

Laptops in the Auditorium: Facing Educational Challenges in Classics by Teaching Digital Tools

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Abstract. Higher education in the Arts and Humanities nowadays faces global challenges. By its very nature, Classics is among the disciplines which experience the harshest consequences of the large economic and cultural shifts we are witnessing. In the last decades, the students graduating from the BA curriculum of the Department of Classics to the University of Sofia have decreased in number, their profiles, motivation and interests have gone through various changes, their devotion to reclusive, slow and thorough acquisition of knowledge – so characteristic of the typical figure of the classicist a century ago – has significantly diminished. On the other hand, new technologies not only became ubiquitous in the lives of students and teachers alike but also gave rise to the multidisciplinary field of Digital Humanities, and Digital Classics in particular. Several such initiatives have been developing at the Department of Classics to the University of Sofia and, as of late, have also been introduced to the BA curriculum in Classics. The paper will discuss how getting involved in activities such as encoding ancient Greek inscriptions or working on parallel text alignment can serve as a quick and efficient introduction to more complex research problems and approaches in advanced fields like epigraphy. The general request of policy-makers and public alike for practically oriented higher education yielding quick and relevant results often leads to shallower educational results of lesser quality. Solving research issues through working on ancient sources with digital tools can be a way of acquiring deeper knowledge of the subject matter of Classics more quickly. Examples from different courses and project activities will be examined in order to observe how digitally-aided research works in practice.

Keywords: Classics, Digital Humanities, BA Curriculum, Education, Practice.

1 Introduction

At the end of February 2020, the author of the current paper presented the issues hereby discussed in the framework of the *International Week: Innovation in Humanities and Social Sciences* at the University of Skopje: one among the last face-to-face scholarly events in Europe for a significant time to come. The starting point of the discussion was

the crisis in the Humanities and the higher education in the Humanities in particular to which the present paper will try to propose some solutions.

The purpose of the paper is to demonstrate how the introduction of Digital Humanities courses in the BA curriculum in Classics can enhance the engagement of students, help them acquire skills deemed relevant for the labour market, all the while increasing their interest and competence in the particular humanitarian disciplines with which they deal. The issues thus addressed are as much of pedagogical or methodological as of social nature.

2 Humanities and Classics in Crisis

2.1 Humanities Locally and Globally

Numbers can confirm the development of this crisis, otherwise evident from the personal experience of anybody teaching or studying in the field of Humanities at university level. According to the platform of the Bulgarian National Statistical Institute (Infostat, 2020), the number of BA students in the field of Humanities has decreased from 11872 to 8583 for the period 2001-2017, with the number of students on the MA level in the same field also diminished by more than 50 % (3198 to 1541). There is a certain increase of doctoral students for the same period (489 to 677) which may be due to the educational reform decentralizing the acquisition of a PhD degree and putting each research unit in charge of the graduation of its own doctoral students. However, these last figures do not change the general picture significantly. According to the rating system of the higher education institutions in Bulgaria (Higher Education Rating System, 2020), the Humanities graduates on any level do not often get employed because of their specialized qualifications and frequently engage in jobs in other fields. For the domain of Philology alone, the rate of specialized employment is 47.73 % for the University of Sofia, the highest-ranking in the area, and 44.06 % on average for the country. This implies that, although a larger share of students who graduate in Philology and Linguistics enroll as PhD students, with the prospect of finding professional realization in the same field, relatively few of them succeed in that respect, or, in cases, even manage to finish their doctoral studies.

To get a fuller picture of the global challenges to the solving of which more investment in research and education might contribute, we can turn to a strategic document of the United Nations, the so-called Sustainable Development Goals 2030 (UN Sustainable Development, 2020). Among the goals, many of which are more or less recognized on a global, European, and different national levels, there is the quest to end hunger and poverty, to secure universal access to quality healthcare and clean water and air, to build better infrastructures and to end social inequalities of different kinds. Against this background of undoubtedly important problems facing human civilization, it becomes increasingly difficult to defend the intrinsic value of studying Philosophy, or Art, or Classics. How does acquaintance with Aristotle contribute to decreasing air pollution or controlling disease outbreaks? It gets harder and harder to answer such a

question convincingly. It was hard enough several months ago there at the last international event in Skopje; it will probably become next to impossible in the midst of the pandemic spread of SARS-CoV-2, which started raging in Europe within days of our returning home.

