




Erika Juríková

Trnava University, Trnava, Slovakia

erika.jurikova@truni.sk

 ORCID 0000-0002-9273-7098

Janka Mišeková

Trnava University, Trnava, Slovakia

misekovajanka@gmail.com

 ORCID 0000-0002-5766-9018

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The Significance of the Production of Books at the Historical Trnava University for the Development of Science and Literature on the Territory of the Present-Day Slovakia from the Perspective of Research Conducted Over the Last Two Decades¹

Abstract: Over the last two decades, there has been more comprehensive and focused research on old prints produced by the historical Jesuit Trnava University. It existed in Trnava between 1635 and 1777 when it was moved to Buda (today's Budapest, Hungary) by the monarch Maria Theresa. Thus the university influenced the educational level of the Hungarian population in the 17th and especially the 18th century, and became the centre of Baroque education in what is today Slovakia. The establishment and existence of Trnava University was of fundamental importance for the development of many scientific disciplines, which was further multiplied by the titles published by the Academic Printing House. This study aims to highlight those aspects of the activities of the university and individuals that have contributed to a breakthrough in scientific knowledge and at the same time have been the subject of partial or systematic research since 2000.

Keywords: History of Printing – Upper Hungary – Slovak Territory – Trnava – Jesuits – Trnava University (1635–1777) – Baroque Period – Hungary – Catholic Literature

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The establishment of Trnava University marks the beginning of the literary baroque in terms of the periods in the history of Slovak literature. On the other hand, the succession of Emperor Joseph II to the throne, and the consequent relocation of the university to Budín (Buda, Ofen) marks the end of the baroque era. Baroque literature written in Latin was mostly created in cultural and educational centres such as the free royal cities of Bratislava (Preßburg, Pozsony), Trnava (Tirnau, Nagyszombat), Košice (Kaschau, Kassa), and Prešov (Eperjes, Eperies), however, monasteries and smaller nobility-owned towns also played a role. Over the 17th and 18th centuries, literary production increased in both quantity and quality. One of the reasons for this was the development of the educational system and increase in literacy as well as an expansion in the printing of books. But most importantly, the increased number of books published was due to the Society of Jesus, who deliberately settled in towns that had a tradition of book printing. Following an invitation from Archbishop Nicolaus Olahus to come to Hungary, the Jesuits chose Trnava as their first place of work (1561). After a great fire, which also destroyed the college, they moved out of the town in 1567 to return in 1615 to re-establish it. Trnava, a town with the necessary historical, cultural as well as economic background, appeared to be a good choice. For two centuries Trnava became the centre of university education in Upper Hungary and for successful recatholisation events². There were also active religious and judicial institutions as well as respected printing facilities.

Trnava University

In the early 17th century, Peter Pázmány, the Archbishop of Esztergom and Hungarian Primate, was looking for a place where he might establish a university. He felt an imminent need to create a centre for the preparation and education of students, not only from Upper Hungary but also from other parts of the Kingdom of Hungary. Until then they had relied on universities in Vienna, Graz, Italy, or Germany. Eventually, he chose Trnava. He worked on his plans for a long time and with great dedication and thoughtfulness. After many years of negotiations with the representatives of the Society of Jesus in Rome, King Ferdinand II, and local political representatives, Trnava University was finally founded in 1635. Although it initially faced economic, political, spatial, and staff-related problems, by the end of the 17th century it had become a stable centre of education which had an impact on the whole of Central Europe. Its numerous publishing activities certainly contributed to its success. It was carried out by their academic press. The establishment of the university and its 142-year existence in Trnava made a significant cultural

2 E. Krapka, V. Mikula, *Dejiny spoločnosti Ježišovej na Slovensku*, Cambridge 1990, pp. 33–34.

and historical contribution to the Kingdom of Hungary as well as to Central Europe. It raised this geographical area from the formal and schematic nature of medieval scholastics to modern realism. Trnava University was the first long-lasting institution of higher education in the history of what is today Slovakia until its move to Buda in 1777³.

Its humble beginnings do not change this. When it was founded, it only consisted of two faculties: the Faculty of Arts and the Faculty of Theology. Approximately 30 to 60 students per year studied there in the first years of its existence. The number of students increased dramatically in 1642 when students from the university in Olomouc that was occupied by the Swedes fled to Trnava (1642–1660). In the early years, most of the students were young Hungarian noblemen who were preparing for a career as priests, teachers, or clerks. Three decades later, the Faculty of Law was finally founded through the generosity of George Lippay in 1667. The Faculty of Medicine was the last to be established, by Maria Theresa (1769). The reason behind this was the urgent need for more qualified experts to combat the frequent and deadly epidemics in the country. In addition to physicians, the faculty also educated pharmacists and midwives.

At the request of Cardinal P. Pázmány, the administration of the University was taken over by members of the Society of Jesus, who led it until the abolition of their religious order in 1773. Their main goal was the promotion of literacy and the recatholisation of the country. Therefore, the University introduced many advanced ideas from the natural sciences and philosophy into the country and contributed to the development of Hungarian science, architecture, and art in the European context. In the early years of the University, it was mostly international professors with prior experience at other schools administered by Jesuits who taught at the University. Their scientific erudition and modern view of the educational system had a considerable impact on the intellectual formation of students as well as on the whole educational system of the country. The detailed organization of education according to the system established by the *Ratio studiorum* in the late 16th century guaranteed a conceptual and sophisticated pedagogical process⁴.

