

*Foreign Educational Tradition*

*Чуждестранна образователна традиция*

## **SCIENCE LITERACY IN THE FORMER YUGOSLAVIA: SCHOOL EDUCATIONAL PROGRAMS ON TV AND SCIENTIFIC-POPULAR LITERATURE**

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**Abstract.** The policy of non-alignment (presided by the SFRY on the international level) caused the creation of a unique Yugoslav school system (schools and curricula), which was structurally neither Western nor Eastern (block) but rather a mixture of the both, simultaneously implemented in the Yugoslav model. The reform of the school system and the state education policy during the 60s and 70s of the 20th century influenced the formation of the Yugoslav school-educational and scientific TV program broadcasted by Yugoslav TV stations within a common TV program. Apart from educational documentaries of domestic production, educational shows of foreign production were also broadcasted, selected according to the teaching contents of the subjects of life sciences of the time (Physics, Chemistry and Biology) in primary and secondary schools. The shows from school program dealing with the teaching contents of Chemistry were broadcasted continuously from the late 70s to the mid 90s of the 20th century. They were filmed according to the curricula of the 7th and 8th grades of primary, and the 1st to 4th grades of secondary and grammar schools. An important contribution to the development and popularization of life sciences was made by children's school program and numerous scientific-popular magazines (*Politikin Zabavnik*, *Galaksija*, and others) in Serbo-Croatian. The aim of this work is not only to present the development of school-educational TV program and its contents in the former Yugoslavia, but also to briefly describe the teaching of life sciences as a specific (endemic) Yugoslav TV phenomenon, as well as abundant foreign influence in the period from 1945 to the disintegration of SFRY (1991/92), little-known to general scientific public abroad.

**Keywords:** the former Yugoslavia (SFRY), life sciences, Chemistry, television, school-educational TV program, scientific-popular literature

### **Introduction**

Specific and unique geo-political position of the former Yugoslavia in Europe (it belonged to neither Eastern nor Western Bloc) and in the world (the leader and founder of the Non-Aligned Movement), social order of a more liberal and open socialist system (than it was the case with the former USSR and countries of the Eastern Bloc and

Far East, China) influenced, among other things, the concept of TV program content as well, not only the basic but also the school-educational and cultural program. Yugoslav school-educational and cultural TV program was based on the Yugoslav school system (encyclopedic approach to studying), whose teaching programs were presented (life and social sciences, arts and sports) through numerous TV shows of domestic and foreign production. The very foreign policy of neutrality and international cooperation, represented and guided at the time by Yugoslavia (the idea of Josip Broz Tito through the Non-Aligned Movement), along with the liberal-socialist system of social order, was the guideline for education development and the creation of a unique school system, and had a major influence upon the selection of teaching content in schools of the time (which also affected educational-scientific TV program).

School system and education in the former Yugoslavia was conceptually both west-oriented (school system of western European countries and USA) (Vajgand, 1971; Bojović & Šišović, 2005) and by east-Soviet model (communist conception of education) (Leko, 1963; Pari, 1972). In short, it represented a mosaic or chimera (something between these two distinctly different and conflicting not only social orders but also school systems). Therefore, the school-educational and scientific-cultural program was abundant in various shows and contents, where TV shows of both domestic and international production were present. Yugoslav TV centers participated equally and equitably in shooting and broadcasting such TV program (e.g., school program by TV Zagreb was broadcasted by TV Belgrade for Serbian viewers and vice versa). When making series, the authors made sure they were an addition to the school curriculum (of life and social sciences), especially in adult education (a large number of the illiterate) with teaching programs for certain subjects of primary and high (grammar) schools, college and faculty. Such TV program represented a universal program for all ages (from 7 to 77).

