

# Schooling of Nikola Tesla in Croatia and his teacher Martin Sekulić

Darko Žubrinić

Faculty of Electrical Engineering and Computing  
University of Zagreb, Croatia



Czech Technical University (ČVUT)  
Prague, January 2024

Nikola Tesla with the Zivic brothers in 1941. Tesla asocial?



Nikola Tesla with Fritzie Zivic, world boxing champ.  
Tesla asocial?



In the mirror behind Tesla, two more persons are visible:  
Charles F. Scott and maybe Fiorello la Guardia



Charles F. Scott (Tesla's assistant in 1888), and maybe [Fiorello la Guardia](#), a famous Mayor of the city of New York, who was fluent in Croatian language [More information](#)

# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in **Croatian Military Frontier / Kroatische Militär-Grenze**), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA*, i.e., nearly sixty years
- ▶ he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.

# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 150 years since Tesla's **graduation** in Croatia (Rakovac 1873)
- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in *Croatian Military Frontier / Kroatische Militär-Grenze*), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA*, i.e., nearly sixty years
- ▶ he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.

# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 150 years since Tesla's **graduation** in Croatia (Rakovac 1873)
- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in *Croatian Military Frontier / Kroatische Militär-Grenze*), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA*, i.e., nearly sixty years
- ▶ he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.

# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 150 years since Tesla's **graduation** in Croatia (Rakovac 1873)
- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in Croatian Military Frontier / Kroatische Militär-Grenze), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA, i.e., nearly sixty years*
- ▶ *he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.*



# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 150 years since Tesla's **graduation** in Croatia (Rakovac 1873)
- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in **Croatian Military Frontier / Kroatische Militär-Grenze**), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA, i.e., nearly sixty years*
- ▶ *he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.*

# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 150 years since Tesla's **graduation** in Croatia (Rakovac 1873)
- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in **Croatian Military Frontier / Kroatische Militär-Grenze**), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA*, i.e., nearly sixty years
- ▶ he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.

# Introduction

With this lecture, we mark two important anniversaries:

- ▶ 150 years since Tesla's **graduation** in Croatia (Rakovac 1873)
- ▶ 130 years since Tesla's **invention of radio**, described in 1893 during his spectacular public lecture delivered in a concert hall in St. Louis (Missouri, USA) in front of five thousand people (source, Margaret Cheney: *Tesla Man Out of Time*, 7th chapter entitled "Radio" described in detail Tesla's lecture in St. Louis.)

Nikola Tesla (1856-1943) spent the major part of his life in the USA and in Croatia:

- ▶ until the age of 19, Tesla lived in his native Croatia (more precisely, in **Croatian Military Frontier / Kroatische Militär-Grenze**), i.e., for more than one fifth of his life
- ▶ *he spent the last two thirds of his life in the USA*, i.e., nearly sixty years
- ▶ he lived the remaining eight years in Austria, Czechia, Hungary, France, Germany, and in present-day Slovenia.

## Tesla's schooling in Rakovac, 1870-1873

- ▶ Nikola Tesla attended the *Higher Real School* in Rakovac during three school years, from the autumn 1870 till the summer of 1873. Rakovac is now a part of the city of Karlovac.
- ▶ Tesla was in Rakovac during his 'formative years', *from the age of fourteen till the age of seventeen*.
- ▶ During Tesla's senior year in Rakovac, thanks to his professor of physics Martin Sekulić, he began to be interested in Electrical Engineering.
- ▶ During the graduation of young Tesla in Rakovac in 1873, his teacher Martin Sekulić was at the age of 40.
- ▶ By the end of that same year, Sekulić was elected as a member correspondent of JAZU (today HAZU, Croatian Academy of Sciences and Arts) in Zagreb, in the Department of Mathematics and Natural Sciences.

## Tesla's schooling in Rakovac, 1870-1873

- ▶ Nikola Tesla attended the *Higher Real School* in Rakovac during three school years, from the autumn 1870 till the summer of 1873. Rakovac is now a part of the city of Karlovac.
- ▶ Tesla was in Rakovac during his 'formative years', *from the age of fourteen till the age of seventeen*.
- ▶ During Tesla's senior year in Rakovac, thanks to his professor of physics Martin Sekulić, he began to be interested in Electrical Engineering.
- ▶ During the graduation of young Tesla in Rakovac in 1873, his teacher Martin Sekulić was at the age of 40.
- ▶ By the end of that same year, Sekulić was elected as a member correspondent of JAZU (today HAZU, Croatian Academy of Sciences and Arts) in Zagreb, in the Department of Mathematics and Natural Sciences.

## Tesla's schooling in Rakovac, 1870-1873

- ▶ Nikola Tesla attended the *Higher Real School* in Rakovac during three school years, from the autumn 1870 till the summer of 1873. Rakovac is now a part of the city of Karlovac.
- ▶ Tesla was in Rakovac during his 'formative years', *from the age of fourteen till the age of seventeen*.
- ▶ During Tesla's senior year in Rakovac, thanks to his professor of physics [Martin Sekulić](#), he began to be interested in Electrical Engineering.
- ▶ During the graduation of young Tesla in Rakovac in 1873, his teacher Martin Sekulić was at the age of 40.
- ▶ By the end of that same year, Sekulić was elected as a [member correspondent of JAZU](#) (today HAZU, [Croatian Academy of Sciences and Arts](#)) in Zagreb, in the Department of Mathematics and Natural Sciences.

## Tesla's schooling in Rakovac, 1870-1873

- ▶ Nikola Tesla attended the *Higher Real School* in Rakovac during three school years, from the autumn 1870 till the summer of 1873. Rakovac is now a part of the city of Karlovac.
- ▶ Tesla was in Rakovac during his 'formative years', *from the age of fourteen till the age of seventeen*.
- ▶ During Tesla's senior year in Rakovac, thanks to his professor of physics [Martin Sekulić](#), he began to be interested in Electrical Engineering.
- ▶ During the graduation of young Tesla in Rakovac in 1873, his teacher Martin Sekulić was at the age of 40.
- ▶ By the end of that same year, Sekulić was elected as a [member correspondent of JAZU](#) (today HAZU, [Croatian Academy of Sciences and Arts](#)) in Zagreb, in the Department of Mathematics and Natural Sciences.

## Coat of Arms of the city of Karlovac from 1781



Karlovac was built in 1579 as a fortress against the Turks.

It had the hexagonal form of the ideal Renaissance city.

In 1781, Karlovac was granted the privilege of a *Free Royal City* by Emperor Joseph IInd.

Note the Croatian Coat of Arms just below the crown.



Martin Sekulić (1833-1905), Tesla's professor of Physics



Martin Sekulić with his colleagues in Rakovac in 1869

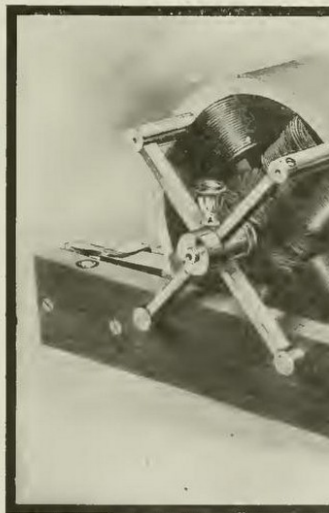


## The names of 11 professors from the *Higher Real School* in Rakovac, 1869

- ▶ Franz Kreminger, geometry, civil engineering constructions
- ▶ Christian Nieper, German language, geography, history
- ▶ Vinz. Knapp, music and singing
- ▶ Franz Sehr, German language, calligraphy, geometry, geography, history
- ▶ Josef Vitanović, Croatian language, geography, history, German language
- ▶ Emanuel Kregcz, chemistry, geography, history
- ▶ Karl Pallasmann, free-hand drawing, modelling
- ▶ Moritz Antolić, physics, mathematics
- ▶ **Martin Sekulić**, a member of Croatian-Slavonian agricultural soc., Croatian lang., arithmetic, agriculture, calligraphy, mechanical eng., physics, curator of the physics cabinet
- ▶ Christian Lechleitner, agriculture, geology
- ▶ Nikolaus Živković, catechist, taught religious formation, arithmetic, and Croatian language.

## Tesla about Martin Sekulić in his 1919 autobiography

filled me with dread. I had become intensely interested in electricity under the stimulating influence of my Professor of Physics, who was an ingenious man and often demonstrated the principles by apparatus of his own invention. Among these I recall a device in the shape of a freely rotatable bulb, with tinfoil coatings, which was made to spin rapidly when connected to a static machine. It is impossible for me to convey an adequate idea of the intensity of feeling I experienced in witnessing his exhibitions of these mysterious phenomena. Every impression produced a thousand echoes in my mind. I wanted to know more of this wonderful force; I longed for experiment and investigation and resigned myself to the inevitable with aching heart.



Tesla's First Induction Motor. This His Presented Before the American In:

WHAT IS THE INDI

## Nikola Tesla about his professor Martin Sekulić

In his autobiography *My Inventions* (NY, 1919), Tesla writes:

## Nikola Tesla about his professor Martin Sekulić

In his autobiography *My Inventions* (NY, 1919), Tesla writes:

- ▶ I had become intensely interested in electricity **under the stimulating influence of my Professor of Physics**, who was **an ingenious man** and often demonstrated the principles by apparatus of his own invention.

## Nikola Tesla about his professor Martin Sekulić

In his autobiography *My Inventions* (NY, 1919), Tesla writes:

- ▶ I had become intensely interested in electricity **under the stimulating influence of my Professor of Physics**, who was **an ingenious man** and often demonstrated the principles by apparatus of his own invention.
- ▶ Among these I recall a device in the shape of a freely rotatable bulb, with tinfoil coatings, which was made to spin rapidly when connected to a static machine.

## Nikola Tesla about his professor Martin Sekulić

In his autobiography *My Inventions* (NY, 1919), Tesla writes:

- ▶ I had become intensely interested in electricity **under the stimulating influence of my Professor of Physics**, who was **an ingenious man** and often demonstrated the principles by apparatus of his own invention.
- ▶ Among these I recall a device in the shape of a freely rotatable bulb, with tinfoil coatings, which was made to spin rapidly when connected to a static machine.
- ▶ **It is impossible for me to convey an adequate idea of the intensity of feeling I experienced** in witnessing his exhibitions of **these mysterious phenomena**.



## Nikola Tesla about his professor Martin Sekulić

In his autobiography *My Inventions* (NY, 1919), Tesla writes:

- ▶ I had become intensely interested in electricity **under the stimulating influence of my Professor of Physics**, who was an **ingenious man** and often demonstrated the principles by apparatus of his own invention.
- ▶ Among these I recall a device in the shape of a freely rotatable bulb, with tinfoil coatings, which was made to spin rapidly when connected to a static machine.
- ▶ **It is impossible for me to convey an adequate idea of the intensity of feeling I experienced** in witnessing his exhibitions of **these mysterious phenomena**.
- ▶ Every impression produced **a thousand echoes in my mind**.

