

Brother Vega, Freemason

Brat Vega, prostozidar

Dr. Matevž Košir

*Arhiv Republike Slovenije
Zvezdarska 1
1000 Ljubljana
Slovenija*

Abstract

In 1785 Jurij Vega was admitted into the Masonic lodge True Concord (Zur Wahren Eintracht) in Vienna. Joseph Maffei, Vega's mathematics teacher, who financially supported Vega in the course of his study, is also found among the Freemasons. Vega's handwritten application from 1785 is also preserved. Vega's Masonic godfather Leopold von Unterberger, high artillery officer and mathematician, must have played a key role in Vega's admission. In 1785 Emperor Joseph II issued the so-called Masonic Patent which resulted in a decrease in the number of lodges in Vienna. Jurij Vega subsequently joined the Truth Lodge (Zur Wahrheit). Even after the dissolution of the lodge in 1789 and the ban on Masonic associations in 1795, he kept in touch with Freemasons. The most notable among the foreign Masons was the French astronomer and encyclopedia author, Joseph Jerome Lefrancais Lalande.

Povzetek

Jurij Vega je bil leta 1785 sprejet v dunajsko prostozidarsko ložo Resnična sloga (Zur Wahren Eintracht). Med prostozidarji srečamo tudi Vegovega profesorja matematike Jožefa Maffeja, ki je Vego pri študiju tudi materialno podpiral. Iz leta 1785 je ohranjena Vegova lastnoročna prošnja. Pri Vegovem sprejemu je gotovo odigral pomembno vlogo njegov prostozidarski boter Leopold pl. Unterberger, visok topniški oficir in matematik. Leta 1785 je cesar Jožef II. izdal t.i. prostozidarski patent, katerega posledica je bilo zmanjšanje števila dunajskih lož. Jurij Vega se je pridružil loži Resnica (Zur Wahrheit). Tudi po razpustu lože leta 1789 in prepovedi prostozidarskih združenj leta 1795 je ohranjel stike s prostozidarji. Od tujih prostozidarjev je bil najvidnejši francoski astronom in enciklopedist Joseph Jerome Lefrancais Lalande.

Jurij Vega was born as Veba in the small village of Zagorica in the Zasavje region. He came in contact with some of the most important Enlightenment personalities of Carniola during his schooling at the Jesuit gymnasium and at the lyceum. His career led him from navigation engineer under Gruber's guidance to artilleryman and one of the world's leading mathematicians. Vega lived through a turbulent era of European history and witnessed equally tumultuous events that shook the Freemasonry of the Habsburg Monarchy. He maintained close ties with Freemasons from 1785, the year he was admitted to a Masonic lodge in Vienna, to his death in 1802. The meetings at the lodge were connected to his work in mathematics, and even more so to his military career; some of the closest lodge brothers were also his closest military "comrades." If we include all those that joined the Freemasons after they had already significantly influenced Vega's life – for example, Jožef Maffei – this observation can be extended back to Vega's schooling at the Ljubljana lyceum (1773).

Among Vega's professors at the Ljubljana lyceum that later became his close associates, Jožef Maffei (1740–1807) and possibly Gabriel Gruber (1740–1805) joined the Freemasons. Both were very close to Vega, especially Maffei. Jožef Maffei, Vega's professor of mathematics, who lived in Ljubljana after 1772, played a decisive role in Vega's realization that he possessed mathematical talent. At the same time, Maffei was also his protector and he financially supported Vega during his studies because Vega had lost his father while still a child. Another professor at the lyceum, Baltazar Hacquet, was allegedly also a Freemason.

Maffei and Gruber possibly came in contact with Freemasonry through Žiga Zois, and Gruber also in association with Ignaz von Born. Maffei joined the Freemasons in 1781 and Gabriel Gruber allegedly followed suit in 1785, the year that the lodge also welcomed Baron Vincenc Jurij Struppi (1733–1810). From 1772 to 1777 Gruber supervised the draining of the Ljubljana marshes and the construction of the canal. The work was later taken over by Struppi. Vega worked with

Gruber during the period when he was still a navigation engineer (1775–1780), but it is possible that he had helped him even before that.¹ Vega probably collaborated with Struppi as well.

Some of Vega's famous schoolmates also joined the ranks of the Freemasons: for example, a Ljubljana factory owner, Jožef von Desselbrunner, was one of the founders of the Ljubljana Masonic lodge Charity and Steadfastness (*Zur Wohlthätigkeit und Standhaftigkeit*),² and a member of the Graz lodge United Hearts (*Zu dem vereinigten Herzen*). It is assumed that Anton Tomaž Linhart, another of Vega's schoolmates, was also a Freemason. Linhart's membership in the lodge is not undisputed, but his close ties with numerous Freemasons are well documented. The assumption that Linhart belonged to the same lodge as Vega is incorrect because the functioning of the True Concord (*Zum wahren Eintracht*) lodge is rather well researched. Linhart and Desselbrunner remained friends, while there is no evidence showing that Vega maintained close ties with them after his departure from Ljubljana. His attachment to Maffai proved more lasting.

Maffei's and Gruber's situation in Ljubljana deteriorated towards the end of 1770s and both men left the city. In 1778, Maffei relocated to Vienna, where he became a private tutor of mathematics, mechanics, and physics to Count Joseph von Colloredo, the Commander-in-Chief of the Austrian Artillery and future field marshal. Maffei became his personal secretary in the 1780s. He was admitted to the Viennese lodge Crowned Hope (*Zur gekronten Hoffnung*) in 1781 as an Apprentice, in 1782 he became a Fellow, and was raised to the degree of Master Mason in 1783. He was further promoted to even higher Masonic degrees in 1784, all in the Crowned Hope lodge.³ Around 1799, he became a provost in Stará Boleslava in Bohemia. Vega's gratitude to Maffei for his support during his studies is expressed in a dedication that Vega wrote in the second edition of his textbook on logarithms and trigonometry of 1800.⁴ Vega thanked Maffei, who was at that time a provost in Stará Boleslava in Bohemia, for his instruction in mathematics, but also for the "benevolence" that he had expressed in so many ways. Vega waited until he was in position to dedicate to Maffei a book that would be respectable enough to honour his professor and this textbook had been very positively received. Vega and Maffei certainly stayed in contact even after Maffei left Ljubljana for Vienna, especially after Vega followed suit in 1780. Perhaps it was Maffei that encouraged Vega to come to Vienna and join the artillery and recommended him to Count von Colloredo.

Another of Vega's professors, Gabriel Gruber, allegedly joined the Freemasons in Vienna in 1785, while traveling from Ljubljana to Russia. He was allegedly admitted to the True Concord lodge.⁵ The lodge's protocols remain silent for the time being, but Abafi mentions one of the Grubers as belonging to the lodge. However, the Gruber that Abafi referred to was Gabriel's half-brother Tobias Gruber,

who was associated with the True Concord lodge. Ignaz von Born published Tobias Gruber's scientific contributions in the journal *Physikalische Arbeiten der einträchtigen Freunde in Wien*, published by the True Concord lodge.⁶ Tobias Gruber was a member of the Prague Masonic lodge Three Crowned Pillars (*Zu den drei gekrönten Säulen*) and his association with Born's circle dated back to the times when Born was a member of the same Prague lodge.

Vega arrived in Vienna in 1780 and joined the Second Field Artillery Regiment as the second gunner. He dedicated the first part of his lectures in mathematics from 1782 to this regiment.⁷ Vega was promoted to the rank of second lieutenant surprisingly fast and he became the regiment's teacher of mathematics. In 1784 Vega was promoted to the rank of first lieutenant.⁸ By that time, he had already published two mathematics textbooks and logarithm tables. These works were very well received by the critics. When he was admitted into Freemasonry in 1785 Vega was a 31-year-old unmarried first lieutenant, but he was still far from being a baron or a member of numerous reputable European academies and scientific societies – the achievements he realized a decade later.⁹ He was nevertheless an increasingly renowned scientist by 1785.

On the last day of October 1785 Jurij Vega wrote a letter in which he asked to be admitted to the Viennese lodge True Concord. In his petition to the lodge he expressed his "ardent wish" to belong to this "most honourable company." He wrote in his petition: "Distinguished company! For several years I have been ardently wishing to be counted among your members. Until now, I have not known any friends who could enlighten me as to how to make this effort and deserve this honour. I thus now allow myself in this letter to very kindly ask your most honourable company to fulfil my ardent wish. I shall strive in all circumstances to be worthy of this honour. Vienna, last day of October 1785. Jurij Vega, first lieutenant and teacher of mathematics in the Second Imperial Royal Artillery Regiment, manu propria."¹⁰

