



Mihailo Petrović

ALAS

Life
Work
Times



Serbian Academy of Sciences and Arts







SERBIAN ACADEMY OF SCIENCES AND ARTS

MIHAILO PETROVIĆ ALAS: LIFE, WORK, TIMES
ON THE OCCASION OF THE 150th ANNIVERSARY OF HIS BIRTH

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Academician Vladimir S. Kostić

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Academician Marko Anđelković

Editors of publication

*Academician Stevan Pilipović
Academician Gradimir V. Milovanović
Professor Dr Žarko Mijajlović*

Cover design

Dragana Lacmanović-Lekić

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Selection of artworks

Maja Novaković

English translation

*Tatjana Čosović, Natalija Stepanović
Tanja Ružin Ivanović, Žarko Radovanov, Dora Seleši*

Proofreading and editing

Jelena Mitrić

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LIFE, WORK, TIMES

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OF HIS BIRTH



SERBIAN ACADEMY OF SCIENCES AND ARTS

Exclusive editions, such as this monograph, call for the engagement, enthusiasm and cooperation of a number of individuals and institutions. We would like to use this opportunity and extend our gratitude to everyone who has taken part or in any way contributed to, or supported the creation and publication of this monograph.

First of all, we would like to express our gratitude to the authors of papers for their effort taken to provide expert and high level insights into some main points of Mihailo Petrović Alas' life and work, at the same time preserving an important aspect of being easy to read and appealing to a broader readership. In addition, we would like to thank to Ms. Snežana Krstić-Bukarica and Ms. Nevena Đurđević from SASA Publishing Section for performing a thorough proofread of the papers, thus making the writing even more articulate.

The monograph features a number of photographs and the copies of documents that have been obtained owing to the kindness of the SASA Archive, SASA Library, SASA Mathematical Institute, Archive of Serbia, Mr. Viktor Lazić from the "Adligat" Society, Mr. Jovan Hans Ivanović and his "Mihailo Petrović Alas" Foundation, "Mihailo Petrović Alas" Primary School, "Svetozar Marković" University Library, Belgrade City Museum, Zavod za udžbenike (Institute for Textbook Publishing) in Belgrade, Virtual Library of Faculty of Mathematics in Belgrade and Digital Legacy of Mihailo Petrović Alas.

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S. Pilipović, G. Milovanović, Ž. Mijajlović

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EDITOR'S FOREWORD

As soon as one first encounters the work of Mihailo Petrović, it becomes evident that he was a person that according to its numerous traits was a polymath. Above all, the academician Petrović was a gifted mathematician and a renowned professor at the University of Belgrade, but also a fisherman, writer, philosopher, musician, world traveler and a travel writer. He earned a degree in mathematics at the Belgrade Grand School and a licentiate degree in mathematics, physics and chemistry at the Sorbonne. At the age of 26, only a year after he had completed his studies, he defended his PhD degree in mathematics at the same university, as a student of the famous French mathematicians Henri Poincaré, Charles Hermite and Charles Émile Picard. In the same year (1894) he was elected to the position of professor at the Grand School to which he brought the spirit of the French mathematical school. It was at that point that his long and prolific journey through science began, whereas, owing to him, Belgrade achieved parity with other major European centers in mathematical sciences. He became an initiator and a leader of the Serbian mathematics and strongly contributed to the spirit of the modern European science in Serbia.

Petrović's expertise spanned several mathematical areas in which he achieved scientific results of world-class relevance: differential equations, numerical analysis, theory of functions of a complex variable and geometry of polynomials. He was also interested in natural sciences, chemistry, physics and biology, and he published scientific papers in these fields, too. In his scientific endeavor he managed to meet the most rigorous standards of the most developed European countries. In a brilliant rise, in a few years' time, up to the early 20th century, he wrote around thirty papers that he published in the leading European mathematical journals. It was due to this fact that he was elected a member of the Serbian Royal Academy as early as at the age of 30, and soon after he became a member of a number of foreign academies and prominent expert societies. He won the greatest respect of the global mathematical community: he was among few mathematicians (13) who delivered at least five plenary lectures or lectures as a visiting lecturer at the International Congress of Mathematicians (ICM). He delivered five such lectures (1908, 1912, 1924, 1928 and 1932). One such invitation has been considered by the mathematical community as an equivalent of an induction to a hall of fame. In addition, it has been considered that Petrović was a founder of new scientific disciplines, namely mathematical phenomenology and spectral theory. He invented several analogue computing machines, possessed technical patents and was the main cryptographer of the Serbian and Yugoslav Army.

