Use of Pre-web Computer Networks to Give Information About the Attacks on Dubrovnik and Vukovar

Mato Brautović, Julijana Antić Brautović, Romana John

Department of Mass Communication, University of Dubrovnik, Dubrovnik, Croatia

ABSTRACT

Although, 30-years ago, there was a limited number of computer networks and computers in the former Yugoslavia, as well as worldwide, they were used by academia and the elites, who had enough knowledge and access to computers and to modems. Their views on the political situation, which have been preserved in the digital world, may give valuable insight into events, and, notably, about how these elites perceived/participated in the collapse of the State, and how the public in different Yugoslavian republics articulated their views. The main problem relating to this kind of approach was the limited resources that were available, as the majority of the digital documents have been lost forever, so studying this topic through the use of pre-web digital documents looked more like digital archeology, and less like historical/textual analysis. This paper was written based on two case studies: the bulletin board systems (BBS) Sezam BBS, and the e-mail distribution list Pisma Bralcev, and how they were used to report on the Yugoslav People's Army's attacks on Dubrovnik and Vukovar in Fall, 1991. In the first case, the study examines 'Sezam BBS', which was based in Belgrade and was used by Serbian, Croatian and Slovenian academics, politicians and journalists, and was, at the time, the most popular forum open to the public, and was under no government control. The second case was the email distribution list, Pisma Bralcev, which was run by Slovenian academics and was used for the distribution of news abroad. The data for analysis was collected through archival research on original discussions, e-mails, reports, etc. The main findings show that the bulletin board systems, discussion groups and e-mail enabled the first forums for the exchange of opposing ideas, and they became places in which the Yugoslavian elite could be informed beyond the information that was given by the mass media and politically controlled sources.

Key words: communication, pre-web computer networks, BBS, e-mail, Homeland war 1991-1995, Croatia

Introduction

From the beginning of military conflicts, technology has had an important role and has changed the outcome of wars. Similarly, the Croatian War of Independence (1991-1995) created an environment in which the Croatian government and individuals, had to use technology to bypass the deficiency caused by the fact that Croatia was attacked by its own army and that the federal government had control over the official communication channels. During summer and fall in 1991, the Yugoslav People's Army (JNA) conducted a systematic military campaign to isolate Croatia by destroying the telecommunications infrastructure and blocking (cutting) the satellite and telephone lines between Croatia and the rest of the world. For instance, in September 1991, the federal government disconnected telephone connections with the United States

of America, Canada and Australia¹. Further, in September 1991, the federal government disconnected the Western and Eastern part of the Yugoslavian public data network (JUPAK)2. As Croatian forces used satellite communication as an alternative, the federal government excluded Croatian phone numbers from the INMARSAT network in November, 19913. According to the local newspaper, Dubrovački vjesnik, on October 1st 1991, the JNA destroyed the main relay station on the Srd Hill, above Dubrovnik, to stop radio, television and telephone connections of Dubrovnik with the rest of Croatia and the worlda. As a result, the Croatian side was forced to look for alternative connections, and that caused the Croatian government, companies and individuals to start employing information and communications technologies (ICT) to bypass the JNA's information blockade.

^a "Raketiranje Srđa", *Dubrovački vjesnik* (October 12, 1991).

The use of ICT during the Croatian War of Independence (1991-1995) is under-researched. Only a few authors have described (briefly) some of the aspects of usage for reconciliation, for sharing news and for propaganda purposes. The first author to mention the use of ICT was Stubbs⁴, who in 1998 analyzed the use of computer networks for reconciliation purposes, and who found that the collapse of Yugoslavia was the first 'war with computers'. Further, the anti-war use of bulletin board systems (BBS) was further described by Walch⁵ and Knežević⁶. Jones⁷ examined the USENET discussion group soc.culture.yugoslavia as a channel for the distribution of the news, and he found that the news published there was used "...to provide a foundation for their own arguments and opinions expressed within the discourse in the news group." The use of computer networks for propaganda purposes was mentioned by Rheingold8, Marković2 and Jerman-Blažič9.