A month later, on 7 November, Jurij Vega's petition for admittance was discussed at the True Concord lodge. Nineteen Masonic brothers were present. They read Attems' letter from Gorizia, in which Attems thanked the True Concord lodge for their demonstration of brotherly love, and a letter from the Schemnitz lodge (Banská Štiavnica, Slovakia) with the register of their members. Under the second item on the agenda they closed the discussion regarding the petition of Jurij Vega, Artillery Captain (as he is incorrectly denominated in the protocol of the lodge because he only held the rank of first lieutenant) and that of the lawyer Franc Mumelter. The brothers postponed the final decision until the next meeting because the number of those present was insufficient for the ballotage. They agreed that the ballotage would be taken at the next lodge.¹¹ A week later, 14 November, thirty brothers gathered at the meeting of the lodge under the leadership of the doyen (Grand Master of the lodge), Ignaz von Born. Both Vega and Mumelter received

thirty ballots and their request was thereby unanimously granted.¹² Vega's petition was supported among others by Franz Ksaver von Kasear, professor of higher mathematics at the Universities of Vienna and Prague. The lodge was also open on November 18, 21, and 28 and December 5. At the open lodge on December 6, 1785 the brothers decided to exempt Jurij Vega from paying taxes. They also selected his two Masonic godfathers: Ludwig Anselm von Beinheim and Leopold von Unterberger.¹³ The lodge decided that Vega and Mumelter¹⁴ would be admitted into Freemasonry on December 9, 1785. One of Vega's godfathers, probably Unterberger, notified Vega about the date and the time of his admittance. The lodge was open again on December 9. More than 35 freemasons were present at the meeting at the lodge, an attendance that was usually reserved for more solemn occasions.¹⁵ Vega's initiation ceremony was attended by some of the most eminent members of the True Concord lodge and also by other representatives of Freemasonry in the monarchy, most prominently by the privy councillor Ignaz von Born, Grand Master of the True Concord lodge, Grand Secretary of the Grand Lodge of Austria (*Große Landesloge von Österreich*) and Grand Inspector of the Provincial Lodge of Austria (*Provinzialloge von Österreich*), as well as Joseph von Sonnenfelson, Deputy Grand Master of the True Concord lodge and Grand Master of the District Lodge Charitable Concord (*Zur wohltätigen Eintracht*). Prince Ludwig Batthyani-Strattman, Grand Speaker at the True Concord lodge, was also among the members of the lodge. According to the tradition, the reception was attended also by guests from other lodges, from the Viennese lodges Crowned Hope (*Zur gekrönten Hoffnung*), Charity (*Zur Wohlthätigkeit*), Palm Tree (*Zum Palmbaum*), Constancy (*Zur Beständigkeit*), and other lodges, namely from the Innsbruck lodge Symbolic Cylinder (*Zum symbolischen Cylinder*) and from the Prague lodge Truth and Unity (*Zur Wahrheit und Einigkeit*). It is very probable that Johann Christian Schubart von Kleefeld, the former Grand Master of the Grand Berlin lodge The Three Globes (*Zu den drei Weltkugeln*), then belonging to the Hannover lodge Georg and the lodge Johnathan from Braunschweig, was also present at the ceremony. It goes without saying that both of Vega's Masonic godfathers were present at the ceremony.¹⁶ Among the visiting Freemasons who attended Vega's admission to the lodge, the presence of Wolfgang Muha (Mucha) is particularly notable. Muha was a second lieutenant at the Third Artillery Regiment and a Master at the Viennese lodge Constancy. Like Vega, Muha studied at the Ljubljana lyceum and was praised in 1776 among the pupils whose school reports were closest to the awarded students of rhetoric. Judging from the date of completion of his studies in Ljubljana, Muha was four years younger than Vega, but he was most probably in Vienna as early as 1780, like Vega. His work on minerals in the Idrija mercury mines was published that same year. Muha dedicated this work to the Josephinian and alleged Freemason Count Janez Nepomuk Edling, Councilor of the Carniolan Estates.¹⁷ In 1778, Edling also talked Linhart into moving to Vienna.¹⁸ Muha was born in the village of Lokve in the Karst region. Wolfgang Muha's patron was

Žiga Zois, to whom he dedicated Ambschell's treatise on the centre of gravity and his exam thesis in 1779.¹⁹ In Vienna, Muha joined the artillery probably at the same time as Vega. He was admitted into Freemasonry in 1784 when he joined the Constancy lodge in Vienna. He was promoted to the degree of Masonic Master in 1785.²⁰ Vega and Muha certainly knew each other from Ljubljana, but also from the artillery ranks. Muha visited the True Concord lodge only at the occasion of Vega's initiation ceremony, which could lead us to speculate that they were more than just acquaintances. Muha could have been one of the people who put Vega in contact with the Freemasons and he could have been the one who transmitted Vega's wish to join the lodge. Beside Mucha, the intermediary could also have been Maffei, but it is much less credible that it would have been Struppi. Independent of the identity of Vega's first Masonic contact, the key person in Vega's admittance to the Freemasons was certainly Leopold von Unterberger. Vega was admitted to the lodge according to the traditional Masonic ritual. Before the admission was completed, he pronounced the Masonic oath. After the ceremony, David Pilgram, the Secretary of the True Concord lodge, wrote in the protocols of the lodge: "In 1785,²¹ the ninth day of the twelfth month, a searching foreigner, Jurij Vega, son of Jernej, 31 years old, born on 23 March 1754, a Catholic of bourgeois origins, now a Freemason, originating from Moravče in Carniola, first lieutenant and professor of mathematics in the Second Imperial Royal Artillery Regiment, not a member of any known order, was admitted upon his sincere wish and zeal to our ancient honoured Masonic chivalrous order. He had not petitioned to be admitted out of curiosity and neither was he forced or enticed to do so. In accordance with the bylaws of the venerable order he was elected by ballot to this lodge of Saint John, named True Concord, and initiated and accepted as a chevalier, apprentice, and brother." After the ritual, brother Schultze shared some thoughts on the influence of history on human life. The gifts had been collected before the lodge was closed.²² "The work" in the lodge was, as usual, followed by a common meal.

Freemasons assigned two godfathers to the novices even before their initiation. Vega's Masonic godfathers were assigned to him three days before the initiation ceremony, that is, on December 6, 1785. The godfathers vouched for the novice before the lodge until he was admitted to the lodge. The godfathers and their protégés usually developed particularly close attachments. Both of Vega's godfathers were officers: Ludwig Anselme von Beinhem and Leopold von Unterberger. The mathematician Unterberger was at the same time Vega's close associate and the commander of the gunners, who later made a brilliant military career and even became a member of the Court War Council. Unterberger was most probably the person who facilitated Vega's contact with the True Concord lodge and initiated the procedure for Vega's admittance.

Vega's first godfather, Ludwig Anselme (1744–1818), was ten years his senior. Anselme was among the most active freemasons in the True Concord lodge and also one of the sixteen founders of the lodge in 1781. Before that, he was a

member of the Crowned Hope lodge. When the True Concord lodge was established in 1781, Anselme became its Junior Warden. In 1782–1783 he was a deputy to the doyen Born and Master of Ceremonies of the Provincial Lodge of Austria (*Provinzialloge von Österreich*). He died in 1818 at the age of 74. Vega was even more closely attached to his second Masonic godfather, the mathematician²³ and astronomer Leopold von Unterberger (Strengberg in Lower Austria 1734 – Vienna 1818). Unterberger allegedly joined the Freemasons in one of the Prague lodges and he was admitted to the Viennese lodge True Concord in 1784. He began his military career in 1758 in the Engineers Regiment, was promoted to the rank of second lieutenant in 1760, to the rank of first lieutenant in 1762, and captain in 1770. At the same time, he also obtained the post of professor of mathematics at the artillery school.²⁴ He took upon himself the task of writing the textbooks for the artillery school. This work was pursued by Jurij Vega, who took over the post of professor of mathematics at the Second Artillery Regiment in 1781. Unterberger's textbooks on mathematics were received with such enthusiasm that he was assigned as professor of mathematics to Archduke Maximilian and Archduke Franz, who later became the emperor. In 1775, he was promoted to the rank of major – the position he held at the time when he was Vega's Masonic godfather. When Vega joined the Freemasons in 1785, their paths came even closer together. In this period, the emperor reorganized the artillery and established a new artillery regiment, the "Bombardier Corps". In November 1786, the Court War Council promoted Unterberger to the rank of lieutenant-colonel and nominated him the first commander of the new elite Bombardier Corps.²⁵ The post of the professor of mathematics in the corps was still vacant at that time. Soon after Unterberger took command, Vega was appointed professor of mathematics in the Bombardier Corps. Almost at the same time, he was also promoted to the rank of captain. Thus, Vega would not only meet his Masonic godfather in the lodge (they both belong to the Truth lodge), but also in the command of the new corps, where von Unterberger was Vega's direct superior. The corps was consolidated only by the end of 1786 because numerous noble military families had sought to secure careers for their sons with the help of the commander of the entire Austrian Artillery, Count von Colloredo.

The Bombardier Corps was supposed to bring together the most capable and the most deserving gunmen.²⁶ Colloredo replaced thirty gunmen in the Bombardier Corps that had been transferred to the corps from the First Regiment. Until 1788, the Corps trained at a camp in the vicinity of Vienna. Colloredo then sent Captain Vega, together with two companies of the Bombardier Corps and two more officers, to Hungary, where military operations against the Turks had already begun. Vega thus stopped taking part at the meetings of the Truth lodge in 1788. By that time, the activities had already started to run low because of numerous entanglements at the lodge. As soldiers, Vega and Unterberger maintained relatively close ties until Vega's death. They fought together in the outskirts of Belgrade in 1789. Unterberger was promoted colonel, transferred, and appointed commander

of the Second Artillery Regiment. They were both transferred to the German theatre of operations. Unterberger became a major-general in 1793. In the wake of the battles at Valenciennes he received the highest military award, the Military Maria Theresa Order. At that time Vega was already a major, still in the Bombardier Corps. With Unterberger he fought at Mannheim. In 1794 Vega was also a candidate for a decoration (he was nominated by General Franz Lauer), but due to Count von Colloredo's opposition, Vega was forced to wait for his prestigious award for two more years. Unterberger supported Vega's candidacy for the award of the Military Maria Theresa Order in writing in 1795.²⁷ In his letter, Unterberger praised Vega's merits during the siege of Fort Louis and underlined Vega's accomplishment of building the new mortars. Vega was awarded the highest military decoration, the Military Maria Theresa Order, on May 11, 1796. Unterberger was further promoted and entered the command of the entire Austrian Artillery as Field Marshal in 1797. He was also active in implementing military reforms. In the same year, Vega was assigned to the besieging army in Germany as the second staff officer and he ceased to take an active part directly in the battlefield. Unterberger became the second man of the entire Austrian Artillery, with Colloredo as his only superior, and he was instrumental in nominating Vega for his promotion to the rank of lieutenant-colonel and deputy commander of the Fourth Field Artillery Regiment in 1802. After Vega met his tragic end in this same year, Unterberger continued to write military textbooks,²⁸ a task that had been hitherto incumbent upon Vega. The tomb of Leopold von Unterberger, who died in 1818, can be found at the Viennese cemetery of St. Marx.

