Digital and Traditional Epigraphy in Context

Proceedings of the EAGLE 2016 International Conference

edited by

Silvia Orlandi, Raffaella Santucci, Francesco Mambrini, Pietro Maria Liuzzo

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In copertina: Logo EAGLE – *The Europeana network of Ancient Greek and Latin Epigraphy*.

*This volume is dedicated
to the memory of*

Silvio Panciera

*without whom EAGLE
would have never existed.*

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Preface

Information Technologies have set made many unexpected changes in motion in the field of cultural heritage; they continue to provide dynamic and exciting media platforms through which new possibilities perpetually emerge. This wave of changes has been particularly significant for the field of the antiquity and classical studies, where a wide range of possibilities for digital exploitation continues to present itself to users, constantly opening the doors to new and as-yet-unexplored synergies. Many technological developments concerning content access and fruition, the renovation of digital libraries, the facilitation of education and research are being proposed, applied, and utilised by the public.

Of this constant innovation, the pool of research institutions, museums and business companies reunited in the EAGLE network have been both the grateful beneficiary and one of the leading promoters. EAGLE is a best practice network co-funded through the ICT Policy Support Programme of the European Commission. EAGLE aims to stimulate exploitation of new ICT technologies for digital content access to epigraphy resources, and provide guidelines about the adoption of metadata standards for indexing, searching and browsing content. The institutions involved are prestigious and leading in the field. An ever-growing fund of digital resources is accessible through a common, multilingual, easy-to-use EAGLE portal. The EAGLE metadata are available on Europeana, a European multi-lingual online collection of millions of digitized items from museums, libraries, archives and multimedia collections.

One of the main commitments that the EAGLE project made to the funding institutions was to foster the dialogue between the different professional figures and communities that work in the field of digital epigraphy, in a constant effort to discuss our commun problems together, and to share methodologies, tools and results. Over the years, the EAGLE network has been continuously expanded, while several agreements of different forms with companies, research groups and cultural institutions were signed. The list of partners with different type of affiliations can be consulted. But we believe that present volume, who is one of the product in the project's effort toward a global shared knowledge, speaks well for the degree of success in this enterprise, as the list of the contributions, the affiliations of the different presenters and the variety of topic touched by the contributions make clear. Also, together with Europeana (the European platform for cultural heritage that integrates EAGLE's work) and the EAGLE's sister projects we are building a movement towards openness, interoperability and common standards that will influence the way that others in the cultural sector view and use cultural content online. We are committed to actively contributing to the mission (which is at the core of Europeana) of creating new ways for people to engage with their cultural history, whether for work, learning or pleasure, while promoting the exchange of ideas and information and contributing to a thriving knowledge economy.

The EAGLE 2016 Conference, held in Rome in the Odeion of La Sapienza University from January the 27th to the 29th, marked the conclusion of the works of the EAGLE's consortium funded under the UE-funded ICT Policy Support Programme. This volume, that collects all the keynote speeches, the papers of the conference presentations and some of the posters, provides to us and to the community of the enthusiasts of (digital) epigraphy, whatever their background or professional title is, with an opportunity to make an overall assessment on the group's activity, and especially look at the future of the technology and of our discipline(s).

In addition to that, and just like the previous conference held in Paris in 2014, the EAGLE 2016 conference aimed to function once again as a forum in which progress-oriented individuals and institutions find a place to collaborate and present results. It also aimed to provide an overview of the state of the art for epigraphy digital collections within the framework of the following best-practice themes: digital library tools, education and research facilities, IPR issues, cultural heritage and technologies.

The event consisted of a set of sessions and panels that conform to our standard of excellence. After the opening by Silvio Panciera and Silvia Orlandi, we hosted a keynote-speaker lineup consisting of some of the most salient voices in the field. Figures as diverse as Mary Beard, who is universally known not only for her outstanding scholarly production, but also for her presence in popular media; Werner Eck, one of the world's leading expert in Ancient History and epigraphy, who has authored several fundamental publications in the field; Charlotte Roueché, whose commitment to the digital publication and digitally-oriented research in epigraphy, as well as her friendship and generosity, are equally well known; Lorna Hughes, Professor of Digital Humanities at the University of Glasgow and Head of Subject at the Humanities Advanced Technology and Information Institute (HATII), whose research addresses the creation and use of digital cultural heritage, with a focus on collaborations between the humanities and scientific disciplines; these world-leading specialists have contributed to review the work of the EAGLE community in the context of the history of traditional research in Epigraphy, in the Digital Humanities and in the panorama of the technologies for Cultural Heritage.