Trnava Academic Print Office

Trnava already had a tradition of book printing before the foundation of the University. In 1577 canon Nicolas Telegdi put a printing machine, bought from

3 J. Šimončič, A. Hološová, *Dejiny Trnavskej univerzity: 1635–1777, 1992–2010*, Trnava 2010; A. Hološová, *Rektori Trnavskej univerzity*, Trnava 2009.

4 M. Hamada, *Zrod novodobej slovenskej kultúry*, Bratislava 1995, p. 152.

Jesuits in Vienna, into operation. He had encountered book printing during his studies in Kraków and Vienna and is said to have been highly enthusiastic about this invention and he both typeset and corrected texts himself. Before his death, Telegdi, already a bishop and the Vicar of Esztergom, left the printing machine to the Society of Jesus in his will, but he had not yet come to Trnava by the year of his death (1586). Therefore, the executor of his will, the Bishop of Nitra, Zacharias Mošovský (Mossotius, Mosséczy), had to make a great effort to ensure the printing machine remained in Trnava. The new owner of the office was the Chapter of Esztergom⁵, which had its seat in Trnava and became the Archbishopric in 1608. The printing machine, which had originally been placed in the house of Canon Telegdi, was relocated to the Northern part of the archbishop's palace towards the present-day St. Nicolas Square in 1615.

The golden era of typography in Trnava started in 1646 when the Society of Jesus and the University took over the printing machine. Through the University the print office was enlarged and was led by a prefect, appointed by the rector of the college, who was a Jesuit. In addition to the prefect, there was the head of the technical department, typesetters, type founders, bookbinders, correctors, graphic designers, engravers, and support staff, including apprentices, in the office. The majority of the staff had gained practical experience in foreign book print offices and spoke several languages. The technical equipment of the office gradually underwent significant improvement, resulting in an improved press, new printing presses, and new types of font. Hadrián Radváni, who has made a long-term study of the history of book printing of Trnava, states that by 1720 the Trnava print office had six presses, with fonts of different sizes and types, 18 types of capitals, and 14 types of italics. In addition to antiqua, it had four sizes of Greek font, two sizes of Hebrew font, eleven sizes of German font and eight sizes of Slovak black letter, a Cyrillic font, nine algebraic symbols, four sizes of figures, and two types of notes. Furthermore, sixty-five different calendar symbols were used in the issue of the calendars of Trnava. The number of straight and connected lines, a total of 173 types altogether, was also admirable.

The professionalism of the printers resulted in the development of an excellent reputation for the workshop. The typographers of Trnava were aware of the skills they possessed and to further reinforce their position, in 1773, they issued a promotional sample showcasing their fonts, ornaments, and other decorations. As letters would wear out and the purchase and importation of replacements from other countries were costly, by the end of the 18th century they had founded their type foundry. It also produced letters for other printing facilities, for example, for the press at Košice University and the academies in Transylvanian Klausenburg/Cluj/Kolozsvár and Grosswardein/Oradea/

5 H. Radváni, *Trnavské tlačiarne*, Trnava 2009, p. 43.

Nagyvárad. Until 1773, the type foundry in Trnava produced 14 types of font and 4 types of initial. The graphics of individual prints thus gradually improved. Trnava University published more than 220 wood carving works and more than 1,500 chalcographic and etching works, as well as 100 individual graphic prints. They were manufactured by renowned engravers, draughtsmen, and external graphic designers such as Sigismund Schott, Jeremias Gottlieb, Johann Daniel Portten, and Sebastian Zeller.

The academic print office owned two paper-making factories in Kláštor pod Znievom, which had been rented by the Lang brothers since 1700. The tenants were obliged to deliver 80–100 packages of paper a year to the print office for a pre-agreed price. Other paper-making factories, especially the Pálffy's factories in Pezinok and Liptovský Sv. Michal, also delivered paper to the book print office in Trnava.

A bookbinding office was part of the book print office. It not only produced standard covers but also many highly representative books – on parchment, leather-bound, with engraved golden letters or copperplate, with texts or ornaments on the covers, bound by metal clips, gilded, beautified with figural and ornamental images, initials, and coats of arms. Between 1764 and 1773 several bookbinders started to work with the print office⁶. The fact that even today these publications are still highly sought-after by collectors of historical prints demonstrates how high the level of printing art was in Trnava⁷.

The University was not just a publisher; with the help of generous patrons, it also (co-) financed and distributed many books⁸. However, as far as the publication of books is concerned, it must be remembered that before a manuscript was submitted for printing, the text was thoroughly censored. The manuscripts had to be reviewed by the order and commented on by the rector or a person he authorised. Only then did they pass on the prefect who specified the technical parameters of the print. This process had strict rules that determined the sequence of steps and defined the principles to be followed by the censors. From 1726, a regulation was in force that required records of book production to be sent to the Royal Governing Council. Three copies of each issue had to be submitted with the report. Moreover, in 1759, a regulation entered into force that required the print office to send theological works to the bishops of dioceses and secular works to the Royal Governing Council for approval.

6 G. Haimann, E. Muszka, G. Borsa, *A nagyszombati jezsuita kolégium és az egyetemi nyomda leltára 1773*, Budapest 1997, p. 148.