After the beginnings of modern Freemasonry in England in 1717, the first Austrian Masonic lodge was established in Vienna in 1742. The period of Josephinian Austria (1780–1790) was marked by burgeoning activity of Freemasonry and the lodges. Six lodges (with a total membership of some two hundred Freemasons) were active in Vienna in 1780. By 1785, at least nine lodges, with a total membership of some seven hundred Freemasons, operated in Vienna. Before 1784 all Austrian lodges worked under the auspices of the Grand Lodge of Germany (*Große Landesloge von Deutschland*), but from 1777 onwards they were also organized in the Provincial Lodge of Austria (*Provinzialloge von Österreich*).²⁹ In April 1784, the lodges became independent under the umbrella of the Grand Lodge of Austria (*Große Landesloge von Österreich*),³⁰ which incorporated all the provincial lodges in the monarchy³¹ with the exception of those in the Austrian Netherlands.

The True Concord lodge was the most prestigious, not only among all Masonic lodges in the Habsburg Monarchy, but also among all lodges throughout the entire Germanic area. The lodge was an important cultural and spiritual centre. It was widely renowned for its publications and artistic membership. Although the lodge was active only between 1781 and 1785, its influence on the creation of other lodges in the Habsburg Monarchy was substantial. The beginnings of the True Concord lodge were linked to the ambition to establish an independent Grand Lodge for the

Habsburg Monarchy. Today its “glory” is enhanced by the existence of well preserved archives, held by the Family, Court and State Archives in Vienna. The coat of arms of the newly established lodge was adorned with the inscription *Concordia res parvae crescent* (Work together to accomplish more).³² In 1781 Court Councillor Ignaz von Born joined the lodge. Born was born in 1742 in Transylvania and was admitted into Freemasonry in 1770 in Prague. He was introduced to the True Concord lodge by his friend, a pensioner at the princely family Liechtenstein, the African Angelo Soliman. Soon after his admittance to the lodge, Born became its doyen. After assuming leadership in the lodge, Born, influenced in his decision by the Illuminati, redirected the activities of the lodge in what was considered by the Viennese lodges’ standards an entirely new direction. Enjoying the support of the emperor, Born tried from the very beginning to establish a scientific society and transform the lodge into a kind of academy of science. The lodge thus became an elite union, marked by literary and scientific tendencies, and the majority of its members were renowned scientists and artists.³³ After 1781, the membership in the True Concord lodge expanded very quickly – 29 new members were admitted during the first year, 45 during the second, and in 1785 the membership of the lodge grew to 200 and made the True Concord into the largest Viennese lodge. 493 meetings were held in the lodge during this period, which amounts to an average of eight per month (this tally does not include the masonic banquets, or *Tafellogen*).³⁴ Priding itself on the most prestigious membership, the True Concord lodge became the most elite Viennese lodge, comparable to the French lodge The Nine Sisters (*Les neuf soeurs*). The True Concord lodge counted illustrious individuals such as court chancellor Count Leopold von Kolowrat (1727–1809), court councillor and prominent Enlightenment figure Joseph von Sonnenfels (1733–1817), Chamberlain Count Prokop Lazanski (1741–1804, allegedly admitted upon the initiative of the emperor), Johann Aloys Blumauer (1755–1798), and Johann Baptist Alxinger (1755–1797) among its members. Other members include Goethe’s brother-in-law, Johann Georg Schlosser (1739–1799), Karl Reinhold (1758–1823), famous for his commentaries on Kant, renowned physician Johann Hunczowsky (1752–1798), professor at the Josephinum and ophthalmologist Joseph von Barth (1749–1818), poet Joseph Franz Ratschky³⁵ (1758–1810), and many others. Joseph Haydn (1732–1809)³⁶ was undoubtedly the lodge’s most famous artist. Wolfgang Amadeus Mozart (1756–1791),³⁷ who was admitted to Freemasonry – that is, to the Viennese lodge Charity (*Zur Wohltätigkeit*) – approximately a year before Jurij Vega (14 December 1784), was also a regular guest at the lodge. The Charity and True Concord lodges shared a temple. Mozart and his father Leopold were among the visitors to the True Concord lodge as early as December 24, 1784. Mozart often paid a visit to the True Concord lodge and he also played music on special occasions. Mozart was especially attracted by the artistic and intellectual membership of the True Concord lodge. Apart from Jurij Vega, the True Concord lodge counted several other members from our lands: Baron Vincenc Jurij Struppi,³⁸

Baron Siegfried Taufferer,³⁹ Count Cristian Anton von Attems, and others. Tobias Gruber and his half-brother Gabriel Gruber were allegedly also members of the same lodge. It is certain that both were associated with the lodge and that Tobias was a Freemason, but with regard to Gabriel Gruber several questions remain unanswered.

Numerous freemasons from all parts of the monarchy and also from abroad visited the True Concord lodge. Freemasons from our lands, such as the brother of the archbishop of Ljubljana, Count Jožef Brigido,⁴⁰ the dean of the Ljubljana Cathedral and later auxiliary bishop of Ljubljana, Ricci, and others.⁴¹ The lodge conducted a lively correspondence with other lodges, including those in Gorizia, Trieste, and Maribor.

The spiritual profile of the True Concord lodge was bourgeois and enlightened, and both Born and Sonnenfels tried to acquaint the brothers in the lodge with the ideas of the Enlightenment. The purpose of the lodge was to expand free thinking and fight superstition and obscurantism.⁴² Like its sister lodge Charity, which used the same temple, the True Concord lodge was markedly enlightened in its orientation, fighting prejudice and advocating rationalism and transparency. The lodge operated in a pioneering and bold fashion, it was neither in favour of higher Masonic decrees nor of various mystical currents within Freemasonry.⁴³ The radical Enlightenment orientation of the lodge is not surprising, considering that it was under the strong influence and control of the Illuminati. Almost every fifth member of the lodge was Illuminati (19%). Given their pronounced conspiratory ways, it is likely that their lists are not complete. Consequently, it is very probable that the proportion of the Illuminati was even more significant. The head man and the prefect of the Viennese Illuminati was the none other than Ignaz von Born.

Strongly represented in the True Concord lodge was the Viennese spiritual elite, but also the "civilized bourgeoisie," predominantly enlightened and composed of clerks, writers, intellectuals, and professors, whom Joseph II relied upon in his reforms. The most numerous professional group in the lodge belonged to the area of education and culture (61 persons; 27%), followed by clerks (53 persons; 24%), soldiers (36 persons; 16%), diplomats and court agents (17 persons; 8%), employees and manual workers (15 persons; 7%), physicians (13 persons; 6%), and others. The average age in the True Concord lodge in 1785 was about 36 years. The initiation to Freemasonry occurred on average at the age of 33 and a half. As a 31-year-old, Vega was slightly younger than average, but he did not significantly deviate from it. 55 members of the lodge were under 29 (approximately 26%), 87 between 30 and 39 (41%), 50 persons between 40 and 49 (24%), 17 between 50 and 59 (8%), and three persons were over 60 (1%).⁴⁴ 40 percent of the lodge's membership belonged to the nobility, including fifteen percent of high aristocracy.⁴⁵ 225

freemasons joined the True Concord lodge between 1781 and 1785. 573 freemasons from other lodges⁴⁶ visited (or occasionally attended) the True Concord lodge during this same period.

Due to the activities of other associations and the interference of the political circles that marked the Josephinian era, the conditions in the Masonic lodges deteriorated considerably. The establishment of the Grand Lodge of Austria, the lodge that was formed with the consent of Emperor Joseph II, was intended to exclude foreign influence (especially that of Berlin)⁴⁷ over the Masonic lodges in the monarchy. On the other hand, by setting up the Great Lodge, Freemasonry was supposed to rid itself of the Rosicrucians, alchemists, Asian brothers, and irregular lodges.⁴⁸ The main reasons for these disputes were the burgeoning of the lodges and, even more so, divergences in conceptions of Freemasonry.⁴⁹ With the establishment of the Grand Lodge of Austria, all the lodges were organized as John's lodges⁵⁰ and operated in a uniform fashion at the first three levels. The systems at higher levels were not unified. In 1785, Freemasonry in the Habsburg Monarchy reached its peak. The internal divisions among the Austrian Freemasons and diverse political reasons led to the promulgation of the Masonic Decree. New research indicates that the main cause for the decree lies in the lodges' opposition to top-down reform and resistance to the position of the Grand Lodge.⁵¹ Politics also intervened: Emperor Joseph II was obviously afraid of foreign control of the Austrian lodges, namely of the influence exercised by a renowned Freemason, Prussian King Friedrich II the Great.⁵² Thus, on December 11, 1785, Emperor Joseph II issued his Decree on Freemasonry (known as the Masonic Decree). The objective of this measure was to confine the lodges in the monarchy to large urban centers, where they could be supervised by the police. The lodges had to hand over their membership lists and indicate the time and location of the meetings. The decree thus limited the number of lodges in Vienna to three, meaning that the eight existing lodges had to consolidate into three. The Freemasons' disappointment with the decree was immense and the measure was a blow to the Masonic organization. It stirred new disputes and led to the decline of numerous lodges. At the same time, the decree precipitated the end of the Grand Lodge of Austria. Some two hundred freemasons voluntarily left the Viennese lodges in 1785, including forty that withdrew their membership from the True Concord lodge. The decree also led to the dissolution of this lodge, which merged with others into the Truth lodge. Numerous lodges disappeared entirely and in 1790, towards the end of the reign of Joseph II, only nine lodges were still active in the entire monarchy. This situation is also related to the collapse of the Josephinian reforms and fears that spread across the monarchy in the wake of the French Revolution of 1789.