Various TV shows of scientific-educational and historical and cultural content (of foreign production) came from the countries of West Bloc (Western Europe and America), USSR, Asia (China, India and), South and Central America and certain African countries. Yugoslav TV stations broadcasted this content within their educational-scientific and cultural editions or in cooperation with other republic TV stations (TV Belgrade, TV Zagreb and TV Sarajevo). TV stations in western Yugoslav republics, especially in Croatia (TV Zagreb) and Slovenia (TV Ljubljana) primarily broadcasted TV shows from German-speaking (Germany, Austria and Switzerland), Italian-speaking (Italy) and English-speaking areas (Great Britain, USA). TV stations in Serbia (TV Belgrade) broadcasted shows from English-speaking (Great Britain, USA, Canada, Australia), French-speaking (France, Belgium and Switzerland), Spanish-speaking (Spain and Latin America) and Russian-speaking (former USSR and East Bloc) areas, with certain local variations in broadcasting though. TV Novi Sad (province of Vojvodina) broadcasted shows of scientific-educational character from

German, Hungarian, Slovakian and Romanian-speaking areas due to a large number of citizens of various nationalities inhabiting this region and having education in their mother tongues apart from learning Serbo-Croatian. Moreover, TV centers in Priština (province of Kosovo and Metohija) and TV Skoplje (Macedonia) broadcasted children's program in Albanian, Turkish and Romani.

The reason for the division of the broadcasting of educational-scientific program among Yugoslavian TV centers into different language zones can be explained by political and cultural influences which republics of the former Yugoslavia underwent. Western republics (Slovenia and Croatia) were under the influence of West-European culture (as a part of the former Austro-Hungary), while Serbia belonged to the eastern (first to Byzantine, then Ottoman, and later to Russian cultural influence in 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries). TV center Sarajevo (Bosnia and Herzegovina) excelled as distinctly Yugoslav-oriented with its production of educational-cultural program because of the multiethnic population structure and for recent history reasons. The shows of this production were among the most frequently viewed and most popular (*'Nedeljni Zabavnik'*).

### **School educational-scientific program**

The most popular series and shows within the educational-scientific and cultural program were primarily (domestic or foreign production) from the field of life sciences (biology, physics, chemistry and mathematics) and human sciences (languages, literature and history). Part of this program also contained shows concerning culture (classical music, Ancient and medieval art) and sports with elements of physical education. Domestic production shows were filmed in Serbo-Croatian; local actors and preschool and school children (from primary and high schools in Belgrade and Novi Sad, Zagreb, Sarajevo, etc.) participated in them.

The content of the shows from the field of life sciences complied with the syllabus of the corresponding subjects (8<sup>th</sup> grade primary school and 1<sup>st</sup> and 2<sup>nd</sup> grade of vocational and grammar schools). It did not merely represent a TV school providing learning, revising, summarizing and extending knowledge for primary and secondary school students, but it also provided entertainment.

School-educational and scientific program (Fig. 1) was broadcasted five days a week (Monday to Friday), twice a day, in the morning and in the afternoon – from 10 a.m. to 12 a.m. (for students going to school in the morning) and, in the second showing, from 2 p.m. to 4 p.m. (for students going to school in the afternoon). On Saturday mornings the most popular shows from weekdays' school-educational program were broadcasted within Saturday children's program. In the mid-eighties Yugoslav TV stations took turn in broadcasting children's and school program every Saturday (TV Belgrade, Zagreb and Sarajevo).



**Fig. 1.** School-educational and scientific program in former Yugoslavia

The shows broadcasted by former Yugoslav TV centers can be divided into: school-educational/educational, scientific/scientific-educational (scientific-popular) and cultural (music, film and fine arts, literature). On the other hand, according to whether they were intended for local audiences (all ages) or came from abroad (bought or exchanged among other foreign TV stations and production companies), they can be divided into shows of foreign and domestic production. They primarily dealt with teaching contents of life sciences: chemistry (geology, chemical technology), physics (engineering, astronautics and technics) and biology (ecology).

### **Chemistry teaching on TV**

TV shows concerning the subject of chemistry within school-educational and scientific program on TV Belgrade in the period from 1970 to 2000 were:

(1) *World of Chemistry* (another title: “*Hemija svuda*”; *Chemistry Everywhere*); this show was never broadcasted again; major part of school program shows was destroyed in fire on October 5<sup>th</sup>, 2000, during the big demonstrations in Belgrade; the author has tried, with the help of his notes, youtube and other internet sites’ videos, to reconstruct and present the once very popular educational-scientific program in the former Yugoslavia, broadcasted in the late seventies and early eighties of 20<sup>th</sup> century in TV Belgrade production (and which many generations of students and children grew up with). Chemistry professor Vukić Micović (Fig. 2) participated actively in creating the school program concerning the field of chemistry, along with other colleagues and teachers of primary and secondary schools in Belgrade. Prof. Micovic was the creator of the teaching program of chemistry (Novi Sad, Niš, Priština) for universities in Serbia and other republics of the former Yugoslavia (in Podgorica, Sarajevo, Skoplje) (Vitorović et al., 1996). Show on

chemistry included the teaching contents of the subject of Chemistry in primary schools (7<sup>th</sup> and 8<sup>th</sup> grades) (Mandić et al., 2005), vocational and grammar schools, colleges and faculties: general and inorganic chemistry, organic chemistry, industrial chemistry and chemical technology. Theoretical contents and experiments were explained by university professors (Prof. V. Micović), supported by their assistants (Vitorović et al., 1996). They showed industrial plants, explained technological procedures in raw materials processing, presented chemical reactions graphically, in scheme and animation. The show was broadcasted in the seventies of the 20<sup>th</sup> century. Its disadvantages were overcrowdedness and verbosity of teaching contents of chemistry, and inadequate level of academic terms in explaining concepts and phenomena incomprehensible to young ages (primary and secondary schools) (Šišović & Bojović, 1999). This also represents evidence of the fact that chemistry teaching programs for primary and secondary schools were, in their structure and contents, created on the basis of university teaching programs of chemistry (Bojović, 2004; 2008; 2009). Certainly in accordance with the fundamental principles of the self-governing socialist Yugoslav upbringing and education (unique in Europe at the time) – too wide and encyclopedic (Bojović, 2004; 2005; 2009), which was in accordance with the aims of the education of the socialist youth of Yugoslavia (Leko, 1963) and future self-governors (Bojović, 2004; 2007).



**Fig. 2.** Prof. Dr. Vukić Micović as a TV host

(2) Series *Atom po atom (Atom by Atom)*, one of highly successful and popular series of school program created in the early nineties. It was broadcasted from 1991 within the school-educational program of TV Belgrade on workdays in morning and rerun terms. Hosts of the series were Danko Milošević, professor, and children-actors Dragana Mitić and Ivan Medenica. The show was created by Prof. Dr. Nenad Juranić, dramatization by Vladislava Vizi, experiment preparation by Petar Radivojša, scenario for computer animation by prof. Dr Ivan Juranić, associate MA Lazar Lukić; computer animation Radivoje Bogičević, digital effects Branko Salić, director of photography Miodrag Stojčić, director Stevan Đorđević and series editor Olivera Kosić, within the School Program Production, editor-in-chief Ibrahim Hadžić. The show presented basic concepts and phenomena in chemistry within several initial topics from the subject of Chemistry (curriculum for 7<sup>th</sup> grade, primary school: Introduction to Chemistry, structure of matter, chemical symbols, formulas and chemical equations) (Mandić et al., 2005).

(3) Series *Pogled u ogled (Look into the Experiment)* was broadcasted two years after (1993) the series *Atom po Atom*; the most attractive experiments in chemistry were shown in it. It was created in the production of RTS School Program Department, TV Belgrade, and was broadcasted within the school-educational program in regular and rerun terms every Monday. The show was designed by chemistry teaching associate at the Faculty of Chemistry and one of the authors of the primary school textbooks (7<sup>th</sup> and 8<sup>th</sup> grades) Jasminka Korolija, along with Petar Radivojša. The hosts of the program were professor-experiment demonstrator Petar Radivojša and student Tomaš Sarić; editor of the series was Olivera Kosić; editor-in-chief was Ibrahim Hadžić. This show did not deal with topics and units from the program of the subject of chemistry (only partially in the section concerning chemical reactions from the topic: Metals and Nonmetals – 7<sup>th</sup> and 8<sup>th</sup> grades.), but it demonstrated the most specific and interesting experiments in inorganic and organic chemistry, and was supplementary to chemistry curriculum (Mandić et al., 2005). The experiments were conducted live along with graphical representation of chemical equations, which were explained and commented by the hosts. Furthermore, the show abounded in sound and animation effects along with numerous funny situations the hosts found themselves in. Since the series was designed during the war in the former Yugoslavia and the time of the most rigorous economic sanctions against the FRY, it had low budget. However, it managed to portray the wonderful and magical world of chemistry despite the small funds.

