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125 YEARS FROM THE BIRTH OF VOJISLAV V. MIŠKOVIĆ

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Abstract. The life and work of Academician Vojislav V. Mišković (1892–1976) are presented on the occasion of the 125th anniversary of his birth. His main scientific achievements, his roles as one of the first professors of astronomy at the University of Belgrade and the builder and director of the contemporary Astronomical Observatory of Belgrade are briefly mentioned and acknowledged. Particular attention is, however, paid to numerous activities and important duties he carried out in the Serbian Royal Academy (later Serbian Academy of Sciences, nowadays Serbian Academy of Sciences and Arts), after being elected its corresponding member in 1929, and the full member in 1939.

1. INTRODUCTION

As a famous French writer and occupant of the seat 29 in Académie française Amin Maalouf witnesses in his book "Un fauteuil sur la Seine : Quatre siècles d'histoire de France" (Maalouf 2016) in French Academy it is customary that the newly elected member in the inaugural speech pays a tribute to his/her predecessor in the Academy's seat. Such custom does not exist in the Serbian Academy of Sciences and Arts (SASA) as the newly elected members do not inherit the enumerated seat in the Academy. However, being only the second astronomer of all times, member of SASA, I found it more than appropriate to honor my "predecessor", the first ever astronomer in the Academy, Vojislav V. Mišković (Figure 1), on the occasion of the 125th anniversary of his birth.

Although I used to follow in his footsteps as the Director of the Astronomical Observatory of Belgrade too, while preparing my talk for the 18th Serbian Astronomical Conference, I realized that so much has already been written and said about Mišković's scientific work, his roles of the professor of the University of Belgrade and a builder of the present Astronomical Observatory of Belgrade (e.g. Protitch–Benishek and Djokić 1989, 1996; Protić–Benišek 2002) that little if anything new remains to be said. Let me just assert that Astronomical Observatory would certainly not be what it is today — one of the leading scientific institutions in our country and a recognizable distinct point on the world astronomy map, without a clever and skillful leadership of Vojislav Mišković in the crucial period of its development.

On the contrary, however, even with some surprise I learned that on his reach and important activities in the Serbian Royal Academy, later Serbian Academy of Sciences, and finally, nowadays, Serbian Academy of Sciences and Arts, comparatively little is

published and known. Hence, I decided to devote my talk and this paper to this scarcely discussed and mostly undocumented aspect of Mišković's life and work, to browse the archives of the Academy and bring to light treasures hidden in the piles of folders, documents and memories stored therein.

2. A BRIEF BIOGRAPHY

Vojislav V. Mišković was born on January 18, 1892 in Fužine, Austro-Hungary (Primorje-Gorski Kotar County in todays Croatia, Figure 2). Soon, however, his family moved to Serbia, and he attended elementary school in Belgrade, Čačak, Priboj and Sukovo near Pirot, where his father used to work as a railway employee. In 1910 he graduated from the high school in Novi Sad, and subsequently enrolled at the University in Budapest to study astronomy. Since astronomy courses at the University were delayed for organizational reasons and did not start that very year, prompted by his strong desire to learn about stars and heavenly worlds, he leaves Budapest to continue studies first at the University of Götingen, and then in Vienna. Two years later he returns to Budapest, where the Chair of Astronomy has in the meantime enrolled its first students.

Led by strong national feelings, just before the outbreak of the First World War, he flees to Serbia and joins the military. During the war he shares the first great victories of the Serbian Army in 1914, but also the tragic experience and hardships of retreat of the Army across Albania to the Greek island of Corfu in 1915. He spent a brief period of time healing in France, only to rush back to the front in 1916. In the following years he witnesses the triumphant return of Serbian forces and liberation of the country.

Soon after the end of war, he has from Thessaloniki been sent for France to complete his studies, and graduates from the University of Marseille on June 21, 1920. Already in 1919 he began to work as an assistant at the Astronomical Observatory of Marseille, but leaves for Nice in 1922 where he becomes an astronomer at the local Observatory. There he commences his successful scientific career and publishes a number of papers devoted to observation, data reduction and determination of orbits of minor planets and comets, to stellar statistics, improvement of impersonal astrolabe with prism, etc. For the studies in stellar statistics he wins a prestigious *Prix Valtz* of the French Academy of Sciences. In the same field he completes thesis "Etudes de statistique stellaire" for the "state doctorate", which he successfully defends on July 17, 1924 at the University of Montpellier, thus becoming the first doctor of astronomy with Serbs.

