

Kerckhoffs' Legacy

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Abstract. Auguste Kerckhoffs' seminal article [Ker83] is ritually mentioned in countless cryptography articles and Ph.D. theses.

In 1998 the first author published a little-known biographic sketch of Kerckhoffs in Esperanto [Car98]. In 2013 we undertook the project to develop, complete and enrich this little-known notice with new material and publish an extended account of Kerckhoffs' life. This was unfortunately interrupted by the passing away of the first author in 2015.

This article is an attempt to provide the most comprehensive biography of Auguste Kerckhoffs.

Keywords: Kerckhoffs, Biography, Cryptography, Cosmoglottics, Volapük

1 Finding Kerckhoffs

Auguste Kerckhoffs' seminal article [Ker83] is mentioned ritually in countless cryptography articles and Ph.D. theses. However, Kerckhoffs was most famous, during his life, for the part he took in the birth and development of Volapük, an early constructed language now nearly extinct. Kerckhoffs became famous first as an introducer of Volapük in France, and secondly as president of the International Volapük Academy.

In 1998 the first author published a little-known biographic sketch of Kerckhoffs in Esperanto [Car98]. In 2013 we undertook the project to develop, complete and enrich this little-known notice with new material and publish an extended account of Kerckhoffs' life. This was unfortunately interrupted by the passing away of the first author in 2015.

This article builds on the earlier work of the first author, together with new sources, field findings and extensive archive searches, to provide a comprehensive biography of Auguste Kerckhoffs.

2 Introduction

If his hectic Volapükist life is sufficiently documented, by contrast, only very little information was available about Kerckhoffs' private life. This made it

* *Requiescat in pace.* February 16, 2015.

impossible to write a detailed biography, until the first author's work [Car98]¹. He was contacted in 1986 by the renowned Volapükist Reinhard Haupenthal², to try to continue his research started in April 1983. Haupenthal wanted to find the tomb of Auguste Kerckhoffs, his descendants, and possibly retrieve his personal archives, library and additional photographs^{3,4}. Caraco accepted that mission, as Haupenthal had already gathered sufficient information to enable the investigation to be continued.

The first known fact, according to Johann Martin Schleyer⁵'s diary, was that Auguste Kerckhoffs died on August 11, 1903, cut in two by a train during a horrible accident at the station in the Swiss lakeside town of Därligen⁶. Thanks to that information, Haupenthal wrote to Därligen's city archive, which responded very quickly with the sending of Kerckhoffs' death certificate. In this document, we learn that Kerckhoffs was born in 1835, in the city of Nuth⁷ in the Limburg duchy of the Netherlands, and died on August 9, 1903 (not the 11th as written in Schleyer's diary) in the city of Därligen of the canton of Bern, in Switzerland⁸.

The archives did not have a detailed account of this accident but did contain the name and address of a local newspaper which reported on it: *Oberländisches Volksblatt* in Interlaken⁹.

Thus, two investigation tracks presented themselves: the one from the birthplace and the one from the local newspaper that probably reported the death.

¹ Some of the information available at that time about Kerckhoffs was collected in Kahn's monograph [Kah96], which unfortunately does not always indicate the precise sources.

² Reinhard Haupenthal (born February 17, 1945 in Kronach, Germany; died September 29, 2016, in Vaison-la-Romaine, France) was a German teacher, Esperantist and Volapükist.

³ The only known image of Auguste is an excerpt of the 1887 International Volapük Academy group photograph, fig. 1.

⁴ As Kerckhoffs gave an interview, the journalist describes his physical appearance as such: “(...) un érudit doublé d'un hôte charmant: figure ouverte, encadrée de grands favoris blonds, sur lesquels il a commencé à neiger (...)” — “a scholar and a charming host, welcoming face surrounded by blonde sideburns, on which it had begun to snow”. *Le Gaulois*, July 26, 1885, p. 2

⁵ Johann Martin Schleyer (born 18 July 1831, in Oberlauda, Germany; died 16 August 1912, in Konstanz, Germany) was a German Catholic priest and the creator of Volapük. He was the Grand Master of the Academy for life holding the title of *datuval* meaning “the great discoverer” in Volapük.

⁶ Note that the spelling in [Car98] (Därlingen) is incorrect.

⁷ Today Nuth is a village of about 5,500 inhabitants.

⁸ Today Därligen is a village of about 440 inhabitants.

⁹ Interlaken is an important Swiss town in the canton of Bern, a well-known tourist destination in the Bernese Highlands region of the Swiss Alps, and the main transport gateway to the mountains and lakes of that region. Since 1872, the Bödelibahn railway connected Därligen to Interlaken and other lakeside towns. Interestingly, Eurocrypt 2004 was held in Interlaken.



Fig. 1. The International Volapük Academy (*Kadem bevünétik volapüka*), 1887. Schleyer is in the center, and Kerckhoffs' celebrated photograph is immediately at Schleyer's right.

As the *Oberländisches Volksblatt* archives can only be consulted physically at three libraries¹⁰ we opted to ascend Kerckhoffs' life from his birth information.

3 Early years and family

The Nuth community sent all information about Kerckhoffs' birth: on January 19, 1835, Jean Guillaume Auguste Victor Alexandre François Hubert Kerckhoffs was born. He was the son of the then mayor of Nuth: Jean Guillaume Kerckhoffs (1798–1883), a canton justice^{11,12} in Oirsbeek¹³. His mother was Jea(n)¹⁴nette Elisabeth Lintjens (1814–1887). According to a testimony made in 1860 by the then mayor, Auguste Kerckhoffs de/van Nieuwenhof¹⁵ (by his full name) belonged to one of the oldest and most honorable families in the country whose family tree is given in fig. 2.

In modern Dutch, *kerkhof* means “churchyard” or “church cemetery”, it is a relatively common toponymic name in Dutch and Low Saxon. According to a contemporary family genealogist (who happened to be Auguste's uncle) [Ker39], the Kerckhoffs family is originally issued from Franconian nobility, near the Fichtelberg mountain, and gets its name from a castle built there known initially as the *Atrium*, and later as the *Kirchof* (around the 9th century), which eventually became *Kerckhoff* (around the 17th century). Given that the family name comes from the German “Kirchhoffs” it may also have an alternative meaning. Churches (“Kirchen”) often leased out their farms (“Bauernhöfe”) to small farmers. It is possible that the name was given to one of the tenants of a “Kirch hof”, resulting in Kirchhoffs which in turn became Kerckhoffs. This leasing practice was common in Germany and in the Netherlands.

The oldest known document on an ancestor of Auguste is a letter issued to Johannes (Jan) Kirchoffs authorizing him to hold meetings for the local magistrate of Herzogenrath. The document is dated 1679 and is in the central archive of Maastricht table 3.

The authors were very fortunate to get from Leo Kerckhoffs the results of his very extensive genealogical investigations conducted over a period of 15 years.

¹⁰ Staatsarchiv des Kantons Bern, BN Berne - Bibliothèque nationale suisse, and Kantonsbibliothek Vadiana.

¹¹ Clerk registrar and peace justice (*juge de paix*) [21, p. 145].

¹² He later applied for a position in the House of Representatives (*Tweede Kamer der Staten-Generaal*). *Algemeen Handelsblad*, August 13, 1850, p. 2.

¹³ Today Oirsbeek is a village of about 4,000 inhabitants.

¹⁴ As published in [Car98] and as appears in the documentation from Nuth the name is Jeannette (with two “n”), however in necrologies and genealogies it appears as Jeanette, with only one “n”. Assuming the name is of French origin (see below) it is likely that the French orthography (with two “n”) was in use during her life.

¹⁵ Nieuwenhof, in Nuth, was a lease farm popularly known as *Nuinhof* founded in 1380 (fiefdom of the house of Valkenburg, later of the chapter of the Cathedral of Our Lady of Aachen). We discovered that Auguste's birth house in Nieuwenhof was demolished in 1934 during the construction of the A76 motorway.

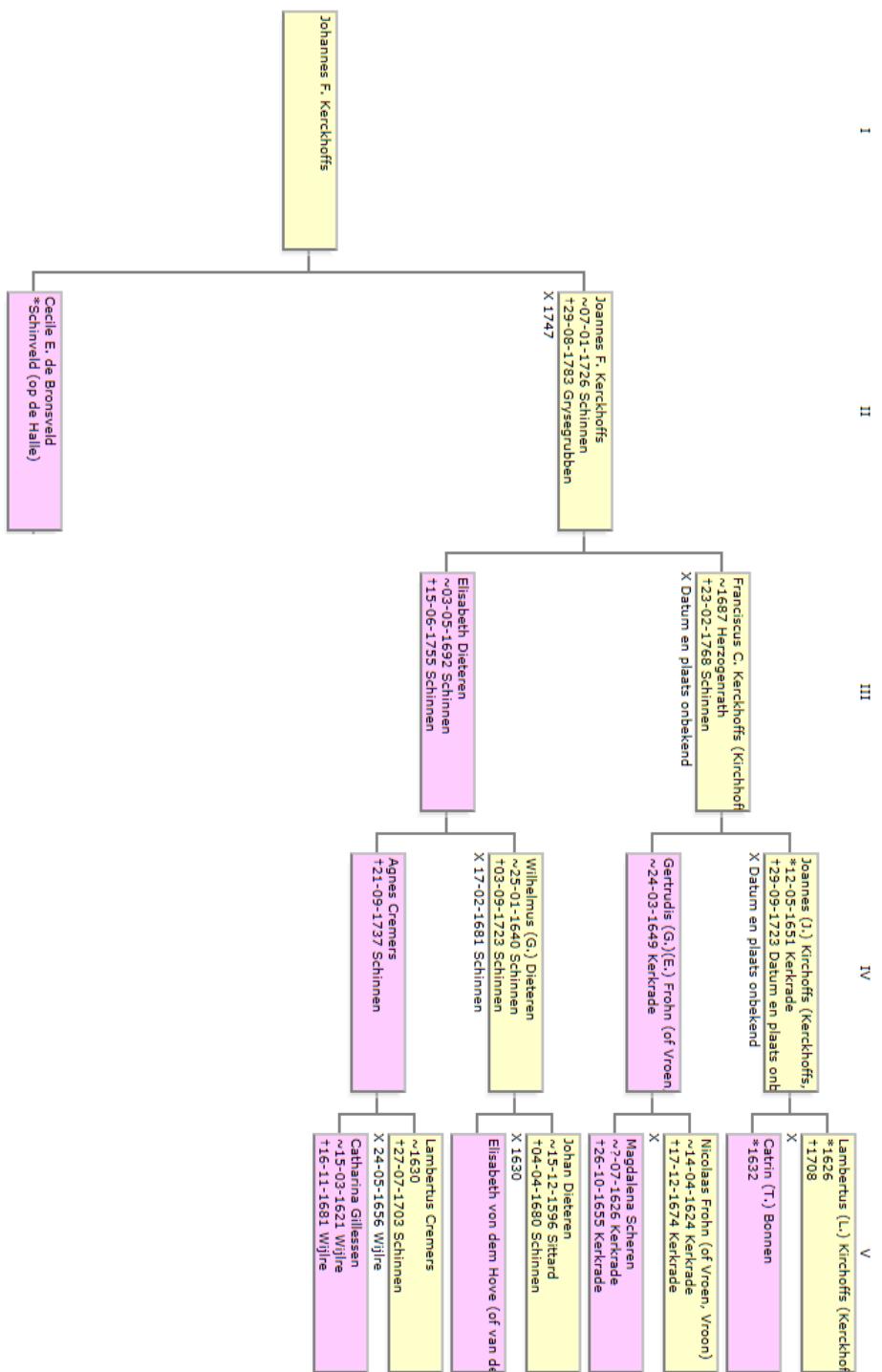


Fig. 2. Family tree starting from the grandfather of Auguste, Johannes Franciscus Kerckhoff, brother of Joseph-Romain-Louis and father of Jean Guillaume.



Fig. 3. Jean Guillaume Kerckhoffs (1798–1883), clerk registrar and peace justice (*juge de paix*) [21, p. 145], mayor of Nuth, Auguste's father.

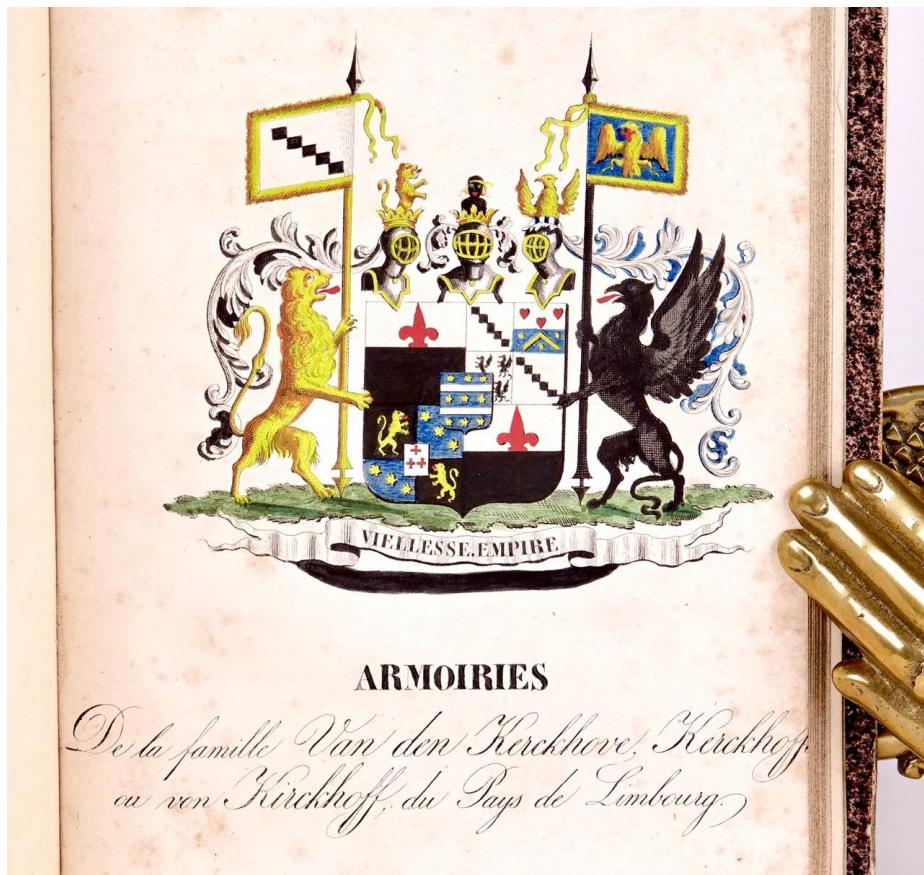


Fig. 4. Heraldic achievement of the Kerckhoffs family circa 1830 [Ker39].

Leo Kerckhoffs' findings shade light on the genesis of [Ker39]. It appears that [Ker39] is an *ad hoc* genealogy commissioned by Joseph Romain Louis Kerckhoffs, the brother of Auguste's grandfather.

Joseph Romain Louis Kerckhoffs (Nuth, 3 September, 1789 - Mechelen, 10 October, 1867) was a famous physician in Napoléon's army who was later (1815) appointed the chief physician of Dutch military hospitals. He was knighted by Leopold I, the first king of the Belgians, for his services and assumed the name van den Kerckhove van de Varent.

To back his social ascension, Joseph Romain Louis needed an enhanced genealogical background. He thus commissioned Ter Borcht with that task. Borcht was a “creative” man, notoriously known for piecing-up family backgrounds for the new nobility in Belgium. [Ker39] is accurate back up to Franciscus Coenrardus Kerckhoffs (besides the non-existing titles and heraldic achievements). However, Borcht mentions Balthasar Kerckhoffs as Franciscus Coenrardus’ father, which is incorrect according to Dutch archives. Indeed, in the CBG Centrum voor familiegeschiedenis there is an extra sheet in this document stating it as a fiction. In other words, the van den Kerckhove family was an extinct noble branch from which Auguste *did not* descend.

