

Social worlds through Digital Humanities

Proposed by Bertrand Jouve

URL: <https://escmp.euroscience.org/proposal/view/511>

Status: Draft

Programme: Scientific Programme

Format: Traditional panel discussion

Duration: 1h15

Theme: A digital world

Abstract: The rise of digital has led to the development of new practices and approaches that led to significant progress in Social Science and Humanities referred to as Digital Humanities. Specialized in complex social worlds, XSYS proposes to shed light on DH with 4 projects. Mapping Ancient Polytheisms (MAP) will exploit the divine epithets as an indicator of the multiple powers and modes of action of gods. It revisits the Interface between Religious Systems and Human Agency by compiling all attestations of divine epithets in the Greek and Semitic worlds (1st ML BC) and linking them with Social Network Analysis. Tracking Papyrus and Parchment Paths: An Archaeological Atlas of Coptic Literature will create an online database with GIS platform that integrates the complete census database of all Coptic manuscripts and link it to the archaeological sources available for each item. PATHs will offer an in-depth diachronical understanding and visual representation of the geography of Coptic literary production (Egypt, 3rd - 11th Cent.). The Analysis of rural medieval society in the South-West of France (XIIIth – XVIth) was enabled by a large scale reconstruction of social networks based on names recorded in agrarian contracts. GRAPHCOMP brought out original organizational structures on different levels of the society which revisit the notion of rural elites and social hierarchy and their dynamic thru the Hundred Years' War. HUGO offers a unique patrimonial picture of the French judiciary and penitentiary park. By integrating a participative crowdsourcing component in data collection, new or unknown testimonials will be revealed enabling to update the knowledge of judiciary heritage. HUGO will help grasping the plural identity of a site by placing it in an evolution that takes part in the making of local, regional and national history. A discussion with experts from European infrastructures will close the session.

Target audience: Scientists, Media, Industry & Business, Policy makers, General public, Students

Cross-cutting
approches:

Relevance of the
selected approches:

Special requirements
and demands: Please refer to the websites of the different projects or the attached pdf for further information.

- PATHs : <http://paths.uniroma1.it/>

- GRAPHCOM : <http://graphcomp.univ-tlse2.fr/>

Does the session organiser (or a speaker of the session) envisage to propose an event in the Science in the City festival (same dates as ESOF) about the same topic oriented towards the public (this should be in French or in English and French) ? :
Don't know

Does the session organiser (or speakers of the session) envisage to participate in an event in the Science in the City festival on a topic related to that of the session (this should be in French or in English and French)?: Yes

Status	Name	Email	Gndr	Position	Organisation	Country	Role	Reason for inviting
Submitter	Bertrand Jouve	crette.aurelie@gmail.com	M	Senior Researcher	XSYS - CNRS	FRANCE	Submitter	
Confirmed	Corinne BONNET	cbonnet@univ-tlse2.fr	F	Professor	University of Toulouse Jean	FRANCE	Keynote speaker	Project leader
Confirmed	Paola BUZI	paola.buzi@uniroma1.it	F	Professor	Sapienza University of Rome	ITALY	Keynote speaker	Project Leader
Confirmed	Marc RENNEVILLE	marc.renneville@cnrs.fr	M	Senior Researcher	CNRS	FRANCE	Keynote speaker	Project Leader
Confirmed	Bertrand Jouve	bertrand.jouve@cnrs.fr	M	Senior Researcher	XSYS - CNRS	FRANCE	Keynote speaker	Project Leader
Confirmed	Aurélie CRETTE	crette.aurelie@gmail.com	F	Assistant Project Manager	XSYS - CNRS	FRANCE	Manager	Coordination and management role
Not yet contacted	Laurent Romary	laurent.romary@dariah.eu	M	Director	DARIAH-ERIC	GERMANY	Panellist	Expert
Not yet contacted	Olivier Baude	olivier.baude@humanum.fr	M	Director	HUMANUM	FRANCE	Panellist	Director of the French Infrastructure for Digital Humanities