Up to the Second World War he was the mentor of all doctoral thesis in mathematics defended at the University of Belgrade. Aforementioned is related to one of professor Petrović's greatest and most important achievements – he was a founder of the Serbian mathematical school that has produced a great number of renowned and successful mathematicians not only in Serbia but also around the world.

In 2018, the Serbian Academy of Sciences and Arts and mathematicians in Serbia celebrate the 150th anniversary of the birth of Mihailo Petrović Alas. Throughout this year, the Academy has organized a large exhibition dedicated to Petrović, alongside a solemn gathering and a conference. This monograph commemorates this important jubilee of the Serbian mathematics. Given the fact that a lot of articles on Petrović have already been written, and that his collected works were published at the end of the last century, the editors and authors of the papers in this monograph were faced with a daunting task of finding some new details from professor Petrović's life and career. Even more so given that his body of work is immense, spanning different scientific areas and encompassing topics that at first glance one finds difficult to combine. As Dragan Trifunović, Petrović's biographer and a man who most thoroughly studied his life and work, noted on one occasion that almost an institute was necessary that would encompass professor's entire body of work. Therefore, we set a relatively modest goal to ourselves to shed light upon some main points of Petrović's life and work, times and circumstances he lived in, as well as to elaborate on the present developments in relation to the Serbian mathematical school, through a selection of papers. The authors of the papers steered clear of technical details and excessive use of mathematical language. Hence, the monograph is intended for a broader readership, in particular to those readers who are interested in the history of Serbian science and its evolvement at the turn of the 20th century, but also to those who want to gain a deeper insight into the life of a brilliant mathematician and a polymath, and, we can quite freely say, an unusual personality.

Ž. Mijajlović, S. Pilipović, G. Milovanović



MIHAILO PETROVIĆ ALAS:
LIFE AND WORK

DIGITIZATION OF THE LEGACY OF MIHAILO PETROVIĆ ALAS

Maja NOVAKOVIĆ
Mathematical Institute of SASA

This paper includes the digital media that have recorded the life and work of Mihailo Petrović Alas. Apart from the analysis of individual records, emphasis is placed on their significance as a whole, that is, a database that is archived in the digital treasury keeping the memory of the eminent scientist alive. They are accessed as documents that have immortalized and made the scientist's work and information concerning him more easily accessible. The concept of the digital media includes the following:

- audio-visual media (cultural-educational programmes, documentary and feature films);
- newspaper articles (taken from the digital repository of the “Svetozar Marković” University Library and the Mathematical Institute of SASA);
- the digital legacy of Mihailo Petrović Alas (created by the Faculty of Mathematics of the Belgrade University);
- the virtual library of the Faculty of Mathematics of the Belgrade University.

What is analysed and emphasized is how significant the media that offer online interactive approach to the material are, and how much they facilitate the accessibility of information to the researchers.





A frame from the film *Professor Kosta Vujić's Hat*, 1971, Vladimir Andrić
 Graduates of Prof. Kosta Vujić
 from the First Belgrade Gymnasium

The paper represents the continuation of the research whose results on this topic have been published in the catalogue *Mihailo Petrović Alas: the Founding Father of the Serbian School of Mathematics*, Belgrade, 2018, under the title “Mihailo Petrović Alas in Audio-visual Media”. The catalogue traces the historical sequence of video media, comprising the following formats: cultural-educational programmes, documentary and feature films that have recorded and presented the life and work of Mihailo Petrović. From the short documentary film from 1968, produced at the occasion of the centenary of Petrović’s birth, entitled *Mika Alas*, to a number of scientific-educational programmes, which give a concise and richly-documented account of the life and work of Mihailo Petrović.

