



University of Belgrade, Technical Faculty in Bor



# ECOSYSTEMS

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**30<sup>th</sup> International Conference Ecological Truth  
& Environmental Research  
2023**

# Monograph

**Editors**

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University of Belgrade, Technical Faculty in Bor  
*30<sup>th</sup> Ecological Truth*



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**DEVELOPMENT OF THE INTERNATIONAL CONFERENCE  
ECOLOGICAL TRUTH & ENVIRONMENTAL RESEARCH – EcoTER  
AS SEEN BY ANA ČUČULović**

**RAZVOJ INTERNACIONALNE KONFERENCIJE  
EKOLOŠKA ISTINA I ISTRAŽIVANJE ŽIVOTNE SREDINE – EcoTER  
VIĐENA OČIMA ANE ČUČULović**

The Ecological Truth started in 1993 as a national meeting devoted to the environment, ecology, public health and sustainable development with the basic aim to raise ecological awareness. The national conference grew into a scientific-professional meeting and later into an international conference.

In 1989 after graduating, I started working at INEP (Institute for the Application of Nuclear Energy, Zemun), where my immediate head and master's thesis mentor was Slobodanka Stanković, PhD, science advisor, who was later director of the Institute. Slobodanka's husband, Prof. Dr Stevan Stanković, informed us about the Ecological Truth, and suggested to us to write a paper for this meeting. Prof. Steva and Slobodanka were for many years members of the scientific committee and actively participated in this meeting.

In 1995, Slobodanka and I took part for the first time in Our Ecological Truth that was held at Bor Lake with the paper: "Activity Levels of Natural Radionuclides in Medicinal Plants". My surname then was also Stanković, so everybody thought we were taking part at the meeting as a family. There were many interesting lectures in the fields of medicine and environmental protection enabling us to gain knowledge and learn. At the meeting, I attended lectures

Ekološka istina je nastala davne 1993. godine kao nacionalni skup, posvećen životnoj sredini, ekologiji, javnom zdravlju, održivom razvoju sa osnovnim ciljem podizanja ekološke svesti. Nacionalni skup je prerastao u naučno-stručni skup sa međunarodnim učešćem, a kasnije u međunarodnu konferenciju.

Godine 1989. po završetku fakulteta, zaposlila sam se u INEP-u (Institutu za primenu nuklearne energije, Zemun), gde mi je neposredni rukovodilac, mentor za izradu magistarskog rada, a kasnije i direktor Instituta bila, dr Slobodanka Stanković, naučni savetnik. Slobodankin suprug, prof. dr Stevan Stanković, nam je otkrio postojanje Ekološke istine i predložio da napišemo rad za skup. Prof. Steva i Slobodanka su dugo godina bili članovi naučnog odbora i aktivno učestvovali u radu skupa.

Slobodanka i ja smo 1995. godine po prvi put učestvovali na skupu Naša ekološka istina, koji se održavao na Borskom jezeru, sa radom: „Nivo aktivnosti prirodnih radionuklida u lekovitom bilju”. Tada sam se i ja prezivala Stanković, pa su svi mislili da na skupu učestvujemo porodično. Bilo je puno interesantnih predavanja iz oblasti zdravstva, zaštite životne sredine iz kojih se moglo mnogo saznati i naučiti. Na tom skupu sam slušala predavanja dr Petra Paunovića, dr

given by Dr Petar Paunović, Dr Ivo Savić, Dr Ljubiša Đorđević, Mihajlo Stanković, Dr Velizar Stanković, Dr Zoran Marković, Dr Dragana Nikić, Dr Dušica Stojanović, Dr Radoje Pantović, Dr Zvonimir Stanković, Toplica Marjanović, Dragan Randelović. Some of these friends are not with us anymore.

The following meetings were held in Kladovo (1996) and Donji Milanovac (1997). In 1997 Prof. Stevan Stanković had a wonderful lecture: "Ecological Basis in the Work of Jovan Cvijić". Prof. Steva was fascinated with the opus and work of Jovan Cvijić. He spoke inspiringly of Cvijić, his work, but also of his mother. The story of the little man about his mother always brought tears to my eyes. At these meetings I met academician Gordan Karaman and Dr Božana Jovanović. In Donji Milanovac, Mihajlo Hadži Pavlović, MSc took us on Štuoc. The walking effort paid off as we had an unforgettable view of Cauldron from the viewing point before a thunderstorm.

Ive Savića, dr Ljubiše Đorđevića, Mihajla Stankovića, dr Velizara Stankovića, dr Zorana Markovića, dr Dragane Nikić, dr Dušice Stojanović, dr Radoja Pantovića, dr Zvonimira Stankovića, Toplice Marjanovića, Dragana Randelovića. Neki od navedenih prijatelja su nas u međuvremenu napustili.