Supporting documents

- 1 Full description of the session content and Resume of the Session Organiser and the Confirmed Key

Social worlds through *Digital Humanities*

Session Organizer : Bertrand JOUVE (XSYS - & CNRS UT2J)

I - Full Description of the session content :

The rise of digital has led to some extent to the hegemony of "digital scientific data", easily and quickly shared. It led to some transformation of the practices of researchers in all scientific fields, including the Social Sciences and Humanities. The label "**Digital Humanities**" has been created by the later to refer to these new practices and approaches of digital data. These transformations that are induced, come together with adapted services and apparatus which are transnational, European, distributed and participatory, meeting the best international standards: interoperability data standards, automatic processing of large corpus, indexing services for databases, smart digitalization, long-term backup... The construction of a Europe of Research, including for the Human and Social Sciences, is deeply intertwined with a Europe of data immersed in "big data", intensive calculation or "open access".

Specialized in complex system analysis, XSYS proposes to shed light on **DH** thanks to 4 project researches that have reached various stages regarding how far DH are embraced. Three projects revisit the social worlds of the past, for which data are a priori less abundant and less easily accessible. The 4th project focuses on a transperiodic judiciary thematic. Each of these presentations will try to demonstrate how these new approaches provide innovative tools that enable significant progresses in the study of social worlds.

The first project is focused on the divine epithets in the ancient Greek and Semitic worlds. It is the ERC Advanced Grant 741182 (2017-2022) « **Mapping Ancient Polytheisms. Cult Epithets as an Interface between Religious Systems and Human Agency** » (**MAP**). **MAP** proposes to exploit the epithets attributed to the gods as the most efficient indicator of their multiple powers and modes of action, as well as their connection to places where humans interact with them. Epithets identify the god(s) invoked and thus enhance the effectiveness of ritual communication. With the great number of combinations produced by epithets, their entire repertoire results in a highly complex system of divine networks. The volume and complexity of the data is beyond the limits of what traditional methods can handle. Today, thanks to Big Data and Social Network technologies, which deal with large related groups, we can map the divine and understand how human societies modified these ensembles of names and epithets to meet their needs. **MAP** intends, for the first time, to compile all attestations of divine epithets in context to enable large-scale analyses. It adopts a comparative approach to two areas: the Greek world and the Western Semitic world during the first millennium BC. Methodologically, **MAP** innovates by linking the systematic compiling of epithets with Social Network Analysis in order to map the groups, links and polarities of the networks that divine epithets reveal, and interprets them in the light of historical dynamics. Understanding the interface between systems and contexts is one of the major gains of **MAP**. Religion is explored as an area of social experimentation between norms and inventiveness. **MAP** also revisits the relationship between religious thought and practice, and between polytheistic and

monotheistic systems, questioning the relevance of these categories. The results promise considerable advances in our understanding of ancient religions.

"PATHs - Tracking Papyrus and Parchment Paths: An Archaeological Atlas of Coptic Literature" project is aimed to provide an in-depth diachronical understanding and visual representation of the geography of Coptic literary production and in particular of the corpus of literary writings produced in Egypt between the 3rd and the 11th centuries in the Coptic language. This ambitious goal will be reached by a complete census in an online database of all Coptic literary manuscripts, reconstructed by combining many fragments stored in museums and collections. The database will also record the multiple relations that connect manuscripts with ancient locations, places where these object were crafted, offered, stored and finally found. The database will be thus enriched with geographical layers, themes and interfaces—a full featured GIS platform able to contain the often abundant archaeological documentation available for many sites—in order to turn into an easy to use, yet powerful tool, capable to reconstruct and narrate the landscape of Late Antique and Early Medieval Egypt, by integrating for the very first time archaeological sources with literary and religious tradition.