The EAGLE 2016 conference international committee selected only the best proposals. We received 45 submissions, all in anonymous form, which were blindly peer-reviewed by our scientific committee. This board was chosen so as to reflect the manifold expertise, interests and scientific traditions of our network at large, including professionals from different areas (industry, research, cultural heritage, institutions) and countries (from Europe, Asia and North America). The list of the committee members is reported in the final appendix of the present volume. EAGLE 2016 featured more than 30 presentations, with speaker coming from several countries and professional fields. United States, Israel, United Kingdom, Italy, Spain, Germany, France, to name but a few countries that hosts the presenters, are represented in various degrees in the proceedings.

As we mentioned, particular emphasis was placed in shaping the conference as the meeting place for different professional figures to discuss about inscriptions in the cultural landscape of the world. The conference was open to researchers, professionals, industries, institutions, technicians, practitioners in the area of classical studies and technologies, cultural heritage, and digital library. The EAGLE 2016 conference has became a place in which institutions, industries, and

the Europeana family projects in the areas of cultural heritage could find a wealth of opportunities for networking, debating, and sharing ideas and best practices. Readers will find several traces of this on-going debate in the volume.

We will not attempt to provide a summary of the multiple subjects that are touched in the various papers. For readers will find an illuminating and inspiring discussion about the published contributions and, in general, about the work of the EAGLE network at large in the first chapter of these proceedings. This text is the English version of the introductory speech that was delivered by Silvio Panciera and Silvia Orlandi at the opening of the EAGLE 2016 conference. Professor Panciera passed away on August, the 16th 2016, not long after the conclusion of the project, leaving an immense legacy in terms of research and teaching, as well as an affectionate memory in his students and friends. However, far from simply reflecting on the past, his introductory prolusion casts a sharp and inspiring look onto the future and on the work that remains to be done. We are both honored and deeply saddened to publish here one of the very last scientific writings of Professor Panciera: the EAGLE project owes a lot to his scientific knowledge, sensible advice and "digital wisdom".

As co-chairs of the conference and editors of the present volumes, we wish to express our gratitude to the keynote speakers, the dedicated program co-chairs, committee members and conference support staff who have contributed to making EAGLE 2016 a success.

The EAGLE 2016 Co-chairs and Organizers
Silvia Orlandi (Sapienza University of Rome)
Pietro Liuzzo (University of Heidelberg)
Francesco Mambrini (Deutsches Archäologisches Institut)
Raffaella Santucci (Sapienza University of Rome)

DIGITAL EDITION OF INSCRIPTIONS:
METHODS, PROBLEMS, APPROACHES

1. AXON. A Database for Greek Historical Inscriptions

Stefania De Vido*, Ivan Matijašić**, Silvia Palazzo***

Abstract

The AXON Project has developed a database of Greek historical inscriptions, from the birth of the *polis* in the Archaic Age to 31 BC. Each entry is provided with the object's description, a complete lemma, Greek text with critical apparatus, Italian translation and commentary with keywords and indexes, and updated bibliography. New insights for data-inclusion have been developed. The database supports enlargement and offers a high degree of searchability. Our aim is to illustrate the structure, the contents and the solutions we have come up with in the development of the AXON Project. We will also offer some suggestions for teaching and academic research purposes.