The Masonic Decree was adopted only three days after Jurij Vega's admittance to the Masonic lodge. The decree stirred lively activity in the Viennese lodges. 783 Viennese freemasons, organised in eight Viennese lodges, reorganized their

activity in the beginning of 1786. Some of them became “dormant,” while the remaining 614 freemasons gathered in two Masonic lodges: New Crowned Hope⁵³ (*Zur neugekrönte Hoffnung*) and Truth. The True Concord lodge counted 210 Masonic brothers by the end of 1785. Vega attended three meetings at the lodge during December, including the last one, which took place on December 27, 1785. The last meeting of the lodge was attended by 66 freemasons and had one single item on the agenda – the Masonic Decree. The discussion ended with a decision that those Freemasons that wished to gather in a new lodge should notify the secretary of the lodge, Pilgram, and put their names on a special list. Jurij Vega also notified the secretary. The True Concord lodge was thus dissolved without being formally closed down. In 1786 this lodge thus merged with some other Viennese lodges and was consolidated in a new lodge, which counted 304 freemasons in 1786. Several brothers were chosen by the Provincial Grand Master Kressel from the merging lodges Three Eagles (*Zu den drei Adlern*), Palm Tree (*Zum Palmbaum*) and True Concord and they met for the first time on December 28, 1785. From the True Concord lodge, the following brothers attended the meeting: Born, Stegnern, Batthyani, Hilshenbach, Weber, and Pilgram. They agreed that the new lodge would be called Truth. Ignaz von Born was appointed doyen. The other officials were: Urbain, Batthyani, Fügner, and Weber, and Pilgram became the lodge’s secretary. The lodge was supposed to be open three times a week: on Mondays, Wednesdays, and Fridays, while the library would be accessible for visits all week.

The Truth lodge was inaugurated on January 6, 1786. Born held the opening address, in which he also mentioned the selections of the brothers who came to the new “in-gathering” lodge. Born advocated a commitment to secrecy, which was intended to prevent some of the “dissatisfied” brothers from acquiring new reasons to bring the contents of their meetings, consultations, and decisions to the “profane” public realm.⁵⁴ Jurij Vega had directly witnessed the tumultuous events in the Viennese Freemasonry of the 1780s. We find him again in the new Truth lodge, in which he was promoted to the degree of Fellow in February 1786 and to that of Master Mason in May of the same year.⁵⁵ Vega’s Masonic godfathers, Anselme and Unterberger, moved to the Truth lodge. But the relations in the lodge were very far from those that reigned in the True Concord lodge. Despite Born’s public calls for secrecy, a segment of the “dissatisfied” brothers could not be kept in line any longer. The breaches in secrecy provoked what was known as the “Krater” affair and, as a result, the internal conflicts at the lodge were brought out into the open. The damage was irreparable. In June, Born presided over the lodge for the last time and at the next meeting, in September, his resignation letter was read. Joseph von Sonnenfels left with Born and an additional 33 brothers from the former True Concord lodge walked out in 1786. It was agreed that the lodge would be inactive until the next Feast of Saint John. The lodge met again in April of the following year. The agenda featured a discussion of the initiative on enhancement of inner unity and joint activity. In June 1787 the members of the lodge were supposed to

choose its leadership, but decided instead that the lodge would remain inactive for an indefinite period of time. The membership of the lodge also shrank because the climate was unfavourable to Freemasonry: 43 people left the lodge in 1786 and 18 followed them. In 1787, the membership of the lodge was thus reduced to a total of 262 freemasons. The sharpest decrease of membership in the Truth lodge was noted among soldiers. In broad strokes, the professional structure remained comparable to that of the True Concord lodge: the clerks represented the most important segment of the membership, followed by soldiers (22 brothers) and teachers. The nobility represented only 35 percent of the new lodge's membership.⁵⁶ The Truth lodge was officially dissolved in 1789. Basing our research on the existing evidence, it is impossible to establish whether or not the lodge remained active illegally, but the research indicates that the Freemasons maintained contacts and were also socializing in the form of circles. It is not certain that Vega kept his membership in the lodge until its dissolution, but it is noted that he was still a Master Mason at the Truth lodge in 1787. In any event, Vega left Vienna in 1788 for the battlefield.

The general circumstances were increasingly unfavourable to Freemasonry. Some prominent members of Viennese Freemasonry withdrew and Born died in 1791. The fear of the French Revolution intensified. Professor Hoffman of the University of Vienna was zealously spreading the theory of a Freemasonic conspiracy. A series of repressive measures against the lodges was launched in 1792, following the accession to the throne of the Emperor Franz II.⁵⁷ The last three Viennese lodges – Saint Joseph, Love and Truth (*Zur Liebe und Wahrheit*), and New Crowned Hope – were finally suspended in December 1793. In January 1795 the emperor outlawed Masonic associations. The deterioration of the public attitude towards the Freemasons and the emperor's prohibition of their activity coincided with the Vienna trial against the Jacobins in mid-1790s (1794–1796). A large proportion of those accused at the trial belonged to Masonic lodges. The emperor made certain that they were brought before a military court because Joseph II had abolished death penalty for civilians. The judicial trials of these not particularly dangerous "conspirators" attracted considerable attention. The military court sentenced the seven accused to public executions, others were sentenced to long-term imprisonment, and Baron von Taufferer was sentenced to death in his absence. Taufferer even fought on the French side. After his capture by the Austrian army⁵⁸ he was hanged in Vienna in 1796, upon military court orders. Taufferer and Vega never met in the lodge, but Vega made the acquaintance of Martin Joseph Prandstetter (1760–1798).⁵⁹ This Freemasonic acquaintance of Vega's was also accused in the trial against the Jacobins. Given that the only substantiated accusation regarded his translations of French texts and his knowledge, he was clearly a victim of constructed accusations. He was nevertheless sentenced to thirty years imprisonment, but he did not survive his sentence. The conditions of imprisonment were so difficult that he died in 1798. The censorship and the secret police expanded the scope

of their activities after 1794, against intellectuals, Freemasons, and foreigners. Any contacts with the French were considered distinctly suspicious. With the aid of the police forces and spies, the emperor sought to be acquainted with the activities of the lodges and especially with their international contacts. Vega was most probably also listed in the files of the secret police. The documents belonging to the Viennese lodges True Concord and Truth, including Vega's petition and the minutes of the meetings, were presented to the secret archives belonging to Emperor Franz II around 1800 and they have been preserved there until this day.⁶⁰

Despite the emperor's prohibition of Freemasonic associations, Freemasons maintained some degree of contacts. This probably holds true for Jurij Vega as well, although his contacts were presumably limited to Freemasons in Germany. In 1794, as Vega fought on the Rhine as a major, we meet him in company of Friedrich Schiller and a renowned Freemason, the German philosopher Johann Fichte.⁶¹ During his stay in Germany (1793–1797), Vega probably visited or frequented one of the local Masonic lodges. Johann Gottlieb Fichte (1762–1814) was listed as member of the lodge Gunther at the Standing Lion (*Günter zum stehenden Löwen*) from Rudolstadt as early as 1794. Friedrich Schiller (1759–1805) allegedly also belonged to this lodge. It is furthermore assumed that Schiller was a member of the Order of Illuminati. Fichte was admitted to the Berlin Grand Lodge of Prussia "Royal York" in 1800, the year during which Berlin hosted numerous meetings of Freemasons of all degree systems. Fichte's lectures at these gatherings were met with wide acclaim.⁶² Vega's contacts with Freemasons were not necessarily limited to Freemasonry, but also to scientific and military affairs. After all, he did stay in the artillery together with his Masonic godfather von Unterberger, who persisted in the Truth lodge until the end. Among other prominent foreign Freemasons, Vega's name is frequently mentioned together with that of the then leading astronomer Joseph Jérôme De Lalande. Joseph Jérôme Lefrançais De Lalande (1732–1807) was an encyclopedist and member of the Academies in Paris, London, Saint Petersburg, Berlin, Stockholm, Rome, and Florence. Lalande was the idea initiator and the co-founder of the Paris Masonic Lodge of the encyclopedists called *Les Neuf Soeurs*. He was also the first doyen of this lodge.⁶³ Among others, he admitted Voltaire to the lodge in 1778.⁶⁴ He wrote an article on Freemasonry for the encyclopedia and his contribution was published in 1777 as an independent treatise entitled *Mémoire historique sur la Maçonnerie*. The Viennese True Concord lodge was modeled after the Parisian *Les Neuf Soeurs*. Lalande often wrote about Vega's algorithms. In his letters to Vega he described them as "the most precious collection of tables,"⁶⁵ and in 1799 he called them "a real treasure."⁶⁶ In 1801 he made certain that the samples of French measures sent to Vega from Paris were accurate.⁶⁷

When the Austrian artillery was reorganized again in 1802 and a new artillery regiment was established, Vega was assigned to its command. On March 6, 1802,

the Court War Council approved Jurij Vega's promotion to the rank of lieutenant-colonel in the newly constituted Fourth Artillery Regiment. Thus the post of mathematics professor became vacant in the Bombardier Corps. Only after numerous complaints, Colloredo assigned Captain Karl Flamm to the post. The Czech-born Colonel Johann von Carl (1754–1803) was nominated Commander of the Fourth Artillery Regiment and Lieutenant-Colonel Baron Jurij Vega became his deputy. Both Carl and Vega were Freemasons and it was not a coincidence that they were assigned to the new regiment because two other Freemasons, Field Marshal Leopold von Unterberger and major-general Ignaz von Rosty, were in the Joint Artillery Command. The formation of the new Fourth Regiment was overseen by none other than Unterberger. Rosty's influence was probably marginal, given that he was supposed to retire as field marshal in 1802. In the 1780s, Rosty was commander of an artillery regiment, and in 1793 he was already promoted to the rank of major-general and assigned to the command. From 1783 on, he was a member of the Viennese lodge Three Eagles. He visited the True Concord lodge several times. From 1785 he was the Senior Warden of the Three Eagles lodge and from 1786 the Junior Warden of the Truth lodge, the very lodge that Vega still belonged to in 1787. After the Truth lodge was closed in the 1790s, Rosty resumed his activities in the Three Eagles lodge.