## Nikola Tesla about his professor Martin Sekulić

In his autobiography *My Inventions* (NY, 1919), Tesla writes:

- ▶ I had become intensely interested in electricity **under the stimulating influence of my Professor of Physics**, who was an **ingenious man** and often demonstrated the principles by apparatus of his own invention.
- ▶ Among these I recall a device in the shape of a freely rotatable bulb, with tinfoil coatings, which was made to spin rapidly when connected to a static machine.
- ▶ **It is impossible for me to convey an adequate idea of the intensity of feeling I experienced** in witnessing his exhibitions of **these mysterious phenomena**.
- ▶ Every impression produced **a thousand echoes in my mind**.
- ▶ I wanted to know more of **this wonderful force**; **I longed for experiment and investigation** and resigned myself to the inevitable with aching heart.

## Did Tesla forget the name of his professor of Physics?

In his autobiography (*My Inventions*, New York, 1919), Nikola Tesla mentions his professor Martin Sekulić and his mother Georgina (Đuka), but without indicating their names.

## Did Tesla forget the name of his professor of Physics?

In his autobiography (*My Inventions*, New York, 1919), Nikola Tesla mentions his professor Martin Sekulić and his mother Georgina (Đuka), but without indicating their names.

- ▶ It is impossible that Tesla would forget the name of his mother.

## Did Tesla forget the name of his professor of Physics?

In his autobiography (*My Inventions*, New York, 1919), Nikola Tesla mentions his professor Martin Sekulić and his mother Georgina (Đuka), but without indicating their names.

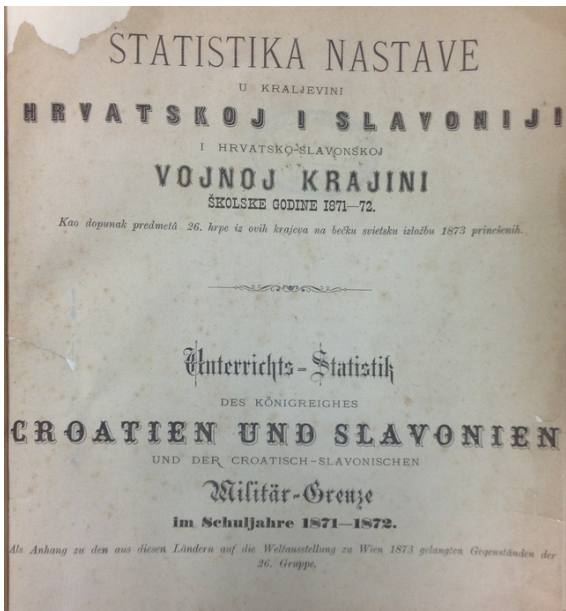
- ▶ It is impossible that Tesla would forget the name of his mother.
- ▶ It is impossible that he would forget the name of his professor, about who he wrote with such admiration.

## Did Tesla forget the name of his professor of Physics?

In his autobiography (*My Inventions*, New York, 1919), Nikola Tesla mentions his professor Martin Sekulić and his mother Georgina (Đuka), but without indicating their names.

- ▶ It is impossible that Tesla would forget the name of his mother.
- ▶ It is impossible that he would forget the name of his professor, about who he wrote with such admiration.
- ▶ These were the only persons that Tesla described in his 1919 autobiography as **ingenious**.

# Education within the *Croatian-Slavonian Military Frontier*, 1871-1872



# 579 physics apparatus in the *Higher Real School* in Rakovac

Sbirke učevnih sredstva	Broj
Lehrmittel-Sammlungen	Anzahl
Učiteljska knjižnica { svezaka — <i>Bände</i> . . . . .	986
Lehrer - Bibliothek { svezčica — <i>Hefte</i> . . . . .	419
Učenička knjižnica { komada — <i>Stücke</i> . . . . .	—
Schüler - Bibliothek { svezaka — <i>Bände</i> . . . . .	1084
{ svezčica — <i>Hefte</i> . . . . .	389
{ komada — <i>Stücke</i> . . . . .	—
<b>Inventarski komadi. — Inventarstücke.</b>	
Fizikalnih sprava . . . . .	579
Physikalische Apparate . . . . .	
Kemičkoga laboratorija . . . . .	111
Chemisches Laboratorium . . . . .	
Zoologička sbirka: Kralježnici . . . . .	141
Zoologische Sammlung: <i>Wirbelthiere</i> . . . . .	
druge životinje — <i>Andere Thiere</i> . . . . .	2105
ini zoologički predmeti — <i>Sonstige zoolog. Gegenstände</i> . . . . .	—
Botanička sbirka: Listovi biljevnika . . . . .	743
Botanische Sammlung: <i>Herbarienblätter</i> . . . . .	
ini botanički predmeti — <i>Sonstige botan. Gegenstände</i> . . . . .	bot. baška
Mineralogička sbirka: naravni komadi . . . . .	3858
Mineralsammlung: <i>Naturstücke</i> . . . . .	
ledačni modeli — <i>Krystallmodelle</i> . . . . .	120
Naravoznanstvene slike . . . . .	280
Naturwissenschaftliche <i>Wandtafeln</i> . . . . .	
Zemljopis: zemljovidi . . . . .	79
Geographie: <i>Wandkarten</i> . . . . .	
reliefkarte — <i>Reliefkarten</i> . . . . .	3
atlanti — <i>Atlanten</i> . . . . .	2
relief atlas — <i>Reliefatlas</i> . . . . .	1
globi — <i>Globen</i> . . . . .	2
tellurija — <i>Tellurien</i> . . . . .	1
Matematika: stereometrička tjelesa . . . . .	
Mathematik: <i>stereometrische Körper</i> . . . . .	
Modeli za graditeljstvo i strojništvo . . . . .	109
Modelle für <i>Baukunst und Maschinenlehre</i> . . . . .	
Druga sbirka: . . . . .	



## Physics laboratory in Rakovac had as many as 579 instruments (1871-1872)

- ▶ Physics laboratory containing 579 instruments in the *Higher Real School* in Rakovac was directed by Martin Sekulić.

## Physics laboratory in Rakovac had as many as 579 instruments (1871-1872)

- ▶ Physics laboratory containing 579 instruments in the *Higher Real School* in Rakovac was directed by Martin Sekulić.
- ▶ Chemical laboratory: 111 items
- ▶ Zoological collection: vertebrals 141, other animals 2015
- ▶ Botanical collection: 743 (botanical garden)
- ▶ mineralogical collection: from nature 3858 items, crystals 120
- ▶ educational wall-tables for natural sciences: 280
- ▶ geography: wall-tables 79, relief maps 3, globes 2, other 3
- ▶ mathematics (stereometrical bodies), models in civil and mechanical engineering: 109

## Physics laboratory in Rakovac had as many as 579 instruments (1871-1872)

- ▶ Physics laboratory containing **579 instruments** in the *Higher Real School* in Rakovac was directed by Martin Sekulić.
- ▶ Chemical laboratory: 111 items
- ▶ Zoological collection: vertebrals 141, other animals 2015
- ▶ Botanical collection: 743 (botanical garden)
- ▶ mineralogical collection: from nature 3858 items, crystals 120
- ▶ educational wall-tables for natural sciences: 280
- ▶ geography: wall-tables 79, relief maps 3, globes 2, other 3
- ▶ mathematics (stereometrical bodies), models in civil and mechanical engineering: 109
- ▶ gymnastics training equipment: 156
- ▶ meteorological devices: 5
- ▶ free-hand drawing: 1145 items
- ▶ fencing: 65 items

## Equipment of the *Higher Real School* in Rakovac with books

- ▶ Teachers' library: 986 volumes and 419 smaller editions
- ▶ Student's library: 1034 volumes and 869 smaller editions

<b>Učiteljska knjižnica</b>	{ svezaka — <i>Bände</i> . . . . .	986
<b>Lehrer - Bibliothek</b>	{ svezčica — <i>Hefte</i> . . . . .	419
	{ komada — <i>Stücke</i> . . . . .	—
<b>Učenička knjižnica</b>	{ svezaka — <i>Bände</i> . . . . .	1034
<b>Schüler - Bibliothek</b>	{ svezčica — <i>Hefte</i> . . . . .	389
	{ komada — <i>Stücke</i> . . . . .	—

Fizikalnih sprava . . . . . 579

The physical laboratory had as many as 579 instruments!

Martin Sekulić, a member correspondent of the  
*Academy of Sciences and Arts in Zagreb since 1873*

- ▶ member correspondent of JAZU (now HAZU) in Zagrebu, at the Department for Mathematics and Natural Sciences.

## Martin Sekulić, a member correspondent of the *Academy of Sciences and Arts in Zagreb since 1873*

- ▶ member correspondent of JAZU (now HAZU) in Zagreb, at the Department for Mathematics and Natural Sciences.
- ▶ In prestigious *Annalen der Physik*, he published his articles in 1872, 1873, and 1875 in German. The journal was founded in 1790. In Sekulić's time: *Annalen der Physik und Chemie*.

## Martin Sekulić, a member correspondent of the *Academy of Sciences and Arts in Zagreb since 1873*

- ▶ member correspondent of JAZU (now HAZU) in Zagreb, at the Department for Mathematics and Natural Sciences.
- ▶ In prestigious *Annalen der Physik*, he published his articles in 1872, 1873, and 1875 in German. The journal was founded in 1790. In Sekulić's time: *Annalen der Physik und Chemie*.
- ▶ In *Annalen*, German Nobel Prize winner Max Planck served as associated editor since 1895, and as editor-in-chief 1907-1943.
- ▶ In 1905, Albert Einstein published his articles in *Annalen der Physik*, for which he was awarded the Nobel Prize.

## Martin Sekulić, a member correspondent of the *Academy of Sciences and Arts in Zagreb* since 1873

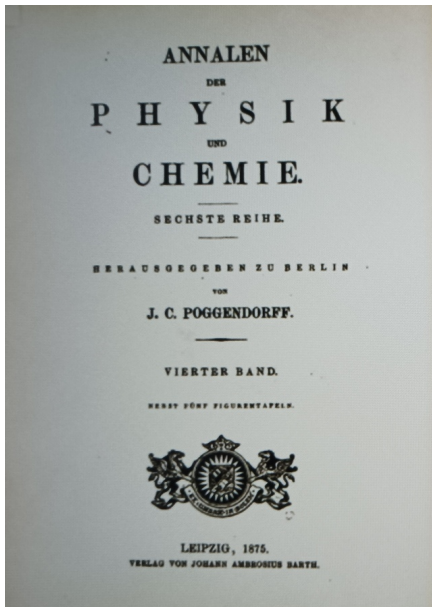
- ▶ member correspondent of JAZU (now HAZU) in Zagreb, at the Department for Mathematics and Natural Sciences.
- ▶ In prestigious *Annalen der Physik*, he published his articles in 1872, 1873, and 1875 in German. The journal was founded in 1790. In Sekulić's time: *Annalen der Physik und Chemie*.
- ▶ In *Annalen*, German Nobel Prize winner Max Planck served as associated editor since 1895, and as editor-in-chief 1907-1943.
- ▶ In 1905, Albert Einstein published his articles in *Annalen der Physik*, for which he was awarded the Nobel Prize.
- ▶ From 1852 till 1856, Martin Sekulić studied at the *K. K. Artillery Academy* in Olomouc (Olmütz) in Morava, Czechia, where he had solid education in Math and Physics, including fencing and dancing. See [Vuković and Valent, 104-105].