In the book, "Scientists against the war in Croatia", Pifat-Mrzljak¹¹ described the information activities of Croatian academia, mainly researchers from the Ruđer Bošković Institute and STEM scholars and students from Croatia and abroad, who used e-mail distribution lists and USENET to alert the international public on the situation in Croatia:

Croatia was faced with total destruction and we had to do something against the war. We could go to the battlefield, or collect humanitarian aid, which we did. But there was also a specific role which we could assume as scientists. This role came from our worldwide connection, cultivated over decades through scientific research and international collaboration... We early realized that electronic mail could well serve the needs of informing the world scientific community about the situation in Croatia. 10 (p. 5)

Brautović¹¹, in his recent book, "The History of the Internet in Croatia: Its origin and the first decade" analyzed the origins of computer networks and documented the historical development of computer networks in Croatia. In the late 1980s and early 1990s there were several computer networks in Yugoslavia and Croatia, which all followed Western European models of networking that were based on ISO/OSI recommendations and the x.25 protocol. Brautović concluded that the vacuum that was formed was the result of takeover attempts on Yugoslavian networking by Slovenia and Serbia, which enabled Croatians to choose the internet as a networking technology at least two years before other East European countries.¹¹

Furthermore, he argues that "collaborative networks, like USENET and BITNET, were used for 'war with other means', in which all sides in the conflict endeavored to show the other side as being responsible for the war – primarily to international academia in the USA and Western Europe." (p.152)¹¹. He further examined and confirmed the use of computer networks for war purposes, and found empirical evidence that their usage was similar to that of contemporary political trolling¹²:

Computer networks became the new virtual battlefield during the final years of Yugoslavia, and the networks were echoing the rise of the violence from the beginning of the conflict. Major channels for these fights were BBSs, USENET, and mailing lists in which Croatian, Slovenian and Serbian users were exploring new ways to distribute information and to apply many techniques that were, 25 years later, recognized by Western scholars as political trolling.

Pre-web networks during the breakup

Computer networks in pre-web times in Yugoslavia and Croatia can be grouped into three main categories: public data networks (PDN), academic networks and collaborative networks. The only public data network was the Yugoslavian Public Data Network (JUPAK), which was built by Yugoslavian telecoms at the end of the 1980s.11 It was based on the x.25 protocol and was used for all of the other network activities. Yugoslavian academia had access to EARN (European Academic & Research Network), EUnet (European UNIX Network), RARE (European Association of Research Networks), and other western academic networking projects (COSINE, RIPE, HEPnet, etc.). They also had an internal network that was built on the DECnet technology which was used for networking scientific institutions and libraries under the federal project, the Scientific and Technological Information System of Yugoslavia (SNTIJ). The collaborative networks were the Bulletin Board Systems (BBS), which were the first computer networks that enabled people who were computer enthusiasts, and not only those in academia, to communicate on social media by using telephone lines, computers and modems.^{2,11} It should be noted that some collaborative communication was enabled through DECnet.

The first Yugoslavian BBS was YUMBO, and it was established in Belgrade in 198613. Later, BBSs were formed in Croatia, Slovenia and Serbia, but one of the major positions had the Belgrade based BBS, Sezam, which was affiliated with the leading Yugoslavian computer magazine, Računari, in 1989, and which is subject to analysis for our paper. BBS Sezam was modeled on BBS BIX, which was run by the American computer magazine Byte^{2,14}. Alongside BBS Sezam, in 1991, in Yugoslavia there were 70 BBSs (27 in Serbia, 21 in Croatia, and 19 in Slovenia)2. In the early 1990s, BBSs were connected into networks (AdriaNet, CroatiaNet, MarjaNet, FidoNet, etc.) and they regularly echoed messages. AdriaNet was an international network of BBSs that gathered systems from Croatia, Serbia and Slovenia¹⁵, and that was later used for the first reconciliation efforts by ZaMir BBS (Zagreb, Belgrade, Sarajevo, Ljubljana and Priština)⁵. Through AdriaNet and the echoing routine, many messages were spread from one side of the conflict to the other, and BSSs were the only communication channels without political control in the former Yugoslavia. 5, 11,16. BBSs were also connected through DECNet.