(4) The series *Organska hemija (Organic Chemistry)* was broadcasted in the mid-nineties (1995/96) as part of the school-educational program of RTS – TV Belgrade. The hosts of the show were actor Goran Sultanovic, (in the role of organic chemistry teacher) and students – actors from the Academy of Arts. It was a sequel to the two former series *Atom po atom* (1991) and *Pogled u ogled* (1993); however, it did not

match their success. It dealt with teaching contents from organic chemistry for primary school 8<sup>th</sup> grade, and 1<sup>st</sup> and 2<sup>nd</sup> grades of vocational and grammar schools: division of organic compounds, hydrocarbons – their physical and chemical features, alcohols, aldehydes, ketones, carboxylic acids and esters, as well as biologically most important organic compounds (Mandić et al., 2005). Unlike *Pogled u ogled* (1993), this series did not contain any demonstration experiments, rather mainly theoretical contents were explained with the help of graphic and computer animations. The series was produced within the School Program Redaction, TV Belgrade. It may be interesting to mention that, as in the case of the first TV shows on chemistry from the seventies of 20<sup>th</sup> century, teaching contents were too wide and on the university level of curriculum presentation, which were aggravating circumstances for primary and secondary school students in understanding these contents.

### Domestic production

The most popular shows of school-educational and scientific program were produced by TV Belgrade during the seventies and eighties.

(1) *Branko kockica* (Branko the Little Cube) or *Kocka, kocka, kockica* (Cube, Cube, Cubelet) is one of the most frequently viewed, broadcasted and most popular shows for children of pre-school and primary school age (Fig. 3). It was continually broadcasted for twenty two years every Wednesday, as well as in rerun terms, from the 70s (1974) to 90s (1996) of the 20th century. The creator, screenwriter and host of the show is Yugoslav and Serbian theater and film actor, composer, musician and writer Branko Milicević.

Pre-school children from Belgrade appeared in the show. They actively participated, along with the host, in conducting various experiments in life sciences (physics, chemistry and biology) adapted to children of their age, visited factories, production facilities, discussed and answered questions of their peers and spectators, organized



Fig. 3. Branko the Little Cube

performances and concerts. The show was abundant with music contents. Apart from being educational, the show was also entertaining. Moreover, it can be acknowledged as the first (on the territory of the former Yugoslavia) educational show unsurpassed by any show of school-educational program so far. It has inspired many later shows and series of this kind.

2) *Aca poštari i poštarčići (Aca the Mailman and Little Mailmen)*, was a show broadcasted in the mid-80s of the 20<sup>th</sup> century (Fig. 4). By its structure and contents, it was similar to the show *Branko Kockica (Branko the Little Cube)*. The host of the show was Serbian theater actor Mladen Andrejević. It was broadcasted on Monday in the morning and rerun terms within school-educational program. Unlike in the show *Branko kockica*, older children (primary school) appeared here and, together with their friend and colleague Aca the mailman, answered questions asked by their peers, solved their problems with the help of a small theater in which the children acted as well. The show dealt with basic contents of the subjects of life sciences in primary school lower grades (I-IV), basics of biology, physics and chemistry. After several seasons of broadcasting, the filming was stopped; however, the show gained considerable popularity.

(3) *Čik pogodi ko sam (Guess Who I am)* is a show for pre-school and school children broadcasted in the late 70s and early 80s of the 20<sup>th</sup> century within school-educational program, on Monday in the morning and afternoon rerun terms. The first part of the show was designed as a quiz in which children guessed the profession of the show guests. The guests, mysterious persons, were from the fields of science, sports and music. In the other part of the show the children visited the working place of their guests and were presented with the basics of their working day and tasks. Among the professions of the guests there were those belonging to the field of life sciences: engineers in a chemical plant, chemists-laboratory technicians, doctors, electro-technicians, etc. The show gained considerable popularity, especially its opening music track.