The 3rd project focuses on the **Analysis of rural medieval society in the South-West of France (XIIIth – XVIth)**. Funded by the French National Research Agency from 2005 to 2009, this project (<http://graphcomp.univ-tlse2.fr/>) enabled an exploration of peasant social networks in the Middle Ages by a large scale analysis of names recorded in agrarian contracts kept in the archives of the Lot department. The advantage of the approach is twofold. First it enables, thanks to the use of semi-automatic process and network analysis tools, to bring out original organizational structures on different levels from the overall territory defined by the corpus of documents to the housing area. Secondly, it enables to ponder the weight of the elites that tend to be overestimated due to the higher number of traces found in archaeology. The results show structural changes of the society over the Hundred Years' War with a dilution of the elites and the increasing presence of a "middle-class".

The 4th project is a participatory research on the French judiciary heritage (<https://hugo.criminocorpus.org>). It is funded by the GIP Right and Justice Research Mission (2017-2018). We would like to promote a patrimonial approach not only open to the official archives but also to a fragile oral transmission, to daily objects reduced to their value in use for contemporaries, to the collective cultural representations (pictures, postal cards, movies, literary fictions...), to administrative documents and to professional usages that are trivialized, unknown or ignored. The heritage of judiciary places is the addition of these architectural elements, functions, usages, work practices, daily life, traces and representations that enable to grasp the plural identity of a site by placing it in an evolution that takes part in the making of local, regional and national history. The originality of **HUGO** service consists in being open to spontaneous contributions. This passage to the participatory level incorporating a crowdsourcing data collection component is still underdeveloped in Social Sciences and Humanities compared to other sciences. It has long been limited to contributions to sources transcriptions, which restricts from the outset the public able to efficiently participate. Designed as a collaborative service of sources and information, **HUGO** aims at presenting a unique patrimonial picture of the French judiciary and penitentiary park regardless of the type of

building (ancient or contemporary). **HUGO** will not only allow to understand the specifics of each place but also to update our knowledge of the French judiciary heritage.

These presentations will be the subject of a discussion with Digital Humanities Engineers from the Very High Infrastructure of Research HUMANUM listed on the national roadmap of the research infrastructures and French node of the European consortium DARIAH.

II - Resume of the Session Organiser and Confirmed Key Speakers

Session Organiser

Bertrand Jouve (49 years old) is a senior researcher at the French National Centre for Scientific Research (CNRS). He studied pure mathematics, passed the agrégation in Mathematics and, in 1999, was awarded a doctorate (PhD) in Cognitive Sciences under the supervision of Pierre Rosenstiehl (mathematician) and Michel Imbert (neuroscientist) at the Higher School of Social Sciences (EHESS, Paris). First an Assistant Professor in Toulouse, then a Full-Professor of Applied Mathematics in Lyon, he was appointed Senior Researcher by the CNRS 53 interdisciplinary Commission in 2014. Bertrand Jouve's work focuses on the construction of mathematical models of graph theory to be used for the analysis of large-scale interaction networks. Over a decade, he has worked at the boundary of neurosciences and in partnership with the Toulouse and Lyon INSERM, and in particular demonstrated that the topological structure of cortico-cortical neural connections was one of the elements that could account for some functional specificities of monkey brains. Since 2004, he has been working at the boundary of Social Sciences and Humanities. He first collaborated with linguists on the structure of language dictionaries, with sociologists to analyze large-scale social networks and with historians with a view to reconstructing former complex social networks. Bertrand Jouve is currently a member of the academic staff of a FRAMESPA history research unit and is affiliated to the Toulouse Institute of Mathematics. He has published 35 papers in international journals or for international conferences. Bertrand Jouve has participated in 5 National Research Agency (ANR)-funded programs (as leader for one of them) and two European programs (among which the ongoing 2016-2020 GEO-SAFE coordinated by the University of Greenwich). He is a reviewer for several international journals and has been a member of 18 Scientific Advisory Boards (LABEX, international symposia ...) and expert for ANR and the European Commission calls for project (ERA-Net and ERC Starting-Grant). He has filed a patent with Technicolor¹. As a member of the CNRS Board (Scientific Deputy Director at the CNRS Institute of Social Sciences and Humanities between 2011 and 2016), he has designed the CNRS strategy for the fields of digital humanities, of SSH data policy and research infrastructures. Over 4 years, as part of his missions, he has managed the human and financial resources of 29 research units, participated in 23 steering committees of CNRS units (as a chairman for 12 of them) and has been a member of the Executive Boards of 4 foundations. He has also attended to a number of SSH-related LABEXeS and EQUIPEXeS and closely contributed to the interdisciplinarity mission at CNRS; he was a member of the CNRS Committee for Intensive Computing. Bertrand Jouve has also worked within Alliance ATHENA (Social Sciences and Humanities) and led a team