Naredni skupovi su se održavali u Kladovu (1996) i Donjem Milanovcu (1997). Te 1997. godine prof. Stevan Stanković je imao divno predavanje: „Ekološke osnove u delima Jovana Cvijića”. Prof. Steva je bio opčinjen delom i radom Jovana Cvijića. Nadahnuto je pričao o Cvijiću, njegovom radu, ali i o njegovoj majci. Priča o majci, čovečici, Jovana Cvijića me je uvek dovodila do suza. Na skupu sam upoznala i akademika Gordana Karamana i dr Božanu Jovanović. U Donjem Milanovcu gospodin Mihajlo Hadži Pavlović nas je vodio na Štuoc. Trud pešačenja se isplatio i jer smo sa vidikovca imali nezaboravni pogled na Kazan pred nevreme sa grmljavinom.



*Ana Čučulović on Štuoc, Donji Milanovac, at the meeting held in 1997*

## 30<sup>th</sup> Ecological Truth

The number of participants increased each year, especially those with a surname of Stanković. The meeting held in 1998 had 9 participants whose surname was Stanković.

Broj učesnika na skupu se iz godine u godinu povećavao, posebno učesnika sa prezimenom Stanković. Na skupu koji se održavao 1998. godine bilo je 9 učesnika sa prezimenom Stanković.



*Ana Čučulović with Professor Stevan Stanković and Slobodanka Stanković, PhD at the meeting in Negotin, held in 1998*

That year within the Ecological Truth, the 6<sup>th</sup> scientific-professional Meeting on Natural Values and Environment Protection and the 11<sup>th</sup> Professional Meeting on Preventive Medicine of the Timok Region were held in Negotin. The meeting symbol was a stork in a nest. Slobodanka Stanković, Gordana Pantelić and me participated with the paper titled: "Bioindicators of Radio-Pollution in Eastern Serbia", while Prof. Ivo Savić had a fantastic lecture: "Possibility of applying biomonitoring in aid of maintaining and protecting biodiversity". An excursion was

Te godine VI Naučno-stručni skup o prirodnim vrednostima i zaštiti životne sredine i XI Stručni sastanak preventivne medicine Timočke krajine se održavao u Negotinu. Simbol skupa je bila roda u gnezdju. Slobodanka Stanković, Gordana Pantelić i ja smo učestvovala sa radom: „Bioindikator radio-zagađenja Istočne Srbije”, a prof. Ivo Savić je imao fantastično predavanje: „Mogućnosti korišćenja biomonitoringa u funkciji očuvanja i zaštite biodiverziteta”. Organizovana je ekskurzija do Vratne, gde sam prepoznala manastir i

organized to Vratna, where I recognized the monastery and the anchoress that had not given me peace and haunted me from my childhood. It is interesting that I did not remember the outgrowths, but the monastery. The meeting participants collected samples and admired the beautiful natural miracle – the Vratna gates, outgrowths. I think that was when I saw a bat for the first time, later caught and released by Mihajlo Stanković.

On 28 May, at the meeting, I met Rodoljub (Rade) Čučulović, a graduate of Prof. Steva and director of the INEX. As a good host, Rade took us to see the Rajačke pinnice, and the next day to Radujevac, the three border point between Serbia, Romania and Bulgaria. I do not know whether the storks were crucial, or the meeting, but Rade and I got married in 1999, after the bombardment of Serbia had ended. The following year on 28 May, our son Đorđe was born and I will remember that day as long as I live.

The following meetings were in Zaječar (1999) and Sokobanja (2000). Since 2000 a new surname Čučulović instead of Stanković started appearing at the meetings.

In 2001 Rade became director of the hotel Lepenski vir, in Donji Milanovac, where the following two meetings were held (2002, 2003). In 2002 the meeting was supported by Đorđe Čučulović, who helped his father and patiently waited for his mother to finish with her obligations.

isposnicu, koji mi nije dao mira i koji me je proganjao iz detinjstva. Interesantno je da, kao dete nisam zapamtila prerasti, već manastir. Učesnici skupa su vredno sakupljali uzorke i divili se prelepom čudu prirode – vratnjanskim kapijama, prerastima. Mislim, da sam tada prvi put u životu videla slepog miša kojeg je uhvatio i kasnije pustio Mihajlo Stanković.

Na skupu, dana 28.05. upoznala sam Rodoljuba (Radeta) Čučulovića, koji je diplomirao kod profesora Steve i bio direktor INEX-a. Kao dobar domaćin, Rade nas je odveo do Rajačkih pinnica, a sledećeg dana na tromeđu Srbije, Rumunije i Bugarske, u Radujevac. Ne znam da li su rode bile presudne ili skup, ali Rade i ja smo se venčali 1999. godine, nakon što je prestalo bombardovanje Srbije. Sledeće godine 28.05. pamticu do kraja života, jer smo Rade i ja dobili Đorđa.