Why did Joseph Romain Louis Kerckhoffs feel that his genealogy needed an enhancement? This story is, in itself, very interesting!

The Buckriders (Bokkenrijders), are a part of Belgian and Dutch popular folklore. A Bokkenrijder is a ghost who rides flying goats provided by demons. During the 1700s, criminal groups started calling their gangs Bokkenrijders to terrorize the inhabitants of Limburg. Raids would typically stretch from what is currently Belgium up to Germany. The Bokkenrijders usually attacked unprotected villages and farmers. Because of their claimed links to demoniac powers, captured Bokkenrijders faced a terrible end including torture and execution. The brothers Joseph and Balthasar Kerckhoffs (Kirchhoffs) were two famous Bokkenrijder leaders. Both were captured, judged and executed after being horribly tortured. Because the brother of Franciscus Coenrardus Kerckhoffs (the great-great-grandfather of Auguste) was the father of Joseph and Balthasar this was a disgrace for the family name.

It is intriguing to note that social conventions grandly change over time. The Bokkerijders legend has been filmed in a Dutch television series and is even an attraction in a major theme park. Nowadays, descending in a direct line from a Bokkenrijder is very posh and admission to the Dutch association of descendants of the Bokkenrijders is subject to detailed genealogical scrutiny!

Nonetheless, the Kerckhoffs were always high up in society counting doctors, mayors etc. For instance, Franciscus was a very good friend of the Lord of Hoensbroek, who allowed him to hunt wolves in his domain for sport.

It is interesting to note that all the given names Jean, Guillaume, Auguste, Victor, Alexandre, François and Hubert are typically French. Indeed 1815 saw the creation of the United Netherlands in the aftermath of the Napoleonic Wars: the north spoke chiefly Dutch, while the south was divided between French-speaking Walloons and Dutch-speaking Flemings, with most upper and middle classes

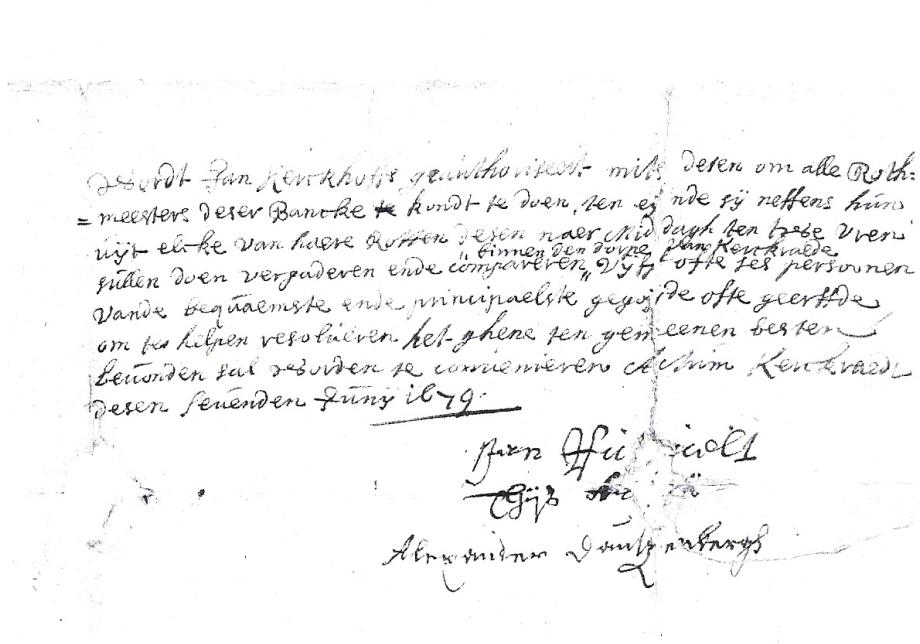


Fig. 5. The oldest family document (1679) relating to Auguste's direct lineage.

families in the south speaking French — Limburg sits near the boundary between these two parts (which correspond today to the Netherlands proper and Belgium). Furthermore, a large proportion of the Kerckhoffs family in Limburg had worked at some level for the French local government when under Napoleonic rule [Ker39], and according to a contemporary biographic sketch the family was francophile¹⁶.

Auguste had four siblings, who all seemed to have survived childhood and marry (see table 1). It does not seem that there were further descendants from this branch of the Kerckhoffs family.

¹⁶ “Mr. Kerckhoffs est né en 1835 à Maëstricht d'une ancienne et noble famille du Limbourg hollandais, dans laquelle le culte de la France était de tradition. Lui-même a fait de la France son pays d'adoption, il s'est fait naturaliser, et a épousé la petite-fille du général Santerre.”. *Figaro*, October 10, 1888, Bibliothèque nationale de France, Collection numérique : Arts de la marionnette.

Table 1. Auguste Kerckhoffs' siblings

Sibling	Birth	Married	Death
Ernestine Anne Marie Jeanette Hubertine ♀ + Tijdlijn van Arnold Joseph Theodoor Eijmael ♂	?	1861	?
Descendant: Maria-Theodora Eijmael ♀	1862	-	?
Victor ♂ + Elisa Voncken ♀	1838 ?	?	1908 ?
Descendants: Maria-José ♀ Pauline ♀ Alphons ♂	1884 1885 1888	- - -	1976 1978
Philippe ♂ + Maria-Elisabeth van der Blom ♀	?	?	?
Descendants: Eugenius ♂	1900	-	?
Jean-Louis ♂ + Maria-Anna Kerckhoffs ♀	?	?	?

4 Young adult life

Auguste studied at the boarding school in Rolduc¹⁷ (Kerkrade, Netherlands) from October 1847 to August 1852. The final results of his studies were also found in Kerkrade's municipal archives (see table 2).

Table 2. Auguste's final study results.

1847-1848	6 th grade	2 nd prize	2 nd best student
1848-1849	5 th grade	3 rd prize	4 th best student
1849-1850	4 th grade	2 nd prize	of mathematics, history and geography
1850-1851	3 rd grade	2 nd prize	2 nd best student
1851-1852	Poetry class		

At the end of the 3rd class he passed an examination, and of 14 students, he ranked 4th. Such was also his the result of the 3rd class; however, documents mention that he was retrograded to the 7th place given his behavior, which was not entirely satisfactory.

¹⁷ In 1815, when the Kingdom of the Netherlands was formed, the border was drawn through the ancient land of Rode, separating the abbey from the castle. The eastern part (including the castle) became Prussian *Herzogenrath* (which gave the French *Rode-le-duc*, and in short, *Rolduc*), while the western part (including the abbey) became part of the Dutch municipality of Kerkrade. The school stands in the latter.

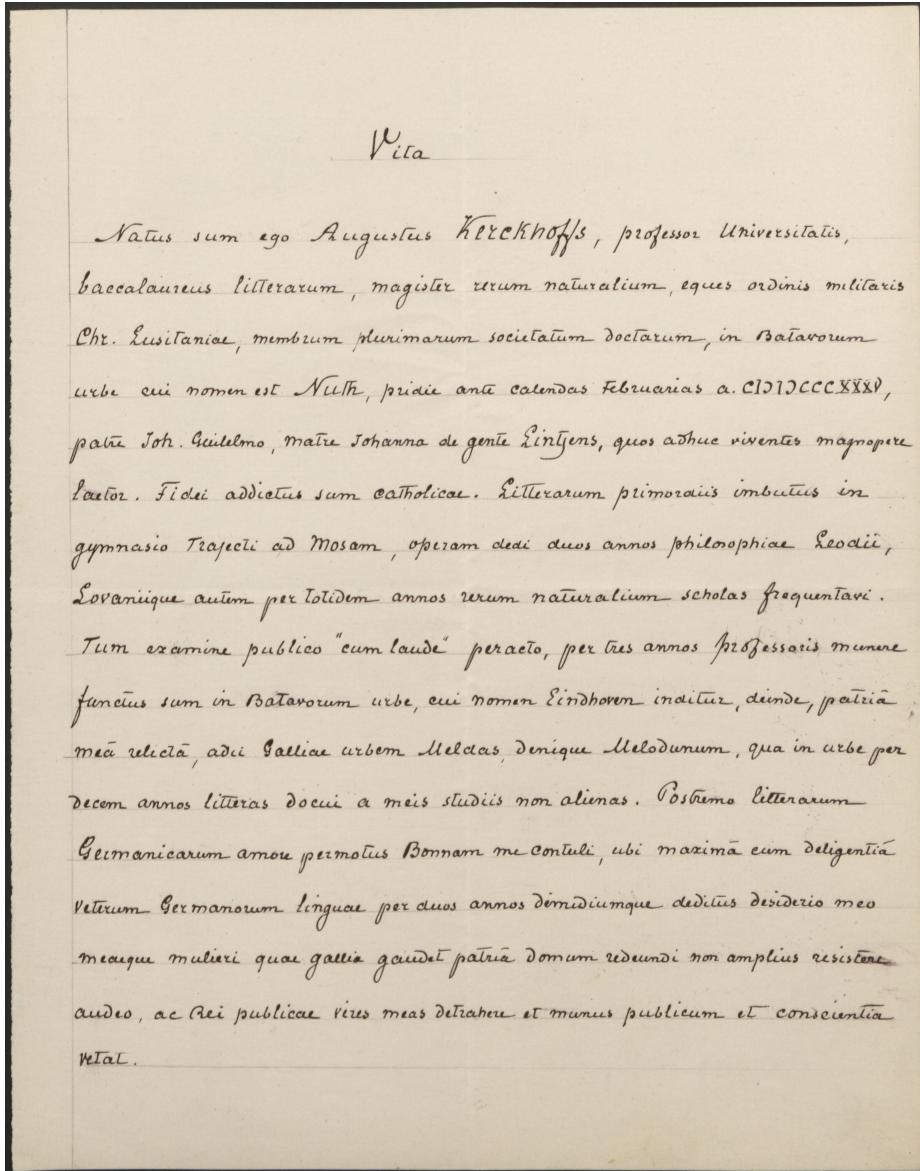
What happened next to Kerckhoffs? We find this out in a manuscript that Kerckhoffs sent to the University of Tübingen (Germany) in 1876. In this document written in Latin, he summarizes the main events of his life and career. Here is the translation:

"I, Auguste Kerckhoffs, a fine arts graduate, master of natural sciences, knight of the Portuguese military order of Christ, a member of a large number of scientific societies, was born in a city of the Batavas [Netherlands] named Nuth, on the 31st of January 1835, as the son of John William and Joanna, born Lintjens, happily still alive. I profess the Catholic faith. The rudiments of sciences I learned in the gymnasium at Maastricht-upon-Meuse [Trajectum ad Mosam], I studied philosophy for two years in Liège, in Louvain I studied natural sciences during the same period of time. Having achieved "cum laude" in the public examination, for three years I served as a professor in a city of the Batavians called Eindhoven; then I left my fatherland and went to the French city of Meaux, finally to Melun, where for ten years I taught the subjects suited to my studies. Finally, motivated by my love of German philology, I traveled to Bonn, where for two and a half years I zealously devoted most of my time to the studying of the language of the Old Germans. Presently, I cannot resist my longing to return home, or that of my wife, who loves her fatherland, France, and furthermore my public office and my conscience forbid me to refuse my forces to the State."

Thanks to this vital document, and also thanks to the French national archives of the Ministry of National Education, Higher Education and Research, and of the Ministry of the Interior, we can follow his student and professional path (see table 3).

Table 3. A partial overview of Auguste's career.

1852–1853	Gymnasium	Maastricht	NL
1853–1855	Philosophy student	Liège	BE
1855–1857	Natural Sciences student	Louvain	BE
1857–1860	Teacher	Eindhoven	NL
1860–1863	Teacher at a private institution	Meaux	FR
1863–1873	English and German teacher	Melun	FR
1873–1876	German literature student	Bonn ¹⁸	DE
1876–1880	Tutor, São Mamede family	Bonn	DE
1881–1891	German professor at HEC	Paris	FR
1892–1885?	German professor	Lorient	FR
1885?–1900	Unknown	Unknown	
1900–1901	German teacher ^{19,20} , see table 4	Paris	FR
1902–1903	Unknown (probably retired)	Unknown	



Universitätsarchiv Tübingen. - Signatur: UAT 131/26 b [Nr. 4]

Fig. 6. Kerckhoffs' Latin vita.

Table 4. Timetable for the language lectures [CD00, p. 483].

Teacher	Language	Intro.	Adv.	Address
M. Guadalupe	Spanish	6	6	École communale des rues
M. R. Hayes	English	6	6	Béranger, Blanche
M. A. Kerckhoffs	German	6	6	et Saint-Benoît
M. Abou'l Nash	Arabic	2	2	Mairie du IV ^e
M. A. Kahan	Russian	1	1	arrondissement

During this period, significant events occurred in Kerckhoffs' life. After his appointment to the college in Melun, which took place on October 19, 1863, he became acquainted with a French woman named Marie Émilie Thévenin, and married her on July 5, 1864 in Paris, 10th arrondissement (see fig. 11)^{21,22,23}.

On May 13²⁴, 1865, at 1AM in her home at 23, quai d'Almont in Melun, Marie Emilie, then 29, gave birth to a daughter, named Wilhelmine Émilie Pauline — who would usually go by Pauline.

The images in fig. 10 are the most ancient photographs that we could find showing the quai d'Almont. The Kerckhoffs' house (now at the crossroad of Rue des trois moulins and Boulevard de l'Almont) was replaced by a modern construction, and the red dot in fig. 9 shows its conjectured position.

5 French nationality and Portuguese knighthood

On March 16, 1870 Auguste Kerckhoffs writes to the Minister of Justice asking for permission to establish his residency in France, in accordance with Article

¹⁸ During his studies, Kerckhoffs stays at the Belle Vue Hotel fig. 8. In all evidence, Kerckhoffs had comfortable financial means.

¹⁹ Société commerciale pour l'étude des langues étrangères. Bulletin de la Chambre de commerce de Paris - 1900/10/20 (N40) and 1901/11/30 (N48).

²⁰ These lectures were given for free [CD00, p. 482].

²¹ Marie Émilie's parents were Nicolas Jean Baptiste Thévenin (bailiff, born 1801) and Émilie Delphine Santerre (born March 26, 1811, in Nanteuil-le-Haudouin). Her maternal grandfather is the famous General Antoine Joseph Santerre (16 March 1752 – 6 February 1809). Marie Émilie was born at Coulommiers on February 13th, 1835.

²² In this document we also learn that her father is deceased, at an unspecified date.

²³ We also learn that Marie Émilie Thévenin lives as 118 rue du Faubourg Saint-Denis in Paris. A few years earlier, the *Lacroix* guesthouse was active at this address [Tei02, p. 186]. It is possible that Marie and her mother took over this activity. The building still stands today.

²⁴ In [Car98] the date given was the 11th; but as the birth registry shows, the correct date is the 13th (see fig. 13).

