corpora for BPS. Professor Seri's project focuses on an archive from the city of Uruk in the Old Babylonian period (c. 1750 BCE). The focus of the archive is the institution of the bit asiri, the prison, and her preliminary work on the social networks evident in this administrative institution appears in this diagram. Professor Seri has indicated that substantially revised diagram will appear in her forthcoming monograph and that this image is to be used only on this site and exclusively for illustrative purposes.

Laurie Pearce was an invited speaker at the NEH-sponsored Advanced Topics in Digital Humanities Seminar "Networks and Network Analysis in the Humanities" at UCLA in August 2010. The program of the 10-day seminar can be seen here. She presented a "success story" (Re-)constructing cuneiform communities: ancient and modern (the slides from the presentation may be seen here). The main thread of the narrative focused on the placement of HBTIN in the collaborative environment of the cuneiform consortium Oracc and the role of HBTIN as the demonstrator corpus for BPS. Immediate feed-back came from two young scholars who expressed interest both in the prosopography tools we are developing (in particular for a study of Enlightenment Germany and its intelligentsia) and in the linkage of marked-up original texts to the prosopographical tools (for Chinese prosopography). This confirms our conviction that BPS has much to offer a broad range of humanities research.

On March 25-26,2010, BPS team members Laurie Pearce and Patrick Schmitz led a workshop attended by scholars from the cuneiform community. Each of the participants is a specialist in a cuneiform text corpus and has previously expressed interest in contributing textual data from his/her research projects for testing and development of BPS tools.

In attendance:

*Professor Andrea Seri (Oriental Institute, University of Chicago)
*Professor Caroline Waerzeggers (Vrijeuniversitet Amsterdam)
*Dr. Cornelia Wunsch (School of Oriental and African Studies, London)
*Professor Steve Tinney (University of Pennsylvania)
*Professor Niek Veldhuis (UC Berkeley)
*Jay Crisostomo (UC Berkeley, NES graduate student)
*Allon Wagner (Tel Aviv University, graduate student. Mr. Wagner presented the technical and textual material of the project CTIJ directed by Professor Yoram Cohen)

Workshop Sessions:

- Project Descriptions
- BPS
  html markup
  rules/assertions
- SNA fundamentals
- text processing
  ATF production
  lemmatization
  glossary building

"Expanding the Tools of the Trade" on the web-version of the College of Letters and Sciences newsletter (September 11, 2009) reports on the work of BPS. BPS continues to demonstrate growth in the field of digital humanities research.

BPS at CDLI meeting at UCLA.

September 2009: Laurie Pearce and Stephanie Langin-Hooper attended the CDLI meeting at UCLA. One session was devoted to the development of a CDLI seal/seal-impression database. This is being developed by Christina Tsouparopolou (Berlin) and is intended to catalogue seals and seal-impressions from all periods of usage in Mesopotamia. Pearce and Langin-Hooper presented the existing HBTIN seal-impression database. The points they highlighted included: problems in transformation of legacy databases; attribution of scholars' published descriptions of seal iconography; database design and how it influences and shapes the query and data-recovery process.

Seal-impression database edits complete.

August 2009: Ronald Wallenfels, Laurie Pearce, Jay Crisostomo and Stephanie Langin-Hooper completed the editing of the seal(-impression) database created for HBTIN. In Jan. 2009, Steve Tinney transformed Wallenfels' legacy Nota Bene files used to produce Wallenfels' 1994 catalogue raisonee, "Uruk: Hellenistic Seal Impressions" (AUWE 19. Mainz: Phillip von Zabern). The iconographic data and prosopographic notices associated with the seal-impressions are central to the creation of a full data set and underscore that the "complete object" (text and image) must be included in any artifact analysis. These data strengthen the BPS tool-set and further define the potential of the prosopography tools. Pearce and Langin-Hooper will attend a September CDLI conference in order to participate in the discussion and development of the CDLI seal catalogue.

Modern Prosopography paper presented at RAI.

July 9, 2009: Stephanie Langin-Hooper and Laurie Pearce present a paper (CDL, HBTIN & BPS: The Very Model of a Major Modern Prosopography) at the Rencontre Assyriologique Internationale, Paris. The paper explains the interconnections between CDL, HBTIN and BPS and presents a mock-up of how the prosopography tool will work. Selected slides from the Powerpoint presentation are here.

BPS presents at UC Berkeley HART symposium

April 23, 2009: We presented our project to the UC Berkeley HART Initiative symposium. The poster outlining our project and its development can be seen here. The HART Initiative supported our work from January-August 2009.

BPS article in UC Berkeley iNews

Mar 10, 2009: An article about the project has just been published in Berkeley's iNews: Using Natural Language Processing and Social Network Analysis to study ancient Babylonian society.

Project Roadmap

For the near term, our tasks include the following. We are transitioning to an agile development process based upon XP principles. We will document the sprints in terms of user-stories that link to JIRA issues and associated tasks. We currently have limited resources devoted to development, so progress is slow but steady.