**Fig. 4.** Aca the Mailman and Little Mailmen



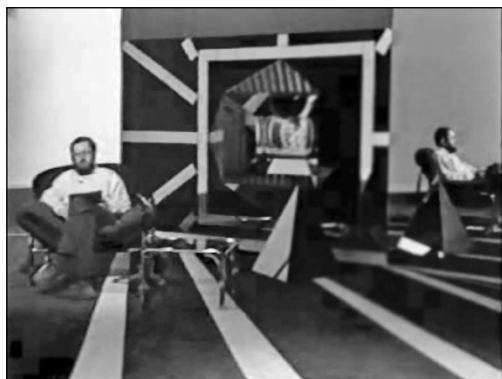
**Fig. 5.** Encyclopedia for the Curious: the TV crew



**Fig. 6.** Sunday Magazine

(4) *Enciklopedija za radoznale* (*Encyclopedia for the Curious*) is among the shows of the latest production of RTS within educational-scientific program (Fig. 5). It was broadcasted for approximately ten years, in the morning term on RTS1 and in the rerun term on RTS2, on working days. This show was designed as a little TV school encyclopedia for pupils, students and working people eager to know more about the lives of famous Serbian scientists, nature of Serbia and the Balkans, geography, history, literature.

(5) *Nedeljni zabavnik* (*Sunday Magazine*) was a show broadcasted by TV Sarajevo in the mid-80s of the 20<sup>th</sup> century (Fig. 6). This entertaining-educational show was broadcasted on Sunday (as its title states). The hosts of the show were popular Yugoslav actors Zijah Sokolovic and Slavko Stimac (sequel I), and pop and rock singer Sead Memić Vajta and actor-presenter Rusimir Agacevic-Rus (sequel II). The show dealt with various topics, such as: how to dupe parents, numerous experiments in physics and chemistry,



**Fig. 7.** Starry Screen – the science-fiction writer Zoran Živković as the TV host

current problems of students, school, learning, problems in studying, solving school problems – all this accompanied by rich musical and dance contents.

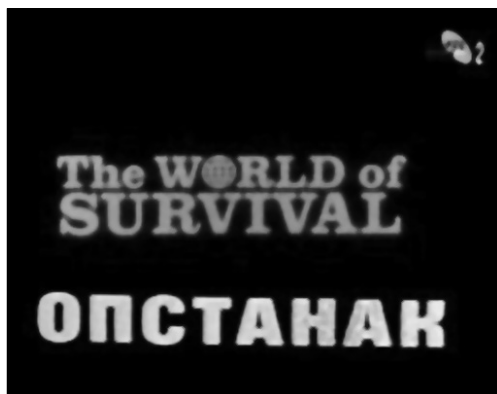
(6) In the 80s (1984) they also broadcasted a special show (18 episodes) within school-educational program named *Zvezdani ekran* (*Starry Screen*) by Zoran Živković, professor of SF Literature at the University in Belgrade (Fig. 7). Envisaged as a show with interdisciplinary contents, it dealt with SF as a modern phenomenon, through film and literature, under the influence of the most significant scientific inventions and discoveries of the 19<sup>th</sup> and 20<sup>th</sup> centuries. It outstandingly popularized science and critically interpreted certain scientific discoveries and inventions.

Apart from the abovementioned series, in the period from 1958 to 1991, the production of Yugoslav republic TV centers generated the following school-educational, scientific and children's shows: *U zdravom telu zdrav duh* (*A Sound Mind in a Sound Body*), *Na slovo, na slovo* (*I Spy*), *Priče iz Nepričave* (*Stories from Unstoryland*), *Deco pevajte sa nama* (*Children, Sing with Us*), *Pustolov* (*Adventurer*), *Mali Program* (*Small Program*), *Fazoni i Fore* (*Tips and Tricks*), *Vukov ćošak* (*Vuk's Corner*), *Tebi kažem* (*I am Talking to You*), *Otvori prozor* (*Open the Window*), *Jelenko* (*Little Deer*), *Smogovci* (*the Smoggers*), *Sijamci* (*the Siamese*), *Sazveždje belog duda* (*Constellation of White Mulberry*), and other series.

### Foreign production

(1) *Opstanak* (*Survival*), a documentary on nature of Anglia production from 1961 (Fig. 8), with over 1000 episodes and 40 years of broadcasting, is one of the most frequently viewed and popular TV shows on the territory of the former Yugoslavia among students and youth. It was broadcasted for almost over 20 years from the 70s to 90s and

was synchronized in Serbo-Croatian: the text was read by actor (with a distinctive and refined voice) and radio presenter Dejan Djurović. The show dealt with wildlife and flora on the Earth, and biodiversity. It was zealously watched as part of school TV in technically equipped schools, and retold among students, teachers and parents. It dealt with teaching contents from the curriculum of Biology (6-7<sup>th</sup>).