7 M. Poriezová, *Vydávanie odbornej a vedeckej literatúry trnavskou Akademičnou tlačiarňou (1648–1773)*, Bratislava 2009.

8 A. Klimeková, M. Poriezová, *Pramene k výskumu knižného obchodu*, “Kniha” 2011, pp. 23–36.

In 1773, the Society of Jesus was dissolved and the print office was taken over by Trnava University. It operated continuously until 1777 when the university was relocated to Budin according to a decision made by Maria Theresa. Hence half of the typographic equipment and the entire type founding workshop were also relocated to Budin. The print office in Trnava operated as a branch of Buda University until the remaining equipment was relocated to Buda in 1798. As part of the transfer of the university a large collection of books and archive material left for Buda and many rare manuscripts were damaged or lost forever during their transportation on wagons or boats.

Book Production and Research into Book Production

The productivity of the academic print office remains the subject of research conducted by bibliographers. Older works, despite sincere efforts, did not keep complete records. The latest *Bibliografia územne slovacikálnych tlačí 18. storočia* is more accurate, also including records of newly discovered editions⁹. Considering the information available, along with the belief that the Trnava print office had a one-third share of the entire book production of Hungary, we come to a number of around 5,000. This number is the number of editions, not book titles¹⁰. Experts in the Trnava book production, István Käfer, and H. Radváni, estimate the total number of copies of books published at five million¹¹. The number of copies differs depending on the title. The inventory of 1773 indicated there were more than 300,000 stored prints whose number of copies varied from a couple of dozen to thousands¹². The production of the print office was announced through their publishing catalogues which promoted selected deliverable assortments, at the same time providing other information, such as the number of copies, the name of the typesetter, etc.¹³

Since the recatholisation of the inhabitants of the Kingdom of Hungary was one of the primary impetuses for the establishment of the University, it is

9 E. Augustinová, A. Klimeková, J. Ondroušková, *Bibliografia územne slovacikálnych tlačí 18. storočia*. Zv. 1–6, Martin 2008.

10 A. Klimeková, *Vydavateľská produkcia kníhtlačiarň pôsobiacich v 18. storočí na území dnešného Slovenska v celouhorskom kontexte*, [in:] E. Augustinová, A. Klimeková, J. Ondroušková, *Bibliografia...*, p. 55.

11 H. Radváni, *Kníhtlačiareň Trnavskej univerzity*, [in:] *Trnavská univerzita 1635–1777*. 1. Referáty zo seminára k 360. výročiu založenia. 2. Príspevky z cirkevných dejín Slovenska, ed. J. Šimončíč, Trnava 1996, p. 145; I. Käfer, *Egyetemi nyomda négyyszáz éve (1577–1977)*, Budapest 1977, p. 85.

12 G. Haimann, E. Muszka, G. Borsa, *A nagyszombati...*, pp. 231–283.

13 M. Poriezová, *Vydavateľsko-kníhkupecké katalógy trnavskej Akademickej tlačiarne*, [in:] *Problematika historických a vzácných knižných fondů 2008. Sborník z 17. odborné konferencie Olomouc, 5.–6. listopadu 2008*, ed. R. Krušínský, Olomouc 2009, pp. 105–114.

not surprising that the largest group of prints is represented by religious and theological works. Non-religious publications mainly include the philosophical works of the ancient classics, medieval authors and authors active at that time, as well as other forms of professional literature. Another segment of production included treatises written for specific occasions, dramas, or the above mentioned Trnava calendars. These were an appropriate addition to the religious and professional works. However, it needs to be highlighted that the present classification cannot be applied to the given period. Most of the published works were interdisciplinary and followed the Jesuit educational system¹⁴. The scientific and pedagogical focus of university teachers was, as such, multidisciplinary. The life of the whole of society was marked by Christianity, although divided in terms of denominations.

It is indisputable that the lively production of books strengthened the importance of Trnava University. The works issued by their print office confirmed their ambitions and the high level of quality at the school, spreading their good name around the world. Print quality also played an important role: the books written by the professors in Trnava often brought novel groundbreaking information to the existing state of knowledge and scientific work¹⁵.

In terms of the language of the prints, it was, of course, Latin, with some works in Greek and Hebrew. Latin was not just the universal language of the Catholic Church and European scholars, but also the language of education and the official language of the Hungarian Kingdom. From the 18th century, Hungarian and Slovak also began to be used, followed by German, Croatian, Serbian, French, and others. This phenomenon was related to the fact that initially, the community of teachers and students at the university were of various nations or neutrals. From around the middle of the 18th century, the national awareness of the students began to grow. This occasionally resulted in rather small clashes and unrest, but the atmosphere at the University might be generally considered to have been peaceful and tolerant.

Because the historical Trnava University mainly influenced the cultural and scientific development in what is today Slovakia and Hungary, this naturally implies a special interest in its history and activities, including the production of books by the Trnava Academic Printing House, on the part of both Hungarian and Slovak scholars.

First of all, the systematic work of the Hungarian scholars, I. Käfer and Eszter Kovács, should be mentioned. They have prepared an inventory entitled

14 M. Poriezová, *Nenáboženská odborná literatúra v produkcii Akademickej tlačiarne v Trnave (1648–1773)*, "Sambucus" 2010, Vol. 6, pp. 88–100.

