

FROM THE LOST LIBRARIES TO ARTIFICIAL INTELLIGENCE

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ABSTRACT: The paper looks into the development of philology as a science from Antiquity to Modernity analyzing the factors influencing every stage in its development. It focuses on the typological features characterizing every stage. Special attention is paid to the causes leading to the fragmentation of philology into different fields and branches and the typological features that unite them under what is understood as classical philology. Philology has thus become an umbrella term sheltering seemingly unrelated disciplines nowadays. The assumption that there are two basic institutions, namely, libraries and schools in its broad meaning, through which knowledge has been stored and handed down on next coming generations, is discussed extensively. It is also proposed that in the period of post-modernism philological endeavors have taken a U-turn toward the classical holistic approach of Antiquity that underlie new concepts in literature and linguistics such as intertextuality, corpus analysis and artificial intelligence thus forming a spiral in its historical development. Finally a conclusion is reached that philology has not changed drastically in its general ideology having always been interdisciplinary by nature. The reason is the fact that language being in the core of any philological investigation is a pure human phenomenon and is itself holistic in nature.

KEYWORDS: philology, interdisciplinary and holistic approaches, storing and retrieving knowledge, antiquity and modernity.

INTRODUCTION

The word *philology* (φιλολογία) is derived from the combination of the ancient Greek φίλος, basically meaning "love, loved, dear (and friend)" and λόγος, meaning "word, meaning, articulation" so *philology* can be literally translated approximately as "love of words", "love of the written word" or as the more general "love of knowledge".

Philology as a scientific discipline in the field of humanities was defined relatively late, in the 19th century, as "the study of language in written historical records, including the combination of literary criticism, history and linguistics" [Philology 2008: 1]. Most often it is associated with any written language and therefore defined as the study of literary texts and written records in order to establish their authenticity and interpret the meanings of the words in order to restore the original texts.

The adjective φιλόλογος in turn denotes the quality of the individual as "a lover of dispute and discussion," or qualifying them as "talkative". In this original meaning *philological* was used in the earliest Hellenistic period.

In Classical Latin the term *philologia* narrowed significantly compared to the Hellenistic period changing its meaning into "love of literature." With this meaning, it entered Middle French in 16th century and was later borrowed in English. The result is that at present there are two different cultural concepts regarding the scope of philological research - British and European (Continental).

While in the British tradition philology suggests mainly research of literary sources and tracking the historical changes in language, in the European tradition it includes various disciplines including literary studies, both synchronic and diachronic investigation of language both being equal objects of philological study, which further expands to include research in related scientific areas such as the field of folklore, ethnography, cultural and social anthropology. However, despite this difference, the fact that philology as a whole is deeply connected with the means of transmission and storage of human knowledge by means of 'the Word' is undoubted. The storage and the transmission of knowledge were institutionalized far back in the history of human civilization after the invention of the alphabet in the form of libraries and philosophical schools.

Periods in the history of philology

Classical Antiquity

Philology as part of human knowledge occurs in the period of Classical Antiquity. The notion Classical Antiquity is very wide both in terms of timespan and in terms of spatial dimensions. It covers a long historical period of the cultural prosperity of Ancient Greece and Rome along the Mediterranean shores from where it spread throughout Europe, North Africa and the Middle East.

According to most scientists early Classical Antiquity starts back in the 8th and 7th century BC with the epic poetry of Homer, continues during the emergence of Christianity and ends with the fall of the Western Roman Empire in the 5th century AD. In the 19th century Edgar Allan Poe defines the period of Classical Antiquity in two verses as "the glory that was Greece and the grandeur that was Rome." [Poe 1845].

Ancient Greece entered the Classical Hellenistic period at the time of Philip of Macedonia and reached its pinnacle during the reign of Alexander the Great. This is a period when Greek became the *lingua franca* of vast territories far beyond Hellas. The culture of Ancient Greece is transferred to Persia, Central Asia, India and Egypt. This is the most studied language in which all major works of the time in all scientific fields including astronomy, mathematics and geography were written.