## Martin Sekulić, a member correspondent of the *Academy of Sciences and Arts in Zagreb* since 1873

- ▶ member correspondent of JAZU (now HAZU) in Zagrebu, at the Department for Mathematics and Natural Sciences.
- ▶ In prestigious *Annalen der Physik*, he published his articles in 1872, 1873, and 1875 in German. The journal was founded in 1790. In Sekulić's time: *Annalen der Physik und Chemie*.
- ▶ In *Annalen*, German Nobel Prize winner Max Planck served as associated editor since 1895, and as editor-in-chief 1907-1943.
- ▶ In 1905, Albert Einstein published his articles in *Annalen der Physik*, for which he was awarded the Nobel Prize.
- ▶ From 1852 till 1856, Martin Sekulić studied at the *K. K. Artillery Academy* in Olomouc (Olmütz) in Morava, Czechia, where he had solid education in Math and Physics, including fencing and dancing. See [Vuković and Valent, 104-105].
- ▶ **Wilhelm Marášek** (1847-1894), born in Prague, was employed at the *K. K. Higher Real School* in Rakovac from 1876 till 1887. See [Vuković and Valent, 95-96].

*Annalen der Physik und Chemie* from 1875



# Croatian-Slavonian Military Frontier (Hrvatsko-slavonska Vojna Krajina)

- ▶ Croatian Military Frontier = *Kroatische Militär-Grenze*

# Croatian-Slavonian Military Frontier (Hrvatsko-slavonska Vojna Krajina)

- ▶ Croatian Military Frontier = *Kroatische Militär-Grenze*
- ▶ Croatian-Slavonian Military Frontier = *Kroatisch-Slavonische Militär-Grenze*

## Croatian-Slavonian Military Frontier (Hrvatsko-slavonska Vojna Krajina)

- ▶ Croatian Military Frontier = *Kroatische Militär-Grenze*
- ▶ Croatian-Slavonian Military Frontier = *Kroatisch-Slavonische Militär-Grenze*
- In the same building in Rakovac, there were three grades of the *Lower Real School*, and three grades of the *Higher Real School*.

## Croatian-Slavonian Military Frontier (Hrvatsko-slavonska Vojna Krajina)

- ▶ Croatian Military Frontier = *Kroatische Militär-Grenze*
- ▶ Croatian-Slavonian Military Frontier = *Kroatisch-Slavonische Militär-Grenze*
- In the same building in Rakovac, there were three grades of the *Lower Real School*, and three grades of the *Higher Real School*.
- In the autumn 1870, Tesla enrolled the fourth grade.

## Croatian-Slavonian Military Frontier (Hrvatsko-slavonska Vojna Krajina)

- ▶ Croatian Military Frontier = *Kroatische Militär-Grenze*
- ▶ Croatian-Slavonian Military Frontier = *Kroatisch-Slavonische Militär-Grenze*
- In the same building in Rakovac, there were three grades of the *Lower Real School*, and three grades of the *Higher Real School*.
- In the autumn 1870, Tesla enrolled the fourth grade.
- In the autumn of 1871, the *Real School* became seven-year school, so that an additional grade was inserted between the third and fourth grades. This new grade became the fourth. The *Higher Real School* now had four grades.

## Croatian-Slavonian Military Frontier (Hrvatsko-slavonska Vojna Krajina)

- ▶ Croatian Military Frontier = *Kroatische Militär-Grenze*
- ▶ Croatian-Slavonian Military Frontier = *Kroatisch-Slavonische Militär-Grenze*
- In the same building in Rakovac, there were three grades of the *Lower Real School*, and three grades of the *Higher Real School*.
- In the autumn 1870, Tesla enrolled the fourth grade.
- In the autumn of 1871, the *Real School* became seven-year school, so that an additional grade was inserted between the third and fourth grades. This new grade became the fourth. The *Higher Real School* now had four grades.
- When Tesla completed the fourth grade, he enrolled the new sixth grade. He completed the last (i.e., seventh) grade in 1873 at the age of 17.



## Six school grades at the *Higher Real School* in Rakovac, and not five

According to Dušan Pejnović, students had the following 6 marks:

1. outstanding (*ausgezeichnet*)
2. excellent (*vorzüglich*)
3. very good or commendable (*lobenswert*)
4. good (*befriedigend*)
5. sufficient (*genügend*)
6. insufficient (*ungenügend*).

## Six school grades at the *Higher Real School* in Rakovac, and not five

According to Dušan Pejnović, students had the following 6 marks:

1. outstanding (*ausgezeichnet*)
2. excellent (*vorzüglich*)
3. very good or commendable (*lobenswert*)
4. good (*befriedigend*)
5. sufficient (*genügend*)
6. insufficient (*ungenügend*).

**Tesla's graduation marks** (within the group of 7 students) July 24th, 1873:

- excellent: geography, history, German language;
- very good: physics, chemistry, biology, French language, religious education;
- good: mathematics, descriptive geometry;
- sufficient: free-hand drawing, Croatian language.

Source: Dušan Pejnović, *Matematičko-fizički list*, Zagreb 1956-57, p. 112.

## Documents from Croatia that Tesla needed for obtaining his USA citizenship

School minutes of the *Higher Real School* in Rakovac mention that on 29th July of 1885, a copy of Tesla's graduation certificate was issued.

## Documents from Croatia that Tesla needed for obtaining his USA citizenship

School minutes of the *Higher Real School* in Rakovac mention that on 29th July of 1885, a copy of Tesla's graduation certificate was issued.

According to Pejnović, Nikola Tesla asked for these copies in order to attach them as an appendix to his application for obtaining the American citizenship. He obtained the USA citizenship in 1891.

## Documents from Croatia that Tesla needed for obtaining his USA citizenship

School minutes of the *Higher Real School* in Rakovac mention that on 29th July of 1885, a copy of Tesla's graduation certificate was issued.

According to Pejnović, Nikola Tesla asked for these copies in order to attach them as an appendix to his application for obtaining the American citizenship. He obtained the USA citizenship in 1891.

In 1883, Tesla obtained his passport from *Croatian-Slavonian-Dalmatian Government* in Zagreb. At that time, Croatia was a legal part of Austrian-Hungarian Empire (1867-1918). Nikola Tesla was a citizen of the *Three-une Kingdom* (i.e., of *Trojedna Kraljevina*, consisting of Croatia, Slavonia and Dalmatia). This passport was to be used for travelling to France, Russia and Germany.

# Tesla's passport issued in Zagreb in 1883

Kr. hrv.-slav.-dalm.  
zemaljska vlada.

Kön. kroat.-slav.-dalm.  
Landes-Regierung.



U I M E

Nj. ces. i kralj. apoštolskog Veličanstva

FRANJE JOSIPA I

cesara austrijanskoga, kralja ugarskoga,

dalmatinskoga, hrvatskoga i slavonskoga

i t. d.

Putovnica. Reisepass.

Br. }  
Nr. }

1079.

5130/P.

za }  
für }

Nikolaus Tesla.

Tesla's passport issued by *Croatian-Slavonian-Dalmatian Government* in Zagreb on 25th November, 1883



## Association for support of students in need in Rakovac

Obstanak i dielotvornost družtva za podporu siromašnih učeníká.

*Bestand und Wirksamkeit von Unterstützungs-Vereinen für dürftige Schüler.*

Obstoji od godine 1860. Imovina koncem školske godine 1872 1 hrv.-slav. razteretnica 1000 for., kod eskomptne banke karlov. 500 for., u gotovu 30 for. 41 novč., ukupno 1530 for. 41 nov. i 322 kom. knjigá. Svake godine dobiva 10 do 12 učeníká podpunu odieću i obuću, njekoji novčanu podporu za podmirenje stanarine i drugih potreba. Svake godine razdieli se risarskih potrebština za blizu 20 for.

*Besteht ein Unterstützungsverein seit dem Jahre 1860. Vermögen mit Ende des Schuljahres 1872 bestand in 1 croat.-slav. Grundentlastungs-Obligation pr. 1000 fl., bei der Karlstäd. Escomptebank 500 fl., in Baarem 30 fl. 41 kr., im Ganzen 1530 fl. 41 kr. und 322 Stück Bücher. Alljährlich erhielten 10—12 Schüler vollständige Kleidung u. Beschuhung, einzelne Geldunterstützungen zur Deckung des Quartiergeldes und sonstiger Bedürfnisse. Jährlich werden Zeichenrequisiten bis zum Betrage von 20 fl. vertheilt.*

Martin Sekulić served as a secretary of this association.

During two shorter time intervals, he also served  
as a head-master of the school.



Yearbook of the *Higher Real School* in Rakovac, 1869-1870

Sechster

# JAHRESBERICHT

der

# K. K. OBER-REALSCHULE

zu

## RAKOVAC

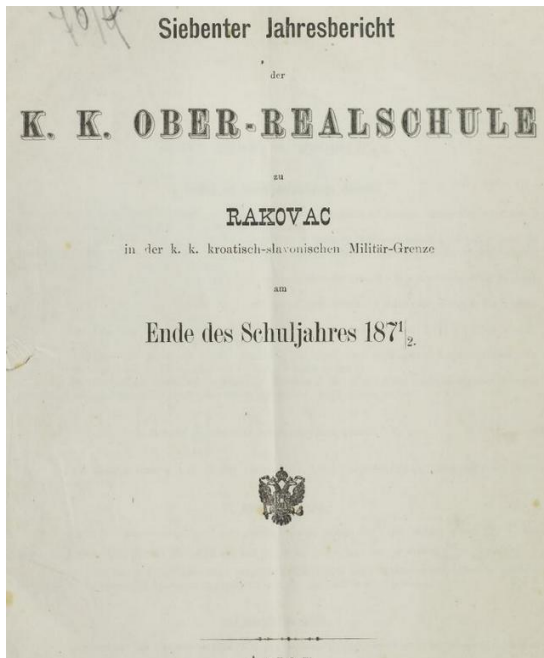
in der k. k. kroatischen Militär-Grenze

für

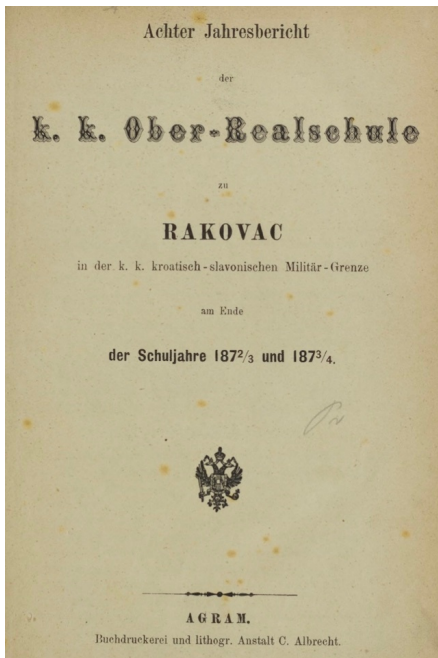
das Schuljahr 186<sup>9</sup>|70.