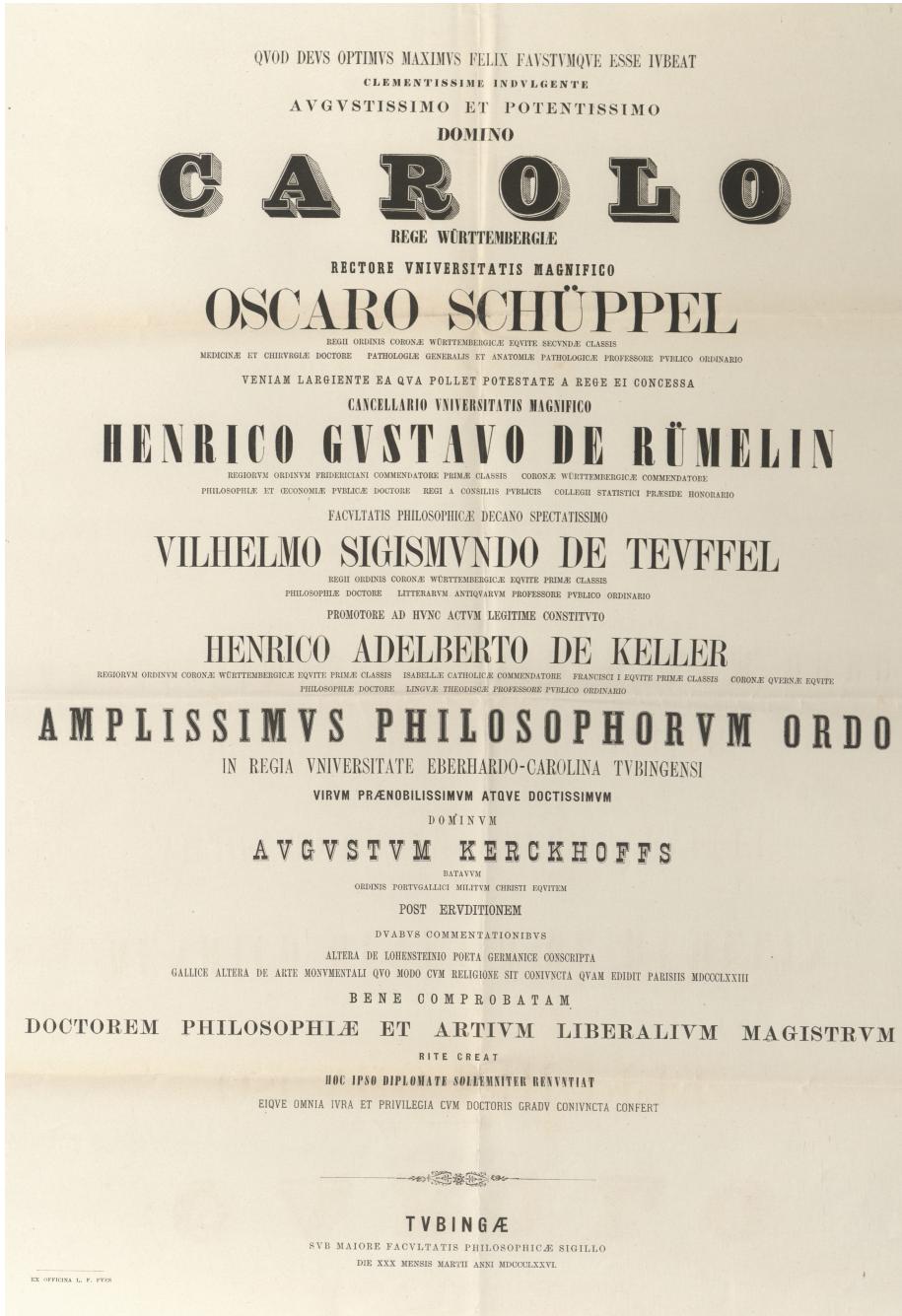


Fig. 7. Kerckhoffs' doctoral diploma.



Fig. 8. The Belle Vue Hotel on the banks of the Rhine in Rhöndorf.

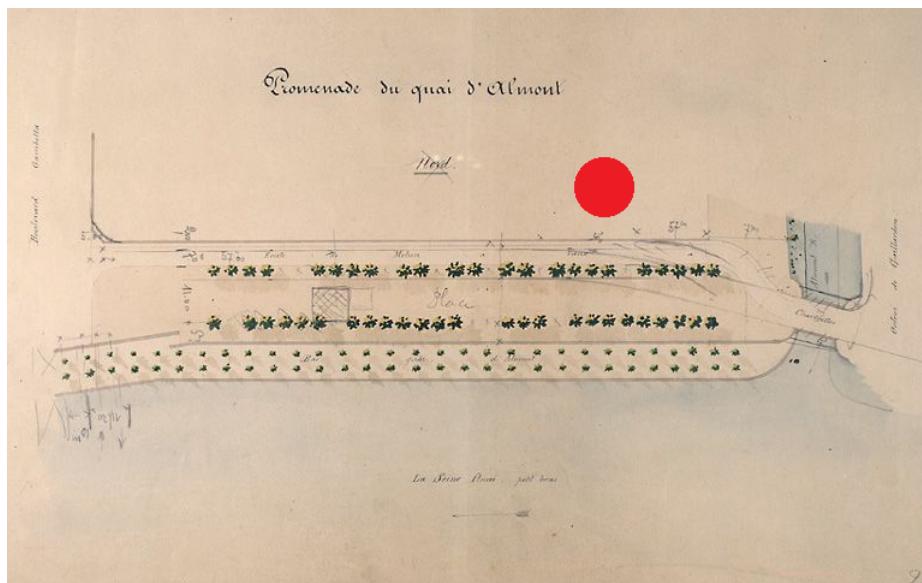


Fig. 9. The approximate position of Kerckhoffs' house at Melun.



Fig. 10. Quai de l'Almont at Melun.

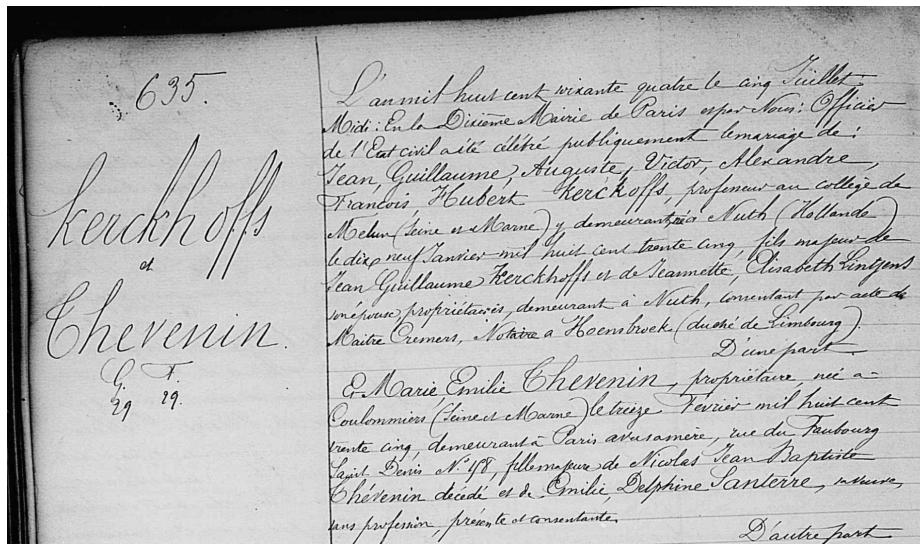


Fig. 11. Act of marriage between Auguste Kerckhoffs and Marie Émilie Thévenin, Paris Archives.

13 of the Napoleonic Code²⁵. This permit is the first step to receiving French citizenship. The prefect²⁶ after an inquiry into morality concludes:

“Mr. Kerckhoffs, a foreign language teacher at Melun’s Colleague, has always been regarded as an intelligent and learned teacher. In 1867 the departmental council allowed him to open a free English language course in Melun, which takes place each winter successfully. Mr Kerckhoffs is one of the main founders of the “Société d’encouragement à l’instruction” established in Melun. In this society, he holds the post of secretary-librarian, and performs it with great diligence and selflessness.”

On May 23, 1870, Kerckhoffs receives the official letter allowing him to establish his residency in France. Now he has to wait three years to apply for French citizenship. Therefore, on August 29, 1870, he again writes to the Minister of Justice to inform his services that it has been three years and that he can now claim French citizenship. Again the prefect investigates and concludes as follows:

“Mr Kerckhoffs, 38, has lived in France for about 12 years. Married to a French woman, Mr. Kerckhoffs, who has one child, is in a rather easy

²⁵ “L’étranger qui aura été admis par le Gouvernement à établir son domicile en France, y jouira de tous les droits civils, tant qu’il continuera d’y résider”: A foreigner allowed by the Government to establish their stead in France will fully enjoy all civic rights, for as long as they reside there.

²⁶ In France, the prefect (French: préfet) is the state’s representative in a department or region.

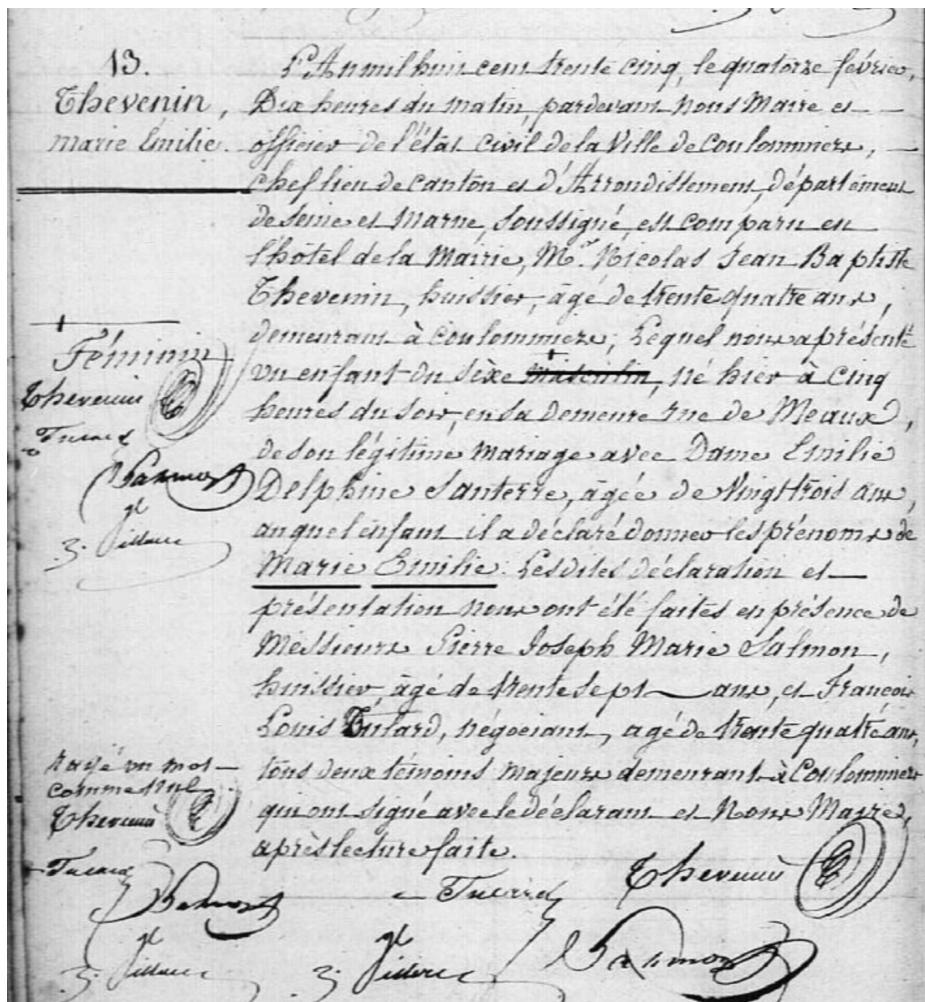


Fig. 12. Birth certificate of Marie Émilie Thévenin, February 13, 1835, Coulommiers Archives.

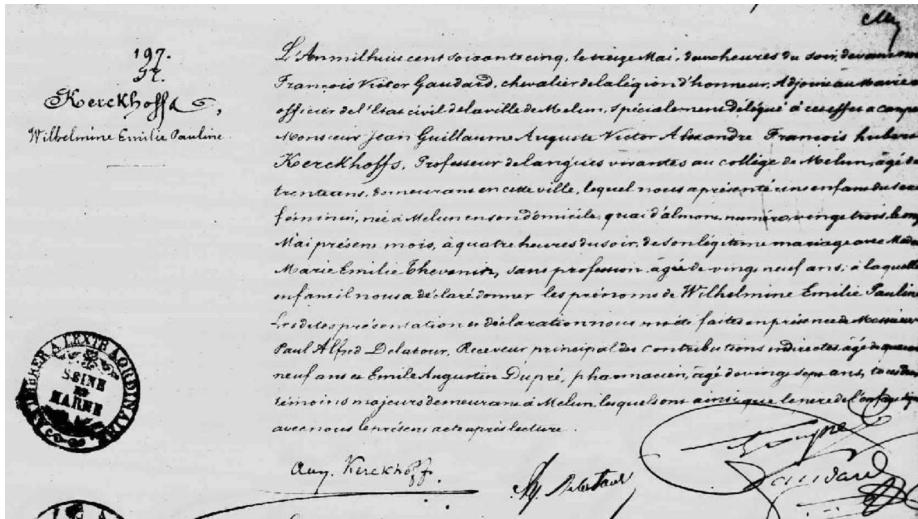


Fig. 13. Birth certificate of Wilhelmine Émilie Pauline Kerckhoffs, May 13, 1885, Melun Archives.

situation in terms of wealth: his estate is estimated at 25,000 francs²⁷, his annual salary is about 2000 francs, and it is estimated that the foreign guests he lodges and teaches in his home can provide him with a rent of 3 to 4000 francs.

Mr. Kerckhoffs, whose behavior and morals have always been blameless, has not been working, at his request, since March 5, 1873. He prepares to leave for Germany to attend the courses of the University of Bonn, to pass the exam for aggregation in modern languages, and, in his words, to be able to take up a position as a German language teacher at a French military college.

The project of a trip to Germany gave rise to some words, which had already circulated regarding the German invasion; it was alleged that he had relations with the enemy. The precise information I have gathered about this has shown me that these claims are unfounded.

As soon as Mr. Kerckhoffs learned in 1870 of the organisation of the national guard, he registered himself, and during the whole invasion, he was one of the most constant men in the service of the Prison, as certified by the national guard.”

Following this report of praise, the State Council at its meeting of November 19, 1873, decrees that “Mr. Kerckhoffs is entitled to the rights of a French citizen.”

²⁷ A French franc from 1870 corresponds to around 0.29 grams of gold or €14 of 2020. The median daily salary in France around 1880 was 3.34 francs, yielding an annual salary of 1220 francs, before tax.

The official decree will, in fact be published December 11, 1873. Meanwhile, in 1871, Kerckhoffs successfully passed the competitive examinations assessing his ability to teach German [Del71, p. 121].

Following this success, Kerckhoffs, according to his plans, settles himself and the family in Bonn. There he lives by the position of tutor of the young count Rodrigo Pereira Felício de São Mamede, who will become the secretary of the King of Portugal. Thanks to this service, Kerckhoffs will be awarded the rank of Knight²⁸ of the Portuguese Order of Christ.

6 Doctorate and later professional life

From 1873 to 1876 he attended courses at the universities of Bonn and Tübingen, and successfully obtained (mention *bene comprobatum*) the German title of Doctor of Philosophy and Master of Liberal Arts (*philosophiae doctor & artium liberorum magister*). His doctoral dissertation [Ker77]²⁹, under the supervision of Prof. Adelbert von Keller³⁰, deals with the tragedies of Daniel Casper von Lohenstein (1635–1683), in particular *Cleopatra*, in his words the “first technically correct German tragedy” [Ker77, p. 7].

In 1876 he and the family return to France and find a residence in Neuilly-sur-Seine (near Paris) 11, boulevard du Château.

From 1876 to 1880 he tutored the two other sons of the São Mamede family, and received the title of Commander of the Order of Christ^{31,32}. Through a later publication³³, we learn that Kerckhoffs was also awarded the officer's insignia of the Portuguese Military Order of Saint James of the Sword³⁴.