Classical Antiquity territories

The interest in philology and its perception by the Ancient Greeks is reflected in the Greek mythology where it takes a special place. In this period philology is completely holistic in nature and no difference is drawn between knowledge and art. The general belief that knowledge is art and art is knowledge is reflected in the lore of the ancient Greeks. Art and knowledge are presided over by the nine muses who are Zeus' daughters with Mnemosyne, the goddess of memory and are protected by the Apollo, the God of arts. They are personification of sciences and arts, are responsible for the order and harmony in the human world and each of them controls a different sphere: Calliope is the muse of epic poetry, Clio – of history, Euterpe - of lyrical poetry, Thalia – of comedy and pastoral poetry, Melpomene – of the tragedy, Terpsichore – of dance, Erato - of love poetry, Polyhymnia – of sacred poetry, hymns and pantomime, and Urania - of astronomy. Remarkably, only one of the Muses, Urania, patronized a "non-philological" field from a contemporary viewpoint. The temples erected in honor to the muses were named *μουσείον* (muzeyon), a word that is universally used by most world languages today with one and the same meaning. *Museum* is defined as "a building in which objects of historical, scientific, artistic, or cultural interest are stored and exhibited" [Muzeum]. In other words it is an institution aimed at preserving the memory of human civilization achievements both in arts and science.

Language and literature in this period are amalgamated and no distinction between the two major philological disciplines is made. Linguistics is part of both rhetoric and logic and along with the interest in how to speak beautifully and persuasively in public, special attention was paid to grammar which began to diverge as a separate discipline. At that time grammar is viewed as a special kind of art directly linked to the correctness of expression and logic on the one hand, and the beauty and elegance of public speaking as part of the rhetoric art, on the other.

Philology takes a central position in the education of Classical Antiquity. In his *Dialogues* Plato states that the three main parts of philology, namely grammar, logic and rhetoric are the core subjects that must be taught. At this stage, the concept of philologist equals sophist relating to the ways of teaching of the ancient Greek sophists, who as teachers of rhetoric, especially in the area of political public speech, were among the best-paid people in the society. *Sophist* itself originally means a man of knowledge and wisdom.

Today sophistry has changed its initial meaning and refers to “a subtle, superficially plausible but actually specious or fallacious reasoning” where the beauty and elegance of expression are more important than the facts themselves [Sophistry]. Plato’s legacy is revived in the Middle Ages when the three disciplines are combined under the name Trivium and form the basis of classical philology, which focuses on the written word: its preservation, dissemination and interpretation.

“The glory of Greece” (or the Hellenistic period) ends with the appearance of the Roman Republic and the conquest of Greece by the Roman Empire in 146 BC. As a result the cultural center of Europe moved from Greece to Rome and Latin gradually became the new global lingua franca of the civilized world. Almost all Greek traditions in philology as well as the educational practices were adopted in the Roman Empire.

During the “grandeur of Rome” the basic centres of philology, science and education are the libraries in Alexandria and Pergamum. Their history is intrinsically connected despite the fact that they are located on different continents.

First, for some time they coexist and exchange written texts. Second, these are the two places in the territory of the vast Roman Empire where original ancient texts are not only kept but also rewritten and translated into Greek and Latin. The copyists working in the library scriptorium were often challenged to interpret the meaning of the original text in order to translate it into Latin. This need created hermeneutics as a new branch of philology born at that time dealing with the interpretation of the classic works in the field of religion and philosophy and which today continues to exist under different names - text-linguistics, theory of intertextuality etc.