This global picture is reflected both on the level of the financial management of the universities as well as on the level of the educational choices of students and their families. As the programmatic statement of Paul Jay's controversial yet influential work on the subject reads (Jay, 2014):

The intangible value of an education in history, philosophy, literature, and the fine arts is of decreasing interest to families worried about their children's employment prospects. Study in the humanities disciplines seems backward looking and without any utility in an age of exploding technology. For this reason, students are flocking to the science, technology, engineering, and mathematics (STEM) disciplines because, unlike the humanities, they are forward looking.

2.2 Classics: A Short Social History

In this unfavourable context, the discipline of Classics has additional problems of its own. The study of Latin and Ancient Greek, together with the texts written in both languages and the respective civilizations to which they belonged, for decades now has been undergoing an identity crisis. In a sense, such a crisis has been inherent in the discipline since its very beginnings. Friedrich August Wolf, the scholar considered by many the father of Classics as a separate university discipline, was among the first who insisted, during his student years in Göttingen, to be recorded in the annals of the University as a student of 'philology'. But it was him again who, later in his life, planned the creation of an all-encompassing curriculum in 'Antiquity Studies' (*Altertumswissenschaft*) instead of just (Classical) Philology (Pfeiffer, 1976, pp. 173; 175-176). This inherent disambiguation is evident in the name of the discipline until nowadays: in some European countries like Bulgaria, it is still known under the name of Classical Philology, while elsewhere it can be encountered as Classical Studies or Classics, and all of those names can be used interchangeably.

Soon after its establishment as a recognized autonomous field of knowledge, Classics became the backbone of elite education. In the school, college and university systems of many countries throughout the Western world in the 19th century, the study of the classical Greco-Latin texts of Europe was not only expected to give insights into an authoritative and exemplary past and provide access to cultural memory and universal values (Sirakova, 2016, p. 714). It also included, in an oddly secularized fashion, the old ascetic ideal of arduous and meticulous work characteristic for Catholic and Orthodox monasticism as well as for the famous Protestant work ethics. However, ancient authors were rather seen as confirming the values of secular humanism and scientific and social progressivism so typical of the times. The Greeks discovered rational thought at the expense of traditional religion and invented science and democracy, while civic virtue and jurisprudence were the hallmark of the Romans (Humphreys, 2004, p. 13). Thus, Classics was seen as contributing to the creation of perfect citizens and, even more importantly, of perfect rulers and decision-makers, carefully selected from the

majority by years of hard work acquiring the complex grammars of the two dead classical languages. This is how, for example, Homer, Demosthenes, Virgil and Cicero became an indispensable part of the educational menu of many boarding schools for the select few in Britain and whole dynasties of conservative politicians received solid classical education for generations: among the last well-known examples today is the current British Prime Minister Boris Johnson, an Oxford Classics graduate. Accidentally, the flourishing of classical education also coincided with the peak of colonial rule for the United Kingdom as well as for many other European colonial powers. And the exemplary management of colonies – indeed, the very notions of *colonia*, *provincia* and the *suevici* – were also, to a large extent, the heritage of the Roman Empire. The classical canon of European past was applied, for the first time, too, to the conceptualization of and the approach to the ‘classical’ canons of other foreign or colonized cultures: e.g. Hindu, Chinese, Japanese, Arabic, etc. (Humphreys, 2004, p. 9). As well, the classical ideal gave impetus to the creation of the different national ‘classical’ canons – and, ironically, this same application of the classical model to the emancipation of the national languages and literatures of Europe was the first step towards the eroding of the status of Classics as *the* philological discipline *par excellence* (Sirakova, 2016, p. 712).