In 1925, Mišković was "by invitation" elected associate professor of Theoretical and Practical Astronomy at the Faculty of Philosophy of the University of Belgrade and put in charge of managing the Astronomical Observatory of Belgrade. The letter of invitation was signed by three distinguished scientists, professors and academicians of the time: Milutin Milanković, Bogdan Gavrilović and Mihailo Petrović.

Upon return to Serbia, Mišković devoted all his time and strength to the new duties. He organizes and teaches the courses at the University, prepares and later manages building of the new Observatory, mounting of its instruments, organizing the observational work and astronomical services, commences editorial activities by initiating a number of Observatory's publications, and, in general, works hard to make the Observatory a fully functional scientific institute. The Astronomical Observatory,

at which he served as director in two periods 1925—1946 and 1951—1953, remains his lifetime achievement for which he is best remembered by the contemporary Serbian astronomers and will be appreciated by the generations to come.

After the German occupation of the country, Mišković was in 1941 removed from the University, retaining, however, the position of the acting Director of Astronomical Observatory. Throughout the war he struggled to keep the Observatory running, as this was the condition to preserve its instruments and the Observatory itself. While Belgrade was being liberated from Germans in 1944 the Observatory suffered severe damages, but almost all of its principal instruments were saved, and in good enough condition to be, after necessary repairs, put back to work. For the most part this was Mišković's personal merit.

In the first turbulent post-war years, the Observatory has become an institute of the Serbian Academy of Sciences, and its Director was for a short while Milutin Milanković. Already in 1950, Mišković was elected President of the Council in charge of managing the Observatory, then appointed its Director when in 1951 Milanković, on behalf of Academy signed such a decision (Figure 3a), and appointed again in 1952, when Observatory became an independent scientific institute. He finally resigned from the post in 1953.

Dedicating most of his time and interest in the subsequent years to the teaching duties at the University and important activities in the Academy, on August 24, 1962 he applies for retirement, after 46 years, 1 month and 5 days of service of which 3 years, 5 months and 26 days in military service in the First World War (Figure 3b).

Vojislav V. Mišković passed away on November 25, 1976 in Belgrade, at the age of 84. For his achievements he was awarded a "Saint Sava" medal of the third order; asteroid (2348) Michkovitch, discovered at the Astronomical Observatory of Belgrade, bears his name.

3. MIŠKOVIĆ IN THE ACADEMY

In January 1929, three distinguished members of the Serbian Royal Academy, the same ones who previously invited Mišković to take over the professorship at the University of Belgrade, Bogdan Gavrilović, Milutin Milanković and Mihailo Petrović signed the proposal to elect Vojislav Mišković a corresponding member of the Academy (Figure 4).

The proposal was accepted and Mišković becomes corresponding member of the Academy on February 16, 1929.

A much shorter proposal (Figure 5a) for Mišković to be elected a full member, dated January 1, 1939, was on behalf of the Academy of Natural Sciences[1] signed by its 6 full members — Milutin Milanković, Bogdan Gavrilović, Mihailo Petrović, Anton Bilimović, Ivan Djaja, and Živojin Djordjević. After unanimous vote in favor of the proposal, which took place on February 16, 1939, King Petar II formally declares Vojislav Mišković a full member of the Academy on February 8, 1940 (Figure 5b). At the inaugural ceremony Mišković deliveres the speech entitled "The role of astronomy in collaboration with other sciences", which was later published in Academy's Glas (Mišković 1941).

[1]The Academy of Natural Sciences, together with three other Academies made part of the Serbian Royal Academy; they precede the present day Departments

The chronology of Mišković's appointments to various official positions in Academy begins in 1943 when he was elected Secretary of the Academy of Natural Sciences, in 1945 he becomes Secretary of the entire Serbian Royal Academy, in 1947 deputy Director of the newly founded Mathematical Institute of the Serbian Academy of Sciences, in 1950 he establishes the Numerical Institute of the Academy with a specific task to regularly produce the Nautical Almanac, and manages it in subsequent years. In the period 1956–1960 he serves as the Secretary of the Department of Natural Sciences of the Serbian Academy of Sciences and Arts, remaining a deputy Secretary until his final retirement from Academy's official positions in 1963.