Yearbook of the *Higher Real School* in Rakovac, 1871-1872



# Yearbook of the *Higher Real School* in Rakovac, 1872-1874



*Croatian-Slavonian Military Frontier on title pages*

**RAKOVAC**

in der k. k. kroatischen Militär-Grenze

**RAKOVAC**

in der k. k. kroatisch-slavonischen Militär-Grenze

**RAKOVAC**

in der k. k. kroatisch - slavonischen Militär - Grenze

## School subjects that Nikola Tesla had in Rakovac during 1872/73

- ▶ mathematics (in German - Mathematik)
- ▶ physics (in German - Physik, in Croatian - prirodoslovje)
- ▶ Croatian language (Kroatische Sprache, hrvatski jezik)

## School subjects that Nikola Tesla had in Rakovac during 1872/73

- ▶ mathematics (in German - Mathematik)
- ▶ physics (in German - Physik, in Croatian - prirodoslovje)
- ▶ Croatian language (Kroatische Sprache, hrvatski jezik)
- ▶ Geometry, geometric drawing, descriptive geometry
- ▶ chemistry (in Croatian - lučba)
- ▶ biology (in Croatian - naravoslovlje)

## School subjects that Nikola Tesla had in Rakovac during 1872/73

- ▶ mathematics (in German - Mathematik)
- ▶ physics (in German - Physik, in Croatian - prirodoslovje)
- ▶ Croatian language (Kroatische Sprache, hrvatski jezik)
- ▶ Geometry, geometric drawing, descriptive geometry
- ▶ chemistry (in Croatian - lučba)
- ▶ biology (in Croatian - naravoslovlje)
- ▶ geography and history
- ▶ free-hand drawing
- ▶ German language
- ▶ French language (optional)
- ▶ religious teaching (Religionslehre)

## School subjects that Nikola Tesla had in Rakovac during 1872/73

- ▶ mathematics (in German - Mathematik)
- ▶ physics (in German - Physik, in Croatian - prirodoslovje)
- ▶ Croatian language (Kroatische Sprache, hrvatski jezik)
- ▶ Geometry, geometric drawing, descriptive geometry
- ▶ chemistry (in Croatian - lučba)
- ▶ biology (in Croatian - naravoslovlje)
- ▶ geography and history
- ▶ free-hand drawing
- ▶ German language
- ▶ French language (optional)
- ▶ religious teaching (Religionslehre)



# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)  
jednačbe višeg stupnja (higher order equations)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)  
jednačbe višeg stupnja (higher order equations)  
progresije (progressions)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)

diofantičke jednačbe (Diophant equations)

jednačbe višeg stupnja (higher order equations)

progresije (progressions)

konvergencija i divergencije (convergence and divergence)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)

diofantičke jednačbe (Diophant equations)

jednačbe višeg stupnja (higher order equations)

progresije (progressions)

konvergencija i divergencije (convergence and divergence)

kombinacije (combinations)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)  
jednačbe višeg stupnja (higher order equations)  
progresije (progressions)  
konvergencija i divergencije (convergence and divergence)  
kombinacije (combinations)  
stereometrija (stereometry)



# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)  
jednačbe višeg stupnja (higher order equations)  
progresije (progressions)  
konvergencija i divergencije (convergence and divergence)  
kombinacije (combinations)  
stereometrija (stereometry)  
počela sferičke geometrije (basics of spherical geometry)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)  
jednačbe višeg stupnja (higher order equations)  
progresije (progressions)  
konvergencija i divergencije (convergence and divergence)  
kombinacije (combinations)  
stereometrija (stereometry)  
počela sferičke geometrije (basics of spherical geometry)  
5 sati na tjedan (5 hours weekly)

# Mathematika (in German - Mathematik) at the 7th grade

**Mathematika.** Suvisni ulomci, diofantičke jednačbe, jednačbe višeg stupnja, progresije, konvergencija i divergencija, kombinacija, binomialni poučak. Stereometrija, počela sferičke trigonometrije. 5 sati na tjedan.

suvisni ulomci (continued fractions)  
diofantičke jednačbe (Diophant equations)  
jednačbe višeg stupnja (higher order equations)  
progresije (progressions)  
konvergencija i divergencije (convergence and divergence)  
kombinacije (combinations)  
stereometrija (stereometry)  
počela sferičke geometrije (basics of spherical geometry)  
5 sati na tjedan (5 hours weekly)

# Physics (Physik in German, Prirodoslovje in Croatian)

Physik. Wärmetheorie, Elektrizität, Magnetismus, Statik fester, flüssiger und gasförmiger Körper. Wöchentlich 4 Stunden.

Description in German language

Prirodoslovje. Toplina, munjina i magnetizam. Statika krutih i tekućih tvari na temelju pokusa i popularne matematike.

Description in Croatian language

# Physics (Physik in German, Prirodoslovje in Croatian)

Physik. Wärmetheorie, Elektrizität, Magnetismus, Statik fester, flüssiger und gasförmiger Körper. Wöchentlich 4 Stunden.

Description in German language

Prirodoslovje. Toplina, munjina i magnetizam. Statika krutih i tekućih tvari na temelju pokusa i popularne matematike.

Description in Croatian language

- ▶ **munjina** = electricity (derived from **munja** - lightning)

# Physics (Physik in German, Prirodoslovje in Croatian)

Physik. Wärmetheorie, Elektrizität, Magnetismus, Statik fester, flüssiger und gasförmiger Körper. Wöchentlich 4 Stunden.

Description in German language

Prirodoslovje. Toplina, munjina i magnetizam. Statika krutih i tekućih tvari na temelju pokusa i popularne matematike.

Description in Croatian language

- ▶ **munjina** = electricity (derived from **munja** - lightning)
- ▶ **munjara** = electric plant

# Physics (Physik in German, Prirodoslovje in Croatian)

Physik. Wärmetheorie, Elektrizität, Magnetismus, Statik fester, flüssiger und gasförmiger Körper. Wöchentlich 4 Stunden.

Description in German language

Prirodoslovje. Toplina, munjina i magnetizam. Statika krutih i tekućih tvari na temelju pokusa i popularne matematike.

Description in Croatian language

- ▶ **munjina** = electricity (derived from **munja** - lightning)
- ▶ **munjara** = electric plant
- ▶ In Zagreb, there is a street called **Munjarski put** (Electric plant path!)

# Physics (Physik in German, Prirodoslovje in Croatian)

Physik. Wärmetheorie, Elektrizität, Magnetismus, Statik fester, flüssiger und gasförmiger Körper. Wöchentlich 4 Stunden.

Description in German language

Prirodoslovje. Toplina, munjina i magnetizam. Statika krutih i tekućih tvari na temelju pokusah i popularne matematike.

Description in Croatian language

- ▶ **munjina** = electricity (derived from **munja** - lightning)
- ▶ **munjara** = electric plant
- ▶ In Zagreb, there is a street called **Munjarski put** (Electric plant path!)
- ▶ na temelju **pokusah** (genitive case of "pokusi") - so-called *ahavism* (used also by August Šenoa, distinguished Croatian writer)



## Croatian language (Kroatische Sprache)

**Kroatische Sprache.** Neue Literatur, Lektüre der Schriftsteller und der Volkspoesie bei vorragender Berücksichtigung der Poesie. Abhandlung aus dem Erkenntnisskreise der Schüler. Wöchentlich 3 Stunden.

**Hèrvatski jezik.** Obširnije poznavanje naše novije književnosti. Nastavak velike čitanke knjiga 2. propisane za gor. gimn. Važnije i potrebnije znanje iz poetike. Pismene vježbe školske i domaće prema propisu. 3 sata na tjedan.

## Croatian language (Kroatische Sprache)

**Kroatische Sprache.** Neue Literatur, Lektüre der Schriftsteller und der Volkspoesie bei vorragender Berücksichtigung der Poesie. Abhandlung aus dem Erkenntnisskreise der Schüler. Wöchentlich 3 Stunden.

**Hèrvatski jezik.** Obširnije poznavanje naše novije književnosti. Nastavak velike čitanke knjiga 2. propisane za gor. gimn. Važnije i potrebnije znanje iz poetike. Pismene vježbe školske i domaće prema propisu. 3 sata na tjedan.

**Obširnije** - morphological way of writing (instead of "opširnije")

# Croatian language (Kroatische Sprache)

Kroatische Sprache. Neue Literatur, Lektüre der Schriftsteller und der Volkspoesie bei vorragender Berücksichtigung der Poesie. Abhandlung aus dem Erkenntnisskreise der Schüler. Wöchentlich 3 Stunden.

Hèrvatski jezik. Obširnije poznavanje naše novije književnosti. Nastavak velike čitanke knjiga 2. propisane za gor. gimn. Važnije i potrebnije znanje iz poetike. Pismene vježbe školske i domaće prema propisu. 3 sata na tjedan.

Obširnije - morphological way of writing (instead of "opširnije")  
Nikola Tesla preferred **morphological ortography** for Croatian language (instead of *phonemic*), as witnessed by Ivan Meštrović, distinguished Croatian sculptor, in his auto-biographical book *Memories to Political Personalities and Events*, 1969.

## Homework titles in Croatian lang., 1871-1872, VIth grade

- ▶ Korist tiskanja knjiga. (The use of printing of books.)
- ▶ Vašarski dan u Karlovcu. (Trade-day in Karlovac.)
- ▶ Odgovorite [tj. odvratite, D.Ž.] lěna sudruga od lěnosti. (Deter a friend from laziness.)
- ▶ Dobro je znati više jezika. (It is good to know several lang.)
- ▶ Zasluge Hervata za civilizaciju i susědne im narode u borbi protiv Mongoli. (Merits of Croats for civilization and neighbouring peoples in their struggle against Mongols.)
- ▶ Načela i posljedice Husove nauke. (Principles and consequences of the [Jan Hus teaching](#))
- ▶ Kakovih ima škola i čemu su? (Which types of schools are there and what do they serve for?)
- ▶ Govor u oči znamenite i odlučne narodne bitke, ili na grobu koga znamenitoga narodnjaka. (Speech on the eve of a famous and decisive battle, or at the grave of a famous commoner.)
- ▶ Kako i čim ćete sprovesti školske praznike? (How will you spend your school holidays?)