The 20th century has seen the gradual but very decisive shift of focus to the technical and pragmatic side of education. Mass production and mass consumption lead to the transfer of the concept of devoted ascetic labour to “the word of work, clock-punching, the material, the useful, the serious, and the real, whereas the humanities were increasingly grouped with play, the imagination, the spiritual, the child in us, the feminine, the self, leisure, and enjoyment” (Humphreys, 2004, p. 16). This pragmatic shift first affected the secondary educational institutions (Marrs, 2007, p. 42). The decreasing amount of preliminary language training in Greek and Latin on the secondary level accordingly undermined the “Protestant model of learning in which a stony uphill path leads to sublime rewards” (Humphreys, 2004, p. 28) also on the level of higher education. A BA curriculum in Classics nowadays is expected to offer more language training to the undergraduate students who have not been exposed to Greek and Latin before, given, at the same time, their decreased motivation to engage in the learning of ‘dead’ languages. It does not help either that taking Classics courses is still seen as not simply hard but somehow intentionally elitist and exclusive, especially for students of underprivileged and marginal backgrounds (Bracey, 2017). Early student employment among millennial generations also contributes to the increased pace and the decreased level of specialization in higher education which leaves outside the curriculum complex and demanding subjects such as Greek lyric poetry or late Latin, once typical for the classical education on University level. Thus, the two main questions to be answered by Classics nowadays are the following:

- How to provide higher education on the same level of quality as before, but at an increased pace?
- How to remain attractive and relevant without disposing of specialized and detailed professional knowledge in the field?

We will now turn to the current situation at the Department of Classics at the University of Sofia, its reformed curriculum designed to address the above-mentioned challenges, and the place of Digital Classics courses in the process.

2.3 Classics in Bulgaria before 2016

In Bulgaria, the system of secondary classical education that existed in the first half of the 20th century was abolished after 1945 due to changes in the political regime. It was in 1977 when the National Gymnasium for Ancient Languages and Cultures was established. Up to this day, this is the only classical high school in the country, along with separate classes in Latin and (far less frequently) Ancient Greek offered in public and private educational institutions. On the level of higher education, the University of Sofia offers the only BA and MA programmes in Classical Philology/Classics, while Latin and Ancient Greek are also present to some extent in other curricula, both in Sofia and at the Universities of Plovdiv, Veliko Tarnovo, Shumen, and others. Specialized courses in medical Latin are obligatory in Bulgaria for all students of medicine and related disciplines.

All this accounts for the peculiar details of the situation in Bulgaria in comparison with the global state of classical education described above. First, university Classics has always been able to count on secondary education only to a limited extent. Secondly, the possibilities for a career in the field of education and research as a classicist have always been more or less limited. This is why the official quota for enrolment in the BA curriculum in Classics has never exceeded 15 students per year. Even among the few enrolled, however, for the period 2003-2016, there has been a steady decline in the number of students who actually graduated. An increasing percent of them dropped out altogether, changed their field of study or managed to graduate only years after their appointed terms, when they already have sought professional realization elsewhere. (See Fig. 1 showing the situation ca. 2016 where the students in red have dropped out, the students in dark blue have graduated and the light-blue columns shows the current student numbers).

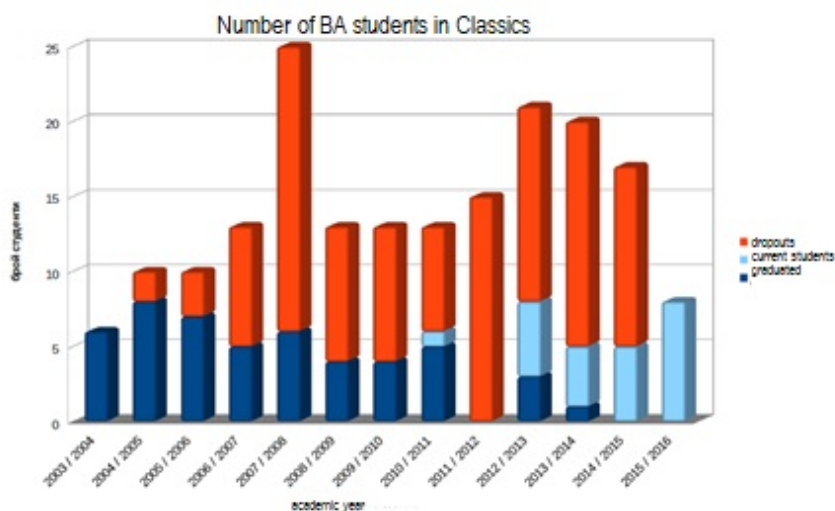


Fig. 1. Student dropouts from the BA curriculum in Classics, 2003-2016.