In 1880 he applied to the prestigious military École Polytechnique for the chair of German. However, due to a mistake about his nationality, he was not accepted. A press article³⁵ from that year informs us Kerckhoffs and Victor Hugo knew each other and exchanged letters around 1860. This is independently confirmed by Kerckhoffs himself [Ker85a].

²⁸ *Venloosch weekblad*, August 8, 1874, p. 1.

²⁹ Dedicated to Alexander Reifferscheid (1847–1909), who was possibly Kerckhoffs' informal mentor in Bonn.

³⁰ July 5, 1812 (Pleidelsheim) – March 13, 1883 (Tübingen). A famous Romanist and Germanist.

³¹ This information was confirmed by the *Instituto dos Arquivos nacionais*, Lisbon, by letter dated April 2, 1998, to Reinhard Haupenthal. Accordingly, Kerckhoffs was registered on August 11, 1879 (Ministério do Reino, liv. 917, fl. 136v-137).

³² It is also independently mentioned in a contemporary newspaper: *Tilburgsche courant*, October 9, 1879, p. 2.

³³ Recueil des actes administratifs de la Préfecture du département de la Seine - 1897/12 (Année 54, N°12), November 19, 1897.

³⁴ Despite the adjective “militar” in the order's full name (*Antiga, Nobilíssima e Esclarecida Ordem Militar de Sant'Iago da Espada, do Mérito Científico, Literário e Artístico*), this decoration is awarded for scientific, literary and artistic merits.

³⁵ *Le XIXe siècle* (Paris. 1871) - July 24, 1888 (Année 18, N°6035)

In 1881, on November 1, he obtained the chair of German at the Commercial Institute (HEC) in Paris³⁶. He also teaches at the municipal school of Aragon in Paris.

In 1883, he lives in Paris, 62, rue Claude Bernard (Figure 14). This is known by a letter Kerckhoffs sent to the Director of Elementary Education to be awarded the German language chair in one of the two Normal Schools that prepare teachers. That request was in vain.



Fig. 14. The building in which Auguste lived at 62 rue Claude Bernard (on the left).

In the same year, he receives the title of Academic Officer³⁷ from the Ministry of Public Education, thanks to his services to the above mentioned Society for the encouragement of éducation. He also leaves the Arago school³⁸.

³⁶ By the time HEC was located at 108, boulevard Malesherbes, Paris. As of today, the school relocated to Jouy-en-Josas.

³⁷ A distinction given to “les plus recommandables par leurs talents et services”, the most recommendable by their talents and services. The current equivalent is the rank of Officier de l’ordre des Palmes académiques.

³⁸ Bulletin municipal officiel de la ville de Paris, Septempber 13, 1883, Ville de Paris / Bibliothèque de l’Hôtel de Ville (BHdV), 2012-46765.

On July 19, 1883, Kerckhoffs becomes a member of the Parisian Anthropological Society^{39,40} [85], a topic about which he had already much to say [Ker73]; [Ker84a]; [Ker84c]^{41,42}.

7 Kerckhoffs and Volapük

However, when did Auguste Kerckhoffs know and learn Volapük? In his work *Jenotem Valemapuka Volapük*⁴³ Johann Schmidt (1895–1977) states that “among the many new members, Professor Auguste Kerckhoffs joined Volapük in 1884”. Indeed, a significant event took place in 1884: the first Volapük congress in the city of Friedrichshafen (Germany), from August 25 to 28. Around 150 Volapükists gathered in the casino lounge, which gave the impetus necessary for the invented language to become known throughout Europe, and later around the world.

In 1885 Kerckhoffs founded the French association for the dissemination of Volapük^{44,45}. It gathered, among others, more than 50 very famous people from the scientific community, state officials, artists, journalists and industrialists. Famous newspapers such as *Le Temps*, *Le Petit Journal* and *La Liberté* have highly recommended Volapük with numerous articles. Thus, it achieved great success in France. From France, Volapük was introduced in Spain, Portugal and Belgium. The same year, in July, Kerckhoffs published a manifesto *Volapük ou langue commerciale universelle*⁴⁶, in which he mentions his desire to teach the language in official capacity, as soon as October 1886, and *has already given his first lecture at HEC*⁴⁷ and in foreign newspapers⁴⁸. He seems to have given 19 lectures⁴⁹.

In the year 1886 the Volapük literature doubled, large dictionaries and textbooks were published. That year, Kerckhoffs publishes the 144 page *Cours complet*

³⁹ Under his full family name, Kerckhoffs von Nieuwenhof.

⁴⁰ About the short-lived history of this learned society, created by the famous physician Paul Broca, see [War04].

⁴¹ The memoir on monumental art is the result of Kerckhoffs' conference for his admission into the *Société d'archéologie du département de Seine et Marne* [69, pp. 53–54].

⁴² Kerckhoffs would subsequently present his work on languages to this same Society.

⁴³ History of the universal language Volapük, published in 1964.

⁴⁴ In French, *Association française pour la propagation du Volapük*.

⁴⁵ It seems that Kerckhoffs already had an interest in *universal languages*; that same year he published along with Boleslas Gajewski a detailed analysis of the *Solrésol* musical language [KG85] invented by François Sudre [Sud66].

⁴⁶ *Le Génie civil*, July 11, 1885.

⁴⁷ *Le Livre: revue mensuelle*, 1885, pp. 432–433. The 1885 date is independently confirmed by in a long editorial in *La France Médicale*, January 3, 1890, pp. 257–262.

⁴⁸ “Kerckhoffs held a course on Volapük in 1885 at the École des hautes études commerciales in Paris, to which so many participants registered that nineteen parallel courses were hardly enough to take them all in. The director of the world-famous Magasin du Printemps, Mr. Jaluzot, studied Volapük with 121 of his employees (...)", *Wifener Allgemeine Zeitung*, April 4, 1887, p. 5.

⁴⁹ *Die Presse*, April 23, 1887, p. 2.

*de Volapük*⁵⁰ [Ker86a]. He also publishes the 16-page booklet *Premiers éléments de Volapük*⁵¹ [Ker86c] and the 32-page booklet *Grammaire abrégée de Volapük*⁵² [Ker86b]. In 1887, he published the thick *Dictionnaire Volapük–Français et Français–Volapük* [Ker87a]. This Volapük–French and French–Volapük dictionary with a pre-completed grammar of the language encompasses 319 pages of half-octave format, and was printed at the Le Soudier bookstore, Paris. It is noteworthy that the same year he wrote the 16-page booklet *Examen critique de quelques simplifications qu'il y a lieu d'introduire dans le Volapük*⁵³ [Ker87b]. With this brochure, it is already clear that Kerckhoff did not completely like Schleyer's Volapük. By opposition to Schleyer, Kerckhoff viewed Volapük as a simple and practical commerce-oriented language rather than an aesthetic, intellectual construction. During that same year, Volapük was highly criticized by cosmogloticians such as Peter Steiner, author of *Pasilingua*⁵⁴, Felix Lenz, supporter of Pasilingua, and Pastor Joseph Stempf, author of *Myrrana*⁵⁵.

Despite these first public criticisms, 1887 was the year of the second Volapük Congress, which took place in Munich, from July 6 to 9. The attendance was large, and for the first time, this congress welcomed a truly international visitorship. A few minor improvements were decided, and for the continued development of Volapük the Volapük Academy was founded, which consisted of 29 members from 15 different nations. Kerckhoff was elected president of this academy⁵⁶. In that year 1887, two steamboats on the Rhine river were named "Volapük". In the French newspaper *Le Temps* on January 16, 1887, one could read about Volapük:

"Si jamais langue universelle a quelque chance de s'imposer au monde commercial, c'est assurément celle-là" (Should one language impose itself throughout the commercial world, it is assuredly this one)

In 1888 Volapük continued its dissemination. In Bavaria, however, the first crisis occurred, precisely in the country where the Volapük movement was most successful. During the Bavaria election to decide a local Volapük leader, there was a dispute between the Munich club and the Nuremberg club. The result of this dispute was the dissolution of the Nuremberg club, which under the leadership of Leopold Einstein (1833–1890) joined Esperanto⁵⁷. Thus was born the first Esperanto club. The conflicts between Schleyer and Kerckhoff began. It can be said that 1888 was Volapük's heyday, as after that year Volapük's fame began

⁵⁰ *A complete course on Volapük.*

⁵¹ *First elements of Volapük.*

⁵² *Abridged grammar of Volapük.*

⁵³ *Critical examination of some simplifications that need to be introduced in Volapük.*

⁵⁴ Pasilingua was a short-lived constructed language, created in 1885, and presented by its creator as an alternative to Volapük.

⁵⁵ Another short-lived artificial language, based on Latin, and designed in 1889 by the pastor Stempf (1830–1896).

⁵⁶ His daughter Pauline was also named as a certified Volapük teacher [Spi88], see also *La Lanterne*, August 24, 1889.

⁵⁷ Esperanto is an artificial language created by created by Polish ophthalmologist Ludwik Zamenhof in 1887.

to decline⁵⁸. Later, in 1889, it was decided that one scholar would be elected per million inhabitants in each country concerned (information found in the *Volapükkan* gazette, in its July 1889 issue).

During the *Exposition universelle*, Kerckhoffs offered free lectures on Volapük, on behalf of the Paris Anthropological Society: “Volapük grammar in 12 languages” [89, p. 357].

In 1889 the dispute between Schleyer and Kerckhoffs became increasingly public. This dispute first appeared in the journal *Volapükabled zenodik*⁵⁹, then in several other Volapük newspapers. The Volapük movement was divided into two battling groups: the conservatives with Schleyer and the reformers with Kerckhoffs. Both parties elected members to the Volapük Academy. Kerckhoffs decided to convene a third Volapük congress in Paris so that academics could freely decide on the needed reforms. Immediately Schleyer declared the next congress and its future decisions invalid⁶⁰. In addition, he invited the academics of his own party to a meeting in Allmendingen on May 12, 1889. This meeting sanctioned only a small portion of the changes that were asked by Kerckhoffs’ supporters, and which were already used in the works of Kerckhoffs, Pflaumer, Walther, and in the newspaper *Le Volapük*. The third Volapük congress, therefore, took place against Schleyer’s will from the 19th to the 21st of August, 1889, in Paris. As during the second congress in Munich, Volapük was again used as a communication language of the congress in Paris. Contrary to the general expectations of the Volapükists, this congress did not support the fundamental reforms. Charles E. Sprague (1842–1912), an American Volapükist and diplomat, succeeded in preventing the hostility of the two leaders of the Volapük movement from harming it. However, the demand for reforms grew stronger.

In 1890 Kerckhoffs launched a short-lived Volapük periodical in Paris (only 2 issues)⁶¹. That same year, the Academy under the direction of Kerckhoffs published a “regular grammar” (*Glamat nomik*) [Ker90a] that infuriated the conservatives. In response, Schleyer founded an entirely new Academy that held its first meeting in Constance on August 18, 1890. In March 1891 Schleyer removed Kerckhoffs from the list of Volapükists. This radical action caused a huge disservice to the popularity of Volapük in France, Belgium, and then in Spain and Portugal. Although Volapük had now thrived in America and non-European countries, it was never able to recover from the loss of European supporters. By the end of 1891, Volapük had lost three-quarters of its members. Finally, in 1892, Kerckhoffs left both his Academy and Volapük. On December 14, 1892, the Academy appointed as new director Woldemar Rosenberger (1848–1918) from St. Petersburg. This new director developed Volapük into a new language called Neutral (later Idiom Neutral), which was officially disclosed in 1902. According

⁵⁸ According to [Ken12, p. 126] by the time of the third congress, Volapük had over a million speakers, including the waiters.

⁵⁹ *Central Volapük newspaper*.

⁶⁰ Articles written by Schleyer in *Volapükabled* No. 105 and 114.

⁶¹ *Cabaled kadema. Timpenäd pepübul fa dilekef kadema*.

to Kahn [Kah96], of the 210,000 names once registered in the Volapük List of Correspondents, only 159 remained in 1902.

Johann Schmidt reports that Kerckhoffs developed a draft reform, according to which the personal pronoun was no longer affixed to the verb, the infinitive had *-ar* as an ending, the volitive *-a*, and the nominative plural *-os*. However, Kerckhoffs, having left the Volapük movement, did not publish this draft. A few examples:

Volapük	Kerckhoffs' draft	English
<i>Selob bukis</i>	<i>Os asel bukis</i>	I sell books
<i>Buks paselons</i>	<i>Bukos pasel</i>	The books are for sale
<i>Gebolös Volapüki!</i>	<i>Agebat Volapüki!</i>	Use Volapük!
<i>Vilob penöm ole</i>	<i>Ob avil apenar ole</i>	I want to write to you

8 Kerckhoffs' final years at HEC

Now let's get back to Kerckhoffs' professional career. From November 1, 1881, until July 14, 1891, he teaches at the HEC School in Paris. During that time, Kerckhoffs offers Volapük lectures to some students⁶² (from 1885 to 1889, see above and appendix C.3). On February 21, 1886, in the *grand amphithéâtre*, Kerckhoffs would give his inaugural lecture (appendix B) in front of a crowded audience, concluding with these words⁶³:

Spelob das no outouwobs fikulis gletik in pük nulik keli astudobs adelo
(I hope that you will find no great difficulty in learning the new language
that we studied today)

It seems that HEC became wary of these unconventional lectures or even opposed to them and enquired as to the context and Kerckhoffs' motivations (see appendix C.3). It is also during these years that Kerckhoffs gives public lectures in cryptography^{64,65}, at the École des Chartes⁶⁶.

In July 1891 the Minister of Commerce commissioned him to run the German language questionnaires on the final examination of HEC. At the end of the examination, Kerckhoffs openly criticizes the manner in which the ministry examiner performed his task. Having said too much, and having already acquired

⁶² An announcement of the first lectures at HEC, presented as a command from HEC, can be found in *Le Midi*, January 28, 1885, and February 24, 1886, Nîmes.

⁶³ *Le Correspondant: revue mensuelle*, livraison du 10 mars 1886, volume 142/106, Paris. The quote is given p. 919.

⁶⁴ *Le Journal*, May 15, 1899, mentions a public lecture in cryptography by Kerckhoffs.

⁶⁵ *l'Univers*, May 7, 1900, p. 3. He seems to have given weekly public lectures, every Monday at 4PM, over the span of two years at the École des Chartes, Sorbonne. Bibliothèque nationale de France, département Droit, économie, politique, JOD-220.

⁶⁶ Unfortunately, the Archives of the École des Chartes for this period are extremely fragmentary, and no mention of Kerckhoffs' lectures could be found there.

a certain reputation, Kerckhoffs had to leave the prestigious institution (see appendix C.2).

From his residence, 17 rue Vauquelin in Paris, he sends letters to obtain employment in a provincial high school. During the academic year 1891–1892 he teaches German in the high school of Mont-de-Marsan (Aquitaine, France). On September 16, 1892, he was appointed at Lorient's (Brittany, France) high school. In March 1893, the headmaster wrote about him:

“Mr. Kerckhoffs has only been with us for a few months. He is a very distinguished man and a conscientious teacher. His lectures seem clear and methodical. Progress in his classes is satisfactory. They will be even better when this teacher, who is not young anymore, gains some experience with children.”

In March 1895, Lorient's new high school headmaster describes him as follows:

“Mr. Kerckhoffs is a conscientious teacher. His lectures are methodical and conducted according to instructions. Mr. Kerckhoffs is still facing some disciplinary difficulties, especially in the somewhat overcrowded classrooms, and his authority over the students is lacking.”