Further, access to western academic networks enabled academia from Yugoslavia to use the collaborative network USENET, and electronic mail. Brautović12 found that Slovenians, Serbs and Croats used e-mail distribution lists for propaganda purposes. Croats had a few distribution lists: Croatian-news, Cro-News and CRO-VIEWS. Serbs had BECT (in Cyrilic, VEST; in English, NEWS), SIEM (Srpska informativna elektronička mreža - the Serbian Information Electronic Network) and the Serbian Information Initiative (SII) mailing list, while Slovenians had RokPress and Pisma Bralcev (Readers: Letters). 12 Unfortunately, the content of the distribution lists has been lost, except for that of Pisma Bralcev, which was founded by Andrej Brodnik and distributed from the University of Waterloo. The mailing list was started in 1989,12

Pisma Bralcev is an edited (not a moderated) mailing list, which provides the possibility of publishing readers' opinions, questions, inquiries for help, answers, etc. It also published travel tips and book reviews. Anybody could send a letter to the editor, and it would be published on the list under his name. The author could request anonymity and this would be respected entirely. The frequency of publishing was about an issue per day, or less. The language was originally Slovene, but other languages appeared as well.¹⁷

This study examines the use of BBSs and e-mail lists for reporting on the sieges of two cities that are on the border of Croatia in the fall of 1991: Dubrovnik and Vukovar. As phone lines were disconnected, the only flow of information between the Croatian and Serbian side was enabled through the computer networks - mainly through the BBSs. The focus of this paper is primarily on those people who were living in the besieged cities and the journalists who visited them during sieges and used various computer networks to tell stories about the situation in their home/visited cities. Also, if that kind of content was not found, we referred to original content that came from people, and not from secondary sources like news media. We argue that encounters (personal experiences) had the potential to inform others of their own side by bypassing media control and the narratives that were established by political and military elites through the mainstream media.

Research questions:

RQ1: How were computer networks used for sharing information about the war in Dubrovnik and Vukovar?

RQ2: Did computer networks enable citizens from Croatia and Serbia to be informed about the war in Dubrovnik and Vukovar?

RQ3: What forms of contemporary online communication could be identified in the reporting that was carried out through computer networks about the war in Dubrovnik and Vukovar?

Methods

This paper was written using a mixed methods approach which is built upon the epistemology of internet history, which adopts methods from other fields in an attempt to develop new historical methods. 18 The selection of the methods was based on the accessibility to and the level of preservation of forgotten archives (BBS Sezam, Pisma Bralcev). This was an attempt not only to answer the research questions, but also to point the research community into the uncharted and unexplored archives that must be researched in order to fully understand current issues in our societies. 19 The paper was then written using computational methods and online observation for the analysis of communication activities via computer networks during the Yugoslav People's Army's attacks on Dubrovnik and Vukovar in Fall, 1991.

The messages in *Pisma Bralcev* and BBS *Sezam*'s email distribution lists' posts were hard to retrieve, so we used semi-automated computational methods for the coding and retrieval of the messages. The application of these computational methods to *Pisma Bralcev* messages and BBS *Sezam* was carried out in accordance with the Ethics Guidelines for Internet Mediated Research.

Online qualitative observations of *Pisma Bralcev* (PB) and *Sezam* BBS (SBBS) were conducted so as to cover the period between October 1st, 1991, and December 31st, 1991. The main focuses of online observations were discussions that mentioned the war in Dubrovnik and Vukovar, and these were identified though the computational method of counting the frequency of those messages that contained the keywords: Dubrovnik, and Vukovar.

The collection of email newsletters for *Pisma Bralcev* was provided by its founder, Andrej Brodnik. At the time of the research, the archived version of *Sezam* BBS was available on http://www.old*Sezam*.net/.

Results and Discussion

 $Sezam\ BBS$

The majority of the posts and discussions on Dubrovnik and Vukovar were in BBS Sezam's conference Forum and its sub conferences: svedocenja (testimonies), gde.smo (where.we), and jugoslavija (Yugoslavia). As the conference had a limitation of 5000 messages (Simić, 2020, p. 10)¹⁴, the Forum had 19 variants in the period between November, 1989, and March, 1999. In the period between October 1st, 1991, and December 31st, 1991, there were 38 messages that mentioned Dubrovnik and 25 that mentioned Vukovar, from a total of 1062 messages, or 5.9% of all messages (Forum 4's sub conferences: svedocenja – 29 messages, gde.smo – 238 messages, and jugoslavija – 795 messages).