Out of the plethora of activities and duties Mišković has been trusted with in the Academy, I'll here present only a few, which I found particularly interesting and important not only for the Academy itself, but also for revealing of Mišković's role in various Academy's affairs.

Let us begin with a Herculean task of moving the Storage of Academy's publications, as well as of the Library and Archive, from a nearby temporary location back to the permanent one in the building of the Academy in Brankova street 15, after the building was successfully repeared from the damage it suffered in the bombardment of Belgrade on April 6, 1941. Moving and complete reorganization of the Academy's services were, due to Mišković's extraordinary organizational skills and experience, completed in only 6 months, from August 1943 to January 1944. To illustrate how huge and complex this task was, it is enough to quote a few figures from his report to the Presidency of the Academy where he states that in the Storage there were 14 editions with 753 volumes of different content and 309 special printouts, a total of 357 240 books. All these books were counted, registered and stored, the corresponding rule books prepared, and all the necessary conditions for the regular sale of the Academy's editions created. Upon the completion of the task, appropriate recognition and acknowledgment was given to Mišković by the grateful Presidency.

The next thing I would like to present is the proposal of the then Secretary of Academy, Vojislav V. Mišković, to the Academy of Natural Sciences, of May 30, 1945, that is immediately after the end of the Second World War, regarding the organization of scientific work in the post-war Yugoslavia. In Figure 6 only three most interesting, out of the 10 pages of this handwritten proposal, are shown. In his recognizable ordered manner, he opens the document with a few general remarks on the need to use the human spiritual abilities and available energies for the organization of people's life and work after the war, to proceed with a list of seven items which are, according to him, necessary to organize properly the scientific work: delimitation of scientific disciplines, organization and founding of new scientific institutions, setting of the main directions and goals for scientific work in each research area, coordination of work, supervision of work, issuing initiatives and directives for work, maintaining relations with foreign institutions. Each item is thoroughly explained and justified, thus representing a well thought-out whole. Wouldn't these seven items easily make part of any, even quite contemporary, attempt at the national strategy of organization and development of scientific work?

Continuing along the same line of reasoning, Mišković concludes that to have a functional and efficient organization of scientific work, what is necessary is a strong bond between the state and the scientists, and this is best achieved through a dedicated scientifically highly competent body, capable of organizing and handling the

scientific work in the country. Explaining convincingly why neither of the then existing academies of Yugoslav republics (Serbian – SANU, Croatian – JAZU, Slovenian – SAZU), nor a possible new, federal one, would represent a suitable choice for the task, he proposes founding of a special independent body, which he terms Federal Scientific Council, that would have a highest degree of freedom of action and the best chance of success in fulfilling such a complex task. Considering its possible structure, functions and responsibilities, he outlines the principal tasks of the main constituent organs and suggests that they should be composed of the most distinguished scientists, representatives of individual scientific disciplines. Eventually, he completes the proposal with a tentative list of Council's Scientific Departments. Doesn't this very much resemble the current proposal, supported by many Serbian scientists, to establish in Serbia an independent funding agency for science?

Let me conclude that it is indeed impressive how modern are Mišković's views regarding the efficient organization of scientific work he was promoting more than 70 years ago.

Such an interest in a large scale organization of scientific work and in the possible place of the national academies in the general scheme, as well as the position of the Secretary of the Serbian Academy of Sciences he occupied at the time, recommended him to take part in the talks regarding the foundation of the Yugoslav Academic Council, held in Zagreb in 1948. Representatives of the three above mentioned academies of Yugoslav republics agreed to establish close relations between the academies and strengthen their collaboration. Mišković took part in preparation of some of the documents for the Council, intended to define forms and modes, and to regulate the means of this collaboration. In the Mišković's bequest in the Archive of the Academy there are several photographs which preserve the memory of this meeting, out of which in Figure 7 we reproduce only one where all the participants of the meeting are shown in the garden of JAZU. On the back side of the photograph Michkovitch wrote the names of the people shown, among others those of Aleksandar Belić, president of SANU, Vladimir Nazor, president of JAZU, well known Croatian writer Miroslav Krleža, Pavle Savić, later president of SANU, and of Mišković himself.