15 E. Juríková, *Význam Trnavskej univerzity a jej knižnej produkcie pre rozvoj vzdelania a vedy na území dnešného Slovenska v 17. a 18. storočí*, "Sambucus" 2010, Vol. 6, pp. 101–108.

*Ave Tyrnavia!*¹⁶, in which all the prints published between 1648 and 1777 in the Academic Printing House in Trnava are listed, along with their current appearance in academic and scientific libraries. In the Slovak National Library, a team of authors has compiled a massive 6-volume work containing the prints published during the 18th century in present-day Slovakia¹⁷. Both works have become the basic starting point for further research into the content and genre of historical works and their inclusion in the context of national literature and cultural development during the Baroque period. For the sake of completeness, the reprint of the first-ever inventory of Trnava prints from 1931, authored by the Catholic priest Alojz Zelliger¹⁸, is also worth mentioning.

Before Trnava University, re-established in 1992, naturally became the centre of research into the history and production of books, Miriam Poriezová defended her dissertation at Comenius University in Bratislava in 2009¹⁹. She aimed to create a comprehensive picture of the content and position of professional and scientific literature within the printing and publishing programme of the largest and most productive print house in the territory of Hungary at that time, the Trnava Academic Printing House.

The actual philological, literary and content analysis of Latin works was concentrated at the Department of Classical Languages at the Faculty of Arts of the Trnava University, where, within the framework of several successive scientific projects, probing and gradually genre-oriented research was carried out, which resulted in several monographs on Latin works published in Trnava during the Baroque period, as well as a bilingual Latin-Slovak edition and a relatively large number of published scholarly studies²⁰.

History of philosophy and philosophical thought at the Jesuit University, as well as the so-called natural philosophy, was the subject of special attention from the staff of the Department of Philosophy²¹. There is a separate category for publications on legal topics. For this research, a legal background is necessary, which is why legal historians, especially from Trnava University, are devoted to these types of prints²².

16 S. Käfer, E. Kovács, *Ave Tyrnavia! Opera impressa Tyrnaviae Typis academicis 1648–1777*, Budapest-Strigonium-Tyrnavia 2013.

17 E. Augustínová, A. Klimeková, J. Ondroušková, *Bibliografia...*, Martin 2008.

18 A. Zelliger, *Pantheon Tyrnaviense*, Tyrnaviae 1931.

19 M. Poriezová, *Vydávanie odbornej a vedeckej literatúry...*

20 Lenka Fišerová, Erika Juriková, Katarína Karabová, Jozef Kordoš, Nicol Sipekiová, Daniel Škoviera.

21 Andrej Démuth, Renáta Kišoňová, Adrián Slavkovský.

22 Tomáš Gábriš, Miriam Laclavíková, Adriána Švecová.

Specialised Literature

Specialised and scientific literature in the publishing programme of the academic print office was not published in opposition to theological and religious literature. It is set aside as a specific segment for practical reasons. This production primarily helped to fulfill the educational needs of the university and opened up sufficient room for its authors. Didactic literature, i.e. textbooks, dictionaries and language handbooks, historical, mathematical, and geographical works were prevalent. The teaching needs were especially reflected by textbooks on Latin and Greek, dictionaries, and other language handbooks.

In the final third of the 17th century, specialised texts appeared in addition to elementary language textbooks. The number of works by university pedagogues and students, theological and philosophical dissertation theses, historical and natural-history works was slowly growing, and the share of legal documents was increasing. The increase in favour of philosophy, law, and history, which was significant shortly after the turn of the centuries, peaked between the 1720s and 1760s. A guideline on the issuance of textbooks from 1753 was among the stimuli for growth. The thematic range was expanded by textbooks on natural science and especially physics.

Their authors were mostly local Jesuit priests; the proportion of foreign authors was approximately one-third. Foreign authors prevail in language literature, medicine, and natural science, while their number is lower in other fields, only representing one-fifth of the authors of history books, and one-tenth of the authors of mathematics books. As documentary analysis has shown ordinal authors were engaged in different scientific disciplines at the same time. This was a result of the ordinal rules on the work and education of members. They frequently had to change their place of work and also the subject they taught. Thus, they gained a broad professional perspective, yet at the same time, did not have the opportunity to specialise in a single scientific discipline.

From the beginning of the order, the relationship of the Jesuits to science and their engagement in this field were firmly anchored by the rules of St. Ignatius of Loyola, the founder of the Society. Scientific knowledge was not an end in itself. It led towards the fulfillment of the objective relating to the care of one's soul. Therefore, theology took the highest position in the system of sciences and integrated disciplines. It was superior to philosophy, which had been influenced by natural sciences over the long term. Logic, physics, and metaphysics were the three basic subjects taught at the Faculty of Arts.

Ratio studiorum enables an even more comprehensive approach to the given fields. Lectures in mathematics and ethics were integrated into physics. Mathematics stood as a separate discipline. If necessary, lectures could offer knowledge on geography and other disciplines of the natural sciences. This

situation was a result of the integration and development of the natural sciences with philosophy over the long term. History was also recorded as a separate subject, but it was only included in the curricula during the 18th century; previously it was taught within secondary-school studies as a part of ancient traditions²³.