Our analysis of the reporting on the war in Dubrovnik and Vukovar, on BBS *Sezam*, was focused on two people: Borislav Žugec and Srđan Kusovac, as their observations represent primary sources on the situations in Dubrovnik

and Vukovar. Žugec was a telecommunications technician. working in the Croatian Telecom center in Vukovar (TKC Vukovar)²⁰, who wrote about life in Vukovar in October, 1991, and was later, after the fall of Vukovar, in Serbian hands. He was murdered in the Ovčara massacre. After the occupation of Vukovar, Žugec went to Vukovar Hospital, where he helped the journalist Siniša Glavašević to send the last report via a mobile phone that he provided.²⁰ Later, he was taken from the hospital by the JNA, and he was murdered, as a civilian, in Ovčara, together with Glavašević, and his colleague Ivan Kovač.²⁰ Unfortunately, only a few of Žugec's messages were preserved on BBS Sezam although he wrote intensively, so his work attracted traditional media attention²¹. On the other hand, Kusovac was a journalist at B92 and a fixer for SKY News who visited Dubrovnik twice: after the first shelling of the Old City in Dubrovnik on October 24th, 1991, and after the hardest shelling, on December 6th, 1991. Also, he visited Vukovar on several occasions during fall in 1991. It should be noted that Kusovac's activities through BBS Sezam included hundreds of messages, and analyzing all of them was beyond the scope of this paper.

Žugec's activity mainly gave insights into the life under the siege, and his emotions in reaction to the reality of life under the constant bombardment. For example, in a post from October 12th, 1991, Žugec described life in Vukovar:

...While you read this, me or someone close to me, or a good friend of mine, or one of their nearest friends, may be close to its creator. We haven't had electricity for 20 days; the water is the same. Bathing in the bathtub has already become a thinking noun! Connection with the world through a telephone (normal!) is in the past, because the post office building, together with a million (maybe more!) Deutsche Marks of valuable equipment is either in the air or underground. It all happened more than a month and a half ago! So far, I have heard of cases in which newborn babies, after several days spent in hospitals, were moved from the hospital, with their mothers, to some grinding underground shelters, because there was no place in the hospital, and it was more secure, because the hospital was bombarded with bombs weighing several hundreds of kilos! Milk is more valuable than dry gold. Very young children are packed into a space of several square meters, and you, gentlemen, you best know what a prison it is!

His description of civilian life in Vukovar was also critical to the Croatian side (Figure 1). He could not understand that this sort of life was regularly taking place in other parts of Croatia, particularly in Zagreb:

While you are in Zagreb going to cafés and organizing voluntary concerts, for us it is a real adventure, equal to Russian roulette, to go and get drinking water. You can't believe how long a man can wait to go to the toilet! No one would like to die on a toilet like a shitter! ... I don't know why the truth about the sufferings didn't start off the whole Croatian public, I don't know how it is possible for

POZDRAV SVIMA IZ »POKOJNOG«

Poginuti kao seronja

Za ne vjerovati je koliko čovjek može da trpi da ne ode na WC. Nije ni čudo, nitko ne bi volio da pogine na WC školjki kao neki seronja

BBS: MOJSTER To: ALL To: ALL From: BORISLAV ZUGEC Subj: FRONT? CIVILI, TOPOVI Conference: Politice Imported: 10/14/1991 Time: 3:01 am

rvo vam moram opisati kako je uopšte ovdje! Radim na jednom od 2-3 računara koji su u funkciji u okolini. Terminal u koji gledam ima 5 cm dugu brazgotinu na kućištu koju je napravio geler. Dok vi ovo budete ći-tali, ja ili neko od meni dragih i dobrih prijatelja ili neko od njihovih najbližih prijatelja III neko od njihovih najbližih možda će biti blizu svog tvorca. Struje nema već punih 20 dana, vode isto tolisto. Kupanje u kadi je već postala misaona imenica. Veza sa svijetom putem telefonske (normalne) veze daleka je prošlost iz jednostavnog razloga jer je zgrada pošte zajedno s milion (možda trišch proslestica svijednostavnog razloga.

zgrada pošte zajedno s milion (možda i više) maraka vrijednom opremom ili u zraku ili pod zemljom.