As for the feature film format, there is a film that presents the famous generation of the graduates of the First Male Gymnasium from 1878–1885, to which Petrović belonged, as well. It is the feature film *Professor Kosta Vujić's Hat* (*Šešir profesora Koste Vujića*) from 1971, directed by Vladimir Andrić, based on the script by Milovan Vitezović that was adapted by Bojana Andrić. Though it had been written in the form of a novel, the film was premiered on 24 February 1972, and since then it has been broadcast six more times, making it the most popular TV drama of Belgrade Television. The script for the TV drama was subsequently turned into a novel bearing the same title by Milovan Vitezović in 1983. The film portrays the times of the generation of the First Gymnasium’s graduates of the German language teacher Kosta Vujić that would go on to become prominent members of the Serbian science and culture.¹⁷²

On the occasion of the celebration of the centenary of the First Belgrade Gymnasium (1939) Mihailo Petrović wrote the following about his generation:



Graduates of First Belgrade Gymnasium, June 1885 (SASA Archive, 14197/II-15)

“About the schoolmates, some of which are still alive, we do not think to speak individually. Fate had given us various roles in life and we went our separate ways after graduation, meeting up occasionally, getting to know about one another and recalling common old memories. That generation did not give our land a single statesman, but it provided university professors, writers, lawyers, diplomats, doctors and journalists. One fact noted in other generations of high-schoolers became evident in ours, as well: what some of them showed to be capable of as high-schoolers and what they were to contribute to their area of work after graduating and becoming independent was not always in direct correlation. Some of us, whom the teachers had given up on, and even the schoolmates predicted nothing will become of them, went on to become what could not have been expected: great writers, prominent journalists, etc. Conversely, those with all the highest grades did not always turn out to be what they had been expected to become, and they left a much fainter mark than those that had been little counted upon.”¹⁷³

In the last scene of the film *Professor Kosta Vujić's Hat* of 1971, the graduates of the First Belgrade Gymnasium were shown, where it is striking that the inspiration for the scene had been taken from an archived document, that is, from a photograph from the SASA Archives. Similarity is noticeable in the arrangement of the teacher and students (Mihailo Petrović is standing in both cases in the same place at the right-hand side), as well as of the objects laid out before them. For instance, the configuration of geometrical bodies, the globe and a set of tools from the chemistry lab, run by a Chemistry teacher, Marko Leko.

The procedure for taking this photograph is reproduced and repeated in two more photographs in which Petrović was present. This practice was upheld when anniversaries of the



Twenty five years from graduation, 8 June 1910 (SASA Archive, 14197/32)

First Belgrade Gymnasium were celebrated. The photograph was reproduced on the occasion of celebrating the 25th anniversary of their graduation, on 8 June 1910. The same practice, when the photographs are entered and used as a testimony to a previous meeting, is shown in the photograph on the occasion of the 40th anniversary of their graduation, with the Mathematics teacher, Sreten Stojaković, and teachers of the pre-military training, on 8 June 1925. The photographs showing the graduates of the First Belgrade Gymnasium of 1885 is carried over through generations and reproduced in the same medium, until it was re-visualized, this time in the new medium – the feature film *Professor Kosta Vujić's Hat*, in which it served as a source of inspiration. In a word, apart from the preservation of the memory of a photograph, we have here an example of a reinterpretation of its contents in the new medium – film.

Apart from the audio-visual records, another facet of the digital legacy of Mihailo Petrović is represented by newspaper articles, taken from the digital “Svetozar Marković” University Library, as well as by an article from the Mathematical Institute of SASA. From those digitized newspaper articles, which allow for going back to Petrović’s time, we can be informed not only about the work of Petrović, but also about the events and celebration in which he himself participated and gave interviews. The press, including *Vreme*, *Pravda*, *Politika*, *Srpski narod*, *Bodljikavo prase*, wrote about the great scientist and his eclecticism.