Keywords: Online epigraphic editions; interoperability of digital editions of Greek historical inscriptions; images of Greekhistorical inscriptions; digital epigraphy in teaching and research

1.1. The AXON Project

AXON. A Selection of Greek Historical Inscriptions is a project conceived within the Greek Epigraphy (Director, Prof. Claudia Antonetti), and has been brought into existence with the financial support of the University Ca' Foscari of Venice (University Project 2013, Project Coordinator, Prof. Stefania De Vido; Scientific Team: Ivan Matijašić, Silvia Palazzo, Michela Socal, Luigi Tessarolo [IT Project]). Since October 2014 the members of the AXON Project have been developing a

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database which includes a great variety of Greek inscriptions of different chronology, typology, and territory of origin. The most recent advances of traditional epigraphy as well as the scientific acquisitions in the Digital Humanities have been taken into account.

The selection of texts has been made according to a broader notion of 'historical' inscription, including not only significant military, political, and institutional texts, but also those inscriptions which are essential for the social and cultural understanding of the Greek world.

AXON includes texts from the birth of the Greek *polis* in the Archaic Age[1] to 31 BC, a chronological frame traditionally related to Greek History (though a future extension of this chronological limit is not excluded). The epigraphic entries have been prearranged in order to allow a wide and well-structured description of each document. At the same time, a common and coherent lexicon has been produced, which will permit an easier indexing of significant words and will make future searches much quicker.

1.2. A unique model-entry for a great diversity of inscriptions: taxonomy and categorisation

1.2.1. Entry description

1.2.1.1. Object's description

The model-entry has been created with an eye on the object's thorough description. Here is the object's categorisation:

1. Object type
2. Material
3. Object's dimensions
4. State of preservation
5. Further descriptive elements
6. Date and context of finding
7. Finding site (modern nation, ancient region, ancient and modern name of the city, if known)
8. Actual location (modern nation, city, museum/archaelogical context, inventory number)

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[1]   Hansen 2004, 16-22; Hansen 2006.

The great majority of these categories can be selected from a given number of options from a pull-down menu. Some categories – such as Object type, Material, or State of preservation – are directly linked with the corresponding sections in the EAGLE Vocabularies (see http://www.eagle-network.eu/resources/vocabularies/). Furthermore, a hyperlink has been created between the AXON-entries and Pleiades website (http://pleiades.stoa.org): where the finding site is known, each entry offers the geographic coordinates and a Googlemaps visualisation. This gives the possibility of rapidly gathering the information for any single ancient location and allows for searches directly from an interactive map.

1.2.1.2. Chronology

The chronological delimitation of each text is supported by many options, as you can see in Fig. 1:

1.2.1.3. Alphabet & language

Fig. 1.1. Window for the input of data, section Text/Chronology.

Each entry provides all the necessary information on the alphabet and language of each inscription:
a) Type of Inscription (with link to EAGLE's Vocabularies: http://www.eagle-network.eu/resources/vocabularies/typeins/. The categories are those used by Guarducci 1967-1980
b) Text's structure

c) Writing (Execution technique[2]; different types of epichoric alphabets according to Kirchhoff's colour-coded map; Local script[3]; Palaeographic features and letters' form[4]; letters' heights, description and layout of the text field; Direction of Text)
d) Language (with an option for any dialect's peculiarities)

1.2.1.4. Genetic lemma & *apparatus criticus*

The text of each inscription is preceded by a hierarchically arranged lemma (the so called *genetic lemma*, according to Louis Robert's definition[5]) and is followed by the apparatus criticus.

1.2.1.5. Italian translation & commentary

Each entry corresponds to an Italian translation and commentary (in .pdf).

1.2.1.6. Abstract

The Abstract – with a WYSIWYG interface – includes all the keywords for indexing and lemmatisation:

The Keywords are divided into the following categories (these categories are based on EpiDoc Community Guidelines as well as on the indexes of the Supplementum Epigraphicum Graecum, SEG):
1. Persons and names (mainly for 'historical' characters)
2. Gods and heroes
3. Place names
4. Geographical names
5. Significant words regarding the history of politics and institutions
6. Other relevant keywords
7. Ancient sources

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[2] With link to http://www.eagle-network.eu/resources/vocabularies/writing/.

[3] Following the categorisation in Jeffery 1990.

[4] The letter-form and glyph-form are based on the symbols of the font Cardo (http://scholarsfonts.net/cardofnt.html), but many have been developed by the AXON Team on the examples of letter-form given in Jeffery 1990 (see also http://poinikastas.csad.ox.ac.uk/browseGlyphs.shtml).