**Fig. 8.** Opstanak (Survival)

(2) *Svet odiseja biljaka – World of Plants Odyssey* (of French production) was broadcasted in the mid-80s of the 20<sup>th</sup> century; it interpreted the origins and evolution of flora on Earth. It also dealt with the teaching contents from the curriculum of Biology at 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grades of primary school.



**Fig. 9.** Botanist David Bellamy

(3) The show by naturalist and botanist David Bellamy on nature and botanics (flora in America and Australia) was broadcasted in the early 80s of the 20<sup>th</sup> century (Fig. 9).

It was designed as a travelogue-botanical and biological documentary with presenter David Bellamy, who interpreted, while traveling, the diversity of wildlife and extraordinary geological landscapes on Earth. It dealt and was compatible with the contents from the curriculum of Biology (5 to 8 grades), Geography (5<sup>th</sup> grade) and partly Chemistry (primary school 7<sup>th</sup> grade).



**Fig. 10.** Beyond 2000

(4) *Posle 2000 (Beyond 2000)*, a show by Australian production from late 80s and early 90s of the 20<sup>th</sup> century, was broadcasted by TV Belgrade within the summer and winter educational program (Fig. 10). This show dealt with futurology and latest scientific achievements. Several reportages were filmed in Serbia and Belgrade, which presented inventions and patents of Serbian scientists (new medicines in treating cancer and tumor, cosmetics and bio-materials) and inventors, where Yugoslavia was introduced as a country with “rich and prosperous future”.



**Fig. 11.** Mimur - Jinnee, a little spirit

(5) Dealing with the history of science and biographies of scientists, *Otkrića bez granica – Discoveries Unlimited* (in Japanese *Mimu Iro Iro Yume no Tabi*, alternative titles *The Many Dream Journeys of Meme* and *Mimu, the Traveller of Many Dreams*) was an animated cartoon series on great inventions in science (Japanese production) from the early 90s of the 19<sup>th</sup> century. It was broadcasted in the early 90s of the 20<sup>th</sup> century. The main character was Jinnee, a little spirit (from Arabic, djinni-spirit) from the computer (Fig. 11). She was designed as the host of the show. She presented biographies of prominent scientists and inventors through series of entertaining animated films. The show contained several futuristic and science fiction episodes.

### Teaching life sciences through scientific-popular literature in the former Yugoslavia

Two most popular magazines for children, students and youth in the former Yugoslavia were: *Politikin zabavnik – Politika's Magazine*, and *Galaksija – Galaxy* (nowadays known as the magazine *Planeta – Planet* and *Naši računari – Our Computers*).



Fig. 12. Politikin zabavnik

(1) *Politikin zabavnik* (Fig. 12) is one of the oldest and scarce papers that have been published on the territory of the former Yugoslavia since pre-World War II. Its first issue came out on Corfu (Greece; 1917 – 1918), where Serbian army was stationed with the Government and Royal Palace, during World War I, as an addition (on a few pages with interesting topics from science and the world) to the daily newspaper *Politika* (hence the title *Politikin Zabavnik*). It was first published in the late 30s of the 20<sup>th</sup> century (1939), on Fridays (which has remained so far), with the cover featuring Walt Disney's comics).

The magazine has been continually published for seventy years and represents a Yugoslav and Serbian written “brand” for all ages – from the youngest to the oldest (from 7 to 77). According to numerous pieces of research, it is among the most widely read magazines on the territory of the former Yugoslavia (all readers of daily newspapers in Serbia were at one point the readers of *Politikin Zabavnik*). It belongs to the group of magazines which popularize life sciences (where chemistry, physics, biology-biotechnology, engineering dominate) science and technology. On the other hand, *Politikin Zabavnik* is primarily a magazine for amusement, with numerous sections on various topics, the titles of which have not changed for years: *Believe it or not*, *On this day*, *Comics*, *Life writes dramas*, *Readers’ questions*, *SF story*, *From the history of music*, etc.