## Homeworks titles in Croatian lang., 1871-1872, VIIIth grade

- ▶ Po čem će minuli školski praznici navlastito ostati u vašoj uspomeni? (What is your favorite memory from summer break?)
- ▶ Misli bogoljubna kršćana na grobju. (Thoughts of a God-loving Christian at a funeral.)
- ▶ Obširniji opis naše školske zgrade. (Broader description of our school building.)
- ▶ Jezik je najblagotvornije al i najpogibeljnije udo čovječje. (The tongue is the most beneficial and the most fatal human limb.)
- ▶ O željezu (razpravica). (On the iron (a short discussion).)
- ▶ Je li kazalište za mladež od koristi i od kakove? (Is the theatre useful for youth?)
- ▶ Važnost naravopisa i lučbe. (Importance of biology and chemistry.)
- ▶ Korist sjaja i toplote sunčane. (The use of luminosity of warmth of the Sun.)
- ▶ (Izpitna radnja). Dramatički rad Gjona Palmotića. (Exam. Drama work of Gjono Palmotić.)

## School items in biology (naravoslovlje)



## Tesla's professors in Rakovac, 1872-1873

- ▶ Head-master **Šišman Šoštaric von Letovanić**, biology, mathematics, physics
- ▶ **August Löffler** (Czech), mathematics and physics
- ▶ **Martin Sekulić**, mechanics and mathematics
- ▶ **Franjo Kreminger**, measuring and mathematics
- ▶ **Josip Jagunić**, religious teaching and Croatian language
- ▶ **Nikola Živković**, Greco-Eastern relig. teaching, Croatian lang.
- ▶ **Petar Tomić**, history, geography, and French language
- ▶ **Ivan Jamnicky**, chemistry, German language, and calligraphy
- ▶ **Stepan Vorgić**, history, geography, and Croatian language
- ▶ **Mio Brašnić**, history, geography, and German language
- ▶ **Gjuro Fridrich**, free-hand drawing
- ▶ **Radoslav Grgić**, arithmetic
- ▶ **Aron Reich**, teacher for children of the Moses faith

August Löffler, professor at the *Higher Real School* in Rakovac, of the Czech origin



Source – Antun Cuvaj: *Građa za povijest školstva V.*, Zagreb 1919., p. 443



## Augustin Jaromír Löffler, Tesla's homeroom teacher

- ▶ **Augustin Jaromír Löffler**, professor of mathematics and physics, was born in 1832 in Jindřichův Hradec in Czechia. He died in Prague in 1915.

## Augustin Jaromír Löffler, Tesla's homeroom teacher

- ▶ **Augustin Jaromír Löffler**, professor of mathematics and physics, was born in 1832 in Jindřichův Hradec in Czechia. He died in Prague in 1915.
- ▶ Employed at the *Higher Real School* in Rakovac since 1870, he was Tesla's homeroom teacher in the school year 1870/1871.

## Augustin Jaromír Löffler, Tesla's homeroom teacher

- ▶ **Augustin Jaromír Löffler**, professor of mathematics and physics, was born in 1832 in Jindřichův Hradec in Czechia. He died in Prague in 1915.
- ▶ Employed at the *Higher Real School* in Rakovac since 1870, he was Tesla's homeroom teacher in the school year 1870/1871.
- ▶ By the end of the first semester of the school year 1872/73, Löffler assigned to Nikola Tesla the failing grade in maths. It was a consequence of Tesla's illness.

## Augustin Jaromír Löffler, Tesla's homeroom teacher

- ▶ **Augustin Jaromír Löffler**, professor of mathematics and physics, was born in 1832 in Jindřichův Hradec in Czechia. He died in Prague in 1915.
- ▶ Employed at the *Higher Real School* in Rakovac since 1870, he was Tesla's homeroom teacher in the school year 1870/1871.
- ▶ By the end of the first semester of the school year 1872/73, Löffler assigned to Nikola Tesla the failing grade in maths. It was a consequence of Tesla's illness.
- ▶ Löffler was a member correspondent of the *Mathematical Society* in Prague. He was a full member of *Meteorological Society* in Vienna.

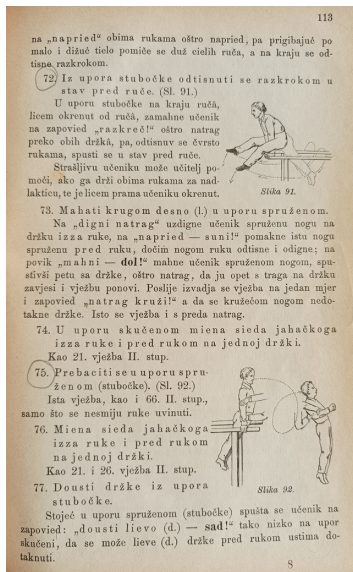
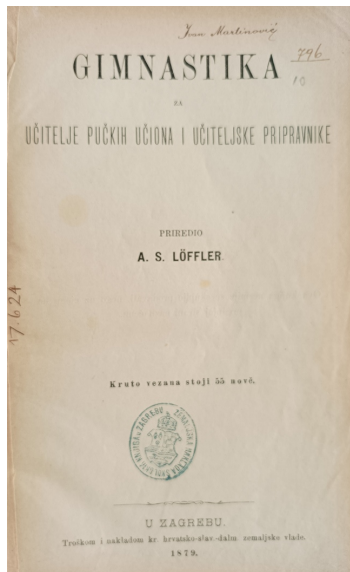
## Augustin Jaromír Löffler, Tesla's homeroom teacher

- ▶ **Augustin Jaromír Löffler**, professor of mathematics and physics, was born in 1832 in Jindřichův Hradec in Czechia. He died in Prague in 1915.
- ▶ Employed at the *Higher Real School* in Rakovac since 1870, he was Tesla's homeroom teacher in the school year 1870/1871.
- ▶ By the end of the first semester of the school year 1872/73, Löffler assigned to Nikola Tesla the failing grade in maths. It was a consequence of Tesla's illness.
- ▶ Löffler was a member correspondent of the *Mathematical Society* in Prague. He was a full member of *Meteorological Society* in Vienna.
- ▶ Löffler taught gymnastics as well, and trained a firemen squad in Rakovac. More information in [Vuković and Valent, 93-95].

## Augustin Jaromír Löffler, Tesla's homeroom teacher

- ▶ **Augustin Jaromír Löffler**, professor of mathematics and physics, was born in 1832 in Jindřichův Hradec in Czechia. He died in Prague in 1915.
- ▶ Employed at the *Higher Real School* in Rakovac since 1870, he was Tesla's homeroom teacher in the school year 1870/1871.
- ▶ By the end of the first semester of the school year 1872/73, Löffler assigned to Nikola Tesla the failing grade in maths. It was a consequence of Tesla's illness.
- ▶ Löffler was a member correspondent of the *Mathematical Society* in Prague. He was a full member of *Meteorological Society* in Vienna.
- ▶ Löffler taught gymnastics as well, and trained a firemen squad in Rakovac. More information in [Vuković and Valent, 93-95].
- ▶ He published **the first gymnastics handbook in Croatian language** (*Gimnastika za učitelje pučkih učiona i učiteljske pripravnike*, 1879, 154 pp). It was issued by the *Royal Land Government* in Zagreb.

# August Löffler's first Croatian gymnastics handbook issued in Zagreb in 1879



Živko Vukasović, fellow of the *Academy of Sciences* in Zagreb, zoologist, entomologist and lawyer



Živko Vukasović was one among two supervisors of schools in *Croatian-Slavonian Military Frontier* - Hrvatsko-Slavonska Vojna Krajina.



Šišman Šoštarić von Letovanić,  
head-master of the *Higher Real School* in Rakovac



## Tesla's 11-member graduation exam committee, 1873

- ▶ **Živko Vukasović**, zoologist, entomologist and a full member of the then JAZU (*Yugoslav Academy of Sciences and Arts*) in Zagreb. Born in the village of Bervaci (south of Đakovo), he completed his education in Vienna and Graz and received two degrees: in Law and Biology.

## Tesla's 11-member graduation exam committee, 1873

- ▶ **Živko Vukasović**, zoologist, entomologist and a full member of the then JAZU (*Yugoslav Academy of Sciences and Arts*) in Zagreb. Born in the village of Bervaci (south of Đakovo), he completed his education in Vienna and Graz and received two degrees: in Law and Biology.
- ▶ **Šoštarić pl. Šišman Letovanički**, headmaster of the *Higher Real School* in Rakovac since 1868.

## Tesla's 11-member graduation exam committee, 1873

- ▶ **Živko Vukasović**, zoologist, entomologist and a full member of the then JAZU (*Yugoslav Academy of Sciences and Arts*) in Zagreb. Born in the village of Bervaci (south of Đakovo), he completed his education in Vienna and Graz and received two degrees: in Law and Biology.
- ▶ **Šoštarić pl. Šišman Letovanički**, headmaster of the *Higher Real School* in Rakovac since 1868.
- ▶ **Martin Sekulić**, mentioned by Tesla in his 1919 autobiography.

## Tesla's 11-member graduation exam committee, 1873

- ▶ **Živko Vukasović**, zoologist, entomologist and a full member of the then JAZU (*Yugoslav Academy of Sciences and Arts*) in Zagreb. Born in the village of Bervaci (south of Đakovo), he completed his education in Vienna and Graz and received two degrees: in Law and Biology.
- ▶ **Šoštarić pl. Šišman Letovanički**, headmaster of the *Higher Real School* in Rakovac since 1868.
- ▶ **Martin Sekulić**, mentioned by Tesla in his 1919 autobiography.
- ▶ **Franjo Kreminger**, keeper of the minutes

## Tesla's 11-member graduation exam committee, 1873

- ▶ **Živko Vukasović**, zoologist, entomologist and a full member of the then JAZU (*Yugoslav Academy of Sciences and Arts*) in Zagreb. Born in the village of Bervaci (south of Đakovo), he completed his education in Vienna and Graz and received two degrees: in Law and Biology.
- ▶ **Šoštarić pl. Šišman Letovanički**, headmaster of the *Higher Real School* in Rakovac since 1868.
- ▶ **Martin Sekulić**, mentioned by Tesla in his 1919 autobiography.
- ▶ Franjo Kreminger, keeper of the minutes
- ▶ **August Löffler** (Czech), N. Gr. Živković, Petar Tomić, G. Fridrih, J. Jagunić, M. Brašnić, Joh. Jamnicki.