As an illustration of Petrović’s eclecticism, a newspaper article was published in *Pravda* of 11 January 1939, with the headline “Our best mathematician, Mr Mika Petrović, practices fishing with as much intensity and passion as mathematics”.



Forty years of graduation with professor of mathematics Sreten Stojaković and the professors of pre-military training, 8 June 1925 (SASA Archive, 14188/9)

Certain parts of that interview extracted from the article point out that passion Petrović had for science and mathematics was no greater than that for fishing and travel. As Petrović himself asserts with regard to mathematics:

“I am wholly content with the younger generation of our mathematicians, which for me as a mathematician represents (placing great emphasis on this, because he practised fishing at least as much as mathematics, and maybe even more, which he is later to discuss) the greatest satisfaction. There are only – Petrović goes on to say – fourteen doctoral dissertations in mathematics, defended here or abroad. When we take into account the state of affairs in that respect up until recent times, as well as the state in other countries, then we can optimistically conclude that this number is considerably high and commendable. What is especially commendable and interesting is the fact that there are doctors of mathematical sciences teaching in grammar schools, as well. Once, every doctor of mathematics entered Belgrade Grand School and University, which was understandable, as there was only a handful of them. However, they now deal with mathematics as a science and work systematically and successfully in that field, even though they have no prospect of promoting the fruit of their research and expertise in the university departments.”¹⁷⁴

Then he goes on to speak about fishing:

“I am involved in fishing unusually intensively. I have worked on it more than I did on mathematics – you may freely write it – and I will finish my working life in that area, and not in mathematics. Only, let’s make it clear – Petrović points out further on – I am not engaged in fishing recreationally, but professionally. One should differentiate between fishing and fishery or,

Literary Cooperative). Still, some of those expeditions I had to cancel or delay – recounts Mr Petrović. It makes no sense, however, to expose oneself to dangerous places when it evidently means putting one's life at risk. Once, I barely survived on an expedition to Madagascar, while one of our crew died instantly from a poisonous insect bite and another hardly managed to escape.”¹⁷⁷

Even this article would suffice for us to become familiar with the versatility, curiosity and complexity of Petrović's character.

There are also other articles describing Petrović and telling stories about him. Apart from the interviews, there are newspaper articles that speak about Mihailo Petrović and his fish specialties in a humorous way. One of these came out on 5 September 1942 in the magazine *Bodljikavo prase (Porcupine)*, with a headline “A Tried and True Recipe”, describing Mika's recipe for ‘drunken carp’.

“The dinner was prepared by our eminent scientist and a famous expert in fish, Mika Alas. He prepared ‘drunken carp’. Somebody asked Ben-Akiba why Alas keeps his secrets so. It's clear! Fish dishes are seasoned with wine. Or at least this is how the story goes. In reality, the wine is drunk by the cook and the fish served to the guests. This is what Mika knows, as well, and that is the reason why he keeps preparing ‘drunken carp’. He locks himself in the kitchen and sips his wine while the carp sizzles in the oven. At least that is how I, for one, used to do it – he said, finishing his explanation – which was, naturally, only a joke, since Mika Alas has always been moderate not only in drinking, but also in eating.”¹⁷⁸

Unlike other documents referring to Petrović, newspaper articles tell us about the scientist in a direct way. Apart from the information on the success, inventions and achievements, it is often the case that the newspaper articles contain anecdotes related to Petrović, thereby revealing the humorous side describing the atmosphere and the spirit of the times.