As of 2016, there were 5 students enrolled in the 1st year, 4 in the 2nd year, 3 in the 3rd year and 4 in the 4th year of the BA curriculum in Classics: or, in all, 16 students for the whole curriculum, which was slightly more than the planned admission for the 1st year of the curriculum only¹. Obviously, all the factors analyzed in Section 2.2. together with the additional local complications have contributed to this lack of motivation to pursue studies in the BA curriculum in Classics and graduate, not to mention the enrolment in the subsequent MA and PhD degrees of the same discipline. And, since it was also obvious that few people would be able to make Classics their career choice due to the lack of many professional perspectives, the question arose how to keep the classical BA curriculum attractive and relevant for the future development of the students, without, if possible, getting rid of its options for in-depth specialization. The answer was a reformed curriculum that would:

- increase relevance of Classics (in the face of family and peer pressure to quit);
- open opportunities for further interdisciplinary studies;
- improve background knowledge in the acquisition of various new skills and competences;
- raise applicability in career advancement (academic or otherwise);
- replace the benefits of slow and dedicated text-centered learning as much as possible by problem solving and hands-on practice.

3 The new BA Curriculum in Classics and the DH Disciplines in It

3.1 Content of the Curriculum

The new curriculum took shape and was officially adopted by the Department of Classics to the University of Sofia in 2016. The first academic year when it became effective was 2016/2017. 2019/2020 was the third year when new students were enrolled to the new curriculum and the first when students graduated from it. Of the eight semesters of teaching under the new conditions, the last one was also marked by the emergency lockdown because of COVID-19 when the whole process had to go online in very short terms, including the exams and evaluations at the end of the academic year. The effects of this situation still have to be summarized and studied.

The curriculum aims at a balance between specialized knowledge any bachelor in Classics should possess (mainly provided by the obligatory courses) and the fields of expertise, many of them interdisciplinary and newly introduced, where classical linguistic and cultural heritage is seen as interacting with other areas and influencing contemporary phenomena in Bulgarian and European society (see Table 1).

¹ I owe these figures to analyses conducted by Assoc. Prof. Yoana Sirakova, the current Head of the Department of Classics, in 2016.

Table 1. Obligatory and optional modules in the BA curriculum in Classics.

1 Obligatory core
Introduction to Greek/Latin Linguistics
Readings of Greek/Latin authors (part I-IV)
Ancient History
Ancient Culture and Literature
Greek and Latin Diachronic Linguistics
Translation and Reception
2 Optional modules
History, Archaeology, Philosophy and Law
Culture, Literature and Media
Languages, Linguistics and Translation Studies
Digital Classics

3.2 Courses in Digital Classics

One of the key modules that attracts a lot of attention in the new BA curriculum is Digital Classics. It contains several courses, some of them shared with other modules, with three of which the current paper will deal shortly:

- Online resources in the teaching and research of Antiquity
- Digital tools for classicists
- XML encoding of ancient monuments

The first of them, Online resources in the teaching and research of Antiquity, aims to get the students acquainted with the tools, collections, databases, etc. in the field of Classics and Ancient Studies which are available at the disposal of the students and researchers. It also deals with the technical notions behind some of the resources available. Thus, for example, there are a lot of online maps and geo-referential databases for those wishing to explore the spatial world of Antiquity in its different periods and various cultures. There are maps scanned from original printed sources and available in the public domain, there are different types of geospatial models such as the ORBIS project, and there are gazetteers such as Pleiades. ORBIS () is a geospatial network model of the Roman world ca. 300 CE elaborated by a team of scholars at the Stanford University, which allows the user to reconstruct the different modes, times, and costs of travel between different localities in the Mediterranean (see Fig. 2).