on SSH research infrastructures whose deliverables provided the foundation for the SSH part of the 2016-2020 national agenda. Together with a senior officer of the Ministry of Higher Education and Research, Bertrand Jouve was the French representative at the General Assembly of the two European consortia (CESSDA and DARIAH). Since June 2016, he has been President of the Réseau National des Maisons des Sciences de l'Homme which federates 23 interdisciplinary units predominantly in SSH.

Confirmed Key Speakers

Corinne Bonnet (58 years old)

Website: http://plh.univ-tlse2.fr/accueil-plh/pratique/l-annuaire/mme-bonnet-corinne-28435.kjsp?RH=axes_ERASME;
<https://univ-tlse2.academia.edu/CorinneBonnet>

Specialist of the History of Ancient Religions, of the Phoenician and Punic Cultures, of the Mediterranean History, of the History of Scholarship in XIXth-XXth centuries.

Since 2003, Professor of Greek History, at the University of Toulouse Jean Jaurès,

2002: *Habilitation* Degree, University of Grenoble

1997: PhD, University of Liège, Belgium

2016: ERC Starting Grants, SH5 Panel (Cultural Studies)

Since 2015: Deputy Director, Labex "Structuring Social Worlds" (Toulouse)

Since 2014: National Scientific Board of the French CNRS, appointed

2011-2015: National University Council (21st section)

2016: Member of the Academia Europaea

2016: Doctorate *Honoris Causa* from the University of Lausanne, Switzerland

2015: Franz Cumont Prize, History of Religions, Royal Academy of Belgium

2011: Foreign corresponding member, Académie des Inscriptions et Belles-Lettres

2010-2015: Senior member, Institut Universitaire de France

2009: Fellow, Institute for Advanced Study, Princeton

Since 2003: supervised 13 Ph.D. students, 6 of whom have completed their degree; more than 50 Master's theses.

Co-director, journal *Mythos. Rivista di storia delle religioni* (Italy)

Founding member, Editorial Board of the journal *Anabases: Traditions et réceptions de l'Antiquité* (France)

Academic or Editorial Board for 10 journals: *Archiv für Religionsgeschichte* (Germany); *Asdiwal* (Switzerland); *Bryn Mawr Classical Review* (US); *Kernos. Revue internationale et pluridisciplinaire de religion grecque antique* (Belgium); *Les Etudes Classiques* (Belgium); *L'incidenza dell'antico* (Italy); *Pallas* (France); *Rivista di studi fenici* (Italy); *Scienze dell'Antichità* (Italy); *Symbolae Philologorum Posnaniensiu* (Poland)

Publications: 36 books as author or editor ; 163 articles.