Grammar books, dictionaries, textbooks on poetry and rhetoric, and other different auxiliary materials were a necessary part of the educational process at the lower levels of the Jesuit schools. Therefore, they created a substantial part of the production of the print office. The key objective of the secondary-school programme was to equip students with a perfect knowledge of Latin. This corresponded to the intentions of *Ratio studiorum*, an official study plan for all Jesuit institutions.

The French Jesuit, Franciscus Pomey (François Antoine Pomey; 1618–1673), was a well-known author of language textbooks. His first work issued in Trnava was the textbook on rhetoric *Novus candidatus rhetoricae* (1698); its later edition was named *Novissimus candidatus rhetoricae* (1735). In 1745 a trilingual Hungarian mutation of his dictionary *Flos latinatis* was issued, in which Latin words and expressions were explained and translated into Slovak and Hungarian. The practical needs of third and fourth-year students of secondary schools were met by a more simply designed dictionary or a textbook on phraseology *Syntaxis ornata*. Equivalents without grammatical characteristics were arranged in four columns: Barbarian, Hungarian, Slovak, and Latin. *Syntaxis* was issued twice on its own in Trnava, in 1745 and 1748, and another two times along with *Flos latinatis*, in 1754 and 1773. Comparisons with the extensive dictionary of the Jesuit, František Wagner (1675–1748), from 1670 and Pomey's *Syntaxis ornata* demonstrate that Wagner took Pomey's work and revised and adapted it for the needs of Hungarian students²⁴.

The contemporary broad understanding of philosophy required a broad multidisciplinary perspective as well as considerable knowledge. Overshadowed by purely philosophical disciplines, natural sciences developed under the umbrella term of physics, i.e. natural science, or *philosophia naturalis*²⁵. The direction in which the teaching of philosophy was to follow at Trnava University was precisely defined by *Ratio studiorum*. The study of philosophy was originally scheduled for three years, broken down into three major subject areas. The first year of study was made up of introductory lectures in study and

23 M. Poriežová, *Vydávanie odbornej a vedeckej literatúry...*, p. 42.

24 N. Šipekiová, *O uplatnení zásady rečovej elegancie v spise Syntaxis ornata*, “Sambucus” 2005, Vol. 1, p. 124; idem, *Syntaxis ornata seu de tribus latinae linguae virtutibus, puritate, elegantia, copia*, Trnava 2015.

25 A. Démuth, E. Juriková, *Andrej Jaslinský a jeho Základy fyziky*, [in:] *Antológia z diel profesorov pôsobiacich na historickej Trnavskej univerzite (1635–1777)*, ed. by K. Karabová, A. Démuth, Kraków 2016, pp. 125–149.

logic, the second year focused on physics, and the third year on metaphysics and ethics. Such an arrangement was applied at the University until 1753 when the duration of the study was reduced to two years. The new curriculum included metaphysics and logic in the first year of study, while the second year was focused on natural sciences.

Assessing the development of philosophical thinking at the university, the level of the integration of the issues related to natural sciences within modern philosophy in the Neo-Scholastic system appears to have been the decisive factor²⁶. Three stages of development were specified: the first (before 1700), dominated by a scholastic approach culminated in the issue of work a by Martin Sentiváni. The second stage (1700–1753) may be characterised as the gradual differentiation of the subject of philosophy. The third (1754–1773) resulted in a breakthrough expansion of philosophical production with topics of natural philosophy prevailing.

The most significant personality of the first period, also within the entire University, was undoubtedly M. Sentiváni (1635–1705). He became a member of the body of university professors in 1667, and later he also worked as Dean and Rector. Moreover, he was also the prefect of the print office, the administrator of the university library, and a censor. This was closely associated with his editorial and publishing activities. In addition to his many theological and polemic works, which were well-known both at home and abroad, he made a name for himself with his extensive work *Curiosa et selectiora variarum miscellanea*. This scientific work, compiled as a set of debates in three main parts, was gradually published from 1689 to 1709. Using questions and answers Szentiváni presented a collection of contemporary knowledge, particularly within the natural sciences and humanities. Selected debates were gradually and separately printed²⁷.

After 1700 there was a significant and multiple increase in the production of philosophical works recorded. In terms of content, ethically oriented literature represented one line, while comments and interpretations of Aristotle's works represented a second line. These works were a mixture of both obsolete and new knowledge, which was still incorporated into the broadly framed *philosophia naturalis*. Philosophical ideas that applied to social life were not only used in distinctly specialised works, but also in less demanding genres. An example of this is a graduation work by Ján Kazi (1686–1759) *Stoa vetus et nova* (1710), in which the author introduces Antique Stoics, also partly mocking them, to show that the Jesuits were modern Stoics²⁸.

26 M. Oravcová, *Novoveká prírodná filozofia a jej odraz vo filozofickom myslení na trnavskej univerzite*, [in:] *Trnavská univerzita v slovenských dejinách*, ed. V. Matula, Bratislava 1987, p. 130.

27 M. Sentiváni, *Dissertatio cosmographica seu De mundi systemate*, transl. S. Zavarský, "Slavica Slovaca" 2011, Vol. 46, No. 3, pp. 3–154.