9 Ravachol's Cauldron

It is in this period of his life that occurs the peculiar incident known as “Ravachol's Cauldron”. This bizarre episode deserves a few lines. On March 21, 1894, the Minister of Internal Affairs writes to his colleague the Minister of Public Education to request a report on Kerckhoffs, who a few days ago sent an anonymous post package to the residence of one of his colleagues, Mr. Dejean. The package was opened by Mrs. Dejean, who almost fainted when a small lead pot exploded. Mr. Dejean felt it necessary to immediately alert Lorient's police, but then quickly retracted his complaint, when he learned that the author of that evil act was his colleague Kerckhoffs. The Minister continues his letters thus:

“You will think, as do I, that if such buffoonery can be forgiven when committed by very young children, it is difficult to tolerate that of a man such as Mr. Kerckhoffs (59 years old) who occupies a position at Lorient's High School. As a result, I would be grateful that you consider how appropriate it would be to reprimand Mr. Kerckhoffs.”

The Minister of Public Education immediately asked the Rector for a report. On March 29, 1894, Kerckhoffs wrote a letter clarifying his actions. Here are excerpts from his letter:

“Some colleagues and I had planned to have dinner at a restaurant. I also invited my colleague Dejean, with whom I have the friendliest relations. As the organizers wanted me to find something to entertain them at the dessert, I offered to send them before the dinner, through the restaurant's

waiter, to our colleague Dejean whom we dearly love and look up to, a toy sold in the streets of Paris under the name *Ravachol's cauldron*⁶⁷. My colleagues approved, hoping, like me, that Mr. Dejean would not spoil its origin, and bring it to our evening meeting, thus providing us with a new motive for innocent pursuits. I was anxious to bring the toy to our colleague's house before dinner. This toy, which has the same modest dimensions as a ten-cent coin, was accompanied by three matches and a small card containing those words:

“Constipation... my dear fellow, I send you a little device for...
(you understand me). Urge you to use it and be careful”

Some of the addresses of anarchists cut out of newspaper were glued below. The whole thing was packed in a small box of business cards, with the following address: to Mr. Dejean, a council magistrate from Lorient. You understand, Mr. Rector, none of us four (teachers of philosophy, history, mathematics, etc.) imagined that our joke would be considered so serious. I was so sure that when the police commissioner came to ask me a few days later, as the author of the joke, I did not hesitate to accept the unique and full responsibility. However, I considered it necessary in writing to secure my excuses to Mrs Dejean, for my willful rudeness against the wife of one of my colleagues.”

The matter ends April 2, 1894, by a letter from the Rector to the Ministry of Public Instruction. In this letter, the Rector acknowledges that the deception was very trivial, but he also adds that Mrs Dejean was naive enough to let herself be deceived. He argues that any idea of punishment against Mr. Kerckhoffs must be removed. Finally, he asks the commissioner to be blamed for his excessive diligence or recklessness, which made him confuse a dangerous toy with a destructive object.

10 Kerckhoffs' personal and political ideas

Very little is known about Kerckhoffs' political ideas. We were able to find a few clues that shed some light on the person beyond the famous cryptographic principle.

In 1886, Kerckhoffs gave a short interview^{68,69} where he gave a hint at his personal opinions on the matter of women's civil and political rights:

⁶⁷ François Claudio Koëningstein (1859–1892), known as Ravachol (after his mother's name), was a famous French anarchist terrorist. In 1892 he attempted to blow a police station in Clichy, using a cauldron filled with dynamite and shrapnel. The operation failed but was heavily commented upon by the press, turning Ravachol into a tragic revolutionary icon. Several bombings and trials later, Ravachol was sentenced to death and executed in July 1892.

⁶⁸ André Maguet, *La Citoyenne*, no. 110, July 1, 1886, *M. Kerckhoffs et le mouvement féministe*. Bibliothèque Marguerite Durand (ref 050 CIT Bul), Paris.

⁶⁹ The journalist also gives a quick physical description of Kerckhoffs, who is blonde, of medium height, with sideburns and a noticeable foreign accent.

“J’en suis grand partisan, me dit-il, et je trouve louables les efforts incessants de l’honorabile M^elle Hubertine Auclert, pour la revendication des droits de son sexe. Le suffrage des femmes arrivera bientôt en France, il existe déjà en Amérique et en Angleterre, où les femmes ont le vote municipal; c’est une question de temps.”

(I am a great supporter of them, he said, and I find laudable the unrelenting efforts by the reputable Ms. Hubertine Auclert who demands the rights her gender deserves. Vote for women will soon arrive in France, it is already in America and England, where women have the municipal vote; it is only a matter of time.)

In 1898, the *Affaire Dreyfus* takes a bitter turn as it becomes to transpire that Dreyfus was wrongfully convicted — Émile Zola publishes *J'accuse...*, revealing the wide-ranging cover-up and the bullying underwent by Colonel Picquart who first identified cracks in the official narrative. Eventually Dreyfus would be trialed again, reluctantly, and both him and Picquart were actively attacked in the press. Along with many, Kerckhoffs signed a petition⁷⁰:

“Les soussignés protestent au nom du droit méconnu contre les poursuites et les persécutions qui frappent le colonel Picquart, l'héroïque artisan de la révision, à l'heure où celle-ci s'accomplit”

(The undersigned protest, in the name of forgotten laws against pursuits and persecutions targeting colonel Picquart, the heroic craftsman who instilled a re-trial, at the moment the latter takes place.)

Amongst other criticism, Einstein and Kerckhoffs accused Schleyer of antisemitism [Ein89, p. 21]. Kerckhoffs:

“Il nous semble même qu’un mot comme yudanæn, faire le juif, devrait être banni de la langue; nous n’avons pas à faire de l’antisémitisme!”.

(It even seems to us that a word such as *yudanæn*, act as a Jew [the German derogatory *Judeln*], should be banished from the language; we do not want to have anything to do with antisemitism!)

Kerckhoffs is described by his headmaster as “very distinguished” and “conscientious”. Those elements, plus Kerckhoffs’ self-definition as a patriot, a devoted civil servant and a Catholic, allow the reader to draw the general contours of Kerckhoffs’ personal convictions.

11 Kerckhoffs’ death and burial

Kerckhoffs came back to Paris in 1900 [00]. This is how Kerckhoffs’ professional life documents end. We already knew he died in Switzerland, but we still didn’t know where he was buried. In May 1986, Reinhart Haupenthal finally received an answer from Interlaken regarding his question about a newspaper report of the 1903 tragic accident. The local newspaper *Oberländisches Volksblatt* in its August 11 issue reports:

⁷⁰ *Le Radical*, November 29, 1898, p. 1–2, *La Protestation contre la violation du droit.*

“Därligen: last Sunday evening at 7 and a half, 68-year-old Professor Auguste Kerckhoffs from Paris, staying since July 24th as a hospice guest at the *du Lac* guesthouse, was fatally wounded by a train. The victim wanted to say hello from the station to acquaintances in the coming train when death seized him. The heavily mutilated body was transported to the Interlaken morgue, from where it will be transported to Paris today.”

Obituaries were published in several newspapers (*L'Est républicain* August 27, 1903, *Le Passe-Temps & Le Parterre Réunis*, 3rd year - #37 September 13, 1903, *Gil Blas* (Paris. 1879) - September 5, 1903, *La République française* of August 26, 1903 etc).

So there was no longer any doubt as to where his burial was. In addition, we already knew from the Directorate General of Taxation that his address was then: 6 rue Rataud, Paris, 5th arrondissement⁷¹. After several letters sent to the Paris authorities, at the end of six months, the long-awaited burial testimony was issued with the following mention:

“The city of Paris, Paris South Cemetery [best known as Cimetière du Montparnasse]. 3, boulevard Édouard Quinet, 75014, Paris,

The undersigned cemetery witness testifies that the body of Mr Kerckhoffs Auguste who died in Därligen (Switzerland) was buried on August 16, 1903, and located in a perpetual concession, at the burial situated division 27th, 3rd line north, number 43 east. The concession is number 141, and was acquired on August 15, 1903, by Mrs. Kerckhoffs under the name Thévenin Marie Émilie. This burial site still exists.”

A visit to the cemetery made it possible to retrieve the old grave and photograph it. On a very modest tombstone, neither cared for or decorated with flowers, one can read the following inscription:

16 juillet 1903	Kennard, Edward Dudley	transféré à Chicago	le 27 Janvier 1907
16 août 1903	Kerckhoffs, Auguste	37 386 43 E	141 P 1903
26 Juin 1906	Ketten, née Berne, Marie	29156, 190	6 96 115 P 1906

Fig. 15. Burial certificate for Auguste Kerckhoffs (numéro d'ordre 646). Archives of the Montparnasse Cemetery.⁷³

⁷¹ This can be confirmed, independently, by the 1903 *List of Members* published by the Paris Anthropological Society [03], which also lists him as a “former University professor”. Quite amazingly, Kerckhoffs’ last flat is just 10 meters away from the ÉNS office currently used by Jacques Stern and the authors of this article!

⁷³ It seems that Pauline’s burial does not appear in the Montparnasse Cemetery archives in the period 1890–1894, nor in the city-wide funeral registers. It is possible that

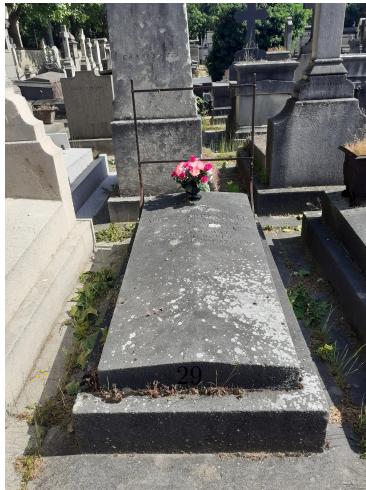


Fig. 16. Kerckhoff's grave as of May 12, 2020. We flourished the grave on behalf of the international cryptographic community.

FAMILLE KERCKHOFFS
AUGUSTE KERCKHOFFS
19 JANVIER 1835 + 9 AOUT 1903

—
PAULINE MOWAT
NÉE KERCKHOFFS
11 MAI 1865 + 9 JANVIER 1893

Thus we discover that Pauline, Kerckhoffs' only daughter, died aged 27, 10 years before her father^{74,75,76}. Pauline's death occurred one month after Kerckhoffs' resignation from the Volapük Academy.

Kerckhoffs' widow Marie Émilie would, by law, be entrusted with her late husband's literary works (*loi du 14 juillet 1866*). It is possible that they were bound by a marital contract⁷⁷ specifying how their estate would be redistributed.

Whilst in perpetual concession, French law authorizes the recycling of an abandoned grave⁸⁰ unless the grave is of historical significance. We hence officially attracted the authorities' attention to the importance of Auguste Kerckhoffs' grave to avoid its future recycling⁸¹.

she died of cholera during the 1892–1893 epidemic that hit Paris, in which case she would not have been buried to avoid contagion. Alternatively, she may have been initially buried in a different cemetery.

⁷⁴ Death certificate 81, January 9th, 1893. Archives de Paris, 5^e arrondissement.

⁷⁵ According to her death certificate, Pauline was living at 10, rue des Feuillantines, in Paris (Kerckhoffs was still living rue Vauquelin). She had married Alfred Armand Mowat (born 1865), and they were living with Alfred's father, England-born Robert Knight Mowat (born 1823), Legion d'Honneur recipient in 1876 (Archives nationales, notice L1960060; site de Paris), numismatist and archaeologist (RN 1913, p. 117 ; *Gazette numismatique française* 1905, p. 113). Robert Mowat was a French citizen since 1841 (Archives nationales, BB/11/451, Dossier n°4691 X3). Alfred's elder sisters Eugénie Lucie (born 1863) and Elizabeth Matie Édmée (born 1862) also lived there.

⁷⁶ Following the trail from the death certificate, we learn that Pauline and Alfred married April 10, 1890 (Mariage certificate 249, Archives de Paris, 5^e arrondissement). Amongst the witnesses was Édouard Jourdan, Director of HEC.

⁷⁷ According to [Bar07], around 40% of married couples at that time did. This proportion drops to about 15% around Paris.

⁷⁹ Hans Henrik Reusch (5 September 1852 – 27 October 1922), Norwegian geologist and geomorphologist, collector of an estimated 12,000 volumes. Rather ironically, Reusch also died in a train-related accident.

⁸⁰ Articles L. 2223-17, L. 2223-18 et R. 2223-12 à R.2223-23 du code général des collectivités territoriales (CGCT).

⁸¹ It is possible that someone still maintains the grave because the 1997 photography [Car98] shows a white rectangular flower pot that has disappeared since.

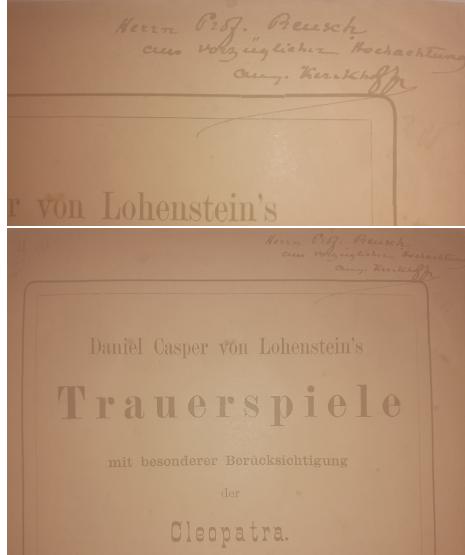


Fig. 17. *Herrn Prof. Reusch. Aus vorzüglicher Hochachtung.* (To Prof. Reusch⁷⁹ with my highest consideration.) Aug. Kerckhoffs.

12 Further Research

Unfortunately, attempts to clarify Kerckhoffs' wife's life after 1903 have not yet succeeded. She may hold the key to finding out what became of Kerckhoffs' Volapük archives and library. Kerckhoff's daughter Pauline had a successor⁸² but we could not identify who the recipient was⁸³.

The authors noted that a number of old papers bearing Kerckhoffs' autograph⁸⁴ and handwriting (e.g. see fig. 17) surfaced in the bibliophile market during the late 1990s. This may indicate that Kerckhoffs' personal archives and books were dispersed before or around the year 2000. The fact that it did not happen before seems to indicate that these, if authentic, were in the possession of a single individual until then.

During our investigation, a few aspects of Kerckhoffs' life remained unclear, in particular, his connections with the military (see appendix A). Perhaps foreign archives, or future evidence, could dispel any doubts or lift the veil on these missing parts.

⁸² Fichiers des successions déclarées, DQ7 13090, Paris Archives.

⁸³ The notary act is only identified as: 4^e – 7 juillet 1893 – 646.

⁸⁴ It is possible that an autograph, attributed to Kerckhoffs and registered as Ms 1988 / 337-338 in the Manuscrits de l'Institut de France, Collection Pallier-Laurent, gives interesting additional clues. Unfortunately we could not verify its contents.

Appendix D lists still unexploited sources that the authors identified during this research.

Hence there remains work for further research.

Kerckhoffs' bibliography

We refer the reader [Car98] for a list of translations of Kerckhoffs' works in other languages, and a selection of relevant secondary literature.

General works

- [Ker80] Auguste Kerckhoffs. *Nouvelle méthode pour apprendre facilement les déclinaisons allemandes*. Paris: Hachette, circa 1880. 10 pp.
- [Ker52a] Auguste Kerckhoffs. "An essay on Milton's Paradise Lost". In: *Nederlandsch Tijdschrift voor de praktische beoefening van de Fransche, de Engelsche en de Hoogduitsche Taal* (1852). Mentioned in the *Opregte Haarlemsche Courant*, July 9, 1859, p. 4.
- [Ker52b] Auguste Kerckhoffs. "Une étude étymologique". In: *Nederlandsch Tijdschrift voor de praktische beoefening van de Fransche, de Engelsche en de Hoogduitsche Taal* (1852). Mentioned in the *Opregte Haarlemsche Courant*, July 9, 1859, p. 4.
- [Ker59] Auguste Kerckhoffs. *Een word over de vlaemsche taal*. Olbrechts: Mechelen, 1859. 16 pp.
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A Kerckhoffs’ connections with the Military

Kerckhoffs’ publication of *La Cryptographie militaire* immediately propelled him at the forefront: he would be hailed, often along with Hippolyte Désiré Josse, Étienne Bazeries and Paul Valério, as one of the leading cryptographers of his time⁸⁵.