The Library of Alexandria is the oldest institution of its kind in the history of civilization. Faleron Demetrius, a disciple of Aristotle, is believed to be its founder, although there are disputes concerning the exact time of the creation of the library. However, most scientists agree that it was founded at the time of the reign of the Ptolemaic dynasty of Egypt. The majority believes that this happened at 367 BC at the time of Ptolemy Soter I (323-283 BC), but this opinion has opponents who suggest that the library was created by his son Ptolemy II Phillips (283 -246 BC). The time difference of fifty years is hardly relevant since it cannot change the essential fact that the library of Alexandria, or the Ptolemaic library, is undoubtedly the world's first intellectual establishment, whose main purpose is to store and disseminate human knowledge.

The location of the library was carefully chosen and of a specific importance. According to historical data it was situated near the harbour in Alexandria as part of a whole architectural ensemble in which the centerpiece was the Temple of the Muses next to which was the building of the library. Such an arrangement has both symbolic and pragmatic character. On one hand, the library serves as a repository of art and knowledge, patronized by the Muses, and on the other, it is closest to where the invaluable papyrus, without which the Library would not exist, was delivered by ships. According to various sources the library sheltered about 400,000 papyrus

scrolls and almost the entire production of papyrus in Egypt went to it to satisfy the huge demand of the scriptorium.

The etymology of the word *library* is quite interesting from a philological point of view. Originally, it is a compound word consisting of two parts. The first part *biblio* is a diminutive form of ancient Greek *byblos* meaning Egyptian *papyrus*. Gradually *biblio*, via a metaphoric transfer narrows its meaning until it started being used to refer specifically to the papyrus scrolls kept in the library. At the beginning of the written tradition in human civilization the Christian manuscripts are collectively named *Ta Biblia* in Old Greek, whose first use is dated to 223 c. AD. As a result of its frequent use the word *Bible* gradually narrowed its meaning displacing the older *The Scriptures* and replaced the Old English *bibliðece*. The etymology of *biblio* reveals the centrality of the libraries as sacred establishments and their functions as sacred places in the social and cultural life of the pre-Christian world. With the arrival of paper in Europe in the 13th century *biblion* became to be used as a synonym of paper, which was invented in China around the 2nd century AD.

The second part of the word *tekke* means a suitcase or a cabinet. So the original literal meaning of the word *bibliotheca* (*library* is a later borrowing from French) is "a cabinet for keeping papyrus scrolls" whose meaning gradually broadened to refer to the whole building, with all separate specialized facilities belonging to it. The shelves on which the cabinets were placed were arranged along the walls of the halls were called *βιβλιοθήκαι* (*bibliothekai*) which is the plural of *bibliothēke*. Murrey [2009], one of the most prominent scholars in the area of library studies, evidences that the notice along the shelves read: *A place for healing the soul*, which is symbolic, reflecting the beliefs of our ancestors that the elevation of the spirit is only possible if it is cultivated by knowledge.

The legend tells that the Library of Alexandria was destroyed by fire in 48 BC started by Julius Caesar, which, according to Plutarch, was set to prevent the attack of Aurelian's ships against Alexandria. Experts suppose that this was probably neither the first nor the last fire in the library. They also assume that the library was not fully destroyed in 48 BC for two reasons. There is evidence that part of the scrolls that survived were moved to a smaller library, named Serapeum and located in another part of Alexandria on the one hand, and second, there are indications that some of the scrolls of the library were brought to Constantinople much later, at the end of the 4th c. AD. This makes scholars assume that the end of the library of Alexandria came during the reign of the Coptic Pope Theophilus in 391 AD who ordered the destruction of the Serapeum and supposedly the destruction of the Great Library of Alexandria as well. As mentioned above, not the whole knowledge contained in the scrolls was destroyed as part of them were saved and moved to the Emperor's Library of Constantinople and probably to other smaller libraries throughout Europe.