28 J. Kazi, *Stoa vetus et nova = Stará a nová stoa*, ed. and transl. D. Škoviera, Trnava 2009.

1753 was a significant year. Not only did it bring a change to the study plan and adjustments to the curriculum used by the Faculty of Arts, but new opinions also arose. They were embodied by a Professor of Philosophy of Trnava, the astronomer and historian Ján Borgias Kéri (1702–1768). While Laurentius Tapolicsányi, the rector of Trnava University and the author of philosophical, ethical, and religious works, strictly rejected the philosophy of Descartes at the beginning of the 18th century, Kéri's approach to his opinions was rather more moderate. However, it does not mean that he fully agreed with Descartes. Kéri published his philosophical and physical works that dealt with movement, one quickly following another, between 1752 and 1754. In the introduction of the first of them, *Dissertatio physica de corpore generatim*, he highlighted a shift in thinking, which promoted physics separated from philosophy. The laws of the movement of objects were analysed in more detail in debates published as *Dissertatio physica de motu corporum* and *Dissertatio physica de causis motuum*. Kéri became a motivator for his students in Trnava, who wrote textbooks on physics.

The first of the series of such textbooks *Philosophiae naturalis pars prima, seu Physica generalis* was published in 1755 by Andrej Adáni (1716–1795). A two-volume work by Andreas Jaszlinsky (1715–1784) *Institutiones physicae* was published in the following year. Both volumes are rather extensive, consisting of more than 800 pages altogether. They were published shortly after the reform; hence we can assume that they had been prepared earlier. In his rather extensive, almost twenty-page long introduction to the first volume *Physica generalis*, Jaszlinsky focused on the notion of physics itself, on the origin and development of this scientific discipline, its research methods, and laws. In the introduction to the second volume *Physica particularis* he pointed out that his work did not include any statements that could be harmful to students, and that he also sought to draw their interest towards meteorology, geology, and hydrology. The textbook was again published in Trnava in 1761. Jaszlinsky wrote two other study texts: *Institutiones logicae* (1754) and *Institutiones metaphysicae* (1755). The textbook on physics *Elementa philosophiae naturalis* was compiled by Professor Anton Revický (1713–1781), who also wrote textbooks on logic and metaphysics *Elementa philosophiae rationalis, seu logika* and *Elementa philosophiae generalis seu metaphysica* (both in 1757). Kéri's supporters included Professor Ján Ivančič (1722–1784), who also dealt with logic and metaphysics as well as physics. But his poem on optics *Elementa opticae*, written in 1750, was solely oriented on physics.

These textbooks offered modern incentives for the teaching of physics, although they remained a part of philosophy and accumulated all the other disciplines of natural history. The interconnections between philosophy and physics can also be observed in textbooks on logic and metaphysics, particularly in their structure and content. Their common feature is a primary

focus on students. Textbooks presented knowledge in line with the regulations, as well as to attract the attention of students.

During the 17th century and the first half of the 18th century works on astronomy only occasionally appeared in the output of the print office, yet in the second half of the century research in this field became very popular. The incentive was the establishment of an astronomical observatory at Trnava University (1753). František Weiss (1717–1785) became its director, and shortly after the start of operations, he began to publish the outcomes of observations in the pages of a new yearbook *Observationes astronomicae*. Altogether ten volumes were published up to 1770. Apart from descriptions of observations, e.g. the transit of Venus through the disc of the Sun in 1761, the yearbooks also offered meteorological reports and a log of the temperatures throughout the seasons of the year. The measurements were arranged in tables and the reports of phenomena were supported by drawings and illustrations. In 1760 an anonymous work *Astronomiae physicae juxta Newtoni principia breviarium* was published for students in Trnava, and it defended or proved, the accuracy of the heliocentric system; Weiss was likely the author²⁹.

Agility in the publication of legal works was undoubtedly related to the operation of the Faculty of Law, established in 1667. Its main goal was to educate students to become qualified officers for the state and church administrations. The main demand for the publications was therefore created by the students of law and representatives of legal practices. The motivation was an interest in the development of the field of study in a way that would ensure that the theoretical preparation was efficiently connected to domestic practices. Therefore, the production of legal literature was to a great extent in the hands of domestic authors, of whom almost half were Jesuits holding positions as professors. The second group was the representatives of contemporary legal practices, who lectured to the students of law in addition to their activities as lawyers or judges. The greatest attention was paid to two components of Hungarian law: procedural and private. Textbooks, handbooks, or indices interpreted the wording of laws and regulations; moreover, they also included different comparisons over a broad spectrum of legal issues or their solutions. Canonical and Roman law was most frequently compared to Hungarian law, yet they were paid less attention overall. The teaching of criminal law was included in the study programme of the faculty during the 17th century, but only two works have been found for the entire period studied³⁰.

29 A. Hološová, H. Žažová, *Dejiny observatória na Trnavskej univerzite 1756–1785*, Trnava 2012, pp. 44–45.

30 M. Laclavíková, A. Švecová, *Dejiny právnického vzdelávania na Trnavskej univerzite v Trnave*, Trnava 2017.

The documents available regarding the first specialised legal texts printed by the academic print office are from as late as the beginning of the 1690s. They were not monographs dealing with legal theory in the strictest sense, but they included the dissertation and graduation theses of future doctors of the law, which were also frequently published during the whole of the 18th century. The first professors to be published included František Koller (?–1720), a notary of the Chapter of Esztergom, who provided practical training in Hungarian law. The basic materials published by the print office for educational purposes as well as for legal practice included Werbőczy's Tripartitum, or *Corpus iuris Hungarici*, i.e. a collection of laws, decrees, and regulations, compiled by Martin Szentiváni³¹. Corpus was first published in 1696, Tripartitum being part of the first of its three volumes. The academic print office was primarily concerned with domestic Hungarian law and its branches, i.e. procedural and private law, as can also be seen in the new editions of works by Ján Kitonič (1560–1619), *Directio methodica* and *Centuria certarum*. The requirements for textbooks were well fulfilled by the catechetical form of work *Directio methodica*, which dealt with cases of procedural law³².