Cryptography at the time was considered close to linguistics, and it is not immensely surprising that Kerckhoffs, who had a keen interest in languages and in particular obscure and constructed ones (cosmoglottics), read about it. Cryptography was also well within the range of topics that would be discussed in an Anthropological Society (see, e.g., [Loc12]). What is slightly more surprising, however, is that Kerckhoffs seemed familiar with the field cryptography in use at the time [Kah96] (to the point of mistakenly thinking this is an old practice). Very little information of this nature would be allowed in print, so it seems that Kerckhoffs would have to learn it from an acquaintance, or even firsthand⁸⁶.

In the Netherlands where Kerckhoffs was born and remained until adulthood, conscription (*dienstplicht*) was made mandatory under Napoleon, and remained so until 1997. We find no mention that Kerckhoffs was conscripted, nor that he was exempted from doing so⁸⁷. Nevertheless, there are several connections with the military, that may shed light on Kerckhoffs’ familiarity with cryptography.

⁸⁵ Amusingly, Josse himself was a fond admirer of Kerckhoffs [Kah96].

⁸⁶ In [Ker83] he refers to three German authors, [Kas63]; [Kro73]; [Wos81]. Could it be that Kerckhoffs got acquainted with cryptography during his studies in Germany?

⁸⁷ We do find mention that his uncle, Joseph Romain Louis Kerckhoffs de Nieuwenhof, was a French Army surgeon (*Stamboeken Officieren Landmacht en koloniale troepen*), who served in the 3rd corps under General Ney.

Henri Berthaut: In [Ker83], Kerckhoffs mentions Henri Berthaut⁸⁸ and qualifies him as “one of the most talented cryptanalysts of the Army’s General Headquarters”⁸⁹, citing a “well-known” prowess of the young Berthaut during the Crimean war. How did Kerckhoffs get acquainted with this fact, which allegedly happened in one of the Minister of War’s most secret services at a critical time, to the point of commenting upon the relative talent of its protagonist? How did Kerckhoffs know that Berthaut *specialized in cryptanalysis in the years 1880*⁹⁰?

Berthaut, who would become the GHQ’s second in command and the commander of the geographic service^{91,92}, was the Ministry of War’s son. He would later head the *Commission du chiffre*⁹³. Whilst the absence of proofs is not a proof of absence, we did not find any public information through which Kerckhoffs could have possibly known of the related telegram affair⁹⁴. However, he may have met or even worked with Berthaut (father) personally.

The Havas telegram? In the second part of [Ker83], Kerckhoffs gives an example of a telegram on which to apply his decryption technique. The telegram is actually authentic and was sent by the Havas Agency’s London station to its Cairo branch, on September 2, 1882. Contents of this telegram pertain to the (ongoing at that time) affairs concerning British military operations in late August 1882 in Egypt, something he seemed to have prior knowledge of⁹⁵ despite the telegram being encrypted⁹⁶; of course this may be luck⁹⁷, but it remains that the encrypted telegram has not publicly circulated (except, of course, in Kerckhoffs’ paper). The Havas Agency was very close to the Ministry of the Interior [Cha85, p. 41] and benefited in that respect from exclusive means of communication [Alb91, p. 101] and special funds [Fré59, pp. 26–28]. The sending and receiving of encrypted telegrams by private individuals was forbidden⁹⁸; encryption for commercial exchanges was possible (see, e.g., [Bau02, pp. 71–73]).

⁸⁸ Henri-Marie-Auguste Berthaut (1848–1937).

⁸⁹ “l’un des plus habiles déchiffreurs de l’État-Major”, [Ker83, footnote 1].

⁹⁰ “spécialisé dans le déchiffrement dans les années 1880”, op. cit.

⁹¹ Service historique de la défense, Archives générales, 9 Yd 484.

⁹² “Geographers” seems to refer to a broader class of tasks that the modern term conveys: they were in charge of “statistiques” (article 36 de l’ordonnance du 6 mai 1818, *Journal officiel*, 2^e semestre 1818, no. 5, p. 362), a precursor of intelligence activities.

⁹³ Service historique de la défense, Archives générales, dossier personnel Toutée, 1 K 193, letter dated May 15, 1908.

⁹⁴ To this day, to the best of our knowledge, Kerckhoffs is the only public source.

⁹⁵ As evidenced by his choice of “likely words”, which included the name of Wolseley, and mentions of the Suez Canal and Ismailia.

⁹⁶ “J’ai déchiffré la dépêche précédente (...) je me demande par quelle partie du discours un télégramme adressé à des journaux peut bien commencer” — (I have decrypted the above telegram (...) I wonder how a telegram addressed to newspapers can possibly start), [Ker83].

⁹⁷ Such luck is not unprecedented: Champollion had *Ramses*, and Grotfend had *Darius*.

⁹⁸ *Le Moniteur universel*, no. 342, December 8, 1850, p. 3493.

Role in the National Guard? Is it possible that Kerckhoffs' extensive knowledge of European languages, and many connections throughout Europe, aroused the interest of more than linguists? In 1869, Maurice Weil had joined the *Garde nationale mobile*; Weil spoke German fluently, and was summoned by Berthaut in 1870⁹⁹ who at the time was commanding forces in the Seine region (he would only become Minister of War in 1876). Weil was not initially part of the military, but actively took part in the officers' meetings. He was later to receive the prestigious Légion d'honneur in 1871 and made captain (*capitaine de l'armée territoriale*) in 1875 seemingly out of nowhere¹⁰⁰. He immediately joined the ranks of the *Section de statistique* where he remained for five years. We mentioned that Kerckhoffs joined the National Guard in 1870. We could not find archives detailing which section precisely he was enlisted in, but it is possible that he was in Berthaut's as well. Could it be that Kerckhoffs underwent a similar path, only more discreetly¹⁰¹?

Kerckhoffs' wife: is another potential link between him and French Army's cryptographers. Granddaughter of General Santerre, she bears the uncommon name Thévenin. Between 1891 and 1915 only 1,667 Thévenins were born, i.e. an average of $\frac{1667}{1915-1891} \approx 70$ births for the entire country. It is hence plausible to conjecture that Auguste's wife was related to Divisional general Louis Thévenin (1870-1948) who was a cryptographer. Louis was the son of Brigadier général Anatole Thévenin (deceased in 1908), École polytechnique graduate¹⁰². Louis' son, also named Anatole, followed a similar path¹⁰³.

Kerckhoffs' daughter: a more tenuous opportunity is that Kerckhoffs' daughter, Pauline, married Alfred Mowat. Alfred's father Robert had been knighted in the Légion d'Honneur in 1876, apparently by... Berthaut.

The prefect's note. “A honorable correspondant”? During the 1870 war between France and Prussia, Kerckhoffs is shortly suspected of collaborating with Prussia — only to be immediately innocentated by the prefect. This timely intervention (“The precise information I have gathered about this has shown me that these claims are unfounded”) is somewhat typical of the French administrative

⁹⁹ Service historique de la défense, Archives générales, dossier de personnel, 7 Yd 1527.

¹⁰⁰ It is still unclear who sponsored this unexpected and impressive promotion [Lau09, p. 415, footnote 5]

¹⁰¹ “(...) *dictionnaire chiffré dont on se sert aujourd’hui dans l’armée (...) tables analogues à celles qu’emploie encore aujourd’hui le ministère des affaires étrangères*” – encrypted dictionary in use today in the Army (...) tables that are nowadays in use in the Ministry of Foreign Affairs [Ker83].

¹⁰² ARCSI, *Le général de division Louis Thévenin (1870–1948) et la Commission de Cryptographie Militaire*, 2000. [\[online version\]](#).

¹⁰³ Amongst other cryptographic achievements, he is credited for inventing the “ABC” method for breaking German telegrams, in a letter from Painvain to the General Maurin dated 1921.

understatement alluding to either military or secret state sources. Of course, it could also be that Kerckhoffs, being a foreign citizen residing in Paris, was under surveillance for that sole reason¹⁰⁴. Soon after, Kerckhoffs departs for Germany (at the same time, Weil was sent to spy in Berlin). The French intelligence service has the tradition of relying on "honorable correspondants" (HC). An HC is typically a French citizen travelling abroad for legitimate reasons and helping the agency voluntarily [Poi18]. HCs are a sort of intermediate level between a foreign source and the agency's employee. In all evidence, Kerckhoffs had the typical HC profile.

Military school teaching project: Kerckhoffs' motivations for going to Germany in 1873 was, according to the prefect's investigation, to be allowed to teach in a French military school; and indeed he applies in 1880 to one such school. Why did Kerckhoffs think it necessary to go to Germany so soon after the war, and why did he aim for teaching in a military school, we do not know. In addition, given Kerckhoff's perfect mastery of German, and the proficiency level required to teach German at a military school, it is unclear why a research degree in *ancient German* was necessary to get such a position.

Forensic work for the State? A newspaper article¹⁰⁵ places Kerckhoffs as a protagonist during the historic prosecution of the Russian nihilist Véra Zasulich¹⁰⁶. However as far as we know — and despite this particular newspaper's very serious reputation — this is not true: there was no communication between the nihilists and Zasulich (she acted on her own¹⁰⁷), there was no expert called during the trial [Che78], and Kerckhoffs himself writes in [Ker83] that it was the Russians who broke the nihilists' code. Zasulich, who would later exchange letters with Karl Marx (in French), did not use any sort of encryption [Sha18].

Furthermore, we could not find any other source supporting this article's claims, and it is very unlikely that Kerckhoffs, then preparing for this doctorate and relatively unknown, would have travelled all the way from Paris to Saint Petersburg and back. Nevertheless, the period 1877–1880 is a bit of a blind spot in Kerckhoffs' career: he had not officially been employed since 1873 and seemed to have earned a living only by tutoring, receiving two prestigious Portuguese distinctions.

¹⁰⁴ Several contemporary decrees (notably March 15, 1861 and January 15, 1855) under the French Second Empire made it clear that foreign residents and travellers were to be under particularly strict surveillance.

¹⁰⁵ *Le XIXe siècle*, September 12, 1887, p. 3.

¹⁰⁶ Interestingly, this article also explains that it was commonplace for merchants to obfuscate their prices using a simple substitution. This practice is now illegal in France (Loi n° 93-949 du 26 juillet 1993 relative au code de la consommation)

¹⁰⁷ A complete stenography of the trial was reproduced in the Russian gazette *Минута*, January 30, 1881, St. Petersburg. Library of Congress call code Np 3842 FT MEADE.

B *Leçon d'ouverture* of the HEC Volapük course. Paris, 1885

Translation

The creation of a universal language for international intercourse has been the subject of much controversy since the 17th century. While philosophers have by turns extolled it as a bond of union and concord, and a powerful lever to civilization, literary men generally appear to agree in denying its utility. Nowadays, many linguists question the possibility of composing an artificial language of real and practical value.

The idea has however, within the last few years, gained much ground, in France and Germany: practical minds remark with justice, that we are in a century wherein new wants spring up every day, and in which the impossibilities of one day become the marvellous realities of the next. Besides, nobody thinks any longer of bringing into use or creating a language which should become one day, like Greek in antiquity, or Latin in the middle ages, a universal organ of science and literature: that is a dream long since abandoned. The question is still less to supersede any of our modern languages in the intercourse of nations.

But, in the same manner as diplomats have a universal or common language for their international dealings, scholars, travellers and merchants would also find a great advantage in possessing a simple and practical means of communication, not only with the different people of Europe, but with all the civilised Nations of the world.

Everyone knows that commercial intercourse with foreigners is entered upon with all the more ease and security as agreements can, by means of a language known to both contracting parties, be established in a clearer and more precise manner. People however are liable to overlook the fact that among the eight hundred and odd languages, which are at the present day spoken, it would be necessary to know at least forty or fifty in order to be able to hold communication with the principal civilised nations with whom, during the last half-century, railways and steamboats have brought us into constant communication.

Now, if it is not very difficult to learn in a few years three or four Romanic or Germanic languages, a much longer time is necessary to master a single Hindustani or Semitic dialect. The difficulties become even insurmountable for many persons, when an agglutinative language is contemplated, such as Turkish or Japanese, or a monosyllabic idiom like Chinese or Anamese; and, still, the people who speak Chinese dialects, or have adopted Chinese writing, constitute alone one third of the total population of the world.

The nations of the East are still more embarrassed, when they wish to enter into commercial intercourse with Europe. Devoid of geographical knowledge, imperfectly informed by their political chiefs, they are generally obliged to have recourse to the inter-mediation of colonists or resident foreigners and thus become the victims of the intrigues occasioned by political and religious hatred.

Let a universal language become adopted and the situation is completely overturned; the same traveller can visit the most widely different countries,

the same commercial journal can be read and understood in all the centres of production and consumption, and the prices of a London or Paris house will be commented upon by the merchants of Pekin, Yeddo, Madras, Alexandria, Constantinople and Moscow!

Navigators would find advantages equally great in being able to communicate easily with one another, either at sea or in the large stations of the Ocean. Maritime nations have, it is true, already adopted a kind of universal language, by means of which mariners of all nations can understand each other, but it is a semaphoric language, used for communications on the main sea or at a distance and which cannot be adapted to the exigencies of conversation or correspondence.

It is needless to enumerate the immense services which the existence of a universal language would render to science and industry. Not only do the most precious discoveries often remain unknown for years, because they have been explained in a little known idiom, but entire nations remain deprived of the benefits of civilisation from the simple fact that their ignorance of European languages prevents the organs of progress and science from reaching them.

One may ask if, rather than have recourse to an artificial language, it would not be preferable to adopt one of the existing European idioms, for instance, English, German, Spanish or French. English is already the maternal language of 100 million individuals, German of 56, French and Spanish are each spoken by nearly 43 million.

To this scheme are opposed two equally powerful motives; national rivalry, and the difficulties of all kinds that the study of these languages presents; difficulties in pronunciation, spelling and grammar. If two or three years are necessary for a Frenchman to learn German, how long would a Turk, a Japanese or a Chinese require to learn English, German or French, when confined to the resources offered by his native country for the study of those languages?

The verbs alone in German and French will present to him almost insurmountable obstacles. As General Faidherbe recently said, in a study on the program of the French alliance, the complications of the verbs often hinder colonial populations from learning a European idiom.

The first attempt in favour of the creation of a universal language can be traced to the 17th century. Some have looked for the solution of the problem in the invention of an artificial language, divested of all the difficulties which characterise our natural languages; others, and they are the greater number, have only sought a means of communication by written signs and imagined an ideographic system, in which the words, that in the various languages express the same idea are represented by the same sign, similar to that practised in our system of numeration, and in our algebraic and geometrical signs.

It would take long to enumerate all the works that have been published on this interesting subject. It is sufficient to cite the names: Descartes, Leibniz, Becker, Wilkins in the 17th century; Kalmar, Berger, de Cornel, Vater, de Marnieux, Budet, Chambry, and the abbé Sicard in the 18th; Nasher, Schmied, Niethammer, Stein in the commencement of this century, and lastly, at an epoch nearer to our

own, the names of Sinibaldo de Mas, Para, Paic, de Gablenz, Bachmaier, Pizo, Sudre, Ochando, Holmar, Caumont, Letellier and Maldant.