One of the articles describes the tradition of dinners at the rectorate and how they changed in the post-war period. The question was how the custom of the rector's or dean's dinner came about. One of the responses came in the form of an anecdote told by the then president of the Academy of Sciences and a former rector Bogdan Gavrilović. He cited as an example the foundation of the higher education school Lyceum in Kragujevac in 1838. The story opened with how the first teachers of the school wanted to celebrate that important moment and the arrangement involved organizing dinner. Since then, with thousands of students and hundreds of teachers, much has changed, but that little tradition has remained unchanged.¹⁷⁹

What is printed in the press and preserved is a speech of the then president of the Academy of Sciences and the former rector professor Bogdan Gavrilović and professor Mihailo Petrović Alas, in which we can discern Mika's satire:

“His voice got lost in the resounding applause. Then the president of the Academy of Sciences rose and began his speech:

‘Fifty years ago to the day I attended a rector's dinner for the first time and was the youngest person among the invitees. All the old professors then looked upon the young affectionately, and sincerely wished us success in science. Now, after all those years, I look upon you in the same

way, I am glad to see you gathered here regardless of the fact that you come from one faculty, and with as much hope and love I wish you to surpass us by far and be worthy of your successors...

The University has always been the hub of science, it has educated and then sent abroad the representatives of knowledge and skills...'

'Yes,' interrupted Mika Alas, whose satire never spared anyone, 'I concur – with our renowned Bogdan. I was also told by the elders that in the vicinity of the Rtanj Mountain there were a lot of bears and bear cubs. But there were also two villages, and in the villages well-known bear-baiters versed in the trade. The bear-baiters from the whole region collected bear cubs, taught them various skills and when they grew up and became adult bears, they brought them as well-trained animals into wild regions to disseminate their expertise. (Roaring laughter) No, I do not intend to draw any analogy,' the old professor added facetiously. 'I only wanted to express agreement with my predecessor in speaking and to tell you something about the bear-baiting hub that had once been there, at the foot of Rtanj...'. Once the elderly and eminent scientist ended his speech, the audience broke into a resounding applause that took a long while to quieten down. After that came the toasts, clinking of glasses, dishes were taken out, and the musical ensemble "Suz" played incessantly. When people started dispersing at dawn, they did not need a watch to tell the time because they could see the morning sun. And maybe even this time there were carriages...'¹⁸⁰



A newspaper clipping: M. Mihailović, "Dean's Kebabs in the Botanical Garden",
Vreme, 3 July 1937, 10.



Mihailo Petrović (with a hat) “Suz”, atmosphere in the tavern (SASA Archive, 14197/II-1)

To testify that there were festivities, music and song and to bring the atmosphere, there are illustrative pictures adjoining the articles, as well as photographs of the musical ensemble “Suz”, of which Petrović was one of the founders.

An article in *Pravda* of 20 February 1939, reports about the event of marking the 70th anniversary of the scientist and pedagogue Jelenko Mihailović. A number of prominent scientific and educational staff paid homage to Jelenko Mihailović, the rector of the Higher School of Pedagogy. Among the attendees were Mihailo Petrović Alas and his orchestra “Suz”. According to the article: “Professor Petrović was playing the violin, and Mr Mihailović beat the tambourine.”¹⁸¹ Attendees at the celebration were also entertained by Mr Siniša Stojković, a professor of the Trading Academy, who asked Petrović about the origins of the orchestra “Suz”. “And professor Petrović replied: ‘I am ashamed to say. We founded it in the latter half of our lives. And the principle is: while the wise were getting one up on each other, the silly lived out their lives...’”¹⁸²

The newspaper articles in which speeches have been recorded and published, those given by Mihailo Petrović in this case, are evaluated and viewed as direct testimonies and witnesses of a certain atmosphere, special occasions and celebrations.

Not only did others write about Petrović in the newspapers, but Petrović himself wrote for the press. One of the illustrations represents an article that he wrote anonymously about the

ПОСЛЕДМ ПЕДИГОНИСАЊА ЈЕДНЕ ГРУПЕ УНИВЕРЗИТЕТСКИХ ПРОФЕСОРА Математички институт на Београдском универзитету -- кошница научног рада

Једна нова велика научна установа на коју треба да имају и свуда јавност

Београд има велики математички институт, на Београдском универзитету, који је још увек у процесу изградње. Иако је још увек у процесу изградње, он је већ почео да ради и да се његово значење свакодневно повећава.