Naredni skupovi su bili u Zaječaru (1999) i Sokobanji (2000). Od 2000. godine umesto Stanković na skupovima se pojavljuje novo prezime: Čučulović.

Rade je 2001. godine postao direktor hotela Lepenski vir, u Donjem Milanovcu, u kojem su bila održana naredna dva skupa (2002. i 2003). Godine 2002. podrška skupa je bio Đorđe Čučulović, koji je pomagao tati i strpljivo čekao da mama završi svoje obaveze.



*Participants of the meeting at the excursion to Donji Milanovac*

In the following years, the meetings were held at Bor Lake (2004, 2005), Sokobanja (2006–2008) and Kladovo (2009). In the period 2000–2009, we investigated radioactivity in bioindicators (moss, lichen, fungi) and food in Serbia. Rade and I defended our PhD theses and Rade became one of the directors of the Genex Company, an academician and university professor. He actively helped me gather samples and bravely fought snakes and dragons trying to interrupt our work.

In 2010 the organizers decided to hold the conference in Apatin, Banja Junaković. It was nice to see the Tisa River, ride on it and enjoy the beauty of Banja Junaković. It was then, due to one of the conference co-organizers, that I had the opportunity to meet the well-known artist Sava Stojkov in Sombor, whose paintings I had admired for years. From 2010, papers in the Proceedings started to be written in English. The duo Ana and Rade started to write papers together, investigating radioactivity in soil and moss from Eastern Serbia, fungi and animal feed.

Narednih godina skupovi su bili održavani na Borskom jezeru (2004. i 2005), Sokobanji (2006–2008) i Kladovu (2009.). U periodu 2000–2009. godine istraživali smo radioaktivnost u bioindikatorima (mahovinama, lišajevima, gljivama) i hrane Srbije. Rade i ja smo doktorirali, a Rade je postao jedan od direktora Genex kompanije, akademik i profesor na Univerzitetu. Aktivno mi je pomagao oko sakupljanja uzoraka i hrabro se borio sa zmijama i aždajama koji su hteli da nam onemoguće rad.

Godine 2010. organizator je odlučio da se konferencija održi u Apatinu, Banji Junaković. Bilo je prelepo videti Tisu, voziti se po njoj i uživati u lepotama Banje Junaković. Tada sam zahvaljujući jednom od suorganizatora konferencije, upoznala u Somboru i čuvenog umetnika Savu Stojkova, čijim sam se slikama godinama divila. Radovi od te 2010. godine u Zborniku počinju da se štampaju na engleskom jeziku, a dvojac Ana i Rade počinje zajedno da piše radove u kojima izučavaju radioaktivnost u

The following conferences (2011–2022) were held in Bor, Zaječar, at Bor Lake, Kopaonik, Vrnjci Spa and Kladovo.

Nenad Radaković, MSc and Saša Nestorović, heads of the National Park (NP) Đerdap, joined our research and enabled regular obtaining of soil samples and moss from NP Đerdap.

Since 2018, Jelena Stanojković, MSc has started to work in the INEP. Jelena has started to work with gamma spectrometry and part of her PhD thesis is related to radioactivity in moss from the NP Đerdap. Jelena became part of the team Čučulović, just like I used to be part of the team Stanković. Đorđe has decided to take another path and is studying law, while I hope to contribute to environmental protection.

zemljištu i mahovinama Istočne Srbije, gljivama i stočnoj hrani.

Naredne konferencije (2011–2022) su se održavale u Boru, Zaječaru, na Borskom jezeru, Kopaoniku, Vrnjačkoj banji i Kladovu.

Mr Nenad Radaković i Saša Nestorović, rukovodioci Nacionalnog parka (NP) Đerdap, su se pridružili našim istraživanjima i omogućili da redovno dobijamo uzorke mahovina i zemljišta iz NP Đerdap.

Od 2018. godine u INEP se zapošljava MSc Jelena Stanojković. Jelena počinje da se bavi gama spektrometrijom i deo njene doktorske disertacije se odnosi na radioaktivnosti u mahovinama NP Đerdap. Jelena postaje deo dvojca Čučulović, baš kao i ja nekada Stanković. Đorđe je rešio da pođe nekim drugim putem, da studira pravo, a ja se nadam da će dati svoj doprinos u oblasti zaštite životne sredine.