The two commanders of the newly established Fourth Field Artillery Regiment, Carl and Vega, were not only both Freemasons, but they were also both born in 1754. Carl was promoted to the rank of lieutenant-colonel in 1794 and colonel in 1799 in the Artillery Regiment. After 1781 he was a member of the Viennese lodge Saint Joseph.⁶⁸

Vega came in contact with numerous Freemasons, both in his military service and through his involvement in scientific activities. Count Johann Alcaini was one such Freemason. He fought with Vega in Belgrade and Fort Luis. Alcaini held the rank of lieutenant in 1793 and in 1795 – already a major-general – he backed Vega's nomination for the Military Maria Theresa Order for military merit. Alcaini was an infantry commander. He held membership at the lodges Three Eagles and Palm Tree from 1782 onwards, and together with Vega joined the Truth lodge in 1786. Vega's efforts to obtain the Military Maria Theresa Order were backed by approximately thirty other officers that fought with him and were not Freemasons. From 1794 onwards – that is, from the time when Vega fought on the Rhine – he was assigned to the command of Field Marshal Albert, Duke of Saxony. Stemming from a renowned Freemasonic princely family of Sachsen-Teschen, he was a Freemason and an advocate of the order of "strict observance." Following the duke's order and Vega's plans, two thirty-pound mortars were made in 1785. Their manufacture was financed by the state and it is possible that Vega himself suggested that the mortars be assembled. The duke issued Vega a handwritten confirmation of his merits. Other details regarding the commission responsible for the quality of the mortars are beyond the scope of this article, but Vega's personal relation with

the duke is certain. Vega later dedicated his scientific treatise on the object falling to the centre of the Earth to the Duke of Saxony. The latter re-nominated Vega for the Military Maria Theresa Order.⁶⁹

What was the number of Freemasons in the army at that time? Focusing on the gunmen, comparing the number of Freemasons with the total number of gunmen, the proportion of Freemasons among them was very small. In the period between 1780 and 1790 several thousand (probably at least four thousand) gunmen belonged to the regiments that were originally stationed in Vienna. Only a few of them were affiliated with the Viennese lodges and the majority of them were officers (including Second Lieutenant Muha).⁷⁰ In 1793, for example, there were thirty active high-ranking artillery officers, including majors and higher ranks, and only three of them were members of the Viennese Masonic lodges: Unterberger, Rosty and Vega. From 1802 onwards, Carl – who was then transferred to the artillery – can be counted among the group.

The statistical data indicates that approximately 1,100 Freemasons joined the thirteen Viennese lodges in the years from 1780 to 1790.⁷¹ Most of them worked in the public services (28.9%), in the military (22.9%), in liberal professions (20%), in commerce and industry (10.7%), in education (6.1%), for the foreign diplomatic service (5.2%), and in the clergy (4.3%). The highest numbers of Freemasons from the public service sector came from the central administration, whereas the sector of education was represented mostly by university professors; liberal professions by artists, physicians, and journalists; commerce and industry by entrepreneurs, big merchants, and bankers; and the Freemason clergy was predominantly Catholic. The most represented branches of the army were infantry, cavalry, and the guard. Most of those Freemasons were higher officers. Some 46 percent of Viennese Freemasons of that period held an aristocratic title. 500 Freemasons originated from the Habsburg lands within the Empire, 251 from the Habsburg lands outside the Empire, 231 from the Empire outside the Habsburg lands, and 147 were foreigners.⁷²

Vega's death in 1802 triggered numerous speculations and insinuations. Although the circumstances of his death remain unknown, the suspicion that he was murdered or died in an accident has been increasingly gaining ground. A suicide scenario can be excluded with a high degree of certainty. At the time of his death, Vega was at the peak of his scientific and professional career, and his success was formidable. Not only was he awarded the Military Order of Maria Theresa in 1796 (under the serial number 133), but Emperor Franz II also rewarded him for his twenty years of military service with the hereditary title of baron. A month earlier, Vega had been elected to the Prussian Royal Academy of Science. In 1801 he was admitted to the Carniolan Estates and in 1802 he acquired the Hungarian denizenship. Vega was very active until his death and at least one of his great projects was left unfinished. The murder could have been motivated by envy, but

a politically-grounded murder should not be excluded either. Two events that immediately preceded his death could provide the necessary motive for murder. Just before he died, Vega received an important promotion. He was promoted to the rank of lieutenant-colonel and at the same time nominated deputy commander of the newly constituted Fourth Field Artillery Regiment. Vega was then 48 years old and before he could assume his position in the Fourth Regiment he was already dead. Had he lived for another ten years it can be assumed with a significant degree of probability – in comparison with other military careers and in the light of Vega's qualifications – that he would have been promoted to the rank of general. Given his character it is very likely that after receiving the hereditary title of baron his ambitions would be this high. He also had friends in the military command. His relationship to the then Field Marshal Leopold von Unterberger, the second in command of the Austrian Artillery, immediately after Marshal Count von Colloredo, was certainly important. However, on the other hand, Colloredo was disapproving of Vega. Count Joseph Maria Colloredo belonged to a highly aristocratic family. In the 1780s he was still favourably disposed towards Vega, but from 1793 onwards he became positively hostile and he resented Vega's promotions.⁷³

Von Colloredo was convinced that Vega had attained too many honours given his peasant background. The cause for Vega's murder could be his association with the French and his advocacy of the metric system. At exactly that time Vega received an *étalon* (standard of weight and measures) from Paris. The annex of the first volume of the mathematics lectures in its third edition of 1802, which went to print at that time, indicates that Vega received samples from Paris that proved that his precision and comparisons with the Austrian and other metric systems were accurate. The package included drawing material, weights from 100 to one gram, a meter made of ebony, precision scales, and a thermometer. The measures were in total accord with those constructed by Étienne Lenoir. Joseph Jérôme Lalande verified them and the package was delivered to Vega through the Austrian ambassador in Paris.⁷⁴ The Austrian ambassador was a famous diplomat, a Slovene and a Freemason, Count Janez Filip von Cobenzl (Ljubljana 1741 – Vienna 1810). He was posted as ambassador to Paris from 1801 to 1805. He joined the Freemasons in 1779 when he was admitted to the Viennese lodge Crowned Hope. The Cobenzl family had been active in diplomatic service since the 16th century and it was also one of the oldest Freemasonic families in the Slovenian lands. Vega's Masonic brother Joseph Jérôme Lefrançais De Lalande made sure that the measures delivered were accurate. Vega's acquisition of the measurement samples, after twenty years of futile struggle to obtain them, was a significant personal victory.⁷⁵ Cobenzl, who was appointed Austrian ambassador to Paris in 1801, certainly played an important role in facilitating the acquisition. Vega sent the manuscript, in which he defended the metric system, to the press approximately a week before his death.⁷⁶ It can be argued that this was not a coincidence because the

printer and the censor were probably not the only persons that inspected the manuscript. Interestingly, Vega's treatise advocating new measures was published by the Degen press, whereas most of Vega's treatises that were published in Vienna were printed by the fellow Freemason Johann Thomas von Trattner.⁷⁷ Vega may have entrusted Degen with his manuscript not only because he was an acclaimed printing professional but also because he was known as a specialist for printing French literature. The printer Josef Vinzenz Degen (1763–1827) was a secret police agent who played an important role as a provocateur and denunciator in the process against Viennese Jacobins.⁷⁸ Denunciators and others who did not share Vega's scientific broad-mindedness considered the defence of French measures an act of conspiracy, especially in the light of the fact that Vega was among the first who advocated the metric system outside France. The Viennese rumours of that time point in this direction: Vega was killed by a professional murderer, hired by "twelve distinguished gentlemen," and the new measures provided the motive for murder.⁷⁹ Allegedly, Vega was last seen with a stranger. They left Vienna together, but all traces of the stranger disappeared. Some contemporary hearsay according to which Vega was killed by a miller was very popular in later literature, but proved to be untrue. It has to be noted that recent research demonstrates that the explanation mentioned above is incorrect, although it remains quite widespread. The principal source of this account is a publication in the French daily *Nouvelles Annales de Mathématique* of April 1855. Numerous authors writing about Jurij Vega reproduced this interpretation as a more or less credible account of what had happened.⁸⁰ The murderer, betrayed by a compass in 1809, was said to have been sentenced to death. Two Austrian historians, Christiane Zörner⁸¹ and Gerlinde Faustmann, thoroughly researched and then refuted this thesis in their Ph.D. dissertations.

As a soldier, Vega had always been absolutely loyal to the monarchy, but as a scientist and an intellectual he looked beyond its borders. Vega had the opportunity to meet other Jacobins; for example, the philosopher Benjamin Erhard, who mentioned Vega in his letter dated May 17, 1794. In the letter, Erhard reported that Vega had expressed interest in his knowledge of mathematics.⁸² This happened at the time when Erhard wrote his work on the people's right to revolution.⁸³ Vega did not advocate revolutionary ideas in public, but it was conceivable that his conception of the metric system could be understood by some as politically revolutionary,⁸⁴ especially at the time when the authorities' fear of the French Revolution, Freemasonry, and every imaginable conspiracy was on the rise. The year following Vega's death was fatal for two other Freemasons from the ranks of artillery, Vega's associate and newly appointed commander of the Fourth Artillery Regiment, Lieutenant Johann von Carl, already mentioned, and the old Field Marshal Ignaz von Rosty. The fact that von Carl died of a cold excluded the possibility that it was more than a coincidence. In 1803, Unterberger was transferred from the Artillery Command to the main Armaments Office, where he took over the management of an armament factory. In 1804 Emperor Franz II ordered the graying field

marshal to teach the crown prince Archduke Ferdinand mathematics, whereas the emperor's brother, Archduke Karel, was entrusted with the assignment of preparing the military textbooks, a task that Jurij Vega performed until his death. Von Unterberger undoubtedly played a significant role in Vega's life.