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Упућени су на школовање у иностранство... Ова група студената ће се школовати у иностранству...

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Anonym. "Mathematical Institute at the University of Belgrade -- the beehive of scientific work", Politika, 8 May 1938, 9. (Mathematical Institute SASA)

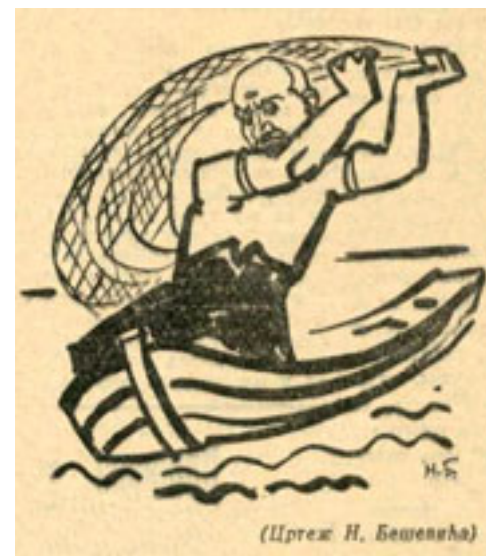
Mathematical Institute of the Belgrade University, which he called a beehive of activity, educational and scientific, as well as public, and had it published in the daily newspaper *Politika*¹⁸³ in 1938.

Apart from the mathematical contributions, he writes and publishes an article about fishing just as vehemently, this time under his name. The article was published in 1940 in the paper *Beogradske opštinske novine (Belgrade Municipal Paper)*, with the headline “Beograd – negdašnji centar velikog ribarstva” (“Belgrade: A Former Centre of Large-scale Fishing”), in which are listed all the fish species on the Sava and Danube rivers in the region of Belgrade, accompanied by the description and features of certain fish species.¹⁸⁴

Eleven days after the death of Mihailo Petrović, an obituary was published in his memory in the paper *Srpski narod (Serbian People)* on 19 June 1943, written by Mladen St. Đuričić, a writer and Petrović’s friend. The article opens with the following words: “Let them stop, for a moment, science and literature, and music and society to which our great deceased belonged”, and ends with the following speech: “That is – Mika Alas! With that name – he neither died, nor will he die easily, our great deceased. In the name of those small people, fishermen and boatsmen, in the name of those you loved the most, oh great Master, I bow to the magnificent memory of you, to which there is no predecessor, nor will there be a successor for long, in the whole wide world.”¹⁸⁵

Such an account of digitized newspapers and other publications from the repository of the “Svetozar Marković” University Library and the National Library of Serbia provides its users with fast searchability and accessibility of the issues of Serbian historical press and periodicals, where it is possible to collect data about a given period, historical event or, as in this case, about a certain person.

With regard to the digital legacy, it is also important to mention the digital legacy¹⁸⁶ of Mihailo Petrović Alas, created by the Faculty of Mathematics in Belgrade. The digital legacy itself can be treated as a digital database or repository, which gives an overview of the existing bibliography related to Petrović. It includes the digitized version of his collected works, manuscripts and photographs. In the library of the Mathematical Institute of SASA there are fourteen volumes by Mihailo Petrović in manuscript form. Notes from the lectures were taken by a student Borivoje B. Pujić from 1910 to 1914. That manuscript has been digitized and is now available in the digital legacy.



A drawing of N. Bešević, in the memory of Mika Alas. Published in: Mladen St. Đuričić, “In the memory of Mika Alas”, *Srpski narod*, 19 June 1946, 12. (“Svetozar Marković” University Library)

Digitalni legat Mihaila Petrovića Alasa

Matematički fakultet Univerziteta u Beogradu

BIOGRAFIJA MATEMATIKA IBAKSTVO PUTOVANJA ENAJEVNOST SABRANA DELA DRUGI O ALASI ARHIVA ILOJBE

IMPRESIUM

» / Beograd

Biografija

Tiket je prevzet iz knjige *Život i delo srpskih naučnika, knjiga 2*, SANU, Beograd, 1997.