[5] Robert and Robert 1954.

Tra le tombe della ■**Necropoli di San Montano [Ischia]**■ (Isola d'■**Ischia [antica Pitecusa]**■, antica ■**Pitecusa [Isola di Ischia]**■), la nr. 168 (fine VIII sec. a.C.) contiene i resti di un individuo di sesso maschile, di età compresa tra i 12 e i 14 anni, accompagnati da uno dei corredi più cospicui mai rinvenuti in una tomba pitecusana: 27 reperti ceramici in tutto, di cui (caso unico) 4 ■**crateri**■, 2 euboici e 2 locali. Tra i materiali ceramici, spicca una ■**kotyle [(vaso)]**■ rodia (universalmente nota come ■**Coppa di Nestore**■), risalente alla seconda metà dell'VIII sec. Su di essa, dopo la cottura, è stata incisa in ■**alfabeto euboico**■ un'iscrizione metrica di tre versi, in ■**dialetto ionico**■. Nel v. 1 (■**trimetro giambico**■) la coppa identifica se stessa come proprietà di ■**Nestore [proprietario della Coppa pitecusana]**■ (secondo il modello delle ■**iscrizioni di possesso**■), mentre i vv. 2-3 (■**esametri**■) contengono la più antica declinazione di un topos costitutivo della ■**poesia simposiale**■ greca, vale a dire l'associazione del vino e della ■**pratica simpotica**■ con l'elemento erotico. Sin dalla prima edizione del ■**graffito**■, ha goduto di largo consenso l'ipotesi che il ■**Nestore [proprietario della Coppa pitecusana]**■ della coppa dovesse essere identificato con il ■**Nestore [re di Pilo]**■ re di Pilo, proprietario, secondo ■**Omero**■, Iliade 11.632-637, di una sontuosa coppa, alla quale l'autore dei nostri versi avrebbe voluto in qualche modo alludere. Più recenti orientamenti critici escludono invece questa identificazione, e propongono di riconoscere in Nestore il reale proprietario della coppa, da identificarsi nel padre del fanciullo sepolto nella tomba, o forse nel fanciullo stesso, cui essa fu offerta come estremo simbolico dono delle gioie del ■**simposio**■ e dell'amore, che gli furono precluse da prematura morte.

Fig. 1.2. Example of Abstract in AXON. The different colours allow a selection of words from a drop-down menu.

1.2.1.7. Bibliography

Finally, an updated bibliography highlights any previous edition for each entry, as well as all the appropriate secondary sources. SEG abbreviations have been used for epigraphic *corpora* and other publications (the section "materiali" on the website gives access to a list of all abbreviations, useful for students, as well)[6].

1.2.2. Internal & external interoperability of the AXON database

Each entry is related – whenever it seems appropriate – to other entries in the AXON database. A hyperlink connects the entry with other digital editions of the same text (if available), or with other useful websites, possibly containing images. Wherever possible, images and/ or apographs and/or squeezes of inscriptions have been included. The creation of a digital archive of images as part of the AXON website is also desirable.

1.2.3. A simple website interface for the input of data

Since the contributors to the project (i.e. the authors of the entries) are experts from different Italian and European universities (and not all of them are familiar with the Digital Humanities), and given the

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[6] http://virgo.unive.it/venicepigraphy/axon/public/axon/pagine/materiali (still being processed).

great number of entries planned in the near future, the necessity of a simple and easily understandable interface for the input of data was an essential issue to the project from the very beginning. Guidelines to EpiDoc have been taken into account in order to produce a clear structure for the input of data.

Our aim is to establish a growing community of experts, students, and enthusiasts to increase the number of contributors through lists of inscriptions which have not yet been assigned. At the same time it will be possible to suggest other texts which are not included in the lists. To achieve these aims, the project follows an EpiDoc-friendly structure and is compatible with Europeana EAGLE Project, especially in the use of a common terminology.