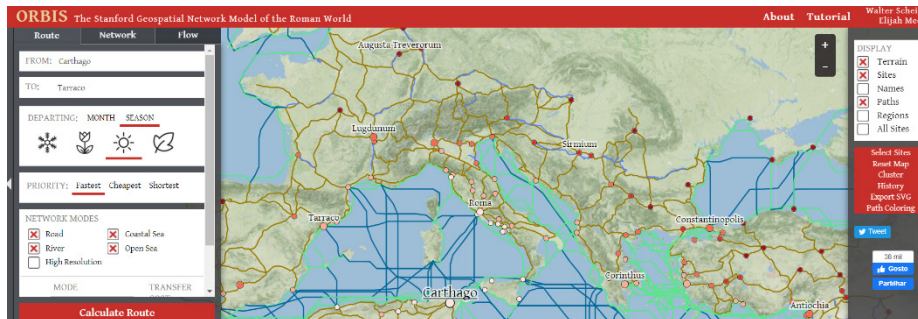


Fig. 2. The ORBIS model

The model allows the user to gain better view of the pedestrian and maritime road network in the ancient world around the peak of the Roman Empire and reconstruct the different possible ways citizens of the Empire and the state itself used this network to relocate or trade. However, the model is accompanied by rich documentation enabling the visitors of the site to reconstruct the way this model was created: how the coordinates of the points in the network were selected, what historical and geographical sources were used, etc. The same holds true for the Pleiades gazetteer of the ancient world (Fig. 3). By learning to identify ancient places and find their respective pages in the gazetteer, exploring as well the related content aggregated from other online sources, the students are acquainted along the way with crucial notions in Digital Humanities such as URI, Linked Open Data, georeferencing, etc. By examining these and other online sources and tools in a practical, hands-on way also implying a certain amount of individual work, the students gain competences in both using the available resources and the methodology behind their building and functioning. Other activities include the examination and comparison of open online courses on topics from Classics and Antiquity on platforms such as EdX (<https://www.edx.org/>), Coursera (<https://www.coursera.org/>), and FutureLearn (<https://www.futurelearn.com/>). In this way, student also acquire methodological experience in handling digital content that may serve them in a possible career as educators.

Another course expected to build upon these experiences newly obtained by the students is Digital Tools for Classicists (Internet and Communication Technologies). It emphasizes the practical involvement of the enrolled students into simple tasks and exercises connected with the creation of content in somehow concerning classical languages or Antiquity. The course is a local extension of the University of Sofia's involvement in the international Sunoikisis Digital Classics Consortium (<https://www.dh.uni-leipzig.de/wo/sunoikisisdc/>). The series of SunoikisisDC online sessions together with the wiki pages of readings and exercises to each one of them (see the latest at SunoikisisDC Summer Semester 2020) serve as both a pool of materials as well as a model upon which to create additional activities for the course – sometimes with a distinct focus on local Bulgarian cultural heritage.