Paola Buzi is Professor of Egyptology and Coptic Studies at Sapienza University of Rome, where she graduated in 1995 with a thesis on Coptic Language and Literature. In 2002 she obtained a PhD in Egyptology from the same university, with a dissertation entitled "Titles and Authors in the Coptic Literature". She has worked as a fixed term lecturer ("assegnista di ricerca") in the Department of Archaeology of Bologna for five years and from January 2010 she has worked on behalf of the Akademie der Wissenschaften zu Göttingen at Hamburg University cataloguing the Coptic manuscripts preserved in the German collections. From 1 November 2010 to 31 January 2017 she was Assistant Professor of Egyptology and Coptic Studies at Sapienza University.

She sits on the Board of the International Association of Coptic Studies (IACS) and is a member of both International Associations of Egyptologists and the Academia Ambrosiana. She combines historical, literary and codicological interests with archaeological activities. She has taken part in several excavation campaigns in Italy and in Egypt. Since 2002 she has been a member of the Archaeological Mission in Bakchias (Fayyum) and co-director of the same mission since 2008. She is also vice-director of the Italo-Egyptian Conservation Mission at the Coptic monastery of Abba Nefer (Manqabad, Asyut). She is scientific collaborator of the Corpus dei Manoscritti Copti Letterati (Rome, Hamburg) and a member of the Italian Institute for Egyptian Culture (IICE).

Among her most important scientific collaborations the following should be listed: 1) co-Leader of Team 4 (Cataloguing) in the "Comparative Oriental Manuscripts Studies" (COMSt) project, financed by the European Science Foundation; 2) collaboration with the Akademie der Wissenschaften zu Göttingen for the "Katalogisierung der Orientalischen Handschriften in Deutschland" project; 3) collaboration with the Hiob Ludolf Centre and the Centre for the Study of Manuscript Cultures, Hamburg University.

Her publications range from Coptic literature to codicology and from archaeology to the history of Coptic and Egyptological research.

Marc Renneville is a senior researcher at CNRS, historian of science specialized in the study of crime and criminals. He has also been an associated member of the Alexandre Koyré Center since 1998 (UMR 8560). After completing his studies in History (University of Paris 7) and in social sciences (University of Paris 5), he became a lecturer in contemporary history at the University of Paris 8 – Vincennes-Saint-Denis (1998-2001). Following this, he was named Director of the research department (2001-2003) and project director in the field of History for the Ecole Nationale d'administration pénitentiaire (2003-2008). He notably contributed to the creation of a Center of resources on the history of crimes and punishments at the multimedia library Gabriel Tarde (2004) before he became the research manager of the executive office of penal administration (2008-2012) where he coordinates collaborative research on the execution of punishments (ANR project Sciencepeine 2009-2014).

At the side of Pierre Tournier, Marc Renneville was one of the founders of the journal *Champ pénal* (2004). He is a member of the editorial committee of the *Revue d'Histoire de l'Enfance irrégulière*, *Crime, Histoire et Sociétés* and *Beccaria: Revue d'histoire du droit de punir*.



Marc Renneville is a member of the jury for the Gabriel Tarde prize. He teaches the history of prisons and of criminal psychiatry at the Ecole nationale de la magistrature and he regularly lectures in research seminars and continuing education programs.

Renneville's research addresses the criminal sciences and other knowledge regimes which study criminals, as well as their application in the administration of penal justice. He is the author of two books: *Crime et folie. Deux siècles d'enquêtes médicales et judiciaires* (Fayard, 2003) and *Le Langage des cranes. Une histoire de la phrenology (Empêcheurs de penser en rond, 2000)*. The latter received the prize for best history book at the French Society of the History of Medicine (2000). His most recent articles are accessible online.

Marc Renneville was the first director of the new TGIR Huma-Num (UMS 3598), the "very large research infrastructure for the digital humanities" (2013-2015). He has been at the head of the digital project Criminocorpus since its inception (2005). In 2008, he initiated the creation of the journal Criminocorpus at the portal revues.org. In 2015, he organized the creation of a virtual museum of the history of justice, gathering exhibits, site visits, and thematic collections together on the Criminocorpus portal.