References

- [1] L. Abafi, *Geschichte der Freimaurerei in Oesterreich Ungarn*, 5 Bände, Budapest, 1890–1899.
- [2] Arhiv Republike Slovenije, Deželni stanovi za Kranjsko, III. registratura.
- [3] Biographisches Lexikon des Kaiserthums Oesterreich enthaltend die Lebensskizzen der denkwürdigen Personen welche 1750 bis 1850 in Kaiserländern gelebt haben, von Dr. Constantin v. Wurzbach, Wien, 1856–1892.
- [4] L. Čermelj, *Jurij Vega*, Ljubljana, 1954.
- [5] *Die Protokolle der Wiener Freimaurerloge "Zur wahren Eintracht" (1781–1785)*, hrsg. von Hans-Josef Irmen in Zusammenarbeit mit Frauke Heß. Heinz Schuler. Frankfurt am Main, Berlin, Bern, New York, Paris, Wien; Lang, 1994 (Schriftenreihe der Internationalen Forschungsstelle "Demokratische Bewegungen in Mitteleuropa 1770–1850", 15).
- [6] G. Dürigl, *Freimaurer. Solange die Welt besteht*, Katalog der 165. Sonderausstellung des Historischen Museums der Stadt Wien, Wien, 1992.
- [7] G. Faustmann, *Österreichische Mathematiker um 1800*, unter besonderer Berücksichtigung ihrer logarithmische Werke, Dissertationen der technischen Universität 59, Wien, 1992.
- [8] F. Gatti, *Geschichte der K. und K. technischen Militär-Akademie*, II. Band, Das K. K. Bombardier Corps, Die K. K. Artillerie - Hauptschule und die K. K. Artillerie-Akademie 1786–1869, Wien 1905.
- [9] F. Hauptmann, *Jurij Vega*, v: Spomenik o šeststoletnici začetka habsburške vlade na Slovenskem, Ljubljana, Matica Slovenska, 1883, str. 167–194.
- [10] Haus- Hof- und Staats Archiv, (Wien), Vertrauliche Akten der Kabinetkanzlei.
- [11] E. Huber, *Sozialstruktur der Wiener Freimaurer 1780–1790*, Dissertation, 4 Bände, Wien 1991.
- [12] E. Huber, *Zur Sozialstruktur der Wiener Freimaurerlogen im Josephinischen Jahrzehnt*, v: Aufklärung und Geheimgesellschaften, München 1989, str. 173–189.
- [13] S. Južnič, *Pouk fizike v Ljubljani v času študija Jurija Vege*, Zbornik za zgodovino naravoslovja in tehnike (1998) 13–14, str. 201–246.
- [14] S. Južnič, *Tabele logaritmov, ki jih je Vega uporabljal med študijem v Ljubljani*, Arhivi XXV, 2002, št. 2, str. 93–107.
- [15] F. Kaučič, *Georg Freiherr von Vega*, Wien, 1904.
- [16] M. Košir, *Prostozidarstvo v habsburški monarhiji v 18. stoletju ter prostozidarski loži "Združena srca" v Mariboru ter "Dobrodelnost in stanovitnost" v Ljubljani*, Kronika 46 (1998), št. 1–2, str. 41–65.
- [17] E. Lennhoff, *Oscar*, Internationales Freimaurer-Lexikon, Wien, 1932.
- [18] E. Lessing (Hrsg.), *Die Übungslogen der gerechten und vollkommenen Loge Zur wahren Eintracht im Orient zu Wien*, Wien, 1984.
- [19] D. Linder, *Ignaz von Born Meister der Wahren Eintracht*, Wiener Freimaurerei im 18. Jh., Wien, 1986.
- [20] J. Povšič, *Vega Jurij*, Slovenski biografski leksikon (SBL).
- [21] J. Povšič, *Jurij Vega*, Ljubljana, 1983.
- [22] H. Reinalter, *Joseph II. und die Freimaurer im Lichte zeitgenössischer Broschüren*, Wien [u. a.], 1987.

- [23] H. Reinalter, *Die Französische Revolution und Mitteleuropa*, Frankfurt am Main, 1988.
- [24] H. Reinalter, *Österreich und die Französische Revolution*, Wien, 1988.
- [25] H. Reinalter, *Die Aufklärung in Österreich*, Ignaz von Born und seine Zeit, Frankfurt, Bern, New York, Paris, 1991.
- [26] H. Reinalter, *Ignaz von Born und die Illuminaten in Österreich*, v: H. Reinalter, *Der Illuminatenorden (1776–1785/87)*, Ein politischer Geheimbund der Aufklärungszeit, Frankfurt-Wien, 1997.
- [27] H. Reinalter, *Die Freimaurer zwischen Josephinismus und frühfranzösischer Reaktion*, Zur gesellsch. Rolle u. zum indirekt polit. Einfluss d. Geheimbünde im 18. Jh., v: *Freimaurer und Geheimbünde im 18. Jahrhundert in Mitteleuropa* / Hrsg. Helmut Reinalter, - Frankfurt/M., 1993, str. 35–84.
- [28] H. Reinalter, *Freimaurerei und Geheimbünde in Österreich im Einflussfeld der Französischen Revolution*, Quator Coronati Berichte, Nr. 11, december 1986, str. 50–59.
- [29] S. Sitar, *Jurij Vega*, Ljubljana, 1983.
- [30] B. Šömen, *Molčeče nevidno bratstvo*, Ljubljana, 2002.
- [31] P. Vodopivec, *Kranjski jakobinec baron Siegfried von Taufferer in Francija*, Prispевki za novejšo zgodovino 30, št. 1/2 (1990), str. 3–13.
- [32] P. Vodopivec, *Brat Wolfgang - prostozidar*, v: *Mozart - kdo je to*, Ljubljana, 1991, str. 55–60.

Notes

1. Viktor Kropatin S. J., *Gabrijel Gruber S. J. in njegov prekop (Gabriel Gruber S. J. and his canal)*, Kronika 1934, št. 1, str. 9, Stanislav Južnič, *Gabrijel Gruber in navigacijski inženir Jurij Vega*, Arhivi 2003 p. 69.

2. Matevž Košir, *Prostozidarstvo v habsburški monarhiji v 18. stoletju ter prostozidarski loži "Združena srca" v Mariboru ter "Dobrodelnost in stanovitnost" v Ljubljani (Freemasonry in the Habsburg Monarchy in the 18th century and Masonic lodges "United Hearts" in Maribor and "Charity and Steadfastness" in Ljubljana)*, Kronika 46 (1998), no. 1–2, p. 41–65. Matevž Košir, *Brat Vega prostozidar, Baron Jurij Vega, prostozidar. Ob 200 obletnici smrti (Brother Vega, Freemason)*, Zbornik za zgodovino naravoslovja in tehnike, (2002) 15/16, str. 75–111.

3. Eva Huber, *Sozialstruktur der Wiener Freimaurer 1780–1790*, Wien 1991, II. Teil, 4. Band, Maffei.

4. Georg Vega, *Logarithmisch-trigonometrisches Handbuch: anstatt der kleinen Vlackischen, Wolfischen, und andern dergleichen, meistens sehr fehlerhaften, logarithmisch-trigonometrischen Tafeln, für die mathematikbeffissenen eingerichtet*. Zweyte, verbesserte und vermehrte Auflage, Leipzig in der Weidmannischen Buchhandlung, 1800.

5. Branko Šömen, *Molčeče nevidno bratstvo (Silent invisible brotherhood)*, Ljubljana 2002, p. 80.

6. Ludvig Abafi, *Geschichte der Freimaurerei in Oesterreich Ungarn*, Bd. 4, Budapest 1893, p. 290.

7. This Vega's notebook was received with enthusiasm by Duke Ernst II von Sachsen-Gotha (1745–1804); Lavo Čermelj, *Jurij Vega*, Ljubljana 1954, p. 14. Ernst II was a Grand Master of the Provincial Grand Lodge in Berlin. He was also an Illuminati.

8. Friedrich Gatti, *Geschichte der K. und K. technischen Militär- Akademie*, II. Band, Das K. K. Bombardier Corps, Die K. K. Artillerie - Hauptschule und die K. K. Artillerie-Akademie 1786–1869, Wien 1905, p. 56.

9. In 1794 Vega became a correspondence member of the Royal scientific society in Göttingen, in 1797 he acquired membership in the society of mathematics and physics in Erfurt, in 1799 he joined the Princely Academy in Mainz, and in 1800 the Prussian Academy in Berlin and the Czech Royal Scientific Society in Prague. He collaborated with scientific circles in Petersburg, Budapest, and Paris.

10. His petition reads as follows: "Verehrungswürdigste Gesellschaft!

Schon seit mehreren Jahren hege ich dem sehnlichen Wunsch unter ihrer Mitglieder gezählt zu werden. Allein es mangelte mir bisher immer an Freunden, die mir eine nähern Anweisung gegeben hatten, auf was für eine Art ich diese Ehre zu verdienen trachten sollte. Derowegen bin ich nun so frey durch Übersendung beyligender Ausarbeitung mich selbst aufzuführen, mit der innständigsten Bitte, die verehrungs würdigste Gesellschaft wolle geruhen meinen sehnlichsten Wunsch zu erfüllen, der ich in allen Gelegenheiten trachten werde mich dieser Ehre würdig zu machen. Wien an letzten oktobris 1785.

George Vega, m[anu] p[ropria]. Oberlieutenant und Lehrer der Mathematik bey dem K. K. zweiten feld Artill[erie] Regiment” Haus- Hof und Staats Archiv Wien (HHStA), Vertrauliche Acten (VA), karton 68, fol. 382–383.

11. *Die Protokolle der Wiener Freimaurerloge “Zur wahren Eintracht” (1781–1785)*, hrsg. von Hans-Josef Irmen in Zusammenarbeit mit Frauke Heß u. Heinz Schuler. Frankfurt am Main, Wien [u. a.]; Lang, 1994. (Schriftenreihe der Internationalen Forschungsstelle “Demokratische Bewegungen in Mitteleuropa 1770–1850”, Protocoll der. St. Joannis Loge genannt Zur wahren Eintracht, no. 425.)