Founded in the late third or early second century BC by Yumenes II, the library at Pergamon (Pergamum, Pergamo) became the biggest rival of the Alexandrian library in the number of scrolls and scriptorium activities carried out. Its majestic ruins still survive near the present town of Bergama in Turkey, and most architectural artifacts can be seen in the Pergamon Museum in Berlin. The two libraries were closely related in the period of Classical Antiquity

In its repository the Pergamon Library had approximately 200,000 parchment scrolls. The word *parchment* itself probably derives from the name of the city of Pergamon. Parchment was invented as a new material for preservation of the written word especially to satisfy the needs of the library executing the order of the regional ruler after Ptolemy II banned the export of papyrus from Egypt. According to the Roman historian Pliny, the entire crop of papyrus harvested in Egypt was hardly enough to satisfy the needs of the Library of Alexandria [Encyclopedia Britannica]. The new material was easier to produce elsewhere in Europe and Asia which affected positively the independent spread of the written word around the world before the arrival of paper. These facts constitute the first relation between the two libraries of Antiquity.

The second linkage between the Pergamon library and the library of Alexandria is the legend according to which Mark Antony gave all the 200,000 volumes stored in Pergamon as a wedding gift to Cleopatra, an act which brought the existence of Pergamum library to an end [Murray 2009]. However, the fact that the scrolls of the library were evaluated as a true "royal gift" shows what importance the preservation of the written word in the Ancient world was and what prominent place it took in the system of values of the time.

Before the fall of the Roman Empire in the 5th century the shaping of grammar as an independent scientific discipline with its own goals and objectives different from those of logic and rhetoric in the Hellenistic period had started. *Grammar* originates from the Greek γραμματικὴ τέχνη (*grammatikē technē*) literally translated as *the art of letters*. In fact the first grammatical descriptions were those of Sanskrit, the oldest recorded language in the world dated back to the 6th century BC. The first grammar of Yaska was followed by Pāṇini in the 4th century and his commentators in the 2nd century BC. These works, however, being discovered much later, were unknown to the Western civilization.

The first grammars appeared in the Western world during the Hellenistic period around the 3rd century BC and are said to be related to the names of Rhyanus and Aristarchus of Samothrace. The oldest preserved grammar work is *Art of Grammar* (Τέχνη Γραμματική) which is attributed to Dionysius Thrax of Alexandria and dated to the 1st century BC. In the work Homer's epic texts are analyzed and Homer's language is set as a model for deriving the grammatical rules underlying language use. The Roman grammarian Varro created the first multi-volume grammar of Latin between the 1st and 2nd second century BC. Today only a quarter of his work has survived but linguists evaluate it as the first descriptive grammar as Varro proposes that grammar should describe structures and should not set rules of use as they appear in model texts of the past. However, the later Roman grammarians followed Thrax's tradition by setting the language of Cicero and Virgil as a standard for a grammatical description. The works of Donatus and Priscian from the 4th and the 6th centuries respectively became the basic books for teaching Latin during the Middle Ages. In the 4th century BC Elias Donatus wrote *Ars Grammatica* (*The Art of Grammar*) whose abridged version *Ars Minor* becomes the primary school-textbook of the Middle Ages, when Latin became the *lingua franca* of the European civilization.

After the fall of the Roman Empire in 493 AD, the tradition by the Eastern Roman Empire and Byzantium with Constantinople as a main cultural and educational centre of the European civilization.

The Late Antiquity - Byzantium

Even before the fall of Rome, in about 357 the Emperor Constantine II, son of Constantine the Great, realizing the precariousness of papyrus as a carrier of the written word, founded the Imperial Library of Constantinople. He ordered the rewriting of the Judeo-Christian scriptures from papyrus onto parchment under the supervision of Temestios who was responsible for copyists and librarians. As mentioned above, it is believed that part of the papyrus scrolls owned by the library, were carried over from the Library of Alexandria.

The Imperial library is thought to have contained about 100,000 manuscripts. There is evidence that the library stored Greek and Latin texts together, contrary to the Roman tradition to keep them in different repositories (Gamble 1995: 168).