The final piece in the mosaic of Mišković's activities and achievements in the Serbian Academy of Sciences, which I selected for this occasion, witnesses on his extraordinary skills in handling the crisis which nearly resulted in closing down of the Academy and in his masterful dealing with challenges of the duty of the Secretary of Academy in such a situation.

In the 1947 elections, Academy received recommendation from the political authorities to elect at least one foreign member from each Slavic country in order to show also in this way the friendly feelings of our people towards these countries. However, in elections held on April 9, a couple of candidates – "the most important contemporary representative" of Croatian literature, and the President of the Bulgarian Academy of Sciences – did not get enough votes and were not elected. To show his strong disagreement with the outcome of elections and with such a disrespect towards the new authorities, President of the Academy Aleksandar Belić, deeply concerned that this could be misinterpreted by the authorities and jeopardize the Academy, decides to resign not only from the position of the President, but also from the membership of the Academy itself. He was joined by other 10 members, among others Veljko Petrović, Toma Rosandić, Pavle Savić and Ivo Andrić.

The meeting at which their resignation (Figure 8a) was discussed was held on April 25, 1947. The discussion was quite lively, several critical opinions and sharp reactions were expressed, in particular by, e.g. Milutin Milanković, Anton Bilimović, and Ivan Djaja. The discussion, however, ended up when those who signed the resignation collectively left the room. At this point, since President was not there to chair the session, Secretary of the Academy Vojislav Mišković takes over, competently resolves the administrative problems regarding the continuation of the session in the form of the Academy Conference and smoothly brings it to a regular end. The conclusion, in the form of resolution (Figure 8b) signed by the 15 remaining members present at the Conference, states that the Conference cannot accept the motivation for the resignation of 11 academicians, since none of the Academy members which took part in the elections had been guided by the wish or intent implied in the resignation text. The Conference expressed its wish that those who signed the resignation consider withdrawing it, and declares that it does not accept the resignations.

The period following the April 25 meeting was turbulent for the Academy. Mišković continues to fulfill his duty of the Secretary and on May 3 sends a circular information (Figure 9a) to all the members of the Academy (including himself) about the letter of the Committee for Scientific Institutions, Universities and High Schools of the Government of the People's Republic of Serbia in which this Committee expresses opinion that after resignation of 11 members including the President of the Academy, the Serbian Academy of Sciences cannot successfully fulfill the tasks which are set before it as the highest scientific institution in the country; hence, the status of all the remaining members is to be "on hold", which practically means that the Academy is closed down. The only glimmer of hope was the concluding sentence of the letter which stated that the whole problem will be presented to the Government of PR Serbia for the final decision.

Luckily enough, on August 29, Mišković was able to send to the members of the Academy the decision of the Government (Figure 9b) which states "that Serbian Academy of Sciences should resume all its chores in the composition as before April 25". Together with this decision, the Government adopted a new law for the Academy, with which its status was fully regulated. The crisis was over.

4. CONCLUDING REMARKS

In this paper the biography of Vojislav V. Mišković is briefly outlined, with an emphasis to his activities in the Serbian Academy of Sciences and Arts and to his achievements and contributions he made serving as a member, and the more so as a high official of the Academy, of its constituent Academy of Natural Sciences and of its Department of Natural and Mathematical Sciences. Obviously, facts and events described here represent only a minute fraction of Mišković's legacy. It was simply not possible to include here all the documents kept in the Archive of the Academy, witnessing of many other important accomplishments of his: let me mention just his thorough report on the state and work of the Academy in the period 1941–1945, which he, in his capacity of the Secretary of Academy, delivered on March 28, 1946 at the Academy's regular annual assembly (Mišković 1948), a more detailed account of his founding and managing of the Numerical Institute, his scientific papers published in the Academy's publications (see, however, paper by S. Petrović and M. Čolaković in this volume), his editorial work, the important role he had in founding of the National

Committee for Astronomy of Yugoslavia, his official and personal correspondence, etc.