12. *Die Protokolle*, no. 427. The following brothers were present at the lodge: Born, Hilchenbach, Stölzig, Weinkopf, Jeger, Jacobi, Weber, D’Andoy, Palasty, Miotti, Retzer, Alxinger, Spangler, Stegner, Czeplak, Michaeler, Fridrich, Stölzl, Poda, Kollmünzer, Mayer, Kesaer, Zauner, Jordan, Viereck, Hellwig, Kiessling.

13. *Die Protokolle*, no. 432.

14. Franz Joseph Mumelter, lawyer, born in Bolzano in 1761, died in Vienna 1798, private tutor at Teresianum, later professor. He was very much patronized by Born and Sonnenfels.

15. *Die Protokolle*, no. 425.

16. List of guests at the lodge at the occasion of Vega’s admittance to Freemasonry. From the lodge True Concord: Ignaz von Born (1742–1791, privy councillor, court chamberlain, curator of the natural sciences collection of the imperial museum, etc.); Karl Wilhelm Hilchenbach (1749–1816, Evangelical priest, since 1786 superintendent of the Viennese and the Trieste dioceses); Joseph von Sonnenfels (1733–1817, privy councillor, university professor, later rector of the University of Vienna, etc.); Rudolf Alois von Krauss (1736–1815, rapporteur at the Court War Council, privy councillor); Leon Gottlieb (1757–1830, librarian in the Imperial Royal Court Library, etc.); Prince Ludvik Stratmann-Bathyani (1753–1806, imperial chamberlain, general etc.); Joseph Chiris (1759–1807, official at the financial deputation in Brussels, later at the financial office in Vienna); Baron Leopold von Unterberger (1734–1818, professor of mathematics, major at the field artillery, later Field Marshal); Franz Filip von Weber, master of ceremonies at the True Concord lodge, (1738–1801, Court Secretary); Janez Krstnik Hainz (1743–1802, Czech and Italian court agent); Anton von Weinkopf (1737–1808, councillor and secretary of the Academy of fine arts); Joseph Hellwig (1731–1799, official at the secret Imperial Family Archives); Joseph Franz Ratschky (1757–1810, writer, secretary at the Czech-Austrian court office etc.); Joachim Christian Friedrich Schulz[e] (1762–?, scientist); Augustin Veith von. Schittlersberg (1751–1811, doctor of philosophy and law, accounting officer at the central commercial accounting office, later privy councillor and president of the Central accounting directorate); Joseph Kiessling (1759–1808, doctor of law, provincial councillor); Franz Anton Zauner von Falpartann (1746–1822, professor at the Academy of fine arts, sculptor, etc.); Peter Cölestin De’Andoy (1751–?, professor of French, working for Count Banffy, etc.); Peter Miotti (1743–1803, professor of metaphysics at Teresianum, philosopher, writer); Franc Joseph Reitter (1757–1813, Czech and Austrian court agent); Ludwig Anselme von Beinhelm (1744–1818, deputy doyen, provincial master of ceremonies of the Provincial Lodge of Austria, military captain at the engineering corps); Andreas Stütz (1747–1806, Augustinian monk, taught geography and mechanics at the academy, later worked at the Imperial Court natural sciences cabinet); Heinrich Joseph Walther von Aland (1745–1798, princely councillor of Passau, accredited at the Vienna Court). Visiting Freemasons: Wolfgang Mucha, Master at the Constasy lodge (1758–?, second lieutenant at the Third Artillery Regiment); Ignaz von Unterberger, master at the Crowned Hope lodge (1748–1797, painter); Franz Schisling, master at the Crowned Hope lodge (1756–1804, clerk at office of the Supreme Court); Carl Stöckh, master at the Viennese lodge Charity (? , lawyer, innkeeper); Carl von George, master at the Symbolic Cylinder lodge from Innsbruck (1742–?, first lieutenant in Schröder’s Regiment); State Count Franz Anton Hartig of the Prague lodge Truth and Unity (1758–1797); Franz

Cantese-Canter of the Viennese lodge Charity (?–1802, Cathedral Provost in Linz); Thomas Klinisch [-mesch] of the Viennese lodge Palm tree (? , painter); Franz Xaver von Grienwalder of the Viennese lodge Crowned Hope (1748–1810, Judicial Councillor); Alois Anton Aichamer of the Viennese lodge Constancy (1753–1821, clerk at Dietrichstein); Johann Christian Schubart von Kleefeld of the Hannover lodge Georg and of the Lodge Johnathan from Braunschweig, a prominent personality in German Freemasonry whose influence somehow diminished by the time of Vega's initiation ceremony, a former Grand Master of the Grand Lodge Three globes (1734–1787, military commissioner, economist, privy councillor of Saxony etc.).

17. Mucha, J. J. M. Wolfgang, *Anleitung zur mineralogischen Kenntniß des Quecksilbergwerks zu Hydria im Herzogthume Krain*, Wien - bey Rudolph Gräffer, 1780. Mucha's book was kept by J. Kalasanec Erberg in his Dol library. (Ema Umek, Erbergi in Dolski arhiv (Ebergs and the Dol archives), I. del, Ljubljana, Arhiv Republike Slovenije 1991, str. 68). The work is now also kept at the National University Library in Ljubljana.

18. F. Kalan, op. cit. p. 87.

19. Stanislav Južnič, *Tabele logaritmov, ki jih je Vega uporabljal med študijem v Ljubljani (The logarithmic tables that Vega was using during his studies in Ljubljana)*, Arhivi 2002, XXV, no. 2, p. 101.

20. E. Huber, *Sozialstruktur* 1991, Mucha Wolfgang.

21. According to the Masonic calendar "Anno Lucis".

22. Die Protokolle, no. 433: "Nach geöffneter Lehrlings Loge wurde zur lezthin festgesetzten Aufnahme des fremden Suchenden Vega geschritten, solche mit den gewöhnlichen Ceremonien vollzogen und von mir in diese Protokoll eingetragen, wie folget: Im Jahr 5785 den 9 des 12 Monats wurde zur Aufnahme vorgestellt der fremde Suchende Georg Vega, Bartholomäus Sohn, alt 31 Jahr, geboren den 23 Merz 1754, katholischer Religion, bürgerlicher Herkunft, jetzt Freymaurer, gebürtig von Morätsch in Krain, seines Amtes Ober Lieutenant und Professor der Mathematik bey den 2ten K. K. Artellerie R[e]g[i]m[en]t in keinen bekannten Orden aufgenommen, und aus aufrichtigen Trieb und Eifer in unseren, von uralten zeiten geehrten FreyMaurer Ritter Orden aufgenommen zu werden, ohne daß er dazu von einer Neugierde getrieben, vielweniger von jemand gelockt, gereitzt oder veranlaßet worden, desfalls er auch denen Statuten des Ehrw. Ordens gemäß, vermittelst einer Ballotirung gewählt und in diese St. Joh. [Loge] genannt Zu wahren Eintracht eingeführt und zum Ritter, Lehrling und Bruder aufgenommen worden ist."

23. On von Unterberger's logarithmic tables see: Gerlinde Faustmann, *Österreichische Mathematiker um 1800 unter besonderer Berücksichtigung ihrer logarithmischen Werke*, Dissertationen der Technischen Universität, Band 59, Wien 1992.

24. When he was promoted to the rank of captain in 1770 and nominated professor of mathematics at the Field Artillery Regiment, von Unterberger translated into German the second edition of *Cursus mathematicus*, written by Bernard Forest de Belidor. Von Unterberger also prepared several textbooks for the Artillery school: *Anfangsgründe der Mathematik zum Gebrauche der mathematischen Schulen der kaiser. könig. Artillerie-Corps*, vol. 1 in 1774, vol. 2 in 1775, vol. 2, part II. in 1776, vol. 3 in 1778–1781.