The development of balneology and related specialised literature was associated with the numerous mineral and thermal springs, whose positive health-related effects had been well-known, domestically and abroad, as early as the 14th and 15th centuries. Research into mineral waters in the form of the studies and analyses of springs and indications of their medicinal properties intensified from the 16th to the 18th century. The Catholic priest Ján Krstiteľ Vrablanský (Vrablanszky; 1680–1755), who was more inclined to work as a writer and translator, made a significant contribution to the history of the development of balneology. Vrablanský's instructions on the correct use of spa treatments *Directorium thermale* was issued by the academic print office twice, once in 1725 and then again in 1737. *Directoria* contained thirty points through which Vrablanský summarised the principles of how to choose a spa according to the effects of its medicinal springs, and made recommendations for their use³³.

Occasional Works

Occasional works can be considered a special category of the publications of the academic print office of Trnava. Their primary characters were celebratory and appreciative. Occasional poems and speeches greeted influential

31 F. Sivák, *Dejiny štátu a práva na území Slovenska do roku 1918*, Bratislava 1998, p. 127.

32 T. Gábriš, *Directio metodica v dejinách uhorského práva*, Bratislava 2019.

33 N. Sipekiová, *Salus per aquam alebo kúpeľný poriadok Jána Krstiteľa Vrablanského*, [in:] *Tyrnavia erudita / Vzdelaná Trnava*, ed. E. Juriková, Trnava 2017, pp. 104–109.

personalities upon their arrival in Trnava; they addressed their illnesses or, alternatively, their healing; they commemorated anniversaries of births; they celebrated marriages; or expressed condolences to the survivors of the deceased. Even a unique event, such as the new building for the university library was celebrated with an artistic text. The number of copies of the majority of these occasional works was very low; they were published as notebooks, hence some of them have not been preserved, or are among the rare exhibits in libraries outside Slovakia, which makes their research particularly complicated. The quality of such works should not be a priori underestimated.

The genre of celebratory poems, or a panegyric, completely fulfilled the ideas, needs, and educational goals of the Jesuits. It provided for a refined form, attractive both didactically and to the reader, underlining the life, qualities, and contribution of a patron, or the entire family, as well as giving thanks for past acts to gain favour in the future³⁴. Approximately 150 panegyrics were published in the academic print office of Trnava. Celebratory poems were primarily dedicated to ordinal and earthly saints. The so-called Habsburg panegyrics, that dealt with the ruling dynasty, fall into a special group³⁵. The prosimetrical work *Aeneas Habsburgus* (sic!), published in Trnava in 1695, is an interesting and unmissable work of such celebratory epic literature. In this work, the Jesuit, Ladislav Székely, shifts Rudolf I of Habsburg into the framework of the Roman heroic epic poem, *Aeneis*³⁶. Another very charming and well-written piece, from a literary as well as an aesthetic perspective, is the previously mentioned poem *Gemina augustissimae domus Austriacae laetitia* (1699) by Johannes Alexej Thorányi. The author chose an elegy, in an antique style, to celebrate the wedding of Joseph I and Wilhelmine Amalia of Brunswick-Lüneburg. In conclusion, following six separate poems, he added a noted, so-called triumphal, wedding march. The bride Wilhelmine Amalia is rather eccentrically described as a charming and precious flower, the purest diamond, the best birth giver, while the groom Joseph is described as a brave man, the pride of the Habsburg dynasty, an able and inexhaustible sire who will ensure the successor of the entire family. The poet could hardly anticipate that the endless love affairs of the groom would have bitter consequences in the marriage.

34 E. Juríková, *Columba laureata. Panegyrické tlače z produkcietrnavskej univerzitnej tlačiarnie*, Trnava-Kraków 2014, p. 34.

35 E. Klecker, F. Römer, *Von Dornen zum Musenhain. Nicolaus Jánossi, Natales civitatis Tyrnaviensis (1727)*, "Sambucus" 2005, Vol. 1, pp. 81–99; *Neulatein an der Universität Wien. Ein literarischer Streifzug. Franz Römer zum 65. Geburtstag gewidmet*, ed. Ch. Gastgeber, E. Klecker, Wien 2008, p. 456.

36 F. Römer, *Aeneas Habsburgus Rudolf I. in einer epischen Darstellung des 16. Jahrhunderts*, "Wiener Studien: Zeitschrift für Klassische Philologie und Patristik" 2001, No. 114, pp. 709–724.