Autori biografije su Jovan D. Kečkelić.

Za Mihaila Petrovića često se kaže da je bio osnivač tzv. Beogradske matematičke škole. Rođen je 1868. godine u Beogradu, gde je završio osnovna škola (1878), srednja škola (1885) i prirodno-matematički odelok Velike škole (1889).



Od 1889. do 1894. studirao je na *École Normale Supérieure* u Parizu, gde je na *Faculté des sciences* stekao diplomu matematičkih nauka (*Licencié de sciences mathématiques*, 1892), diplomu fizičkih nauka (*Licencié de sciences physiques*, 1893) i doktorat matematičkih nauka (*Docteur de sciences mathématiques*, 1894). Doktorska disertacija *Sur les séries et les séries des intégrales des équations différentielles algébriques* Petrović je odbranio pred komisijom: Ch. Hermite (predsednik) i E. Picard, P. Painlevé (ilascovi ispitivači). Ni pre ni posle njega nijedan srpski matematičar nije odbranio doktorat pred komisijom takvog ranga.



Odmah po povratku u Srbiju, 1894. godine izabran je za redovnog profesora Velike škole. Bio je jedan od prvih srpskih redovnih profesora Univerziteta u Beogradu, osnovanog 1905. godine, i sve do penzionisanja 1936. predavao je teorijsku matematiku na Filozofskom fakultetu. Bio je prodekan i dekan tog fakulteta. Takođe je imao zvanje profesor-a ugrupi na univerzitetima u Parizu i Briselu.

Digital Legacy of Mihailo Petrović Alas

The digital legacy contains not only biography but also materials in various digital formats about Petrović's life and scientific work. The materials from Petrović's work include professional and scientific papers, books and photographs from the SASA Archives, SASA Library, Association "Adligat", Foundation "Mihailo Petrović Alas" and the Primary School "Mihailo Petrović Alas"

Digital copies of the presented files are placed in the virtual library of the Faculty of Mathematics of the Belgrade University. Next to each file in the digital legacy there is a link to its copy in the virtual library. The virtual library owns several digital legacies of more prominent Serbian mathematicians.¹⁸⁷

In relation to Petrović and his work, the virtual library grew into a monumental database. The bulk of the presented material has been collected thanks to the professor Žarko Mijajlović, while a large part of the collected material belongs to the library and archives of the Serbian Academy of Sciences and Arts.¹⁸⁸ What is incorporated in the digital legacy is a web-presentation of the catalogue of the exhibition marking the 150th anniversary of the birth of Petrović, under the title: *Mihailo Petrović Alas: the Founding Father of the Serbian School of Mathematics*, showing the sections underlying the exhibition's concept and structure. Creation of the website for the web-presentation

Михаило Петровић Алас - родоначелник српске математичке школе

Тема: Биографија Научни резултати Ребарство Археологија Велика путавања Критикографија Музика Кудио-визуелни надији Архивска грађа

Веб презентација каталога изложбе *Михаило Петровић Алас - 150 година од рођења*.

Изложбу приређује Галерија Српске академије наука и уметности. Аутори изложбе: Јарко Недрковић, Марија Стеван Радоњић, Стеван Мићић, координатор изложбе: Марија Поповић, дизајн postavke: Стеван Мићић, Борис Мићић, Иван Марковић, стручни сарадници на археолошкој изложби: Рада Наљковић, Жасмина Марковић, Јелена Некићкић Некићковић, збирачка реализација: Милош Зарић, Горан Витошевић, Сања Ренковић, Стјепан Пудровић, Изабела Српска академија наука и уметности, списак 143, 2018, ISBN 978-86-7025-768-9.