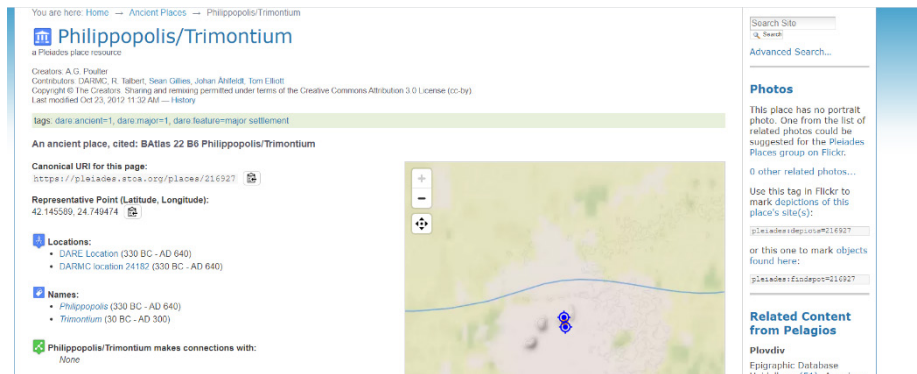


Fig. 3. The page of Philippopolis in the Pleiades gazetteer of ancient places

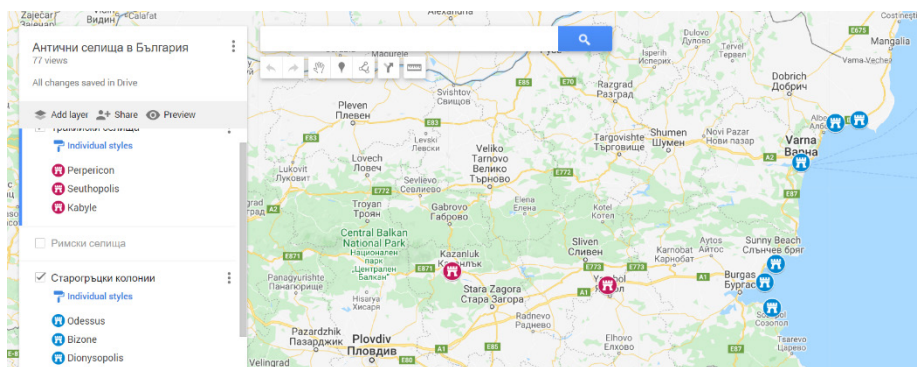


Fig. 4. Part of a two-layer Google Maps project on the ancient villages in Bulgaria (by 1st-year BA students 2017/18)

For the three semesters when the course has taken place so far, different instruments with varying degree of specialized application have been studied and used in term projects: from tools on the Perseids platform for processing ancient texts (<https://www.perseids.org/>) to Google Maps and Wikipedia. During the last 2019/2020 summer semester, the students were introduced to editing Wikipedia pages in Bulgarian on ancient topics. They gained detailed knowledge of the Wiki guidelines and templates and created or expanded articles in connection with people, places or events from the Greek or Latin texts they had been reading in other classes.

Another tool regularly explored during the course is Recogito (<https://recogito.pelagios.org/>), an annotation tool for classical texts in Greek and Latin and their translations into English, Bulgarian, and other languages. It is especially created for the semi-automatic recognition of named entities, which, in the case of place names, can be directly linked to the Pleiades gazetteer. There are also options for tagging relations between entities and an image annotation section where the students can train themselves to identify geographical entities on ancient and mediaeval maps taken

from the public domain and uploaded into the platform. Each Recogito user has a profile and a dashboard of all their annotated texts and images on the platform and can send them as links in order to collaborate with other users or apply them in education or research.

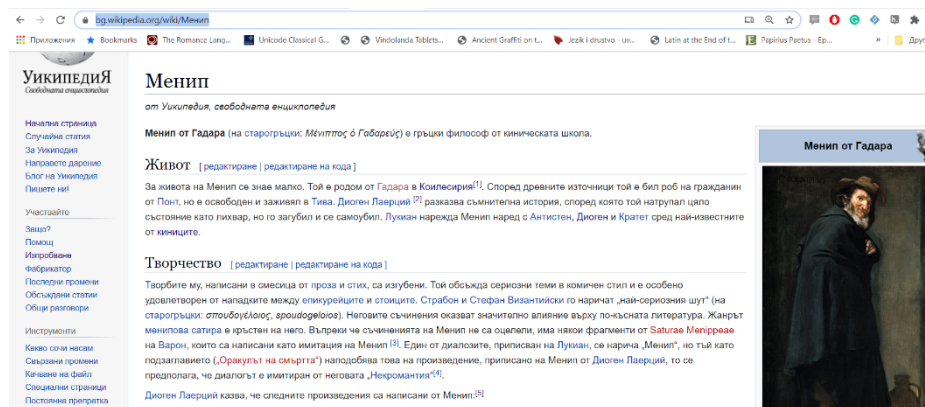


Fig. 5. The Wikipedia page in Bulgarian on the Greek philosopher Menippus (by 2nd-year BA students 2019/20)