Sve to traje već više od mjesec i pod dana. Do sada sam čuo za više slučajeva da se novorođenčad nakon nekoliko dana proveđenih u bolnici sa majkom seli iz bolnice u neki od memljivih zemljanih podruma jer u bolnici nema mjesta a nije ni sigurno jer i bolnice. nema mjesta, a nije ni sigurno jer i bol-

nema mjesta, a nije ni sigurno jer i bol-nicu bombardiraju bombama teškim nekoliko stotina kilograma! Mlijeko je vrijednije od suhoga zla-ta. Djeca stara nekoliko godina skuče-na su na prostor od nekoliko kvadrat-nih metara, a vi gospodo najbolje zna-te koliki je to zatvor. Šta biste da vam neko izbriše cijeli hard sa programom koji ste razrađuvali mjesecima i taman kad ste ušli u štos neko dekretom zakad ste ušli u štos neko dekretom za brani računare, zabrani vam da priča-

brani računare, zabrani vam da pricate, da mislite ...
Dok vi u Zagrebu idete u kafiće i organizujete dobrovoljne koncerte za nas je prava pustolovina, ravna ruskom ruletu, otići po vođu za piće. Za ne povjerovati je koliko čovjek može da trpi da ne ode na WC. Nije ni čudo, nitko ne bi volio da pogine na WC

školjki kao neki seronja. Čovjeka bi oterala u ludilo situacija Covjeka bi oterala u ludilo situacija da je primoran 49 puta za redom gledati film Platoon- (Vod smrti), pa zamislite da to morate i odživjeti. Neki če i preživjeti ali ne tako da prespavaju film koji im se ne svida.

Imao sam prilike razgovarati sa nekoliko vaših sugradana koji su ovdjedošli kao patroti. Obećali su čvrsto da če ako to pe uradi avijacija dignuti

će ako to ne uradi avijacija, dignuti u zrak Banske dvore. Ne znam zašto u zrak Banske dvore. Ne znam zašto istina o stradanjima nije pokrenula ci-jelu hrvatsku javnost, ne znam kako je moguće da se mobilizacija provede u Vukovaru a iz Zagreba idu redovne autobuske i željezničke linije za inostranstvo, rade disko-klubovi. Kao dasmo mi psi čuvari Zagreba pa možemo da ostanemo na kiši dok gospodar pije šampanjac.

Političar, po meni, bi trebao da bu-

Politicar, po meni, bi trebao da bu-de ĉovjek svjestan svojih mogućnosti i situacije u kojoj se nalazi. Nema te boje koja je vrijedna toliko krvi. Znamo mi najbolje s kime ovdje imamo posla! Na žalost prijevara sa transportom pomoći za ovaj kraj, tek je sada naučila pameti one koji nam izote kemi. Ovdie žene koje imaju sinove za že

Ovoje zene koje imaju sinove za że-nidbu mogu ponovo obući svoje ma-turske haljine. Ako imate problema sa gojaznośću samo dodite ovdje. Kile pa-daju same kada se između vas i obro-ka nalazi sporadična pucnjava višeci-jevnih raketnih bacaća uz pokoju mi-nobacačku granatu, sve to začinjeno sminerskom pucnjavam. snajperskom pucnjavom.

Ne mogu više da pišem. Ne može se isati. To (ne)treba doživjeti! Po-svima koliko vas ima; iz »pokojto opisati nog. Vukovara

PS. Nazovem ja 900 u Zagrebu i za-molim da mi spoju vezu, a gospoda mi kaže: «Marš četnik!», hvala joj lijepo Ja možda govorim ekavštinom i ka-žem -hiljadu» ali ona je -danas tri ju-ta išla u podrum!, dok meni iz kose samošti podrum!, dok meni iz kose samo što ne počnu rasti gljive! Bok!

Fig. 1. Article mentioning BBS message written by Borislav Žugec published in weekly Nedjeljna Dalmacija.

the mobilization to be carried out in Vukovar and, at the same time, bus and railway lines regularly go abroad from Zagreb, disco clubs are working. As if we are the guard dogs of Zagreb, so we can stay in the rain, while the master drinks champagne!

Žugec's observations caused reactions from different BBS users. A Slovenian user, Borut Osonkarb, the Croatians, Marko Rakar^c and Dražen Požarić^d, confirmed Zugec's testimony and offered him comfort and help.

^b Borut Osonkar was a Slovenian journalist and activist; Today, he is a left-wing politician.

^c Marko Rakar was a Croatian computer enthusiast and the founder of Mrak BBS; Today, he is a political consultant.

d Dražen Požarić was a journalist. Today, he is an editor of a local medium: www.parentium.com.