## Tesla's 11-member graduation exam committee, 1873

- ▶ **Živko Vukasović**, zoologist, entomologist and a full member of the then JAZU (*Yugoslav Academy of Sciences and Arts*) in Zagreb. Born in the village of Bervaci (south of Đakovo), he completed his education in Vienna and Graz and received two degrees: in Law and Biology.
- ▶ **Šoštarić pl. Šišman Letovanički**, headmaster of the *Higher Real School* in Rakovac since 1868.
- ▶ **Martin Sekulić**, mentioned by Tesla in his 1919 autobiography.
- ▶ Franjo Kreminger, keeper of the minutes
- ▶ **August Löffler** (Czech), N. Gr. Živković, Petar Tomić, G. Fridrih, J. Jagunić, M. Brašnić, Joh. Jamnicki.
- Nikola Tesla, at the age of 17, was in the group of seven students that were examined by 11 professors (among them Vukasović - a member of the *Academy of Sciences and Arts* in Zagreb, and Sekulić - who a few months later was elected a member correspondent of the same *Academy*)!

## Certificate from Tesla's graduation exam in 1873

Nikola Tesla graduated on 24th of July, 1873. With his certificate from the final graduation exam (held in German), he could freely enroll in any Technical School in the Austrian Empire:

- ▶ EXAMINEE's NAME: Nikola Tesla
- ▶ FAITH: Greek non-united (grčke nesjedinjene)
- ▶ BIRTH-PLACE: Smiljan in Military Frontier (Vojna Krajina)
- ▶ HOMELAND: Hrvatska (i.e., Croatia)
- ▶ AGE: born in 2nd November 1856 [wrong, should be **10th July**]
- ▶ FATHER's PROFESSION: Son of Greek non-united archipriest (protojerej) Milutin Tesla
- ▶ STUDY OF GYMNASIUM: Studied at Lower Real School in Gospić, and completed the *Higher Real School* in Karlovac

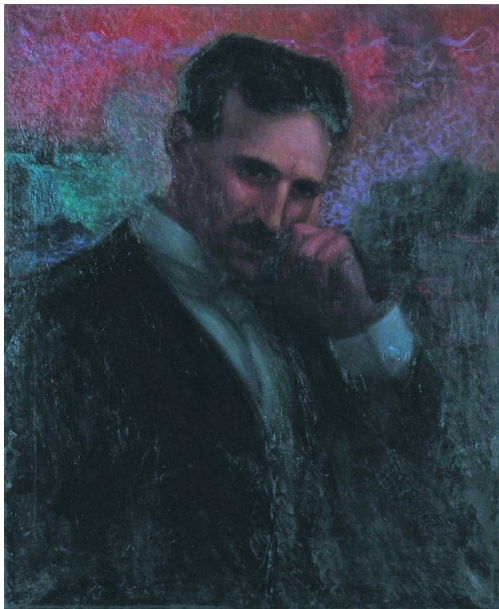


Ivan Benković, Croatian painter who portrayed Tesla in New York in 1913

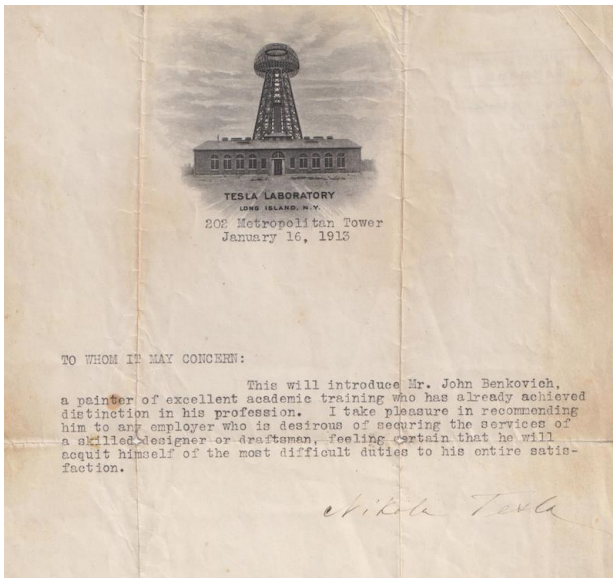


Source – Vladimir Novak: *Croatians in America*, 2018, see p. 73

## Benković's portrait of Nikola Tesla from 1913



# Tesla's recommendation letter for Benković from 1913, kept in the Samobor City Museum near Zagreb



## Benković's heritage kept in Samobor (Croatia) and in Belgrade (Serbia)

- ▶ Ivan Benković (1886-1918) was born in the village of Rečica near the city of Karlovac, and attended the *Gymnasium* (i.e., Grammar School) in Karlovac, situated in the same building as the former *Higher Real School* previously attended by Nikola Tesla.
- ▶ Tesla's recommendation letter for Ivan Benković is kept in the *City Museum of Samobor* near Zagreb, till the present day.
- ▶ Marija Anger (born in Samobor), wife of Ivan Benković, donated Tesla's recommendation letter to the *City Museum in Samobor*.
- ▶ Portrait of Nikola Tesla, made by Croatian painter Ivan Benković, is kept in the *Museum of Nikola Tesla* in Belgrade.

Karlovac Electric Plant (munjara) in Ozalj,  
designed by Herman Bollé in 1907



Karlovac munjara in the town of Ozalj  
(viewed from the main entrance)



## Following the paths of Nikola Tesla in Croatia (Croatian – Indian excursion in 2022, with five guests from India)



## František Žurek, Tesla's Czech friend in Prague

In 1927, František Žurek published his article "Memories on Nikola Tesla" in *Národní Politika* (People's Politics, Prague) about Nikola Tesla, describing his encounters with him in the Prague in 1880.



## František Žurek, Tesla's Czech friend in Prague

In 1927, František Žurek published his article "Memories on Nikola Tesla" in *Národní Politika* (People's Politics, Prague) about Nikola Tesla, describing his encounters with him in the Prague in 1880.

- ▶ *Tesla was a tall, slim and skinny youngster with tanned face without moustaches and wearing loosely tied cravate... He was a noble, good and modest man without great needs, whose sarcastic smile was revealing a grown-up and reasonable man. Although he was a Croat, he spoke Czech very decently. His colleagues [in Prague; DŽ] were amazed by his mathematical knowledge...*

## František Žurek, Tesla's Czech friend in Prague

In 1927, František Žurek published his article "Memories on Nikola Tesla" in *Národní Politika* (People's Politics, Prague) about Nikola Tesla, describing his encounters with him in the Prague in 1880.

- ▶ *Tesla was a tall, slim and skinny youngster with tanned face without moustaches and wearing loosely tied cravate... He was a noble, good and modest man without great needs, whose sarcastic smile was revealing a grown-up and reasonable man. Although he was a Croat, he spoke Czech very decently. His colleagues [in Prague; DŽ] were amazed by his mathematical knowledge...*

We provided this passage from the book "Nikola Tesla" written by a Soviet author *Grant Konstantinovič Cverava* (Tsverava), published in 1974 in Leningrad (now Sankt Peterburg). Near the end of p. 47, the book cites the article by František Žurek, a Czech who as a student got acquainted with young Tesla in Prague in 1880. (Translated from the Russian original by DŽ.)

## About Žurek and Tesla in the book by Grant K. Cverava

повязанным галстуком... Это был благородный, хороший, нетребовательный и скромный человек, который своей саркастической улыбкой производил впечатление взрослого и рассудительного мужчины. Хотя он был хорватом, по-чешски говорил очень хорошо. Тогдашних студентов поражали его математические познания... По прошествии некоторого времени я встретился с ним в бывшей Императорской публичной библиотеке в Клементинуме.<sup>23</sup> В те годы у нас все увлекались Байроном. Я читал его стихи в немецком переводе, сверяясь по английскому оригиналу. Вдруг как привидение появился передо мной Тесла и его костлявая рука протянулась к моей книге. Он предложил мне зачитывать начало любого стихотворения, а сам станет цитировать наизусть последующий текст, и если захочу, то до конца книги. Я попробовал так несколько раз и убедился, что он знает наизусть буквально всего Байрона. Это может показаться невероятным, но это правда».<sup>24</sup>

Grant K. Cverava: *Nikola Tesla*, Russian Academy of Sciences, Leningrad (now Sankt Peterburg) 1974, p. 48.

## The 1927 article by František Žurek, Prague, part (a)

### ✓ **Vzpomínka na Nikolu Tesla.**

Bude jistě asi málo pamětníků ze studentské doby tohoto učence světového jména a slavného Jihoslovana, který byl právě poctěn titulem doktora technických věd na vysokém učení technickém v Praze.

Bylo to v letech osmdesátých minulého století, kdy jsem se s ním seznámil v bývalé Národní kavárně ve Vodičkově ulici, kde nyní nalézá se obchod Otty Hofmanna. Kavárna ta byla oblibeným střediskem vysokoškolského studentstva, jakož i dostaveníčkem kruhů uměleckých. Scházely se tam umělecké družiny, k nimž náleželi i mistr Smetana a Dvořák. Ve dvoraně, jejíž okna hledí do Vodičkovy ulice, nalézalo se několik kulečníků, na nichž zejména studentstvo zhoušelo prakticky ráz koulí pružných. Student Nikola Tesla technik byl nedostižným mistrem hry na kulečnicku a postrachem všech, kdož s ním se měli utkat; neboť dával na karambolu do padesati 48 napřed a pokaždé partii vyhrál. Seznámil jsem se s ním tehdy při jeho hře na kulečnicku.

Byl to vysoký, štíhlý, hubený mladík, snědý, bezvousý tvář s vazankou nonchalantně, ba neobale na protaženém krku uvázanou, nedbaje na zevní efekt. Byl povahy veskrz ušlechtilé, dobré, nenaročné a skromné a činil dojem svým sarkastickým úsměvem dospělého, vyrovnaného muže. Ovládal češtinu, ač Chorvat, velmi slušně. Mezi tehdejšími studenty budily opravdový obdiv jeho matematické vědomosti. Doporučovali jsme mu

## The 1927 article by František Žurek, Prague, part (b)

1. ledna 1927. Číslo 1.

jako technikovi, aby navštěvoval přednášky tehdy proslulého profesora matematiky na pražské universitě. Ujišťoval nás, že již na přednášce byl a že luštil všechny rovnice nazpamět a udal výsledky rovnic, dokládaje, že nic neshledal nového. Nekritisoval a mlčel. Zasl jsem tehdy nad jeho obdivuhodnou paměť.

Po čase setkal jsem se s ním v tehdejší císařské knihovně v Klementinu. Tehdy byl v oblíbě Byron. Četl jsem v německém překladu jeho stance, maje po ruce anglický originál. Zjevil se přede mnou jako duch a kostnatou rukou sáhl po knize, kterou jsem právě četl. Pravil mi pak, abych kdekoli v knize list obrátil a četl začátek verše, že další verše bude z paměti citovati dále, jak daleko budu chtít. Učinil jsem několik pokusů a přesvědčil jsem se, že všechny verše, ba celou knihu básní umí od slova k slovu nazpamět. Zdálo by se to neuvěřitelné, ale je to pravda. Přesvědčil jsem se o tom sám a zajisté i mnoho osob jiných. Pak zcela klidně mi vyprávěl, že jeho otec znal nazpamět celou bibli od slova k slovu a že on tuto svou pamět zdědil po svém otci. Ujistil mne, což jsem mu rád uvěřil, že zná veškeré spisy Schillerovy a Gotheovy, psané vázanou řečí, nazpamět. Ba že vše, co jednou přečte, zná nazpamět.

