

**Keeping pace with the rhythms of the Internet:  
10 years of Macedonian music culture at the mmc.edu.mk web site**

Sharing music and music information are among the leading aspects of the emergent Internet culture. With its associated unprecedented increase in music traffic, the MP3 audio file format epitomizes the radical changes of music communication means during the last decade. Although the permanent improvement of computer hardware, software capacity and Internet bandwidth will soon make all compressed audio formats obsolete, they nonetheless have marked the history of global music culture at the beginning of the new millenium.

Following the limits of the capacity of Internet communication, the presence of music formats on the Internet expanded from text, graphic and MIDI files, to audio and video downloadable or streaming files. The history of the web site mmc.edu.mk closely followed all the phases of this development.

The web site was launched in January, 1997, as a part of the Macedonian Music Council promotion activities. This is how the abbreviation of the domain was created. The Macedonian Music Council was established in 1996 and soon became a member of the International Music Council (IMC is a UNESCO council). The first President was Dimitrije Buzarovski, with Milan Firfov, Olilver Belopeta and Maja Canakevik serving as Vice Presidents and Secretary, respectively. Members of the Council included: the UKIM Faculty of Music, Macedonian Philharmonic Orchestra, Macedonian Opera and Ballet, Ohrid Summer Festival, Skopje Jazz Festival, Skopje Summer Festival, Association of Composers of Macedonia, Association of Performers of Macedonia, Music Educators Association and Jeunesses Musicales Macedonia. However, MMC never achieved its goal to become a lobbying association of the major Macedonian music culture institutions. Despite the fact that MMC enthusiastically (and without any financial support) was promoting the programme activities of its members through its web site for several years, they showed little or no interest for real participation in its activities,

development and growth. A second attempt to re-activate the council was made in the autumn of 2003, but again without any success.

Thus, the web site, formally established as an informative service of the MMC, continued to exist only based on the enthusiasm of the professors and the students of UKIM FM, and UKIM FM hardware and software support. Later on, when IRAM (Institute for Research and Archiving of Music) was formed at UKIM FM (as marked by the first IRAM digital recording on September 4, 2000), mmc.edu.mk became, and is, until today, a part of IRAM's promotion and presentation activities.

The first server that offered free hosting of the web site was based at the University of Pittsburg (USA). In fact, George Mitrevski, a visiting scholar at the University "Kiril i Metodij" in 1996/7, and a webmaster of the Slavic studies site, assisted in the design of the first pages, the opening of the account at the UP and the use of ftp services for the regular update of the site. In 1998, mmc.edu.mk was transferred to the UNET server in Skopje, Macedonia, which again hosted the website free of charge until January 2003. The registration of the domain was also done in 1998 (the previous address was part of the UP web site). During the last four years mmc.edu.mk has been hosted by the Macedonian Telecommunications, which in addition offered free use of their audio and video streaming servers.

There were several stages in the development of the site following the use of different file formats:

- text files and graphics (1997)
- photos (2000)
- audio MP3 and MIDI files (2002)
- audio streaming files (January 2003)
- video files (November 2003)
- video streaming files (January 2005)

As we have mentioned, George Mitrevski helped the design of the first pages and the navigation of the web site. The first webmasters who further developed the design and the structure of the navigations—which have remained practically unchanged until today—were Dimitrije Buzarovski and Maja Canakevik. The students of musicology and

ethnomusicology were also trained to collect and enter data about the member institutions of MMC and Macedonian composers, performers, musicologists and ethnomusicologists. Thus, only three years after its launch, the website became the largest database of Macedonian music culture and current events on the Internet. Moreover, at that moment, it was one of the very few web sites about Macedonian culture and music culture in particular.

Until recently, English was the only language used, not only because of the problem with the cyrilic text encoding, but because of the access of the presented materials to the largest Internet audience (having in mind that the number of Internet users who know the Macedonian language is still very small). The first larger files in Macedonian were placed on [mmc.edu.mk](http://mmc.edu.mk) in 2006.

The html files were composed using Netscape software, and the design of the background and the fonts was left to the choice and creativity of the students. This resulted in an inconsistent variety of files and particularly colours, which unfortunately can be found in parts of the site until today.

Still, the biggest problem were the updates of the existing files. Neither the institutions, nor the individuals presented at the site showed any interest into the improvement or updates of their files, particularly as most of them did not use the Internet at the time.

That is why, in 2000, it was decided that most of the files which needed updates would be removed. Also removed were the files related to the institutions - members of MMC, as some of them posted their own sites on the web.