The work of a Jesuit from Trnava, Ladislaus Csapódi (1724–1791), *Theresias* seems to be the very peak of the Habsburg panegyric works. It was published in 1750 when it was no longer a secret that the university was to move to Budin. Not only did Csapódi seek to celebrate the life of the Empress, but primarily he sought to win her favour. *Theresias* was a quite extensive epic poem containing 42 pages of text. An occasional poet, he was inspired by Antique literature, and Virgil's *Aeneis* became his model: he equated the Habsburg dynasty with the ancient Roman dynasties with Maria Theresa as its most beautiful delight. The poet celebrates the character traits of the Empress, her skills as a ruler, and her potential to give birth to an heir to the throne. He equates her approach and opinions concerning the ruling of a kingdom to the approach of Emperor Augustus, who wished to be considered as the one who restored the original Roman virtues and moral values. Csapódi's work is a so-called dynastic epic poem, which highlights the entire dynasty, its historical significance, and its influence on contemporary events through the celebrated individual.

On the eve of the transfer of the university from Trnava to Buda, Professor Anton Mayláth (1739–1801) excelled as an author of celebratory works. In his speech *Oratio, qua redditam Mariae Theresiae augustae valetudinem* (1767) he dealt with the health of the Empress, and five years later, in his celebratory speech, *Panegyricus Mariae augustae ob scientias optimasque artes in Universitate Tyrnaviae instauratas* he listed her benefactions and wise political decisions. In the latter, a little paradoxically, he approved her decision to take the university from the Jesuits and to place it under secular administration. He even called this act the second birth of the school³⁷.

The works of František Babai (1742–1778), a Jesuit and Director of the Theological Library, whose epigrammatical books celebrated the Hungarian kings (1773), Hungarian palatines, pro-palatines and governors (1775), the Archbishops of Esztergom (1776), and other significant personalities of both secular and church lives (1777), lie at the intersection of panegyric and historic literature³⁸.

Works celebrating or supporting Trnava University create another special category. In addition to the aforementioned historical works of Imrich Tolvaj and Ján Kazy, a mythological epic poem, written by a teacher of poetry and rhetoric at the Faculty of Arts, Štefan Csiba (1673–1719), *Tyrnavia nascens* (1706) needs to be mentioned; in this work, he celebrated, in the form of an aetiological myth, the foundation of Trnava and the University³⁹. His panegyric work *Tyrnavia crescens*

37 E. Juriková, *Panovníčka Mária Terézia v latinských textoch z obdobia baroka*, "Studia Bibliographica Posoniensia" 2014, pp. 80–88.

38 K. Karabová, *Básnická zbierka Františka Babaia Ungariae reges*, Trnava 2015.

39 S. Csiba, *Tyrnavia nascens = Zrod Trnavy*, ed. and transl. J. Kordoš, Trnava 2011; idem, *Tyrnavia crescens*, ed. and transl. J. Kordoš, Trnava 2019.

(1707) is a sequel to this epic work, where, in the form of short medallions, he celebrated the six historical personalities who had made the most significant contributions to the foundation and development of the University.

Panegyrics enabled authors to demonstrate their mastery of Latin and their skills as stylists, poets, or rhetors. At the same time, this genre provided room for the harmonisation of Antique classical humanity and Christian religiousness. This interconnection along with the maintenance of order and obedience was the main objective of the Jesuit pedagogues. Therefore, the teachers made efforts to help students learn Latin, the classical Ciceronian language, through lectures, exercises, and declamations, and at the same time to help them gain the broadest possible knowledge of the Antique world, i.e. from mythology and literature, through history to realities and, of course, to its modern heritage⁴⁰.

Celebratory speeches did not become as significant as the other genres in terms of their form, intellectual input, and erudition. Although they are not actually among the most precious products of the Trnava University print office, they depict the contemporary literary standard of the country, including the tastes and level of the audience. Therefore, they use many common features, the so-called *loci communes*, i.e. frequently repeated motives and arguments that are characteristic of the given genre. Therefore, they need to be perceived from a certain distance. In any case, however, they show the efforts of the professors to keep their Alma Mater visible and in Trnava.

Conclusion

The scientific and artistic outcomes of the historical Trnava University are often only registered but are far from being objectively and completely evaluated. In the relatively recent past, the university was intentionally sidelined as being ideologically inappropriate. However, the general statement that it has made a considerable contribution to the history of present-day Slovakia is certainly valid. As the first university-style educational institution with a long history, it not only uplifted Hungary but also the broader central European region both scientifically and culturally. The production of the university print office presented the scientific level of the university teachers to the outside world and contributed to its good reputation. The university was able to make remarkable contributions to the world scientific movement. The scientific community, which gradually formed at the university, along with its equipment and premises enabled it to follow the scientific research at prestigious European universities especially from the 1720s, keeping pace with it in many aspects.

⁴⁰ K. Bobková-Valentová, *Každodenní život učitele a žáka jezuitského gymnázia*, Praha 2006, p. 78.

Specialised works, plays, and poetry collections published in Trnava were taken by the Jesuits to the libraries of the whole of Europe, where they enjoyed considerable attention and favour. The move of the university to Buda appeared to slow development, resulting in the cultural decline of Trnava and the whole of Upper Hungary, from which the country took a long time to recover. After many decades the position of Trnava was taken over by neighbouring Bratislava. The scientific works of both domestic and foreign authors were published in Levoča, Bardejov, and later also in Bratislava. The efforts of scholars and public officials were not successful until 1992. The re-opened Trnava University has not forgotten its roots and acknowledges the historical Pázmány Academy through its focus, research, and values.

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