The library was probably destroyed after the fall of Constantinople in 1453 by the army of Sultan Mehmed II. There is evidence that it may have been looted previously during the Fourth Crusade in 1204. The only surviving book today is *Parisinus* which is a collection of religious texts, dated back to 1276 and containing a memo reading εναπετεθη εν τη βασιλικη βιβλιοθηκη meaning "registered in the Imperial Library" [Nigel 1967]. It is for purpose that the imaginary graphics depicting the Imperial library in Constantinople actually place it in St. (Hagia) Sophia,

which for almost 10 centuries had been the symbol of the continuation of the Christian civilization after the fall of Rome in the 5th century.

The end of Late Antiquity is conventionally dated between 6th and 10th centuries AD, when the cultural and literary tradition of the Western civilization smoothly transfused in the period of the Early Middle Ages. The period is often called the Dark Ages, a metaphorical expression used first by Petrarch to describe it as a period of intellectual darkness opposed to the light of Classical Rome.

Early Middle Ages

Regardless of the four-century transition from Antiquity to the Middle Ages in various parts of the world, the general typological features of the period that unite the Early Middle Ages are the following: this is the time when theologians and religious bigotry began to dominate the intellectual world, a direct consequence of which is that monasteries became the main centers of science and education, and, as already mentioned, Latin displaced Greek as the lingua franca of religion, science and culture in the civilized European world.

From a philological point of view an interesting fact is that despite the dominance of Latin, strongly supported by the church during the Middle Ages for obvious reasons, an interest in local languages has also emerged as a reaction to the language imperialism of the Vatican. One of the first grammars of particular languages appeared in Ireland. This is a book widely known today as *Sanas Cormaic* believed to date back to the 9th or 10th century and which is interpreted as an attempt to attack the superiority of Latin. Its authorship is attributed to Cormac, a king and bishop of the Celtic Kingdom located on the territory of today's county Muenster. Two centuries later, in the 12th century, the first written grammar of the Icelandic language *Fyrsta Málfræðiritgerðin* (known in English as *The First Grammatical Treatise*), dedicated to the phonological specifics of Old Norse – Icelandic was written. Its appearance was provoked by the forceful introduction of the Latin alphabet necessitating a spelling reform of Icelandic and completely changing its original orthography. Modern Icelandic resisted the reform and still preserves several runes in its alphabet. It has to be pointed out that these treatises of nationalistic character seeking to preserve the authenticity and originality of the mother tongue as a direct expression of national identity appeared in countries that are located on the periphery of the intellectual hegemony of the Vatican and have a small number of people.

As already stated, the development of philology is inextricably linked to the development of education. The acquisition of knowledge (and knowledge about the world in general) is related to the existence of the book as a source of information and, respectively, knowledge. In the Middle Ages, there were seven basic subjects grouped into two equal parts called the trivium and quadrivium which were the backbone of university education when the first universities were founded around the 12th century. These seven disciplines known under the name *Artes Liberales* are core of university education in Western Europe for centuries. Trivium includes classical grammar, rhetoric and logic that are traditionally associated with philology. Quadrivium includes three hard sciences associated with the art of numbers, namely algebra, geometry, astronomy and music which at that time is defined as the numbers of tones.

Only after the 12th century translations of the works of Aristotle and scientific texts in Arabic started entering Europe effecting in ideological changes in the educational system. This civilization fact can be thought of as the first step towards globalization in the field of the intellectual endeavours.

Late Middle Ages and the Renaissance

The end of the Late Middle Ages smoothly transcended the early Renaissance. Renaissance is a cultural phenomenon that affected all areas of art, science and social life and in the center of which was philology.

Renaissance is often described as a revival of the Greco-Roman cultural tradition with some influences from the Orient. It creates the foundation of the philosophical, societal and educational ideals underlying the neo-classicism of the 18th and 19th centuries. Renaissance is also often referred to as a "bridge to modernity". The beginning of this complex process of fundamental change started in Italy and later swept over whole Europe. Among the founders of the Italian Renaissance are such intellectual giants like Leonardo da Vinci, Michelangelo Buonarroti, Dante Alighieri etc.