Српска академија наука и уметности и математичари у Сједиене државе прослављају 150 година од рођења академика Михаила Петровића Аласа, великог српског математичара. Академик Петровић био је угледан професор математике на Универзитету у Београду, али и ребар, књижевник, филозоф, истраживач, светски путник и путописац. Докторирао је на Сорбони 1894, где је био студент чувених француских математичара Анрија Пуанкареа, Шарла Ермита и Шарла Емила Пикара. Утепе године постаје професор Велике школе и доником дух француског математика. Његовим повратком, Београд у математичким наукама заостаје иза других великих европских центара. Петровић је имао светски познате научне доприносе у диференцијалним једначинама, комплексној и нумеричкој анализи, геометрији полинома и математичкој филозофији. Такође је изумео неколико аналитичких рачунарска машина и био главни критикограф српске и југословенске војске. Улога од књижевних и књижевних достигнућа

Web-presentation of *Mihailo Petrović Alas – the founder of Serbian school of mathematics* catalogue

of the catalogue of the exhibition is authored by “ARhiMedia group” and the Faculty of Electronics in Niš.

Within the digital legacy there is a 3D model of a bust of Mihailo Petrović, made by the Mathematical Institute of SASA. The original bust is located in front of the family house of Petrović at 22, Kosančićev venac Street, and is the work of the sculptor Aleksandar Zarin from 1969. Technology enables us to treasure media that are not in the print or paper form and to create their digital imprint.

Digital libraries and databases keep and present at one place electronic archiving of all manuscripts, photographs and information related to cultural and scientific legacy and make them more accessible to a wider auditorium. Reflections on Petrović are memorized and continue to live in different media and thanks to the digitization of its legacy we have an easily accessible foundation for information and further research.



The 3D model of Mihailo Petrović Alas's bust
Authors of the 3D model: Vanja Korać and Dragan Aćimović (Mathematical Institute SASA, 2018)

REFERENCES

- Д. Трифуновић, *Михаило Пејровић Алас – животи и дело*, Дечје новине, Горњи Милановац, 1982.
Д. Трифуновић, *Летопис живота и рада Михаила Пејровића*, САНУ, Београд 1969.
Mirjana Maljković, Biljana Stojanović, Žarko Mijajlović “Digital legacy of Mihailo Petrović Alas”, *Прејлег НЦД* 31 (2017), 10–17.

THE PRESS

- Аноним., „Математички институт на Београдском универзитету – кошница научног рада“, *Полиџика*, 8. мај 1938, 9. (Mathematical Institute of SASA)
Михајло Петровић, „Београд – негдашњи центар великога рибарства“, *Београдске ојштинске новине*, 3. јануар 1940, 188–196. (“Svetozar Marković” University Library)
Мило Васовић, „Наш најбољи математичар г. Мика Петровић бави се риболовом исто тако интензивно и страшно као и математиком“, *Правда*, 11. јануар 1939, 32. (“Svetozar Marković” University Library)
Аноним., „Вечера у част научника и педагога г. Јеленка Михаиловића“, *Правда*, 20. фебруар 1939, 7. (“Svetozar Marković” University Library)
Младен Ст. Ђуричић, „У спомен Мике Аласа“, *Српски народ*, 19. јун 1943, 12. (“Svetozar Marković” University Library)
М. Михаиловић, „Декански ћевапчићи у Ботаничкој башти“, *Време*, 3. јул 1937, 10. (“Svetozar Marković” University Library)
Аноним., „Опробан рецепт“, *Богљикаво њресе*, 41, 5. септембар 1942, 4. (“Svetozar Marković” University Library)

ELECTRONIC SOURCES

The Digital University Library “Svetozar Marković”

<http://www.unilib.rs/sadrzaji/digitalna-biblioteka/>

The Digital Legacy of Mihailo Petrović Alas, the Faculty of Mathematics of Belgrade University

<http://alas.matf.bg.ac.rs/~websites/digitalnilegatmpalas>

Virtual Library of the Faculty of Mathematics in Belgrade

<http://elibrary.matf.bg.ac.rs>

Digital Legacies of the Faculty of Mathematics of Belgrade University

<http://legati.matf.bg.ac.rs/>