Most of the documents shown in this paper make part of the "hidden treasures" of the archives of the Serbian Academy of Sciences and Arts, and some of these are, to my knowledge, presented here for the first time. Thus, I believe, the goal beyond this writing – paying tribute to a great man on the occasion of the 125th anniversary of his birth – is successfully accomplished.

Acknowledgment

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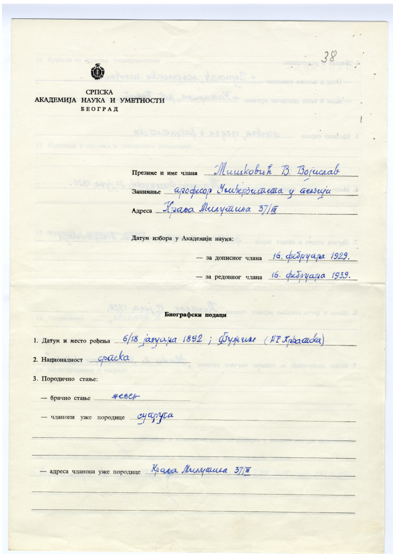
Figure 1: Vojislav V. Mišković, first PhD in astronomy with Serbs, professor of the University of Belgrade, builder of the present Astronomical Observatory of Belgrade, academician.



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СРПСКА
АКАДЕМИЈА НАУКА И УМЕТНОСТИ
БЕОГРАД

Презиме и име члана Мишковић В. Војислав

Занимање професор Универзитета у пензији

Адреса Краља Милутина 37/III

Датум избора у Академији наука:

— за дописног члана 16. фебруара 1929.

— за редовног члана 16. фебруара 1939.

Биографски подаци

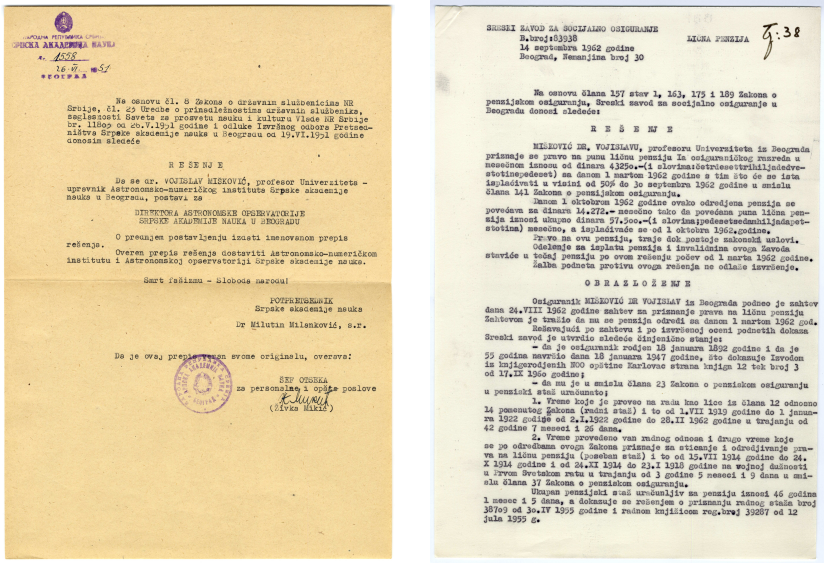
1. Датум и место рођења 6/18 јануара 1892 ; Фужине (НР Хрватска)
2. Националност српска
3. Породично стање:

— брачно стање жевен

— чланови уже породице супруга

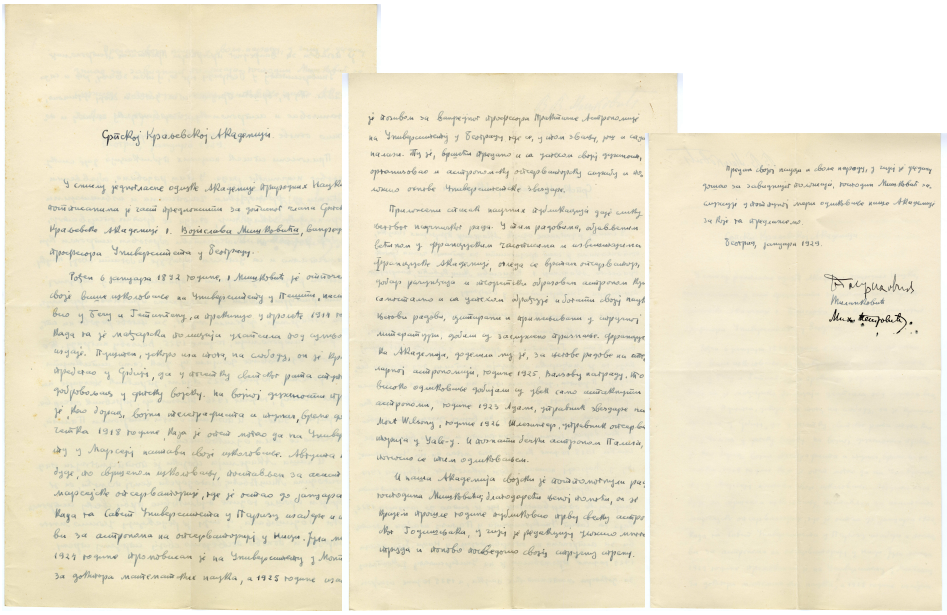
— адреса чланова уже породице Краља Милутина 37/III

Figure 2: Form filled in by Mišković, containing personal and biographical data (courtesy SASA Archive).



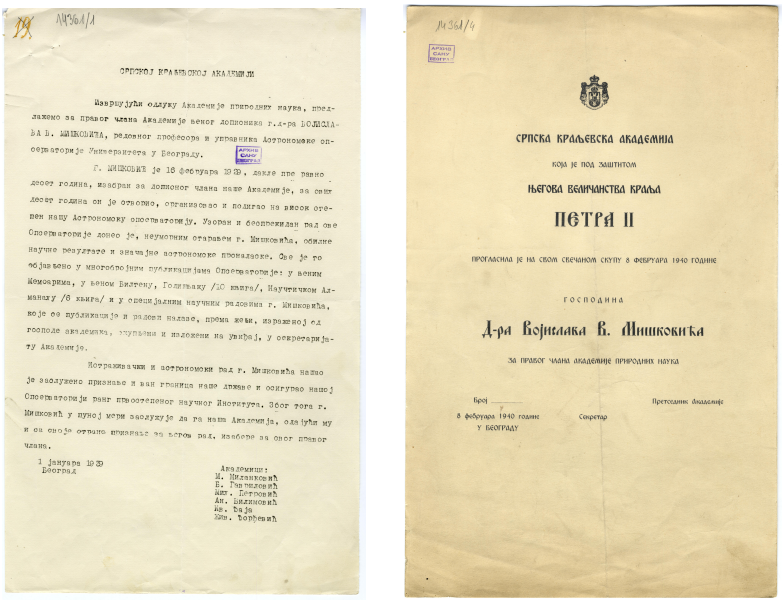
(a) (b)

Figure 3: (a) Document by which Milanković appoints Mišković Director of the Observatory. (b) Decision on Mišković's retirement (courtesy SASA Archive).



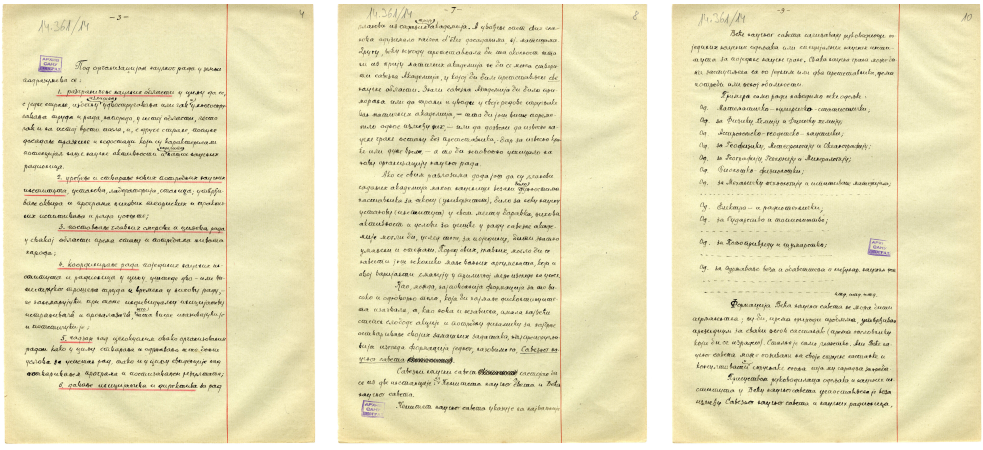
(a) (b) (c)

Figure 4: Proposal to the Serbian Royal Academy to elect Vojislav Mišković its corresponding member (courtesy SASA Archive).