*Politikin Zabavnik* also represents a great encyclopedia of the best comics ever created in the world (primarily Disney comics). A significant contribution to the very image of the magazine and diversity of titles and contents has been made by hundreds of collaborators, such as: university professors, teachers, painters, doctors, astronomers, biologists, historians, language and literature teachers, artists, engineers, computer scientists, designers.

*Politikin Zabavnik* is among the most popular magazines of the kind written in Serbo-Croatian; it can take pride in millions of copies as well as the same number of still regular readers, under the slogan “*Svaki petak izuzetak*” (*Every Friday an exception*).



Fig. 13. Galaxy

(2) The magazine *Galaksija* – *Galaxy* (Fig. 13) is, along with the magazine *Politikin Zabavnik*, one of the most popular and read magazines for popularization of science and science fiction in the former Yugoslavia. It first appeared as a new edition by BIGZ, a publishing house from Belgrade, on February 1st, 1972 in 50,000 copies (its biggest circulation was 85.000 copies). It was a monthly magazine (continuation of the magazine *Kosmoplov*) for thirty years, until 2001. In its last years of publishing, the magazine was

financed by the Ministry of Science and Culture of the Republic of Serbia. Nowadays it is no longer published under this name six times a year (bimonthly), but as the magazine *Planeta* (Fig. 14.), a magazine for science, research and discoveries, since 2003 (on a monthly basis – 53 editions so far). According to the opinion of the Ministry of Science and Culture of the Republic of Serbia, the magazine *Planeta* is a publication of special interest for science.



Fig. 14. Planeta

*Galaksija* generated the magazine *Računari u vašoj kući – Computers in Your Home* (later only *Računari – Computers*). *Galaksija* also contributed to the making of the first domestic (Yugoslav) home computer (named after the magazine *Galaksija*), a work of engineer Voja Antonić.

According to one of the initiators and editors of the magazine *Galaksija*, Milan Knežević, this magazine was among the rare which kept pace with Russian magazines from this category, as well as with western magazines, in circulation. Many followers and collectors of the magazine *Galaksija* have started an initiative for republishing. An article has recently been published on the American Internet site on scientific journals “*PopSci.com*”, about the magazine and bizzare Balkan view of the future, which has created a major media debate due to mistranslation of titles and articles from Serbian into English and numerous retro illustrations of future scientific discoveries.

## Conclusion

Several generations of children and students on the territory of the former SFRY grew up and were educated with the school-educational program for more than three decades. Until the early nineties (the time of the disintegration of the SFRY, 1991/92) this program

was among the most popular and most frequently viewed TV programs, followed not only by children and students but also by teachers, professors, and parents. Apart from being intended as educational and cultural, it also popularized, through various interesting contents, life sciences, technics and technology, and was a unique addition to the teaching at school and education of all social layers. An important contribution to the popularization of life sciences was equally made by Yugoslav actors, presenters, writers, singers and professors, who, with their engagement, work and ideas, brought closer teaching contents of life sciences to viewers (children and adults) by performing simple experiments, giving numerous examples from various school and real-life situations.

School-educational program has not been broadcasted on the territory of the former SFRY for two decades (since 1991/92). Until the late 90s of the 20th century only certain former Yugoslav TV stations broadcasted the most popular shows from the former mutual educational program (e.g., RTS). During the civil war in the former Yugoslavia (1991 – 1995) the majority of series and shows of educational character was destroyed, whereas only part of these can now be found on the Internet (you tube), by virtue of private TV archives. Today there are numerous initiatives and requests – not only on the Internet (through various groups and blogs – Facebook), but also by teachers and professors, citizens (born in the time of the former Yugoslavia, who, during their childhood and schooling, simultaneously learnt and were entertained by the school TV program) – to renew the broadcasting of the school-educational program on the territory of the current states, former republics of the SFRY. The main idea is to provide today's young generations not only with school but also with education through TV (apart from the Internet) by re-broadcasting this TV program, since today there are almost no educational shows on domestic TV channels.

However, a difficult economic situation, the society in two decade long transition, the absence of funding, the indifference of state institutions and a lack of ideas have been complicating the implementation of this initiative. Yet hope remains that future generations of students and parents on the territory of the former SFRY, who share the same cultural heritage, have similar school systems and speak the same language, will realize the importance of introducing and broadcasting the school-educational TV program, with the aim to improve the quality of education.

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