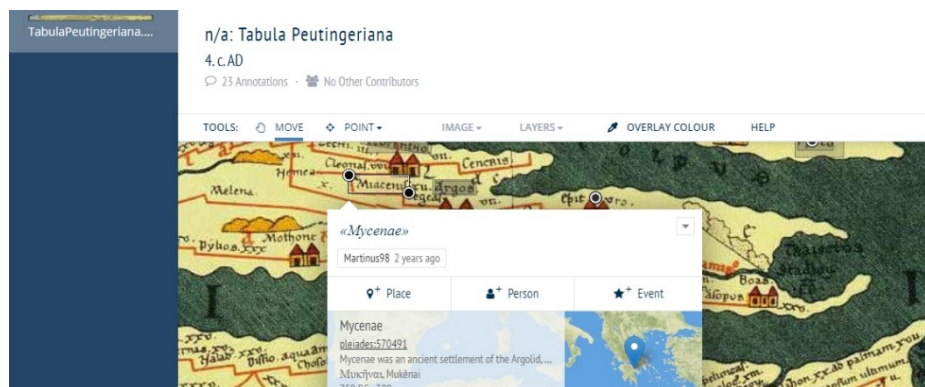


Fig. 6. Image annotation in Recogito of the Late Antique *Tabula Peutingeriana* (by 2nd-year BA students 2018/2019)

Translation alignment platforms such as Ugarit (<http://ugarit.ialigner.com/>), designed especially with Greek, Latin and other ancient languages in mind, are also applied in the education. The students usually work on classical texts they approach from different sides in other disciplines and their previously available or created especially for the purpose translations in Bulgarian or English. This enables them not only to get fuller grasp on the challenges of text alignment and parallel corpora in NLP, but also to pay attention to the details of each translation, some of them omitted or added to the original

in the different versions in various languages. The links to such paired text are also freely available for further use.



Fig. 7. A passage from Cicero’s *Against Catiline* in Latin and Bulgarian aligned in Ugarit (2nd-year BA students 2019/2020)

As for the XML encoding of ancient monuments, the main purpose of the course is to create the necessary competences in the students for the encoding of Greek and Latin inscriptions on stone according to the standards and schemas of TEI EpiDoc (<https://sourceforge.net/p/epidoc/wiki/Home/>). It is not by chance that such a topic has been included into the BA curriculum in Classics. The course is based on the actual experience from the work on the Telamon initiative for a collection of Ancient Greek inscriptions from Bulgaria. More than 280 inscriptions encoded in EpiDoc XML are currently being processed, indexed and visualized by a customized front-end service tool (<https://github.com/DHLabUniSofia/Telamon-EFES>). During the course, the students are acquainted with the firsthand experience of the project team in the encoding of different types of ancient inscriptions and their peculiarities, together with the metadata and the images to the monuments. They also learn basic operations of indexing and visualization with the EFES tool created especially for such kinds of encoded documents (Norrish, 2020). After successfully finishing the course, the students have the opportunity, if they wish, to be involved in the work on the project itself – even without much previous formal training in Greek epigraphy, to which area of classical scholarship the practical work on Telamon also helps significantly. One of the expected benefits of the Telamon project is that XML encoding introduces students to the complex discipline of ancient epigraphy step by step, through “learning by doing”. So far, this approach is justified and the Telamon investigators are witnessing a gradual advancement on the part of the students in their competences in the fields of epigraphy as well as in the Ancient Greek language itself.

Each encoder receives a given number of inscriptions taken from the printed *IGBulg* corpus (originally published in Latin). In the process of dealing with the monuments, the students are acquainted with the type and structure of metadata typically used for the description of cultural heritage objects written on stone. They learn how to isolate separate elements of metadata description in the Latin text of *IGBulg* and identify them

with particular lines of XML code in the Telamon template. The peculiarities of the monuments and their encoding are discussed by team and assistants almost in real time via shared Q&A documents. These will serve as the basis of the project’s documentation which is to be enriched and developed in English as a future contribution of the Telamon project to the EpiDoc community.