The reasons for the emergence of the Renaissance are complex, diverse and interrelated which makes them quite difficult to generalize. It is however possible to summarize them as elements that mark the stages of civilizational changes in the spiritual space reflected in the philosophical thought and pragmatic implementation.

The first is the migration of Greek scholars and books after the fall of Constantinople in 1453, which required a rethinking of the values inherited from the antiquity combined with new views of scientific values and artistic achievements from the unknown until that time Arab world. The second factor is the plague of the 11th and the 14th century AD that changed not only the demographic map of Europe and the social stratification, but resulted in changes in perceptions about the value of human life and reordered the system of human values in the Western world.

The third factor was the invention of the printing machine which enabled the rapid dissemination of the written word. There is another dimension of great importance as printing allowed the spread of knowledge among the general literate public regardless of their belonging to different social strata. This is the first step to curbing elitism in favor of egalitarianism, which changed fundamentally the education system in Europe.

The fourth factor are the great geographical discoveries that revealed new worlds for the educated Europeans and confronted them with a world that is subjected to different from the established Christian doctrine systems of moral values and preserved in the oral and the written traditions of the newly found civilizations elsewhere in the world.

The Renaissance in Europe is generally divided into two major periods: the Roman and the Greek phase. The Roman phase is traditionally dated back to the 14th century. It is associated with the names of Petrarch, Dante Alighieri, Koluchio Salutati and Nicola de Nikoli who sought and translated Classic Latin texts and took care of their distribution to the existing European libraries. Their efforts resulted in the restoration of a huge amount of Cicero's, Seneca's and Titus Livius Patanius's (Livy) texts in the early 15th century.

The Greek phase comes second and is dated back to the 15th century. It is one of the greatest achievements of the Renaissance managing to restore the lost knowledge of the Early Antiquity for the civilized world. The Ancient Greek texts of Homer, Thucydides etc. had been unknown to Europe as they were lost during the Middle Ages and were accessible only to the scholars in Byzantium. After the fall of Constantinople in the 15th century many Greek sacred texts, including the New Testament, found shelter in Western Europe and became subject of interest lying the foundations for further research in various scientific areas including philology and philosophy [Reynoldz and Wilson 1974].

During the Greek phase humanism as a trend in literature and art emerged. The rediscovery of the Ancient Greek literature, historical, rhetoric and theological texts combined with the perils caused by the Black Death led to a general rethinking of human values. Humanists believed that the transition from this world to afterlife required physical and spiritual perfection.

They were also convinced that achieving the perfect balance between the spiritual and the material world can only be achieved through education.

The Renaissance authors not only protected and promoted their mother tongues but also began to use intensively their native local language in the creation of artistic and scientific texts, which in combination with the invention of the printing press facilitated the access of the common public to science and arts. Humanism also affected religious beliefs. Many translations of Greek sacred texts, including the Bible, were conducted which in turn paved the trail for the later spread of Protestantism as opposed to Catholicism.

Following the new trends the libraries of the 15th century collected and translated into mother tongues not only classical texts, but also works of fiction, poetry and journalism. The largest library of this period is the Vatican Library, which is still one of the biggest, if not the biggest, library in the world. The second largest library was Korviniana in Hungary established under the auspices of the Hungarian King Matthias Korvinus. Unfortunately, it was destroyed during the Ottoman invasion in the 15th century of which only 650 manuscripts survived until present [Tanner 2008]. Among the richest Renaissance libraries is the Medici Library in Florence created by Bartolomeo de la Fonte under the patronage of Lorenzo Medici the Great, which contained over 11,000 manuscripts and 4500 printed books [Encyclopedia Britannica, 2007].