Meanwhile, the rapid growth of IRAM activities gave a new impetus for the contents of the site. The original navigation and basic design was preserved, but with a more standardized variety of backgrounds and a different font size. The feedback about the design and the navigation of the site that was received from the viewers was very positive. Having no images and complex background, the navigation through the site was extremely quick and easy. The only disadvantage was the missing search tool. This is partly compensated by the Internet search engines, which instantly include IRAM files. In fact, one of the biggest acknowledgment for IRAM's achievement is that IRAM is listed

among the first 10-20 entries when searched through Google on a variety of key words, and particularly searches related to the Macedonian music culture and audio digitization.

After the placement of the first photos, the next important phase in the development of the site was the use of the first MP3 and the MIDI files. They were part of the papers presented at the first IRAM international conference which took place at Trinity College of Music in London, November 22, 2001. The importance was double: a new audio media and a new section of the site with IRAM conferences were introduced. It is important to stress out that 233 presentations and papers were prepared for the IRAM 14 conferences (including this one). The MIDI files were never used again, as even in 2001 they were remnants of the times of the very narrow bandwidth, and in addition, the site target audience did not include the MIDI users.

The expansion of the IRAM audio recording activities and the installation of the second IRAM studio in January 2003, marked new phase in the development of the site. On January 24, 2003, the first program of IRAM's Internet Student Radio was launched. Real Audio G2 format for streaming audio was used for the different bandwidths access to the Internet users at that time. In 2003, IRAM already had a large digital audio database consisting mainly of recordings from the concerts of the UKIM FM ensembles and students, professors and also the first larger digital collection of historical recordings - the Firfov Collection. The schedule of a programme every 2 weeks during the active periods of the academic years, i.e. 2 semester (fall and spring) was established. Each programme was divided into sections, and the htm files enabled direct link to any chapter. This resulted in a flexibility of the length of the programs which cover the range from 30 minutes to 4 hours. A total of 73 programmes were produced, reflecting the rich IRAM audio archive of more than 17,000 minutes. Starting from the autumn semester of 2006, the streaming format was changed into a MP3 downloadable format.

The first video recording in DV format covered the events from the first IRAM international conference (2001). IRAM video activities were particularly intensified after the purchase of the second video camera and the installation of the 3<sup>rd</sup> IRAM studio for audio and video recording in 2003. Thus, in November 2003, IRAM's video chronicle was launched as a new section of mmc.edu.mk. A total of 85 short movies (3-10 minutes each) were placed first in QuickTime mov format and since January 2005, in mpg format.

IRAM's video production, covering concerts and events of documentary interests, contributed to the placement of the first movie in video streaming format "Tempus in Macedonia" (60 minutes) at IRAM's web site in January 2005.

IRAM's objective for the promotion not only of Macedonian, but also Balkan and wider, global music culture, contributed to the creation of the mmc.edu.mk sections for the International Music Competition "Ohrid Pearls" and the Western Balkan Project Winter School 2006.

The last enlargement of the sections of the web site was done by the posting of the two books by Dimitrije Buzarovski ("Osnovi na digitalното arhiviranje na zvukot" and "Uvod vo analizata na muzickoto delo") in free downloadable pdf format.

The permanent introduction of new attractive contents, parallel with the extensive quantity of information present on mmc.edu.mk (the total of the files placed on mmc.edu.mk is 7.5 GB) contributed to a permanent increase in the number of visitors.

Following are the statistics for the visits of the site in 2006.



<b>Report:</b> Summary - mmc.edu.mk_new	
<b>Date Range:</b> 01/01/2006 - 01/01/2007	
Total Sessions	110,181.00
Total Pageviews	223,616.00
Total Hits	532,285.00
Total Bytes Transferred	55.05 GB
Average Sessions Per Day	301.04
Average Pageviews Per Day	610.97
Average Hits Per Day	1,454.33
Average Bytes Transferred Per Day	154.01 MB
Average Pageviews Per Session	2.02
Average Hits Per Session	4.83
Average Bytes Per Session	523.88 KB
Average Length of Session	95.39

This is undoubtedly the best argument for the achievement of a group of enthusiasts of students and professors gathered around IRAM and the web site

mmc.edu.mk. Following the hacker's philosophy of free and democratic exchange of information, cultural and artistic artifacts, based on donated equipment, free server services, and zero budget; mmc.edu.mk demonstrates that even in the market economy there are miracles.