Treasures of science and patience have been spent in the study of this question; and yet it would be difficult to quote, amongst the forty or fifty universal languages, invented in the course of the last two centuries, a single one having any practical value whatsoever: they were either pasigraphic systems, meant to be only read, or accessible only to the highest intellects, or merely some existing language more or less ingeniously mutilated!

A German polyglot, Mr. Schleyer of Konstanz, a man of letters and a distinguished linguist, has at last succeeded, after 20 years of laborious effort, in solving the difficult problem.

He has named his system *Volapük*, from *pük*, language, and *vol*, universe; literally *universal language*.

By borrowing certain characteristic features from the different idioms of Europe, Mr. Schleyer has been able to combine a logical, well-arranged and extremely simple system.

The difficulties in pronunciation, which characterise English, French, and most of the Slavic languages, are done away with Volapük by the simple fact that each letter, either a vowel or a consonant, has but one and the same sound. The difficulties in spelling also are by the same means cleared away, words being always written as they are pronounced, and vice versa, being invariably pronounced as they are written. Moreover, any combination of letters, difficult to conceive or pronounce, has been carefully avoided; it is the same with long compound words, peculiar to certain Germanic languages.

Mr. Schleyer has satisfactorily solved the problem of accentuation by adopting the principle of French pronunciation, and always putting the accent on the first syllable. He has borrowed from the French their construction, which is one of the simplest and clearest of all European languages.

The simplicity of the grammar is no less remarkable: no artificial genders, a single conjugation, and no irregular verbs.

The roots of Volapükwords have been borrowed from all the languages of Europe, but principally from the Romanic and Germanic languages; among the latter English has been particularly put under contribution.

As in Volapük the method of derivation is always the same, as the adjective, verb and adverb, are regularly formed from the substantive and have invariably the same termination, it suffices, we may say, to learn the nouns of the language to know all the words in the dictionary. It is true that the same principle of derivation prevailed in the formation of all our Aryan languages; but the thousand influences which in the course of centuries, have from time to time affected their development, have done away with all unity, and the uniformity which characterises Volapük is found as little in our old tongues as in their modern derivatives.

To conclude, I believe there is no exaggeration in affirming that Volapük may be learned in the space of one month, by any person already knowing a Romanic language such as French or Italian, or a Germanic one such as English or German. One will, at least, be able at the end of that time, not only to understand the

new language, but to translate correctly and without difficulty a letter from one's maternal language to Volapük.¹⁰⁸

Some think that it will never be possible to arrive at a uniform pronunciation of Volapük, and fear that direct communication among individuals of different nationalities will on that account be rendered impossible.

I answer to such objections by calling attention to the fact that uniformity of pronunciation does not exist in any language, as little for the natives as for foreigners: the French of Lille pronounce quite differently from those of Bordeaux, and the German of Munich sounds nearly like a strange dialect to the ears of a Hamburg native. But these differences do not by any means hinder Frenchmen and Germans from perfectly understanding one another. It will be the same with the pronunciation of three or four letters of the universal language, and particularly of the vowels *ä*, *ö*, *ü*.

Not that Mr. Schleyer's work is perfect; perfection is a stranger to this world. Besides a few mistakes, which will be found in the derivation of words, some rules of this grammar might be more precisely laid down; others must be modified. Thus he seems to have been wrong, while adopting the principle of the French construction, in allowing a certain latitude in the order of the different members of the sentence. Is it not affording an open field for individual caprices and for idioms, that are, in a manner the caprices of the multitude? Those who have studied Latin are well aware of the embarrassment beginners experience in studying a language in which the construction of sentences is not swayed by one unvaried rule.

Mr. Schleyer might also be blamed for his spelling of proper names, not being such as is required by the orthography of the country to which they belong, but according to the phonetic principles of the international language. Besides the orthography of proper names of persons being placed nowadays under the protection of the law and their immutability being of paramount importance in commercial transactions, would it not be required from those who will write in Volapük a thorough knowledge of the pronunciation in every other language? But these are only details on which an agreement can be made the more easily as the inventor of the international language lays no claim to infallibility.

A graver reproach has been addressed to Mr. Schleyer on the subject of the essentially synthetic character of his grammatical forms; for some linguists observe that the human mind is progressing in the sense of analysis, and cite in support of their theory the example of all European and Indian languages.

I confess such was equally at first my opinion, but a more attentive study of his grammar convinced me that a form less synthetic would have considerably augmented the difficulties. Moreover, the objection to which I have just called

¹⁰⁸ [footnote from A. Kerckhoffs] Witness to this is the two-month lecture, with one lesson per week, offered to students in the Second Division. Although the auditors could not make any written preparation on account of their numerous obligatory studies, they were after 8 lessons in a position to correspond without any difficulty with the Volapükists of the other countries of Europe.

attention, and which is met with, under diverse shapes amongst philologists, as well as amongst philosophies, is at bottom more plausible than well-founded.

The analytical form of our modern languages is the product not of a certain tendency of the mind towards this or that exterior form of thought, but the effect of a simple displacement of the tonic accent, or to speak more clearly, of the loss of the secondary in favour of the principal accent.

Although the first publications of Mr. Schleyer on the universal language hardly date from 1881, the disciples of Volapük are now numbered by thousands in the different states of Europe: besides the French Association for the propagation of Volapük, 70 societies are already founded with the object of favouring its diffusion and not only in Germany and Austria, but in Russia, Spain, Italy, Holland, Sweden, England, even in the United States, and as far as Beyrouth in Syria.

Numerous works have been produced lately for the study of Volapük: Mr. Schleyer has published along with his grammar a Volapük-German dictionary containing nearly 13,000 words: these two works have reached their fifth edition¹⁰⁹.

They are about to be translated into all the languages of Europe and Asia. In order to maintain uniformity amongst the various Nations that have adopted or will subsequently adopt the new language, I have agreed with Mr. Schleyer to commit their publication to the care of the same publisher. Thanks to the concurrence of some eminent linguists we shall be able to publish, this year, grammars and dictionaries for the use of the English, the Dutch, the Italians, the Spaniards, the Portuguese and the Russians.

The first congress of promoters of Volapük took place last year in Friedrichshafen, on the lake of Konstanz; 300 members from all the parts of Europe were present. A second congress took place this year in Munich, and a great international congress of delegates of all the societies of Europe and beyond the seas will meet in 1889 in Paris, on the occasion of the universal exhibition.

C Kerckhoffs' HEC Administrative File

C.1 Letter by Kerckhoffs, September 12, 1891

Paris, ce 12 sept 1891.

Monsieur le Directeur,

Je vous serais bien obligé de vouloir me faire venir le plus tôt possible le certificat en question: j'ai promis au Ministère de l'Instruction publique de le produire avant le 15 de ce mois.

¹⁰⁹ With the view of encouraging those who wish to give themselves up to the teaching of Volapük, as well as to give them a certain moral authority with their pupils, Mr. Schleyer delivers a certificate of capacity (gratuitously) to every person who will send him a dissertation of 7 or 8 pages in Volapük on any scientific subject whatsoever, the only condition required being that the work shall be grammatically correct. Up to the present 320 such certificates have been delivered.

Agréez, Monsieur le Directeur, l'expression de mes sentiments les plus distingués.

Translation:

Paris, this September 12, 1891. To the Director, Sir. I would be most grateful should the aforementioned certificate be sent to me as soon as feasible: I have committed to exhibit this document to the Ministry of Public Education before the 15th of this month. Please accept, Sir, my uttermost respects.

C.2 Letter by Kerckhoffs, August 5, 1891

[Overtext: Répondu en voyage, communiquerai votre lettre à [?] vers fin [?]

Paris, ce 5 août 1891,

Monsieur le Directeur,

Comme suite à notre entretien d'hier, je viens vous prier de vouloir me délivrer un certificat constatant que j'ai été attaché pendant 10 années à l'École, en qualité de Professeur de langue allemande, que pendant ce laps de temps vous n'avez eu que des éloges à m'adresser, tant pour la bonne tenue de ma classe, que pour mon savoir-faire et la méthode essentiellement pratique de mon enseignement.

Je vous serais obligé d'indiquer le motif qui a motivé ma sortie de l'École, en ajoutant que c'est à la suite d'une observation que je me suis permise au sujet d'une note donnée à un de mes élèves par un membre du jury, à l'examen de fin d'année (observation qui a été interprétée comme une critique du représentant du Ministère) que le Conseil d'Administration a cru devoir se priver de ma collaboration ultérieure.

Veuillez agréer, Monsieur le Directeur, l'expression de mes sentiments les plus distingués.

Translation:

Paris, August 5, 1891. To the Director, Sir. Following our interview yesterday, I beg to ask you to deliver a certificate attesting that I have been working 10 years at the Institute, as a German language professor, and that during that time you had nothing but praise to give about me, regarding the discipline in my classroom as much as my know-how and the practical benefits of my teaching.

I would be most obliged if you were to mention the reason for my departure from the Institute, adding that it proceeded from a remark I allowed myself to make regarding a grade given to one of my students by a member of the jury, at the end-of-year examination (an observation that was interpreted as a criticism by the representative of Ministry), so that the Administration Council felt necessary to sever itself from further collaboration with me.

Please accept, Sir, my uttermost respects.

C.3 Letter by Kerckhoffs, April 26[?], 1889

[Overtext: Dossier [?] M. Kerckhoffs]

Monsieur le Directeur,

Permettez-moi de vous donner tout de suite les renseignements que vous désirez; j'aurai l'honneur de vous les compléter demain de vive voix.

Une douzaine d'élèves, dont 3 du cursus d'allemand, ont assisté aux 5 leçons de Volapük que j'ai données, à l'Institut Commercial, le dimanche matin, de 10 à 11h.

À la suite de l'examen écrit, qui a eu lieu le 14 avril, à l'Institut, un brevet [sic] de capacité leur a été accordé. Tous ayant témoigné le désir de pouvoir montrer leur brevet [sic] à leurs parents, je me suis chargé d'apporter moi-même les diplômes et les leur ai remis, mercredi dernier, pendant la récréation de 3h20.

Comme je n'ai engagé aucun élève à suivre un cours de Volapük quelconque, j'ai tout lieu de penser que ces jeunes gens y ont été poussés par ceux de leurs camarades de 2e année, qui ont été l'année dernière à l'étranger, et auxquels la possession du diplôme de Volapükiste a rendu les plus grands services.

Vous voyez, Monsieur le Directeur, que j'ai eu bien soin de me conformer à vos instructions, et que j'ai évité scrupuleusement tout acte pouvant aller à l'encontre de vos désirs ou de ceux de Monsieur le Président.

Je tiens même tellement à éviter tout démêlé avec l'Administration que je suis résolu à retirer complètement mon concours aux Volapükistes, le jour où je saurai lui être agréable.

Veuillez agréer, Monsieur le Directeur, l'expression de mes sentiments les plus distingués.

Translation:

April 26, 1889. To the Director, Sir. Allow me to immediately provide the information you request; I will be honoured to supplement it tomorrow in person.

A dozen students, 3 of whom in the German curriculum, attended the 5 Volapük lectures I gave at the Commercial Institute, on Sunday morning from 10 to 11.

After the written examination, which took place on April 14th at the Institute, they were awarded a study certificate. Each of them having expressed a desire to show their certificate to their families, I took upon myself to bring the diplomas and handed them, last Wednesday, during the 3h20 recess.

As I never encouraged any student to attend any sort of Volapük lecture, I have every reason to think that these young men were driven there by their 2nd year classmates, who were abroad last year and for whom having the Volapükist diploma proved to be of the highest service.

You see, Sir, I was careful to follow your instructions, and scrupulously avoided any action that might have gone against your desires or those of the President.

I am, in fact, so determined to avoid any dispute with the Administration that I commit to completely removing my support to the Volapükists, should it be agreeable.

Please accept, Sir, my uttermost respects.

D Unexploited Sources

Researchers wishing to refine or complete our findings can consult the following sources, that we identified but did not access:

New bibliographic references: The following bibliographic references, discovered by the authors, did not appear in previous historical accounts and were not exploited to the best of our knowledge so far: [Ker52b]; [Ker52a]; [Ker80]; [Ker92]; [Ker84b]; [Ker87c]; [Ker59]; [Ker68]; [Ker90b]; [Ker85c]; [Ker85b]; [Ker85a]; [Atg+01]; [Ker98].

The Volapük Central Office’s Collection: The 6th *cifal* Brian Reynold Bishop is reported to have collected many Volapük memorabilia (mostly from the 5th *cifal*’s collection). As of the late 1990s this collection was held at the *Zänabür Volapüka* (Volapük Central Office). It is likely to assume that this collection comprises still unexploited material about Kerckhoffs.

École des Chartes: Kerckhoffs’ public lectures in cryptography took place at the École des Chartes, but we could not find documents detailing how this came to be, whether he was invited or whether it was his initiative, when exactly they started and ended, or what the precise program was. Participants may have taken notes, which may be of historical interest.

QVOD DEVS OPTIMVS MAXIMS FELIX FAUSTVMQVE ESSE IVBEAT
CLEMENTISSIME INDVLGENTE

A V G V S T I S I M O E T P O T E N T I S S I M O

DOMINO

G A R O T O

REGE WÜRTTEMBERGIE

O S C A R O S C H Ü ß P P E L

REGII ORDINIS CORONÆ WÜRTTEMBERGICÆ EQVITE SECUNDÆ CLASSIS
MEDICINÆ ET CHIRVRGIE DOCTORE PATHOLOGIE GENERALIS ET ANATOMIE PATHOLOGICE PROFESSORE PUBLICO ORDINARIO

VENIAM LARGIENTE EA QVA POLLET POTESTATE A REGE EI CONCESSA

CANCELLARIO UNIVERSITATIS MAGNIFICO

H E N R I C O G V S T A V O D E R Ü M E L I N

REGIORVM ORDINVM FRIDERICIANI COMMENDATORE PRIMÆ CLASSIS CORONÆ WÜRTTEMBERGICÆ COMMENDATORE
PHILOSOPHIE ET ECONOMIE PUBLICÆ DOCTORE REGI A CONSILIS PUBLICIS COLLEGI STATISTICI PRÆSIDE HONORARIO

FACULTATIS PHILOSOPHICÆ DECANO SPECTATISSIMO

V I L H E L M O S I G I S M U N D O D E T E V F F E L

REGII ORDINIS CORONÆ WÜRTTEMBERGICÆ EQVITE PRIMÆ CLASSIS
PHILOSOPHIE DOCTORE LITTERARVM ANTIQUARVM PROFESSORE PUBLICO ORDINARIO

PROMOTORE AD HVNC ACTVM LEGITIME CONSTITUTVO

H E N R I C O A D E L B E R T O D E K E L L E R

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PHILOSOPHIE DOCTORE LINGVÆ THEODISCÆ PROFESSORE PUBLICO ORDINARIO

A M P L I S S I M V S P H I L O S O P H O R V M O R D O

I N R E G I A V N I V E R S I T A T E E B E R H A R D O - C A R O L I N A T V B I N G E N S I

V I R V M P R Ä N O B I L I S S I M V M A T Q V E D O C T I S S I M V M

D O M I N V M

A V G V S T V M K E R C K H O F F S

BATAVM
ORDINIS PORTUGALICI MILITVM CHRISTI EQVITEM

POST ERUDITIONEM

D V A B V S C O M M E N T A T I O N I B V S

ALTERA DE LOHENSTEINIO POETA GERMANICE CONSCRIPTA
GALLICE ALTERA DE ARTE MONUMENTALI QVO MODO CVM RELIGIONE SIT CONIVNTIA QVAM EDIDIT PARISIIS MDCCCLXXIII

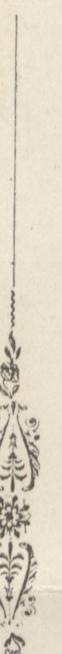
B E N E C O M P R O B A T A M

D O C T O R E M P H I L O S O P H I E E T A R T I V M L I B E R A L I V M M A G I S T R V M

R I T E C R E A T

N O C I P S O D I P L O M A T E S O L E M N I T E R R E V N V I T A T

E IQVE OMNIA IVRA ET PRIVILEGIA CVM DOCTORIS GRADW CONIVNTA CONFERT



Universitätsarchiv
Tübingen

131 / 26b, 4

Bonn, Hôtel de Belle Vue, 31 März 1876.