Reformation and Enlightenment

The access to the religious texts written in Ancient Greek led to a new stage in the evolutionary development of the intellectual thought in Europe: the era of the Reformation and the Enlightenment. Educators like Erasmus of Rotterdam and Martin Luther who proposed reforms in the church were directly influenced by the humanist interpretation of the New Testament in its Greek original. It is assumed that the beginning of the Reformation should be dated to October 1517 when M. Luther's seminal work *The Ninety-Five Theses* were hung on the door of the All Saints' Church (Schlosskirche) in Wittenberg, where he voiced his disapproval of the corruption in the church, the sale of indulgences thus casting doubts on the wealth of the church and contesting the existence of the clergy and the Vatican church structures as a whole.

Enlightenment is a cultural movement of the intellectuals in Europe whose major philosophical emphasis comes on individualism and reason. Its origins are dated commonly to the mid of the 17th and the beginnings of the 18th century and the movement found a mass intake initially in the UK and France.

The main features of the Enlightenment can be summarized as follows: first, the scientific approach was introduced which itself is a turning point in the history of human thinking. It insists that every scientific endeavour should be based on explicitly formulated principles leading to consistent logical conclusions that are further verified and which in light of new evidence may lead to changes in the initial hypotheses. Second, human thought was allowed to run free of the religious canon and medieval dogma which, from an intellectual and civilizational point of view, makes Enlightenment the richest and most interesting period in the history of the Western civilization.

This is the time of Voltaire, Jean-Jacques Rousseau and René Descartes in France; Herder, Kant and Lessing in Germany; Newton, John Locke, Adam Smith and Bertrand Russell in England, Thomas Jefferson in the US, to name just a few among the most prominent figures of the time. Expectedly, Enlightenment is the time of the boom in the creation of new universities in which education follows the principles of reason and which are declared „Catholic-free“ territories located predominantly in northern Europe: Leiden, Göttingen, Halle, Uppsala, and Edinburgh. An exception is the University of Montpellier in France, which is a classic Catholic country in this period.

The period of the Enlightenment is the time when for the first time the libraries opened their doors to the general public. The first academies such as Academie Française and the Royal Academy in England are created originally as centers focusing mainly on traditional philological issues such as language purity and its use in literary works.

However, philological endeavours are not limited only within the newly established Academies. Along with them ostensibly non-academic places turn into cultural and scientific centers in Europe. Such institutions in England and France are the public cafés. They become extremely popular intellectual centers accessible to the general public. They offered magazines, newspapers and books, more than 70% of which are novels and less than 1% are books with religious content which is evidence of the growing public interest in secular literature. What is more, cafés turn into an alternative to universities. Not surprisingly, the first café in Britain called *Angel*, was opened in the university city of Oxford in 1650. A. Ellis [1956: 29] explains the intellectual power of Oxford cafés stating that their purpose goes far beyond the need for places facilitating social communication and gossip exchange. On the contrary, they are places where “serious and sober¹ discussion on any subject of public interest is held.” It is for a reason that British cafés were commonly named “Penny Universities”² as they were where the intellectual, artistic and scientific elite of society gathered. Thirty years later, in 1686, the first French café opened in Paris, and in the early 18th century the Parisian cafés outnumbered 400.

The influence of the ideas of the Enlightenment on the subsequent historical stages of the evolution of human thought is absolutely doubtless.

The Nineteenth century

The 19th century is called “The Golden Age of Philology”. This is the time when the various areas in philology began to specialize and several distinct disciplines like linguistics, literature and history were shaped.

The most significant achievement in the field of linguistics is the creation of the Neogrammarian School in Leipzig which focuses on the regularity of the sound changes in Indo-European languages. Grimm’s and Werner’s phonological laws are formulated as a result of the scrupulous application of the scientific approach in comparative linguistics. Thanks to the decoding of the Rosetta Stone by Jean Francois Champollion in 1822 philologists are able to untangle the Egyptian hieroglyphs, to decipher the Sumerian, Assyrian, Hittite texts and the scripts of many other extinct languages.

In literature, the early 19th century is the time of the emergence of Romanticism and the literary theory and criticism, thanks to the works of the Schlegel brothers and Novalis in the German literature. Romanticism, and especially German Romanticism, initiates a lot of research in the field of literature caused by the intense interest in ancient cultures and their heritage.