Instead of getting to know each other: sometimes I work as a journalist and I regularly visit Croatia and even Serbia. I was several times in Osijek, Vinkovci, Vukovar (on the last day, when they closed the passage through Bogdanovci), I even entered from the Serbian side in Barania to Beli Manastir. What you describe, I experienced myself, but I am lucky with mushrooms. I like that you haven't lost your head and your sense of humor. What would I like to ask you: send me (if you can), news from your city and surroundings, but let them be, please, checked! I'm currently interested in if the transport arrived, what was in it, how and who shared it, what you get and so. If you leave Vukovar, be sure to let me know. Next time I'm in Slavonia I will try to enter Vukovar (??), so I am asking for your address and phone number... (Osonkar, SBBS)

None of the Serbian users ever commented on Žugec's observations. That finding is very interesting, as Žugec's posts were publicly available in the BBS *Sezam*'s discussions that were the most popular, and that were attracting the most active Serbian users. The possible explanation may be found in "motivated reasoning" – the psychological concept which explains, amongst other things, that information that is contradictory to our beliefs will not be heard.²²

On other hand, Kusovac was a part of a group of journalists who visited Dubrovnik a few days after the first grenades fell on the UNESCO world heritage site, the Old City of Dubrovnik, on October 24th, 1991. His writing was more objective than the official Serbian reports but, on many occasions, it was contradictory, because of the way he was explaining the things that he was seeing in the field. For example, in the description of his travel through newly "liberated" areas, he was noticing how the JNA's soldiers were behaving, but also relativizes and downplays the JNA's soldiers behavior:

The first village behind the "administrative border" – Gruda -- was totally destroyed. What was not burned was mostly looted and destroyed. The command (J) (N) A was established in the village (hereinafter referred to as the army), but absolutely no one has yet returned to live there.

At the very beginning of the fighting, the population fled to Cavtat and Dubrovnik. The next village, on the way to Dubrovnik – Čilipi — experienced the same destiny... Robbery was otherwise a very interesting category in the Montenegrin-Dubrovnik-Herzegovinian battlefield. It is clear that there has always been, in every war, the so-called "night of the victor", on the first night — the night of the robbery, however, in the battles around Dubrovnik, I was convinced that robbery was viewed completely differently. It all depends on the units that passed through and which village. Somewhere, there is literally nothing missing from houses, and only bare walls remain somewhere else. Basically, where the (J) (N) A passed, there was nothing miss-

ing, and where the TO [Reservists] passed, there was nothing left. I personally attended the act of 'releasing' the video recorders and art paintings (albeit of dubious value) from one house above Cavtat. I didn't let Sky record it, but I reported it afterwards to one of the officers. (Kusovac, 1.11.1991, SBBS)

Similarly, he described what he saw in Dubrovnik:

...I saw that there was damage to the old part of the city, but only a few, including sensationalists like ZDF, could believe that it was damaged by bombing. It is about as far as the old part of the city is concerned, a total of 3 damages. One is in Ruder Bošković Street, connecting Stradun, where part of the facade fell off, after which the whole street was declared "dangerous for pedestrians". The second damage is on the roof of the "Rupe" Museum, and the third is in a parallel street, Stradun, where the shop windows cracked...In case of a new part of the city, there is damage in the area of Lapad and Babin Kuk, where otherwise significant forces of the ZNG and MUP are stationed, and that is a significant strategic point." (Kusovac, 1.11.1991, SBBS)

Kusovac kept relativizing what he saw by diminishing the role of the JNA and exaggerating the behavior of the Croatian forces and the public officials so as to establish a balance and to justify the Serbian side:

Gardisti [Croatian forces] walk along Stradun and behave quite ostentatiously. They enter Stradun by car, throw it at the girls, get pretty drunk and behave arrogantly. These are facts that say that they do not differ much from any other army, however, I'm not sure the people of Dubrovnik feel them eitheras being their army. The people of Dubrovnik, as far as I had the opportunity to see them, did not see them very favorably, and I increasingly believe that, if there is time, they themselves are increasingly pressuring their negotiators to negotiate, the same as in Cavtat. This is confirmed by the news that ...in one of the dark streets of Dubrovnik, the body of Miljenko Bratoš, the commander of the Dubrovnik 'Zengi', and one of the leaders of the HDZ in Dubrovnik, was found in a car." (Kusovac, 1.11.1991, SBBS)

During a second visit in December, 1991, and after the heaviest bombing of the Old City Dubrovnik, Kusovac continued to downplay the role of the JNA:

Stradun is full of construction waste. Fallen tiles. And parts of the facade. On about half of Stradun, on the left (seen from the Pile gate), one house has burned down completely. There are a few grenade holes in a few places. They are not of the largest calibers. You can see (those who can notice) traces from a few days of earlier installed mortars. It is clear that the Croats also used the Old City to shoot at the army. I found remnants of mortar refills in several places under rubble and garbage...