## The 1927 article by František Žurek, Prague, part (c)

Věřil jsem mu, když mi podal tak zřejmý doklad své úžasné paměti. Ve své upřímnosti svědčil se mi, že se mu poněkud paměť oslabuje tím, že z noci dělá den a ze dne noc. Nebylo to šice ode mne diskretní, že jsem se ho tázal, nemá-li snad lásku. Pro tento obor působnosti nemám nejmenšího porozumění ani citu... Už tehdy jeho život orientoval se jiným směrem, když prohlásil, že v Evropě není pro něho místa, že musí dále do světa, přes Paříž do Ameriky.

Po čase dověděl jsem se, že je profesorem fyziky, elektrodynamiky a radiofonie a bývá čeho všeho na universitě v Novém Yorku. V jednom americkém Magazinu viděl jsem již před válkou obrázek, jak Nikola Tesla sedí ozářen oslňujícími ohnivými kotouči elektrických jisker vysokého napětí, ne-li jako zázračný polobůh, tož jistě jako zjev fenomenální.

F. Žurek.

Published in *Národní Politika*, Prague, No 1, January 1st, 1927, p. 4

Ovládal češtinu, ač Chorvat, velmi slušně.

According to F. Žurek, Nikola Tesla  
Ovládal češtinu, ač Chorvat, velmi slušně.

## F. Žurek: Vzpomínka na Nikolu Tesla, Prague 1927, (i)

### **Vzpomínka na Nikolu Tesla**

Bude jistě asi malo pamětníků za studentské doby tohoto učence světového jména a slavného Jihoslovana, který byl pravě poctěn titulem doktora technických věd na vysokém učení technickém v Praze.

Bylo to v letech osmdesátých minulého století, kdy jsem se s ním seznámil v bývalé Národní kavárně ve Vodičkově ulici, kde nyní nalézá se obchod Otty Hofmanna. Kavárna ta byla oblíbeným střediskem vysokoškolského studentstva, jakož i dostaveničkem kruhu uměleckých. Scházívaly se tam umělecké družiny, k nimž náleželi i mistr Smetana a Dvořák. Ve dvorane, jejíž okna hledi do Vodičkovy ulice, nalézalo se několik kulečnicků, na nichž zejména studentstvo zkoušelo prakticky ráz koulí pružných. Student Nikola Tesla, technik, byl nedostižným mistrem hry na kulečniku a postrachem všech, kdož s ním se měl utkat: nebot' dával na karambolu do padesati 48 napred a pokaždé partii vyhrál. Seznamil jsem se s ním tehdy při jeho hře na kulečniku.

## F. Žurek: Vzpomínka na Nikolu Tesla, Praha 1927, (ii)

Byl to vysoký, štíhlý, hubený mladík, snědé, bezvousé tvaře, s vazankou nonchalantně, ba neobale na protahlém krku uvázanou, nedbaje na zevní efekt. Byl povahy veskry ušlechtilé, dobré, nenáročné a skromné a činil dojem svým sarkastickým usměvem dospělého, vyrovnaného muže. **Ovládal češtinu, ač Chorvat, velmi slušně.** Mezi tehdejšími studenty budily opravdový obdiv jeho matematické vědomosti. Doporučovali jsme mu jako technikovi, aby navštěvoval přednášky tehdy proslulého profesora matematiky na pražské universitě. Ujišťoval nás, že již ne přednášce byl a že luštil všechny rovnice nazpaměť a udal výsledky rovnic, dokládaje, že nic neshledal nového. Nekritisoval a mlčel. Žasl jsem tehdy nad jeho obdivuhodnou pamětí.



## F. Žurek: Vzpomínka na Nikolu Tesla, Praha 1927, (iii)

Po čase setkal jsem se s ním v tehdejší císařské knihovně v Klementinu. Tehdy byl vo oblíbě Byron. Četl jsem v německém překladu jeho stance, maje po ruce anglický originál. Zjevil se přede mnou jako duch a kostnatou rukou sáhl po knize, kterou jsem práve četl. Privil mi pak, abych kdekoli v knize list obrátil a četl začátek verše, že další verše bude z paměti citovat dále, jak daleko budu chtít. Učinil jsem několik pokusů a přesvědčil jsem se, že všechny verše, ba celou knihu básní umí od slova k slovu nazpamět. Zdálo by se to neuvěřitelné, ale je to pravda. Přesvědčil jsem se o tom sám i zajisté i mnoho osob jiných. Pak zcela klidně mi vyprávěl, že jeho otec znal nazpamět celou bibli od slova k slovu a že on tuto svou pamět zdědil po svém otci. Ujistil mne, což jsem rád mu rad uvěřil, že zná veškeré spisy Šillerovy a Götheovy, psané vázanou řečí, nazpamět. Ba že vše, co jednou přečte, zna nazpamět.

## F. Žurek: Vzpomínka na Nikolu Tesla, Praha 1927, (iv)

Věřil jsem mu, když mi podal tak zřejmý doklad své úžasné paměti. Ve své upřímnosti svěřil se mi, že se mu poněkud paměť oslabuje tím, že z noci dělá den a ze dne noc. Nebylo to sice od mne diskretní, že jsem se ho tázal, néma-li snad lásku. Pro tento obor působnosti nemám nejmenšího porozumění ani citu... Už tehdy jeho život orientoval se jiným směrem, když prohlásil, že v Evropě není pro něho místa, že musí dále do světa, přes Paříž do Ameriky. Po čase dověděl jsem se, že je profeserem fisiky, elektrodynamiky a radiofonie a bůhví čeho všeho na universitě v Novém Yorku. V jednom americkém Magazinu viděl jsem již před válkou obrázek, jak Nikola Tesla sedí ozářen oslňujícími ohnivým kotouči elektrických jisker vysokého napětí, ne-li jako zázračný polubůh, tož jistě jako zjev fenomenální.

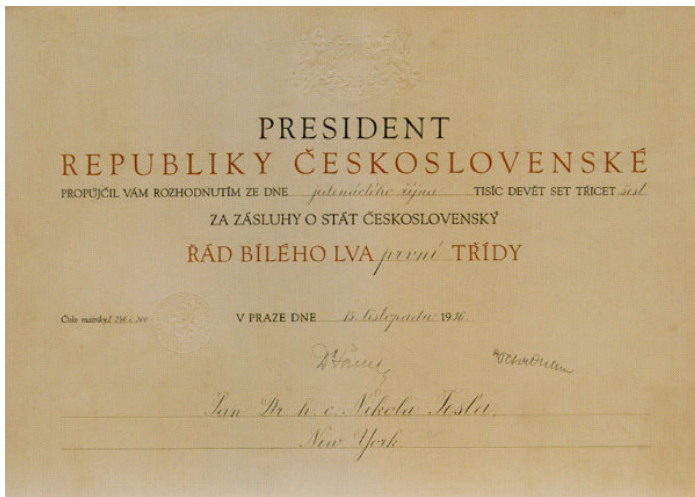
F. Žurek

# Recognitions granted to Tesla in Czechia during his lifetime, 1



Tesla's diploma of the honorary doctorate from the  
Czech Technical University in Prague in 1936.

## Recognitions granted to Tesla in Czechia during his lifetime, 2a



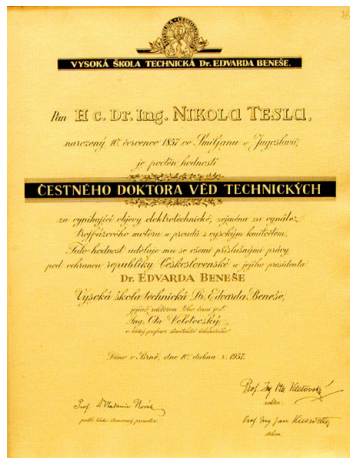
Tesla was decorated the *Order of White Lion* in Prague in 1936, granted by Edvard Beneš, president of Czechoslovakia.

## Recognitions granted to Tesla in Czechia during his lifetime, 2b



Tesla receiving the *Order of White Lion* in New York in 1937 from Vladimir Hurban, ambassador of Czechoslovakia in the USA.

## Recognitions granted to Tesla in Czechia during his lifetime, 3



Tesla was awarded by the *honorary doctorate* from the *High Technical School of Dr. Edvard Beneš* in Brno, 1937. Its first rector, since 1899, was Karel Zahradnik (1848-1929), who in the period of 1876-1899 was employed as professor of Mathematics at the University of Zagreb.

## Recognitions granted to Nikola Tesla in Croatia during his lifetime

- ▶ Since 1896, Nikola Tesla became a **honorary member of JAZU** (now Croatian Academy) in Zagreb, at the age of 40. He was nominated for this award in 1892 by Czech-Croatian physicist *Vinko Dvořák*, born in Czechia (and a student of famous Ernst Mach in Prague), the founder of the study of Physics at the *University of Zagreb* in 1875.

## Recognitions granted to Nikola Tesla in Croatia during his lifetime

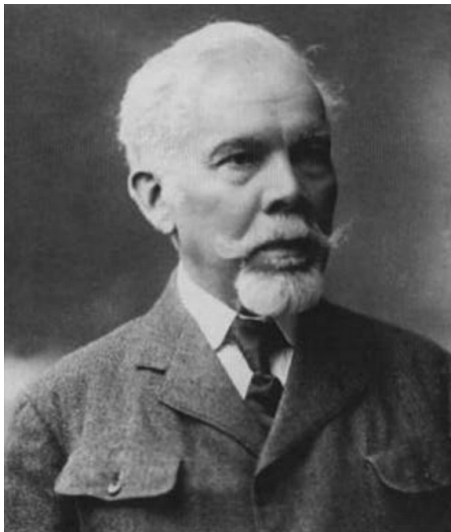
- ▶ Since 1896, Nikola Tesla became a **honorary member of JAZU** (now Croatian Academy) in Zagreb, at the age of 40. He was nominated for this award in 1892 by Czech-Croatian physicist *Vinko Dvořák*, born in Czechia (and a student of famous Ernst Mach in Prague), the founder of the study of Physics at the *University of Zagreb* in 1875.
- ▶ On 24th of May 1892, Tesla delivered a one-hour lecture at the City Hall in Zagreb, upon the invitation of dr. Milan Amruš, the mayor of the city. He stayed in Zagreb from 22nd till 26th of May 1892.