The 19th century is the time of the British Empire and Queen Victoria. Britain is a world empire and its intellectual achievements, including those in the field of literature, linguistics, history and philosophy, are available in large parts of the globe. This is the time of William Wordsworth, Coleridge, Byron, Burns and Shelley. The classical Gothic novel emerged as a new literary genre that continues to be an extremely popular literary form today. During this time philological research is an integral part of history and archeology. This is the time of Heinrich Schliemann, who, through a detailed reading of Homer’s *Iliad* manages to discover the location of Troy, although later research reveals that he and his crew never found the true remains of Homer’s Troy.

¹ Sober is used in its literal meaning as cafés did not serve alcohol. Alcohol was served only in ale-houses.

² The price of a cup of coffee was 1 penny.

The Twentieth Century

In the 20th century the various philological disciplines branched further. Theoretical linguistics was founded by F. de Saussure who established the first Department of general linguistics at the University of Geneva. After World War I the term philology as used in the UK was limited to the modern understanding of historical and comparative linguistics due to the after-war political confrontation between England and Germany, while in Germany it kept its meaning of an umbrella term referring to the whole area of knowledge concerned with language. Therefore, the term philology in Anglo-Saxon universities gradually began to be avoided and even perceived as an antonym of linguistics. From the viewpoint of British academia linguistics focuses on the synchronic description of human language mainly within the framework of structuralism an offspring of which is Noam Chomsky's generative linguistics appearing in the second half of the 20th century [Utz 2009: 34-44]. However, it is interesting to note that D.R.R. Tolkien opposed to this nationalistic reaction of the UK by saying that 'linguistic instinct is so universal, as is the use of language ' [Philology 1923: 36-37]. It should be noted, however, that in the American academic tradition philology as a scientific field continues the ancient tradition to include all traditional philological disciplines such as language, literature and cultural anthropology.

The Twenty-first Century

At the beginning of the 21st century linguistics established itself as an independent scientific discipline with over 25 sub-disciplines divided into micro and macro linguistics where micro linguistics comprises all traditional areas such as phonology, grammar and lexicology, and macro linguistics unites all newly developed fields in the course of the multifaceted endeavours in language as a natural human-specific phenomenon. Literary criticism is also an independent field which is divided into several subfields: classical textual criticism; hermeneutics dealing with the interpretation of preserved manuscripts and the original biblical texts; higher criticism studying the literary works from the standpoint of authorship, dating and placing them in historical context. The term *new philology* in literature is also coined to refer to the implementation of strict "diplomatic" approach to the interpretation of classical texts without any corrections or changes on the part of the scholars. A new cognitive philology is also established that studies texts as a result of mental processes. It uses the methods of experimental psychology and the achievements in the field of artificial intelligence.

Conclusion

All in all, it can be concluded that the core of philology in its modern sense is still a combination of knowledge in the fields of history, literature and linguistics. Philology continues to exist as an indivisible unity, and regardless of its splitting in various disciplines throughout time it is still idiosyncratic in nature. Its development in the centuries follows the shape of a spiral as it winds continuously and widens gradually around a central point which comprises the classical core fields: language, literature and history [Spiral]. The emerging new disciplines are intrinsically connected to the central area of philological knowledge, namely the scientific study of the art of words. Particularly important for the nature of philology is the understanding that during the ages it has always been a fundamental source of the most progressive ideas in human civilization marking the transition from one stage of knowledge to another.

The brief historical overview of the development of philology from its birth till present days may serve as a basis to foresee the trends in her future development. It can be assumed that there will be a reverse to the classic holistic approach typical for the period of Antiquity but on a new level. The holistic nature of philological research will be replaced by interdisciplinarity, where literature, history, linguistics, folklore, rhetoric, psychology and logic, as well as other originally non-philological disciplines, will be combined in different modulations in order to carry out philological research in the future.

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