1.3. Searchability

The website is designed to allow for many search options. Beyond the "full text" search and another based on the number, title and author of the entry (see Fig. 3), three other search-possibilities will also be available:
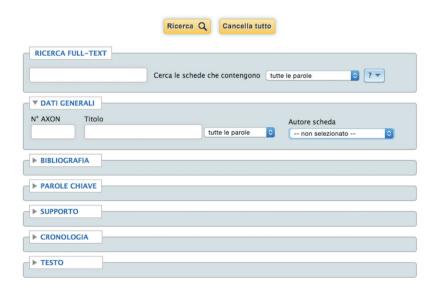

Fig. 1.3. Search based on "Full text", number, title, and author of the entry.

Fig. 1.4. Different searching categories.

Fig. 1.5. Different searching categories.

1. browse all the entries according to the inscriptions' a) typology, b) chronology, and c) area of origin;
2. access the entries through an interactive map;
3. perform an advanced search based on different categories:
   a) bibliography
   b) keywords
   c) object's description and preservation (see Fig. 4)
   d) chronology
   e) text (single words or phrases, typology, dialect, alphabet, letter-form, etc.) (see Fig. 5).

Other filters will be employed for each search result. A section entitled "tools" is also available, and it includes information on the entries' structure, tables with the contents of different categories, links to Vocabularies and websites, etc.

1.4. The AXON Project for teaching and academic research

1.4.1. Teaching

The AXON Project, as an example of a digital edition of inscriptions (see esp. genetic lemma and *apparatus*) with a high degree of clarity for contributors and users, is a useful tool for teaching Greek epigraphy as well as ancient history. Many contributors are university lecturers / professors of Greek Epigraphy, and the scientific committee includes high school teachers and instructors in classical languages, making AXON especially well-suited for educational purposes and for use by students: for engaging them, for example, in the composition of entries. The interoperability of the AXON website and the cross-references to other Digital Humanities projects are essential elements in the development of this discipline.

1.4.2. Significance for the academic community

Each entry is created by an expert contributor and is subject to double-blind peer review, thus assuring an important contribution to the scholarly community. At the same time, the hyperlinks to other websites and digital editions will make it easier for the user to check immediately all similar projects. Finally, the indexing allows for the easy discovery and use of specific information, and will be of fundamental

importance for gather together groups of documents according to particular research needs.

In conclusion, the AXON Project aims at a collaboration of expert scholars from different fields: epigraphy, ancient history, dialectology, archaeology, digital humanities. It can produce valuable results in the domain of the digital editing of inscriptions and, more generally, contribute to the advancement of classical studies, opening them up to a broader audience through the world-wide web.

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This volume collects the proceedings of the final conference of the European project EAGLE (Europeana network of Ancient Greek and Latin Epigraphy), held at the Sapienza University of Rome on January 28-30th 2016.

Silvia Orlandi is associate professor of Latin Epigraphy at the Sapienza University of Rome. For more than 20 years, she has been studying the epigraphic documents of Rome, with a special focus on the inscriptions of the Colosseum and the epigraphic manuscripts by Pirro Ligorio. Since 2012 she is co-responsible of the Epigraphic Database Roma (www.edr-edr.it). Since 2013 she has been the scientific coordinator of the European project EAGLE (www.eagle-network.eu).

Raffaella Santucci is a fundraising and innovation manager. She has over 15 years of experience in project/innovation management and fundraising for academia, cultural heritage institutions, creative industries, and municipalities. Her experience encompasses proposal and grants management, budgeting, team-building, cultural mediation, organization of events and media strategies. For EAGLE, she acted as outreach coordinator.

Francesco Mambrini is a research assistant at the Deutsches Archäologisches Institut, Berlin. His research interests are on Computational Linguistics and Ancient Greek language and literature. He is one of the co-founders of the conference "Corpus Based Research in the Humanities" (CRH).

Pietro Maria Liuzzo is currently technical lead of the Beta maṣāḥǝft: Manuscripts of Ethiopia and Eritrea project at the Hiob Ludolf Centre for Ethiopian Studies, Universität Hamburg. He has been researcher in Digital Epigraphy and networking coordinator of the EAGLE project at the University of Heidelberg and is counsellor of the International Digital Epigraphy Association.