25. F. Gatti, op. cit. p. 53.

26. This is indicated by the number of Knights crosses, awarded to the soldiers of the Bombardier Corps.

27. Fridolin Kaučič, *Georg Freiherr von Vega*, Wien 1904, p. 27. II. Jahresbericht des Landes-Museums des Herzogthums Krain von Jahre 1838. Archives of the Republic of Slovenia, Deželni stanovi za Kranjsko, III., folder 69., box 265, no. 1700.
28. Beside the already mentioned mathematics textbooks, von Unterberger also authored the following works: *Tafeln der Sinus, Tangenten und Secante mit ihren Logarithmen und den Logarithmen der natürlichen Zahlen von 1 bis 20,000*, 1777; *Nothwendige Kenntnis von Geschützkunst*, 1786; *Nöthige Kenntnis von Geschütze und dessen Gebrauch, für die Infanterie- und Cavallerie-Officiere der österr. Armee*, 1807; *Anfangsgründe der Planimetrie für Infanterie- und Cavallerie-Officiere*, 1807; *Anfangsgründe der Rechenkunst für Infanterie- und Cavallerie-Officiere*, 1807; *Aufnahme mit dem Messtische für Officiere der österreichischen Armee*, 1807; *Nützliche Begriffe von Wirkungen der Elektrizität und der Gewittermaterie, nebst einer praktischen Belehrung, wie Gebäude gegen des Einschlagen des Blitzes zu bewahren sind*, 1811; *Beständige Befestigungskunst*, 1807–1809; *Feldbefestigungskunst*, 1807; *Tagebuch der Belagerung und Bombardierung der französischen Festung Valenciennes, durch die kaiserl. königl., königl. englische, Chur-Hannover'sche Truppen, in den Monaten Junius und Julius des Jahres 1793, den kaiserl. königl. Herren Artillerie-Officieren gewidmet von Freih. v. Unterberger, General-Feldzeugmeister*, Augsburg 1796, second edition, Vienna 1815. (F. Gatti, op. cit. p. 52)
29. In 1784, the Provincial Lodge of Austria comprised of 17 lodges in the Austrian part of the monarchy.
30. The Grand Lodge of Austria comprised of 45 lodges in the entire monarchy.
31. The Grand Lodge of Austria comprised of the provincial lodges of Austria, Bohemia, Galicia, Lombardy, Siebenburgen and Hungary.
32. Die Loge Zur wahren Eintracht in Wien, quoted in *Abafa*, pp. 279–305; *Die Protokolle*, pp. 9–20; Erich Lessing, *Die Übungslogen der gerechten und vollkommenen Loge Zur wahren Eintracht im Orient zu Wien*, Wien 1984; Heinz Schuler, *Die St. Johannis-Freimaurerloge "Zur wahren Eintracht"*, *Die Mitglieder d. Wiener Elite-Loge 1781 bis 1785*. In: *Genealogisches Jahrbuch*, 31(1991), pp. 5–41.
33. Helmut Reinalter, *Joseph II. und die Freimaurer im Lichte zeitgenössischer Broschüren*, Wien [u. a.] 1987, p. 11; *Die Protokolle*, p. 9.
34. *Die St. Johannis-Loge "Zur wahren Eintracht" in Wien (1781–1785)*. In: *Irmnen*, *Die Protokolle*.
35. Author of many masonic poems. Mozart later set some of them to music.
36. Joachim Hurwitz, *Joseph Haydn und die Freimaurer*, Frankfurt/M. [u. a.] Lang, 1996.
37. Peter Vodopivec, *Brother Wolfgang - freemason*, In: *Mozart – who is he*, Ljubljana 1991, pp. 55–60.
38. *Die Protokolle*, no. 425, 427, 432, 433, 434 etc.
39. *Die Protokolle*, no. 61, 62, 63, 64, 65 etc.
40. *Die Protokolle*, no. 353, 355, 356, 366, 378.
41. *Die Protokolle*, no. 22, 41, 335, 337.
42. L. Abafi, Bd. 4, p. 283.
43. As von Born put it: "Möchte nie Aberglauben und Schwärmerey unsere Logen entheiligen! Möchte man nie, statt Wahrheit, Weisheit und Zweck der Maurerey, Unsinn für Wahrheit ansehen, oder wohl gar den Bruder verketzern und verfolgen, der nicht glauben will, was einem aufgeheiterten Verstande zu glauben unmöglich ist." *Die Protokolle*, p. 15.

44. *Die Protokolle*, p. 13.
45. E. Huber, *Sozialstruktur* 1989, p. 179.
46. *Die Protokolle*, pp. 320–377.
47. E. Huber, *Sozialstruktur* 1991, Bd. I., p. 134.
48. H. Reinalter, *Joseph II.*, p. 14; I. Schandl, *Die Freimaurerei in Österreich und ihre Auseinandersetzung mit katholische Kirche*, Wien 1995, p. 10.
49. J. Sura, *Zur Geschichte der Freimaurerei in Österreich insbesondere zur "Grenzlogenzeit" unter Berücksichtigung der Sozialstruktur ihrer Mitglieder*, Wien 1989, p. 12.
50. The lodges that operated at the three basic levels (apprentice, fellow, and master mason) were named John's lodges because the first one was established on the feast of St. John the Baptist (24 June).
51. H. Reinalter, 1987, p. 18.
52. Ruled from 1740 to 1786. He was admitted to the Masonic lodge in 1738. The Hohenzoller family was strongly Masonic. Also three brothers of Friedrich the Great were freemasons and so was his successor and nephew Friedrich Wilhelm II (1744–1797). The latter's successor, Friedrich Wilhelm III (1770–1840) was not a freemason. (Thomas Richert, *Zur freimaurerischen Tätigkeit Friedrich des Großen*. In: *Archiv für Kulturgeschichte*, 74 (1992) 1, pp. 173–189; Rüdiger Hachtmann, *Friedrich II. von Preußen und die Freimaurerei*. In: *Historische Zeitschrift*, 264 (1997) 1, pp. 21–54; Winfried Dotzauer, *Friedrich der Große im Brennpunkt von Freimaurerei und Aufklärung*. In: *Archiv für Kulturgeschichte*, 70 (1988) 2, pp. 411–441.)
53. Four Viennese lodges – Crowned Hope, Charity, Constancy and Three Eagles – merged into the new lodge New Crowned Hope.
54. E. Huber, *Sozialstruktur* 1991, p. 166.
55. On 24 February and 15 May 1786, respectively. (E. Huber, *Sozialstruktur* 1991, Vega. *Die Protokolle*, p. 340).
56. E. Huber, *Sozialstruktur* 1989, p. 168.
57. Helmut Reinalter, *Die Freimaurer zwischen Josephinismus und frühfranzösischer Reaktion, Zur gesellsch. Rolle u. zum indirekt polit. Einflüss d. Geheimbünde im 18. Jh.* V: *Freimaurer und Geheimbünde im 18. Jahrhundert in Mitteleuropa* / Hrsg. Helmut Reinalter, - Frankfurt/M., 1993, pp. 35–84.
58. Peter Vodopivec, *Kranjski jakobinec baron Siegfried von Taufferer in Francija (Carnolian Jacobin Baron Siegfried von Taufferer and France)*, *Prispevki za novejšo zgodovino (Contributions to the Contemporary History)* 30, št. 1/2 (1990), pp. 3–13.
59. Prandstetter was a regular guest at the True Concord lodge. They met twice in December 1785 (*Die Protokolle*, no. 436, 439). Later, they were together in the Truth lodge. Prandstetter was a philosopher, lawyer, and poet, employed as confidential clerk and municipal councillor. He joined the St. Joseph lodge in 1782 and became the lodge's speaker in 1783. From 1786 onwards he was a member of the Truth lodge, because the activity of the St. Joseph lodge he was suspended by the Masonic Decree. When the St. Joseph's lodge was revived in 1790, he probably returned into it. According to B. Šömen Prandstetter allegedly belonged to the Ljubljana lodge in 1792 (op. cit., p. 136).
60. These convenient and strictly secret archives belonged to Emperor Franz II Documents of various provenances, ranging from police reports to other official documents relevant to "high treason", were

gathered there. The documents from Masonic lodges were handed over to the archives probably around the year 1800 (certainly before 1806), together with some police and censorship documents. (*Gesamtinventar des Wiener Haus- Hof- und Staatsarchivs*, Zweiter Band, Wien 1937, pp. 142–146.)

61. Fr. Kavčič, op. cit. p. 48.

62. Fichte's lectures were published in 1801 under the title *16. Briefe an Constant über Philosophie der Freimaurer*.

63. Lodge *Les Neuf Soeurs* was established in 1776 in Paris. The lodge was named after nine Greek muses, patronesses of art and knowledge: Calliope, Clio, Euterpe, Thalmia, Melpomene, Tepsichore, Erato, Polyhymnia, and Urania.

64. Lalande was the first doyen of the lodge. He was succeeded by doyen Benjamin Franklin, at that time the envoy of the United States of North America to Paris. The lodge's membership was very distinguished.

65. Jože Povšič, *Jurij Vega*, Ljubljana 1983, p. 11.

66. *SBL*, Vega, p. 383.

67. F. Gatti, op. cit., p. 62., Jože Povšič, *Lalande in Vega (Lalande and Vega)*, Obzornik za matematiko in fiziko (Review of Mathematics and Physics), no. 3 (1956), pp. 97–100.

68. This lodge played a crucial role in the creation of the Ljubljana lodge in 1792.

69. Lavo Čermelj, *Jurij Vega*, Ljubljana 1954, p. 50.

70. The commander of the First Artillery Regiment, lieutenant Franz Joseph von Thurn Valsasina was also a freemason. Von Thurn Valsasina was promoted to the rank of major-general in 1788 and fell in 1790 in the battle against the Turks.

71. E. Huber, *Sozialstruktur* 1989, p. 174. The data relate to the whole decade. A maximum of 738 Freemasons belong to the Viennese lodges at the same time.

72. E. Huber, op. cit. 1991, p. 229.

73. In 1793 Vega dedicated the second edition of his first mathematical textbook to von Colloredo, but he could not secure his benevolence. S. Sitar, op. cit. p. 68.

74. F. Gatti, op. cit., p. 62.

75. Fr. Kavčič, op. cit., p. 51.

76. The work was published posthumously: *Natürliches, aus der wirklichen Grösse unserer Erdkugel abgeleitetes, in ganz Frankreich und in einigen angränzenden Ländern zum allgemeinen Gebrauche gesetzmässig eingeführtes Mass-Gewichts- und Münz-System: mit einer gemein verständlichen Darstellung der in den k. k. Erbstaaten gebrüchlichen Mass- und Gewichtsverfassung; wie auch wechselweise Vergleichung so wohl der inländischen Masse und Gewichte, als auch verschiedener ausländischer mit den natürlichen*, Wien, bey J. V. Degen, 1803.

77. The majority of Vega's work was printed in Vienna by von Trattner, some also by Christian Friedrich Wappler. Degen only printed Vega's work on new measures. After Vega's death, the editor A. Kreil ensured that the manuscript will be published.

78. *Freimaurer, Solange die Welt besteht*, p. 257. Degen was appointed director of the newly established Imperial Royal State Printing House in 1804.

79. Fr. Kavčič, op. cit., p. 35; S. Sitar, op. cit., p. 139.

80. Hauptmann, Wurzbach, Wretschko, Kaučič, Bedenek, *Dom in svet (Home and world)* 1891, Doehleman, *Dom in svet (Home and world)* 1902, Vidic, Gatti, Pirnat itd.

81. Christiane Zörner, *Georg Freiherr von Vega. Leben und Werk als Offizier und Wissenschaftler.* [Mit Faks.] - Wien 1975.

82. Fr. Kavčič, op. cit., pp. 47–48. The philosopher Benjamin Erhard wrote about Vega to his friend, Baron Franc Pavel Herbert, a Carinthian Enlightenment figure and Freemason.

83. Johann Benjamin Erhard, *Über das Recht des Volks zu einer Revolution*, 1794.

84. The metric system was introduced in Austria only in 1873.