(a) (b)

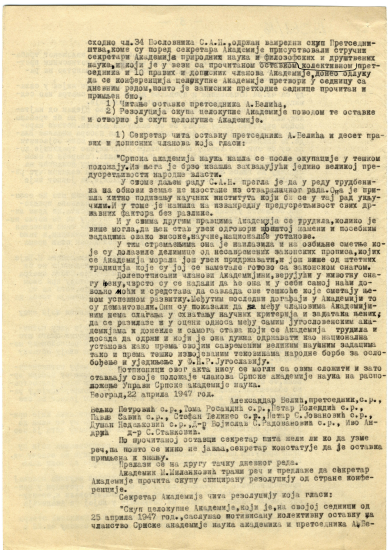
Figure 5: (a) Proposal for Mišković to be elected a full member of the Academy. (b) King's declaration (courtesy SASA Archive).



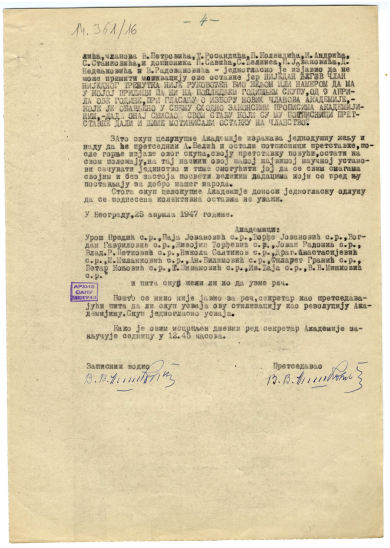
(a) Page 3 (b) Page 7 (c) Page 9

Figure 6: The three pages from the Mišković's proposal regarding the organization of scientific work (courtesy SASA Archive).

Figure 7: Participants of the meeting in Zagreb, April 1947 (courtesy SASA Archive).

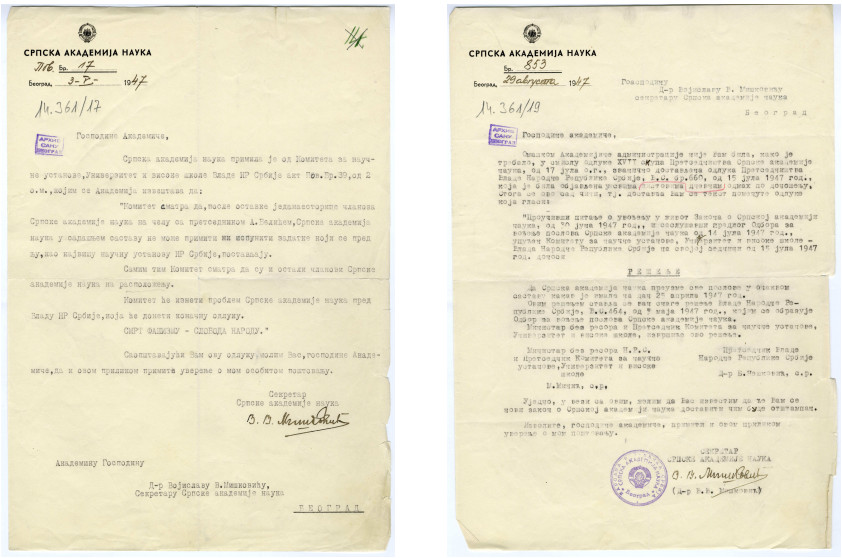


(a)



(b)

Figure 8: The two final pages of the minutes of the April 25, 1947 meeting, containing the text of the resignation with the signatories (a), and the text of the resolution of the Academy Conference with its signatories (b) (courtesy SASA Archive).



(a) (b)

Figure 9: The circular information sent to all the academicians by the Secretary Mišković: (a) the Academy is closed down; (b) the Academy continues as before. (courtesy SASA Archive).