

Science by Words. How to Express Science in Antiquity and the Middle Ages

Leuven (29-30 April 2024)

Call for papers

The development of science and scholarship since the 18th century has seen the uprise of scientific terminologies in different languages. Latin taxonomies, such as Linné's, or the new French terminology for chemistry and physics introduced by Morveau and Lavoisier, as well as numerous studies show the 'neological' power of terminologies. Alongside these studies, interest in historical terminologies, predating modern science, is increasing. It has been shown in particular that the naming of objects, methods and scientific domains has been a matter of reflection since ancient times, relying at the same time on definitions of concepts, methodological techniques, book traditions and innovations in forms as well as in meanings. How can science be told, with what words and how can the emergence and the evolution of these terminologies best be accounted for in diachrony?

Several tools are being developed in order to track this emergence and construct the architecture of that new vocabulary. A multilingual medical Metadictionary is being processed by the digital library Medica. Digital databases, such as *Cormedlex*, linked to a corpus of medieval medical texts, *CHrOMed*, give access to new data. The *Dictionnaire du Français Scientifique Médiéval* (DFSM), that is being developed since 2010, makes an inventory of the French medieval terminology used in the various scientific domains. In its present state, the dictionary allows to detect the links that are being built between the different source languages that lie at the origin of this terminology, i.e. Latin, Greek, Arabic, but also the vernacular. It also uncovers the (para)synonymic, hyperonymic and hyponymic relationships that are built in this growing terminology, that was often created by translators who may not be domain-specific specialists.

Other vernacular languages are also confronted with the creation of a specialized terminology during the Middle Ages, which the dictionaries of those languages give a prominent place as well. On the other hand, Latin and Greek, that very often supply the source material for a large number of specialized terms in the vernacular languages, are equally described in numerous dictionaries.

This two day workshop is the second of a series of three (Paris 2023, Leuven 2024, Grenoble 2025), all focusing on questions regarding word formation, scientific domains, and the sources used: what is a scientific text in the Middle Ages? What are the opportunities offered by digitization, and its limits? How is scientific knowledge disseminated or spread through language? How do we highlight the relationships between classical and vernacular languages in the dictionaries?

Taking a broader perspective, the Leuven workshop will focus not only on concerns related to dictionaries, but it also wants to place an emphasis (a) on the dynamics of scientific terminology in antiquity, and (b) on NLP methods to help identifying scientific terminology.

On the first day, the workshop wants to explore the concept of "scientific term" in antiquity in comparison to the medieval vernacular languages, and possibilities offered by digital tools to select in digitized corpora the words that are used as a specialized term of a scientific domain next to their mundane usage. Indeed, international scientific terminology today consists largely of Greek and Latin neologisms, and is therefore easily identifiable. In antiquity itself, specialized and technical terminology took shape only gradually, and the boundary between colloquial and "technical" or scientific terminology is much less clear (Schironi 2010). This part of the workshop wants to contribute to our understanding of how terminology was used and understood in sources over time. It will also address the following questions: to what extent can NLP methods be applied in order to label words as 'technical' or 'non-technical'? Can we adopt, apart from semasiological approaches, also onomasiological

approaches in order to study the dynamics of scientific terminology from antiquity to the medieval period?

On the second day, the workshop will concentrate on comparing the lexicographical techniques used in the DFSM and in more general dictionaries of medieval French, in dictionaries of other vernacular languages, such as English, or of Classical languages, and the difficulties that arise from the lexicographical writing of historical data. Additionally, it seeks to explore the possibilities of interconnection between the dictionaries, that would highlight certain relationships in specific domains among the languages being compared. It also wants to address problems with respect to the interaction between certain domains, e.g. medicine, zoology and botany, for instance botanic terms that are also used in the medical domain, and more specifically in pharmacopeia. The experiences garnered from the dictionaries of other languages will prove valuable in this discourse. Topics under consideration will relate to the hierarchy among the scientific domains and how this can be accorded significance.

Invited speakers:

- Kathryn Allen (UC London)
- Sylvie Bazin-Tacchella et Gilles Souvay (ATILF – DMF – CNRS, Université de Nancy)
- Tim Denecker (Brepols – CTLO)
- Alek Keersmaekers (KU Leuven)
- Anastasia Maravela (University of Oslo)
- Nathalie Rousseau (Sorbonne Université)
- Francesca Schironi (University of Michigan)

We welcome submissions that explore these themes and related topics, within the framework of both Antiquity and the Middle Ages, as well as the reception of the terminology in subsequent eras. Preferred languages for presentation are English or French, and papers should be twenty minutes long.

Please send a 500-word abstract, an essential bibliography and a brief curriculum vitae by 15 January 2024 to: michele.goyens@kuleuven.be

Scientific committee: Joëlle Ducos (Sorbonne Université), Fleur Vigneron (Université Grenoble Alpes), Michèle Goyens (KU Leuven), Toon Van Hal (KU Leuven), Sylvie Bazin-Tacchella (Atilf Nancy), Geoffrey Williams (Université Grenoble Alpes), Anne Vanderheyden (Universiteit Antwerpen), Steven Vanden Broecke (U Gent)

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Registration fee : 40€ (2 days), 20€ (1 day), including coffee breaks and a sandwich lunch.

Registrations will open from 1 February 2024 via the website of the colloquium (<https://relicta.org/sbw>).