They fired from here to Srđ, and the distances are small, so no additional charges are needed. I took a few souvenir bags. It seems to me that the Croats didn't do a good job.

Namely, just before the European observers arrived (popularly called the "ice cream makers", because of their white uniforms) they carefully (???) removed all traces of their (combat) presence in the Old City. There are no (like last time) 'Zengi'e on Stradun anymore. There is no stone cross on Srd. Croats say the army deliberately targeted the cross on Saint Nicholas Day (patron saint of sailors). (...) In addition, Srd was shot at by Croats, and not the army...Unexploded, a grenade (or some kind of rocket?) in the wall of a house in the old harbor. Hole is a meter diameter at the very top of the fountain at the Pile Gate. View from the walls: Holes in roofs, smoke from houses ... Croats say that about 30% of the Old City was damaged. Of course – that is not even close to true. I counted only damaged roofs. There are certainly more of them, but by no means 30%." (Kusovac, 10.12.1991, SBBS)

Kusovac's evidence that Croatian forces used mortars was later questioned on BBS *Sezam* by the user, Srđan Pantić^f (on May 2,1992), as being an attempt to demonize his, for the Serbian side, "moderate" views.

How did I realize that there were mortars in the Old City, and why was it not shown on the SKY NEWS program? Because it's not a fact. That is my impression. It is something that can pass in the FO-RUM, but by no means on the program of any normal TV station. It can be shown only what is an indisputable fact, only what can be shown in a picture, and then the main question was: has Dubrovnik been bombed or not? Ruins are shown, houses burned down, and almost destroyed: Stradun. Why didn't SKY NEWS say that the Croats fired mortars from Dubrovnik at the Federal Army? Because it was not clear about that proof! The only thing I saw (and wrote in the FORUM) was that I saw traces of mortars. (...) When mortars operate with a hard base, with each mine fired, they move back a little, and that, on the base, leaves a mark. However, a similar clue may be from something else.) That is the only reason why it was not said that the mortars were used. Because they were not recorded. Why didn't SKY NEWS report (and record) the bags I found (and still keep)? Because similar bags can also come from different weapons. One such TV station can't allow what TV Belgrade or HTV can, for example." (Kusovac, 04.05.1992, SBBS)

However, Kusovac's writings about Vukovar were more journalistic in nature than personal experiences. For example, he tried to debunk the misinformation about the Croatian forces killing 40 Serbian children immediately before the fall of the Vukovar. This story was brought by the Serbian media on the day of the fall of Vukovar, in order to encourage repression of the surrendered Croatian forces. ²³ Although the Serbian media later disaproved the information, it became an urban legend that the JNA concealed the bodies in order to mitigate Serbian rage.

I have been to Vukovar five times in the past month and a half. ... We were constantly with the ELITE unit (J) (N) (A) – two the anti-terrorist units. Guvs are fierce, and almost all of Vukovar that is "liberated" - they "liberated." The rest are reservists, recruits and volunteers. About them (especially the last) the worst is true, even more than that. You see, those professionals were cleaning the field at that time in which the "slaughtered children were seen." ... no one who knows these people disbelieves this, but is ready to "put his hand in the fire" so that they were not the ones to hide the corpses for one reason or another. I know that it is difficult for many to understand that this is so (yet they are (J) (N) (A), but if you believe 40 people, of which 5-6 are top world journalists, and 2-3 top world sensationalists and free launchers, then you should believe it too). (...)

Next: Where are your corpses? It's not a needle, so you can hide it so easily?

Next: No matter how much "life" in Vukovar and Borovo has been cruel for the last two months, it was known when and where someone died. Like no one was looking for those children or reported anything about them? (...) (Kusovac, 28.11.1991,SBSS)

E-mail and Pisma Bralcev

Pisma Bralcev was used for sharing news about the conflict, discussions between conflicting parties, the implementation of informational campaigns, sharing appeals and letters, as part of individual or organized informational activities, etc. In the period between October 1st, 1991 and December 31st 1991, *Pisma Bralcev* had 254 editions, with almost 2.8 newsletters per day.