*Family Čučulović*

### *30<sup>th</sup> Ecological Truth*

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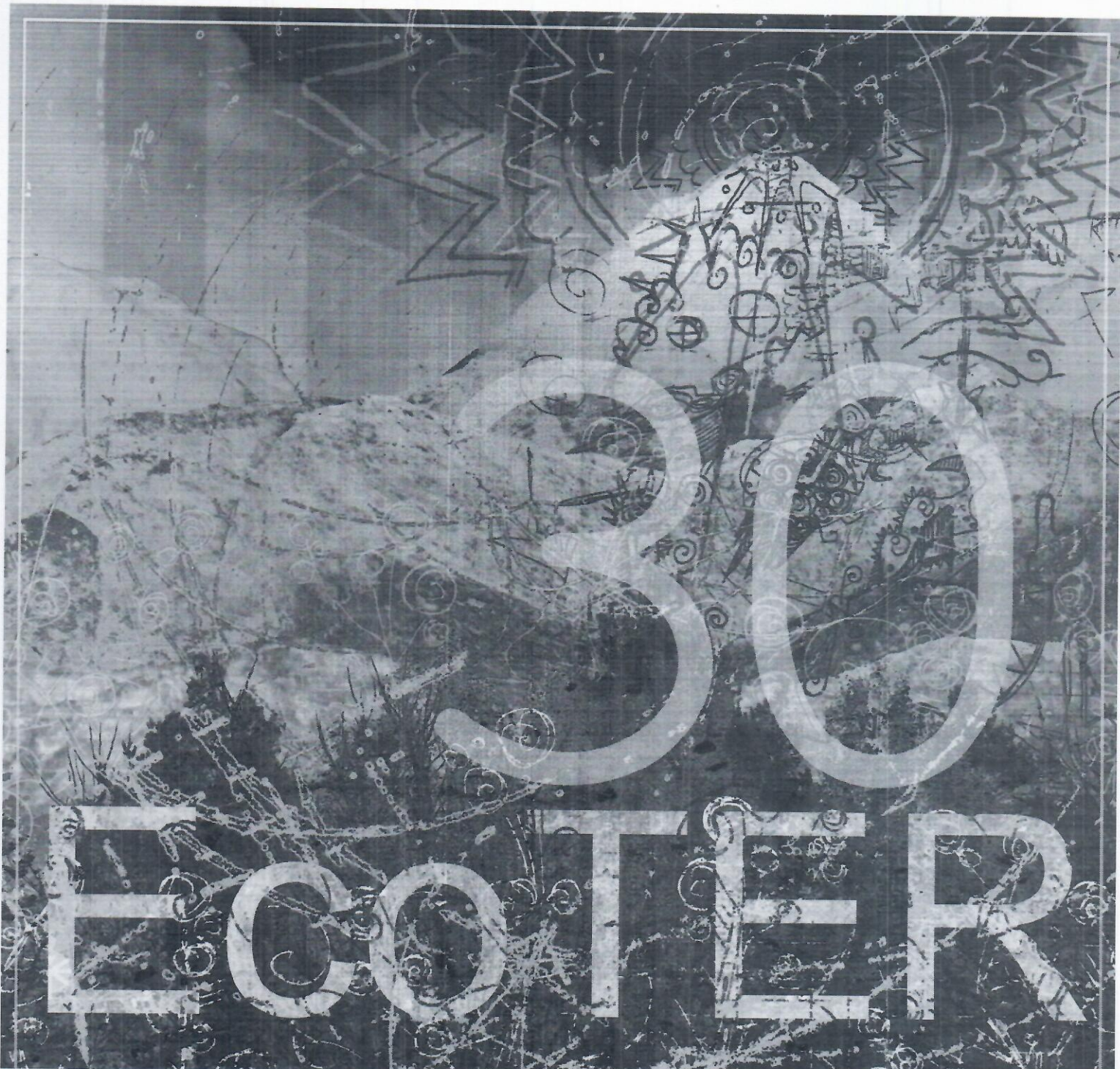
I hope that the international conference Ecological Truth & Environmental Research (EcoTER) will be held for many more years to come, that there will be new researches, new truths, friendships, cooperation and love. I hope that the EcoTER ship sails successfully, for a long time, and negotiates various whirlpools and storms successfully led by Prof. Dr Snežana Šerbula and her associates.

Želim da se internacionalna konferencija Ekološka istina i istraživanje životne sredine – EcoTER održava još mnogo, mnogo godina, da bude novih istraživanja, novih istina, prijateljstava, saradnji i ljubavi. Želim da brod EcoTER dugo, dugo, uspešno pliva, savlađuje razne vrtloge, nepogode na čelu sa prof. dr Snežanom Šerbulom i njenim saradnicima.

*Ana Čučulović<sup>1</sup> and Rodoljub Čučulović<sup>2</sup>*

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