Eh. Hochwürden

bediene ich mich zu übersenden: 1^o ein Diplom als Magister
ad. oand. scient. nat.; 2^o. Mein Brevet als Eques ord. milit. Christi.
Andere Titel wünsche ich nicht auf dem Doctor-diplom. Herr
Fins kann mir gelegentlich diese drei Schriften nachschicken.
Ich wäre Ihnen höchst verbunden wenn Sie dafür sorgen wollten
dass mein Name doch richtig geschrieben werde: gewöhnlich
wird der eine oder andere Buchstabe ausgeschlossen.

Mit vorzüglichster Hochachtung,

D^r Aug. Hochhoffs,

F d'ักษניף sapij
am Mu hith Kritik
notij ujouw. W

Vita

Natus sum ego Augustus Herckhoff/s, professor Universitatis,
baccalaureus litterarum, magister rerum naturalium, eques ordinis militaris
Chr. Lusitaniae, membrum plurimarum societatum doctorum, in Batavorum
urbe cui nomen est Neth, pridie ante calendas Februarias a. C. MDCCCLXXXV,
patre Joh. Guilelmo, matre Johanna de gente Lintjens, quos adhuc viventes magnopere
laetor. Fidei addictus sum catholicae. Litterarum primordiis imbutus in
gymnasio Trajecti ad Mosam, operam dedi duos annos philosophiae Leodii,
Lovanique autem per Tolidem annos rerum naturalium scholas frequentavi.
Tum examine publico "cum laude" peracto, per tres annos professoris munere
functus sum in Batavorum urbe, cui nomen Eindhoven inditur, deinde, patria
mea relicta, adi Gallicae urbem Melitas, denique Melodunum, qua in urbe per
decem annos litteras docui a meis studiis non alienas. Postremo litterarum
Germanicarum amore permotus Bonnam me contuli, ubi maxima cum diligentia
veterum Germanorum linguae per duos annos demidiumque deditus desiderio meo
meaque mulieri quae gallia gaudeat patria domum redeundi non amplius resistere
audeo, ac Rei publicae vires meas detrahere et manus publicum et conscientia
metat.

A. C.

Brauer ist nach oben das Promotionsgesetz
der Aug. Hochschule zu entnehmen.

Nach dem Curriculum Vitae ist August
Brauchert Professor an der Universität de
Marie, Bachelor ès lettres, maîtrise ès sciences,
Natur, dat 2007ij. van Middelburgse Acad. w. p. s.
geboren 1835 in Wulff in den Niederlanden, na-
chdem er studirte es in Leiden 2 Jaren Natu-
rologe, in Leiden 2 & 3. Naturwissenschaften,
mehrste im Beobachtungswesen mit dem Prä-
sidenten zum Lande, was 3 Jahre Professor
in Hindoesta, habe 10 Jahre in Malakka;
nachdem er studirte es 2 & 3. Jahr in
Lima, so ist er angewandert.

gibt Prädikatur der evangelischen Pf. Altstadt durch den
frohen Luf. für gut Einsichtlich auf die durch die schri-
gen Vorlagen zweckfertig dokumentarisch abgezeichneten
Bilder, des gebenden den Auftrag ist ein Präfex im
Kabinett zu plazieren.

Schwaben

Wim. Mariae Catherina Ignatia
Baroness von
Maurer

Maurer

Ignatia

Über alle ist die sind keine Angemessen-
heit. Es geht A. C. ausser, ob das Bei-
spielsweise Privatbrief von Prof. Niemand in
Cassa ex anno (den ist mir dieses nicht ge-
schafft) als Freytag dieses gelten kann.
Nur eingetragen in Malakka gesetztes wiss-
schaftliches Material und über die Natur-
kund fürs die Doktore Hochschule Bibliothek

geblieben sind die originalen Zeichnungen, welche die
Kunst und Literatur.

Des Specimens hat Brockhoff vorge-
legt:

I) Gedächtniss:

1) Ein' art Monumental dient den Be-
ports avec les idées religieuses. Fasch
1873. Diese Skizze, ist nicht im main Galerie
verblieben, sehr ist nicht mehr gezeigt.

2) Petits grammairies anglaises. Fasch 1868

3) Nouvelle Méthode pour apprendre
les déclinaisons allemandes. Fasch von Je-
Julien Rössler, die sind auch im Litteratur
Konservatorium.

4) Ein Blattzeug über die Religion der
Spanier, das es fehlt 1859 in Magdeburg
veröffentlicht.

II) Das wichtigste ist ein geschriebenes
Referat über D. Krug's von Losan-
grin und seine Praxis, insbesondere
die des Choristers. Das Schriftstück ist sich
mit großem Druck in Russland nicht wieder
zu erzielen, oder überwachsen, obwohl
in russischer Übersetzung mit dem Titel
Dissertation über die
Geschichte und Kunst des

vergallan Mith zu betreusten und jene der
Führung Tugenden. Et ist ihc in den Betra-
gungen des wiss. aber unbedeutende Bild, das
vor unsrer Mutter in der Holzstatue dargestellt
stehet und ist, won einigen Färbern zu ent-
nehmen und uns wirklichen Maßstab
ist, so ist es vollkommen. Das Heilfresser Thunke
mit weissten Magde vor. Er steht ganz
in der Hand des heiligen Petrus, wie ihn
Lorenzini verfaßt, in's Auge, und dass
verfaßt die verstandene Nachrichte über
Lorenzini's halme Kreuz versteckt und
unter sich unter die versteckten Dellen,
der Abfallungspunkt, Meraknitzungen im
Aufzähler, um schließlich bei der Dar-
stellung einzufinden, was er
et. Ich kann sagen, das Vierheit aufzu-
setzen und schließlich von oben
auf den Bauplatz zu.

Die Darstellung ist gewandt, wann
auf dem Heilfresser der freude ihm man-
nerlich gescheit ist.

Von der Abfallung befindet mir ein kele
punkt Dach und, um den Heilfresser

zur Promotion zugelassen.

Ob das Patent in Recklinghausen auf jenes
Dienstleistungsbereich auf jenes Handelsrecht habe
Befähigung vom Deutschen Reichstag erlangt werden
den kann, will ich mich untersuchen. Nach
dem Prof. Rößler davon überzeugt ist,
wird ich weiterhin jene auf mögliche jene
und ich brauche in diesem Falle darüber
Hearst bereit.

Grafenegg

Bürgen

27 May 1876

F. Ladd.

A. C.

Jur Aefting.

27/3 76

huffel

f., Järlaffay Raiff.

Ihre Anfrage, daß möglichst schnelle Ausarbeitung von der Regel
gerne auf Wiederholung, bis also für Colloquium. Ich
beruhne gewünscht erwartet in Loma? Rely

Die § 5 der Richterin die Dispositionen nach Kollegiumen an die
zurückende Forderung einer unpraktischen Bedeutung des Missionsfeldes
wegen der unrichtigen Art der Dispositionen, welche
die Forderung der Befreiung der Kollegien nicht gewährt,
die Forderung K. V. Cart monumental 2 ~~vergessen~~ nicht gewährt,
so wie auf § 5, obwohl die befreite Forderung die Forderung
der Forderung ist § 5, daß die Disposition die sich von Disposition
der Richterin unmissverständlich gebildeten Meinung widst, wohlstehend
wurde, — für Kollegiumen freiem.

für vier fünf jähr Collagium Sigwart

Die Reihen von denjenigen, die ausser den geographischen Namen der Provinzen und Städte noch andere Namen tragen, waren nicht voreingestellt, doch fand sich in allen, was wir für diese Bildungsperiode sahen, ein auf jenen von uns zu kontrollierenden Angaben basirte, da (auf dem Heft des Coll. Köstlin) sie auf die geographischen Orte L'art monumental von Arles auf Blatt des Coll. nicht einzeln lagen (wie zwecklos diese Aufstellung auf wissenschaftl. Rücksicht darin ist), so daß ich nur die Grammatik angeführt habe, Etudes sur la Langue Flamande. Malines i vol. 8% ist wiederum nicht voreingestellt, so muß auf sie hier verzichtet werden, Colloquialen können, wenn Abfassung nur so wenigen Merkmalsgleichheiten macht, als Reduktionsvariante angesehen werden. Da gegen steht ich mit Einsicht auf die

März 23/3 76.



J 2.

A. W. A. v. Koller
Hans Kroll.

23/3 76.

Kuffler

An den Decan der
Philosophischen Fakultät in Tübingen.

Dr. Hochschulgeboren

ersuche ich mich zur Promotion an der
dortigen Universität gütigst zulassen zu wollen,
indem ich mir erlaube beizufügen:

- 1° Eine schriftliche Arbeit über Hohenstein's
Träumerspiele;
- 2° Drei gedruckte Arbeiten über Kunstsprache
und Sprachen;
- 3° Einen von mir im Mechelen gehaltenen
Vortrag in holländischer Sprache;
- 4° Referate über von mir gehaltene öffentliche
Vorlesungen in Münster;
- 5° Ein Referat über meine erfolgreiche
Bemühung um die Gründung eines Bildungs-
Vereins im Departement von Seine & Marne;
- 6° Das Curriculum Vitae.

Zugleich habe ich die erforderliche Summa
M. A. O. der RST übergeben.

Bitte, dass die hoch. Fakultät mir
so bald als möglich eine genügte Antwort
ertheilen möge, da ich bis zum 1. April
nach Paris zurückkehren genötigt bin,
ziehne ich

Hochachtungsvoll u. ergebenst,

Prof. Aug. Kerckhoff.

Bonn, a 26 mäz, 1876.

Hotel de la Belle Vue

Kendall

m/p

W. Cawles

" Mr. H. D. Cawles
M. D., M. R. C. S.

Tübingen, 30 May 1876.

Dear Prof. Dr. K. H. Cawles, God. & Sons,
Röppin.

Collaboration mit Prof. K. H. Cawles auf einer kleinen Abhandlung über
Solanaceen, aber fallen um Prof. Cawles Auftrag und Aufdruck:
Monatsschr. mit dem Prakt. besch.

Späte

Dr. K. H. Cawles

F. W. Macmillan

which is an English translation of the Monatsblatt.

Tübingen 30 May 1876.

Franklin J. Macmillan

Via Maria No. Langford Jr. do above
representing the Corporation and myself affec.

Franklin
30 May 1876

Langford

30

A. C.

laut ist, gewollt zu aufzugeben Abteilung über die Promotionen gleich 15
Prof. Knechtels, in einer Zeitung solche Abfassung der Colloquium
mit dem aufzugeben.

Vorwobtag 11th 1876

Wie, wie ist möglich auszubauen dass an der Druckerei in einem Rahmen
Abstand geworden sei.

29 May 1876.

Kaufm.

da war Hoffnung abgegeben dass im Augenblick
Sämtliche für Tätigkeiten bestimmt Raum befindet in Aula
in Bezeichnung sind, wo möglich ist für jeden Ausnahmefall
da für Reparatur bestimmt geplant dass das Colloquium
in jenen Wohnung Platzfindet.
Kaufm.

finanziert werden; ist moment wiede mit fallen.

Fräulein -

ges. Reiss

Herr B. in C.

Hermann

Gärtner

Sparber

Wandern. 6. 5. 0

ÉCOLE DES HAUTES ÉTUDES COMMERCIALES

(Reconnue par l'État — Décret du 22 Juillet 1890)

DOSSIER DE PROFESSEUR OU D'EXAMINATEUR

Nom	M ^r Kerckhoff.
Prénoms	Auguste
Lieu de naissance	Nuth (Duché de Limbourg) Hollandais. Naturalisé en 1873
Date de naissance	19 Janvier 1835.

COURS } DE Langue Allemande EN ANNÉE
EXAMENS }

Titres universitaires	Honoré à Lettres. (Système, Judge.)
Carrière dans l'Enseignement	Docteur ès Lettres. (" Allemand.) Professeur à l'École Prague.
Carrière Commerciale	
Distinctions honorifiques	Officier d'Académie.
Date de l'Entrée à l'École	1 ^{er} Novembre 1881

OBSERVATIONS

Séminionnaire 1^{er} Octobre 1891.

Paris, ce 12 Sept. 1891.

Monsieur le Directeur /

Je vous serai bien obligé de me donner
ma carte tenir le plus tôt possible le
certificat en question : j'ai nommé au
Ministère de l'Instruction publique de la
provincie avant le 15 de ce mois.
Ainsi, monsieur le Directeur, l'express
de mes sentiments les plus distingués.

Kerckhoff

Paris, ce 5 aût. 1891.

Monseigneur le Directeur
Bureau des écoles

Comme suite à notre entretien d'hier, je viens aujourd'hui de vous envoyer ma délivrance un certificat concernant que j'ai été attaché pendant 10 années à l'école, et que cette dernière possèche de l'anglais allemand que j'affectionnais ce langage depuis longtemps lorsque des élèves à m'dresser, tant pour la bonne tenue de ma classe, que pour mon plaisir de faire de l'étude essentiellement pratique de mon enseignement.

Je vous serai obligé d'indiquer le motif qui a motivé ma sortie de l'école, en ajoutant que c'est à la suite d'une observation que je me suis permise une réflexion d'une note donnée à un de mes élèves (qui est un membre du jury), à l'examen de fin d'année [Observation qui a été interprétée comme une critique des représentants du ministère] que le conseil d'administration a vu devoir de faire de ma collaboration ultérieure.

Venues agricoles, Monnaies à Directeur,
l'expression des mœurs sentimentales des plus
distingués.

Kreckwitz

Paris, ce 28 avril 1889.

~~Dolly L.
M. Heckelholz~~

Monsieur le Directeur,

Permettez-moi de vous donner tout de suite les renseignements que vous désirez; j'aurai l'honneur de vous les compléter demain de vive voix.

Une douzaine d'élèves, dont 3 des cours d'allemand, ont assisté aux 5 leçons de volapük que j'ai données, à l'Institut communal, le dimanche matin, de 10 à 11 h.

A la suite de l'examen écrit, qui a eu lieu le 14 avril, à l'institut, un brevet de capacité leur a été accordé. Tous ayant témoigné le désir de pouvoir montrer leur brevet à leurs parents, je me suis chargé d'apporter moi-même les diplômes et les leur ai remis, mercredi dernier, pendant la récréation de 3 h. 20.

Comme je n'ai engagé aucun élève à suivre un cours de volapük quelconque,

j'ai tout lieu de penser que ces jeunes gens y ont été poussés par ceux de leurs camarades de 2^e année, qui ont été l'année dernière à l'étranger, et auxquels la possession du diplôme de Volapükiste a rendu les plus grands services.

Vous voyez, Monsieur le Directeur, que j'ai au moins de moi conformer à vos instructions, et que j'ai évité scrupuleusement tout acte pouvant aller à l'encontre de vos désirs ou de ceux de Monsieur le Président.

Je tiens même tellement à étre tout dévoué avec l'administration que je suis résolu à retirer complètement mon concours aux Volapükistes, le jour où je saurai le être agréable.

Veuillez agréer, Monsieur le Directeur, l'expression de mes sentiments les plus distingués.

Kerkhoff