- Understand constrained domain.(mostly done, but ongoing)
- Compile summary results of needs assessment(done Read the results_)_
- Investigate example documents *(done)*
- Design generalized architecture *(done)*

- Build team *(done)*
- Develop core pieces, one at a time *(In process)*** User-centered-design for presentation, etc.
  - Lemmatizer in progress at UPenn
  - Seals DB cleaned up, transferred by Jay and Stephanie *(done)*
  - Names DB being cleaned up by Laurie *(name authority DB done)*
  - Patrick, Pierre working on architecture model (mostly complete)
- Identify Partners and Development Corpora *(in process)*
- User management, profile and contact support

Project Development and Management

Pages dedicated to various aspects of the workings of the project:

- BPS Development Meeting Notes
- BPS Services Planning
- Community building
- Text Content
  - Decomposing Content
  - Templates
- BPS Code on Google.code
- Current Issues list
- Installation and current deployment notes
- User stories and functional decomposition of the SNA module

Project Team and Communications

The BPS Team

Staff

- Laurie Pearce, project director. Lecturer in Assyriology, NES. 2007-
- Patrick Schmitz, project IT director. Semantic Services Architect, IST. pschmitz at berkeley dot edu. 2007-
- Davide Semenzin, Software Engineering Intern, MA student, University of Utrecht, NL. 2012.

Berkeley Associates

- Niek Veldhuis. Associate Professor of Assyriology. Member of the steering committe of Oracc (The Open Richly Annotated Cuneiform Corpus), an international consortium of cuneiform corpora. 2007-
- Jay Crisostomo (cjcrisostomo at berkeley dot edu). NES graduate student. Text corpus and seal-impression database preparation. 2009-2011
- Stephanie Langin-Hooper. NES graduate student. Seal-impression database preparation. 2009-2011.
- Christopher D. Bravo. AHMA graduate student. Text corpus preparation. 2012-
- Eduardo Escobar. NES graduate student. Text corpus preparation. 2013.

Project Partners

- Dr. Ronald Wallenfels. (rwallenfels at verizon dot net). Adjunct Professor, NYU and Kean College. 2009-
- Steve Tinney. Professor in Assyriology, University of Pennsylvania. Associate Curator of the Babylonian Section of the Penn Museum, and Director of the Pennsylvania Sumerian Dictionary Project. Member of the steering committe of Oracc. 2009-

- Professor Andrea Seri. (aseri at uchicago dot net). Assistant Professor of Assyriology, University of Chicago. Corpus curator of the Rim-Anum texts. 350 texts from Old-Babylonian Uruk (c. 1750), recording administrative activities of the bit asiri institution.
- Professor Caroline Waerzeggers. (c dot waerzeggers at ucl dot ac dot uk). University College, London. Temple archive of Borsippa, NB period. (c. 3000 texts). 2011-
- Dr. Cornelia Wunsch. (mail at islet_verlag dot de). School of African and Oriental Studies, London. Corpus curator of the Egibi Houses corpus. Texts from the Achaemenid period (6th-4th centuries BCE) dealing with the real-estate holding of the Egibi banking family. 2011-
- Professor Michael Kozuh. Auburn University, Auburn AL. Eanna Land Management. Neo-Babylonian texts from the Eanna temple (Uruk) archive. Administrative documents related to the management of the temple herds. 2011-
- Professor Yoram Cohen. Tel Aviv University. Cuneiform Texts Mentioning Israelites and Judeans
- Professor John Nielsen. Benedictine University. 2011-
- Professor Stephanie Langin-Hooper (slangin at bgsu dot edu). Assistant Professor, History of Art. Bowling Green State University. 2012-

Background Research and Related Projects

- Project Architecture Diagram

- NIO (Netzwerk Interferenz-Onomastik/Network for Intercultural Onomastics)

- Oracc
  The On-line Richly Annotated Cuneiform Corpus at University of Pennsylvania is a collaborative network of projects. Linked to a global registry for cuneiform documents (the CDLI catalog), tools for corpus-development (the ATF specification and related software and web-services), educational pages (the CDLI wiki) and a free hosting service to support the development of special-interest projects. We've talked quite a bit with Steve Tinney, and are leveraging other Oracc resources as well.

- PASE
  The Prosopography of Anglo-Saxon England (PASE) is a database which aims to cover all of the recorded inhabitants of England from the late sixth to the end of the eleventh century. It is based on a systematic examination of the available written sources for the period, including chronicles, saints' Lives, charters, libri vitae, inscriptions, and coins.

- Prosopographia Ptolemaica
  According to this project's website, "The Prosopographia Ptolemaica started as a list of all inhabitants of Egypt between 300 and 30 B.C., from Greek, Egyptian and Latin sources, both authors and documents. It is now being extended to the Roman and Byzantine periods. The Prosopographia Ptolemaic has been integrated in the papyrological framework of http://www.trismegistos.org Trismegistos. It is also set up in close collaboration with the Heidelberger Gesamtverzeichnis and the Duke Database of Documentary Papyri."

- Prosopography of the Byzantine World

- Oxford Prosopographical Research Unit
  An international group of scholars dedicated to the study and promotion, and, where necessary, development, of the disciplines and methods of prosopography. A recent publication, Prosopography Approaches and Applications: A Handbook, is a manual aimed at beginners and experts, covering the Ancient World, the Middle Ages, including Islam, and the Modern period. A Tutorial is also available at http://prosopography.modhist.ox.ac.uk/