## Recognitions granted to Nikola Tesla in Croatia during his lifetime

- ▶ Since 1896, Nikola Tesla became a **honorary member of JAZU** (now Croatian Academy) in Zagreb, at the age of 40. He was nominated for this award in 1892 by Czech-Croatian physicist *Vinko Dvořák*, born in Czechia (and a student of famous Ernst Mach in Prague), the founder of the study of Physics at the *University of Zagreb* in 1875.
- ▶ On 24th of May 1892, Tesla delivered a one-hour lecture at the City Hall in Zagreb, upon the invitation of dr. Milan Amruš, the mayor of the city. He stayed in Zagreb from 22nd till 26th of May 1892.
- ▶ In 1926, N. Tesla was awarded by *honorary doctorate* from the *University of Zagreb* (at the age of 70). It was written in the Latin language.

## Professor Vinko (Vincenc) Dvořák (1848-1922)



Vinko Dvořák was a member of the *Academy of Sciences* in Zagreb since 1887, and served as the rector of the *University of Zagreb* in 1893/94. as well as the dean of the *Faculty of Philosophy*, 1881/82, 1891/92.

## Branko Mikšić (1847-1912), professor of Math in Rakovac,

- ▶ Born in Turanj near Karlovac, attended the *Higher Real School* in Rakovac 1863-1869, where Martin Sekulić was one of his professors.
- ▶ Studied in Vienna, in 1873 employed at the *Higher Real School* in Rakovac.
- ▶ Published one of his works in *Časopis pro pěstování matematiky a fysiky* in 1876, Prague, in Croatian language.
- ▶ This article is the only one ever published in Croatian language in this journal. At that time, its editor-in-chief was **František Josef Studnička** (1836-1903), professor at the Charles University in Prague, and subsequently a member correspondent of the Yugoslav (now Croatian) Academy of Sciences and Arts in Zagreb.
- ▶ František Studnička published in Croatian language several of his scientific works in *Rad JAZU* (issued by the Academy of Sciences in Zagreb)
- ▶ Branko Mikšić also published one of his articles in *Archiv matematiky a fysiky* in 1877, Prague, in Croatian language.

Tesla's biographers that mention Martin Sekulić

## Tesla's biographers that mention Martin Sekulić

- ▶ Vladimir Muljević (former Dean of the FER), in his 1973 article about Tesla's education, for the first time mentions Martin Sekulić, Tesla's professor in Rakovac

## Tesla's biographers that mention Martin Sekulić

- ▶ **Vladimir Muljević** (former Dean of the FER), in his 1973 article about Tesla's education, for the first time mentions Martin Sekulić, Tesla's professor in Rakovac
- ▶ **Grant Konstantinovič Cverava**: *Nikola Tesla*, 1974 in Lenjingrad (now Sankt Peterburg), issued by the *Russian Academy of Sciences*, contains basic information about Martin Sekulić, and an important testimony of František Žurek published in 1927 in Prague

## Tesla's biographers that mention Martin Sekulić

- ▶ **Vladimir Muljević** (former Dean of the FER), in his 1973 article about Tesla's education, for the first time mentions Martin Sekulić, Tesla's professor in Rakovac
- ▶ **Grant Konstantinovič Cverava**: *Nikola Tesla*, 1974 in Leningrad (now Sankt Peterburg), issued by the *Russian Academy of Sciences*, contains basic information about Martin Sekulić, and an important testimony of František Žurek published in 1927 in Prague
- ▶ **Ćiril Petešić**: *Genij s našeg kamenjara*, 1976, Zagreb, provides important information about Tesla's professor Martin Sekulić, as well as a testimony of *France Avčin* dealing with dramatic circumstances during the conference in Paris in 1960, surrounding the decision to name by "tesla" the unit for magnetic induction (i.e., for magnetic field strength). Seven editions in 60 000 copies.

## Tesla's biographers that mention Martin Sekulić

- ▶ **Vladimir Muljević** (former Dean of the FER), in his 1973 article about Tesla's education, for the first time mentions Martin Sekulić, Tesla's professor in Rakovac
- ▶ **Grant Konstantinovič Cverava**: *Nikola Tesla*, 1974 in Leningrad (now Sankt Peterburg), issued by the *Russian Academy of Sciences*, contains basic information about Martin Sekulić, and an important testimony of František Žurek published in 1927 in Prague
- ▶ **Ćiril Petešić**: *Genij s našeg kamenjara*, 1976, Zagreb, provides important information about Tesla's professor Martin Sekulić, as well as a testimony of *France Avčin* dealing with dramatic circumstances during the conference in Paris in 1960, surrounding the decision to name by "tesla" the unit for magnetic induction (i.e., for magnetic field strength). Seven editions in 60 000 copies.
- ▶ *Nikola Tesla / Moji pronalasci - My Inventions* (in Croatian and English), afterword by Tomo Bosanac (ETF, University of Zagreb), Zagreb 1981.



- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.

- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.
- ▶ *Nikola Tesla - And there was Light* (group of authors: Vladimir Muljević, Vladimir Paar, and other), published by ZORO, Zagreb - Sarajevo 2006.

- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.
- ▶ *Nikola Tesla - And there was Light* (group of authors: Vladimir Muljević, Vladimir Paar, and other), published by ZORO, Zagreb - Sarajevo 2006.
- ▶ Mario Filipi: *Nikola Tesla Under the Cobwebs*, 3 Croatian editions, Samobor 2006-2022, English edition 2023.

- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.
- ▶ *Nikola Tesla - And there was Light* (group of authors: Vladimir Muljević, Vladimir Paar, and other), published by ZORO, Zagreb - Sarajevo 2006.
- ▶ Mario Filipi: *Nikola Tesla Under the Cobwebs*, 3 Croatian editions, Samobor 2006-2022, English edition 2023.
- ▶ *Nikola Tesla / Moji pronalasci - My Inventions*, Veda, Zagreb 2016. Tesla's professor Martin Sekulić was not mentioned in the timeline! (original Slovenian edition by Sanje Ljubljana, Croatian translation by Veda Zagreb), [critical remarks](#)

- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.
- ▶ *Nikola Tesla - And there was Light* (group of authors: Vladimir Muljević, Vladimir Paar, and other), published by ZORO, Zagreb - Sarajevo 2006.
- ▶ Mario Filipi: *Nikola Tesla Under the Cobwebs*, 3 Croatian editions, Samobor 2006-2022, English edition 2023.
- ▶ *Nikola Tesla / Moji pronalasci - My Inventions*, Veda, Zagreb 2016. Tesla's professor Martin Sekulić was not mentioned in the timeline! (original Slovenian edition by Sanje Ljubljana, Croatian translation by Veda Zagreb), [critical remarks](#)
- ▶ Darko Žubrinić, [articles](#) (FER)

- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.
- ▶ *Nikola Tesla - And there was Light* (group of authors: Vladimir Muljević, Vladimir Paar, and other), published by ZORO, Zagreb - Sarajevo 2006.
- ▶ Mario Filipi: *Nikola Tesla Under the Cobwebs*, 3 Croatian editions, Samobor 2006-2022, English edition 2023.
- ▶ *Nikola Tesla / Moji pronalasci - My Inventions*, Veda, Zagreb 2016. Tesla's professor Martin Sekulić was not mentioned in the timeline! (original Slovenian edition by Sanje Ljubljana, Croatian translation by Veda Zagreb), [critical remarks](#)
- ▶ Darko Žubrinić, [articles](#) (FER)
- ▶ Association "Nikola Tesla Karlovac" - Collected articles from a conference about the education of Nikola Tesla (ed. Danko Plevnik), 2019.

- ▶ Vladimir Muljević: *Nikola Tesla slavni izumitelj*, Zagreb 2000.
- ▶ *Nikola Tesla - And there was Light* (group of authors: Vladimir Muljević, Vladimir Paar, and other), published by ZORO, Zagreb - Sarajevo 2006.
- ▶ Mario Filipi: *Nikola Tesla Under the Cobwebs*, 3 Croatian editions, Samobor 2006-2022, English edition 2023.
- ▶ *Nikola Tesla / Moji pronalasci - My Inventions*, Veda, Zagreb 2016. Tesla's professor Martin Sekulić was not mentioned in the timeline! (original Slovenian edition by Sanje Ljubljana, Croatian translation by Veda Zagreb), [critical remarks](#)
- ▶ Darko Žubrinić, [articles](#) (FER)
- ▶ Association "Nikola Tesla Karlovac" - Collected articles from a conference about the education of Nikola Tesla (ed. Danko Plevnik), 2019.
- ▶ Željko Kernjak, *Croatian School Museum and Renaissance Hall* in Zagreb, 2019.

## Literature about schooling of Nikola Tesla in Rakovac

- Dušan Pejnović: O školovanju Nikole Tesle u Rakovcu (source [JPG](#)), *Matematičko-fizički list*, Zagreb, no. 3, 1956-57, p. 112
- Vladimir Muljević: Martin Sekulić (1833-1905), *Elektrotehnika* no. 5, 1973, pp. 331-338.
- Grant K. Cverava: *Nikola Tesla*, Lenjingrad, 1974 edition of the Russian Academy of Sciences; in Russian)
- Ćiril Petešić: *Genij s našeg kamenjara / Život i djelo Nikole Tesle*, Zagreb 1976.
- D.Ž.: Nikola Tesla 1856.-1943., istaknuti hrvatsko-američki znanstvenik, [Link](#)
- Ivica Vuković i Anđa Valent: Autori matematičkih rasprava u izvješćima rakovačke realke [PDF](#), *Prirodoslovlje* 16(1-2) III (2016), pp. 89-110 (in particular, pp. 104-110)
- D.Ž.: Školovanje Nikole Tesle u Hrvatskoj i njegov profesor Martin Sekulić ([PDF](#)), u *Povijest i filozofija tehnike / radovi EDZ sekcije 2017. godine* / Benčić, Zvonko; Moser, Josip (ur.). Zagreb : Kiklos, 2017. pp. 81-117.



## Literature (continuation)

- D.Ž.: Nastava hrvatskog jezika, matematike i fizike tijekom školovanja Nikole Tesle u Hrvatskoj [PDF](#), u *Povijest i filozofija tehnike / radovi EDZ sekcije 2018 godine* / Benčić, Zvonko (ur.). Zagreb : Kiklos, 2018. Str. 293-317
- Danko Plevnik (ur.): *Schooling and Self-education of Nikola Tesla* (collected articles), Assoc. Nikola Tesla Karlovac, 2019.
- D.Ž.: Tesla's lecture in St. Louis in 1893 for five thousand people [Link](#)
- D.Ž.: Nastava hrvatskog jezika, matematike i fizike tijekom školovanja Nikole Tesle u Hrvatskoj [PDF](#), u *Povijest i filozofija tehnike / radovi EDZ sekcije 2018 godine* / Benčić, Zvonko (ur.). Zagreb : Kiklos, 2018. pp. 293-317
- František Žurek: Vzpomínka na Nikolu Tesla,

[Národní Politika, Prague, No 1, January 1st, 1927, p. 4](#)

More information about Nikola Tesla:

<http://www.croatianhistory.net/tesla>

More information about Nikola Tesla:

<http://www.croatianhistory.net/tesla>

Thank you for your attention!

e-mail: `darko.zubrinic@gmail.com`