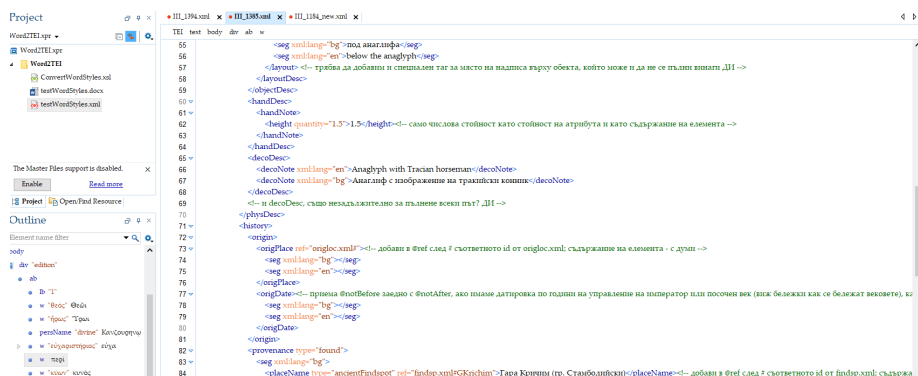


Fig. 8. The XML code of the inscription *IGBulg* 1385 visualized with Oxygen® XML Editor 22.1

Thus, the training of the students in the optional course of the BA curriculum is incorporated in multiple ways into the workflow of the project. A creative circuit is formed in which practice and teaching mutually enrich and motivate each other (see Fig.9).

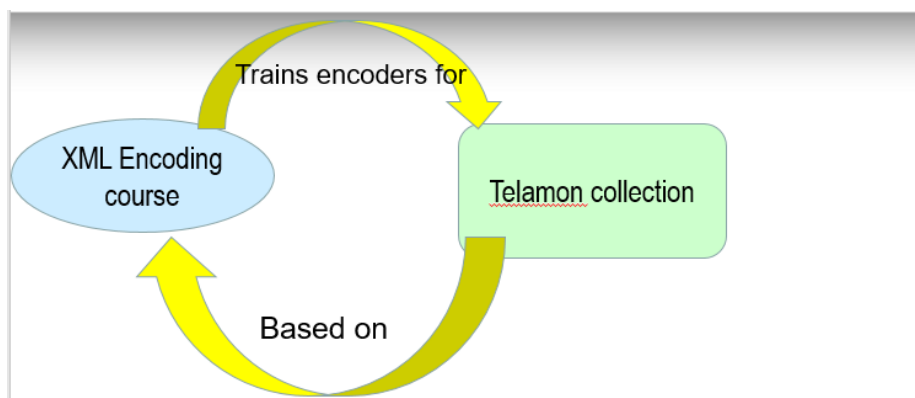


Fig. 9. Teaching and research of Greek epigraphy in the optional course in XML encoding and the Telamon project.

4 Conclusions

In conclusion, the expected outcomes of the Digital Classics courses in the BA curriculum in Classics can be summarized as follows:

- to make up for the decline of slow learning and research by the introduction of hands-on experience and practical problem-solving that require acquisition of knowledge and skills in the process;
- to build practical skills ranging from basic digital literacy to the creation of specialized online content;
- to encourage team work;
- to open various future career perspectives;
- to involve students in the current research of their teachers;
- while being interdisciplinary, to keep students close to their specialized educational field.

Considering the qualities of the various term projects I have evaluated during the four semesters of the existence of the module, I tend to think most of these goals have been reached for most of the enrolled students. A measurable impression of their relative success can be also given in numbers. For the period 2017-2020, 20 students have been enrolled in the courses as a whole. Of them, 2/3 have been enrolled in more than two of the proposed courses, and 1 is a philosophy student comes outside of the Department of Classics. 10 of these students have been engaged to work in different DH projects after they finished the courses, 1 has chosen the option of the Digital Classics research practice at the Department of Classics and 1 recently finished two semesters in a software academy with prospects of a future IT career with focus in NLP and text mining.

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