During that period, *Pisma Bralcev* mentioned Dubrovnik 52 times and Vukovar 48 times. Figure 2 shows the frequencies of the mentions of Dubrovnik and Vukovar that relate to major events in relation to the attacks, with a few days of delay: The attack on the Dubrovnik area — October 1st; The first shelling of the Old City of Dubrovnik — October 24th, the second shelling of the Old City of Dubrovnik — December 6th; The fall of Vukovar — November 18th.

Vukovar

The first mention of Vukovar was on August 29th, 1991, when Brodnik disseminated the appeal from the Croatian Red Cross. The letter was originally distributed by the 'Croatian-news' list. Vukovar was mentioned to-

[•] Another name for the Croatian forces.

^f Srđan Pantić was a computer enthusiast and the founder of the e-mail distribution list BECT which was active from April, 1991 until May 1992. Today he is a programer at Netflix.

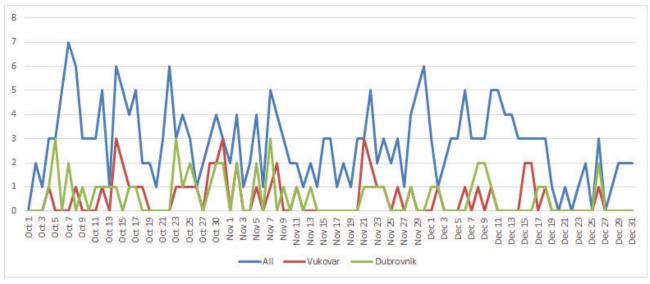


Fig. 2. Frequencies of Pisma Bralcev's newsletters mentioning Dubrovnik and Vukovar.

gether with Pakrac, Nova Gradiška and Sisak, where military conflict was escalating, and the number of wounded people was constantly increasing. Again, on September 21st, 1991, *Pisma Bralcev* shared the news about the Croatian forces that was taken from the 'Croatian-news' list.

For those who have not listened, here is a summary: Vukovar and Vinkovci are still holding on, the guns are almost silent...The surprise is that the army is still waiting. Anti-tank weapons from Našice and other conquered barracks were brought to Vukovar. The town defends (It's no secret – the source is the other side) about 15,000 Croatian soldiers, in the trenches and hardened (but also tired) from past struggles." (Antonić, 21.09.1991, PB)

Brodnik also used BBS *Sezam* as a source of news from Vukovar. On September 23rd, 1991, the list distributed the anecdotal experience of the Serbian soldiers who were fighting in Vukovar, and who deserted after being deployed:

The temperature jumped sharply there, because we began to realize that there was something stinky, especially when we found that, in addition to there being no more than small quantities of ammunition, we have neither ambulances nor combat vehicles (buses only), neither bulletproof vests (as part of the equipment), nor equipment for night operations, and even no means of communication! There is no talk of field reconnaissance and intelligence. Despite all of that, we had absolutely no identification - military IDs were taken from us, and we did not receive the military identification plates or anything else. The excitement turned to anger when a JNA lieutenant colonel addressed us without being able to answer a single question that we asked him, and even if we were already in the combat zone, HE DID NOT KNOW WHERE VUKO- VAR OR ILOK are, even though he should have taken us into action!!! Instead, he tried to hold on to us with a political lecture, given in the blackest manner. Although it was not clear to us whether he was drunk or just a fool, we rewarded him with such a whistle that raised his hands and fled." (Brodnik, 23.09.1991, PB)

Ten days later, Vukovar was again mentioned in the letter from Nikola Cindro that was distributed through *Pisma Bralcev*:

The tragedy of Croatia and its People has reached Kurdish proportions. Far from protecting the rights and safety of the Serbian minority in Croatia (11.2%), the present strategic goal of the Serbian aggressors is to destroy Croatia (...). The war in Croatia is not a civil war: it is a war of aggression aimed at achieving territorial gains. For the first time in 50 years, and under the very eyes of Europe, which does nothing to prevent it. (Cindro, 3.10.1991, PB)

Similarly, several days later, Hrvoje Galić forwarded an authentic description of life in Vukovar under siege. The unnamed author wrote about the reality of life and the harsh conditions:

Eve. I don't know what day it is, what date it is, what time it is. Sent by hatred, the birds of war fly in the sky. Cannon lighting stars. I run through the ghostly empty streets of ruined, burnt houses, paved roads, bent. On the path, next to the fence, lies a middle-aged, unknown woman. Next to her, a drunken dog twitches in a spasm. I throw a piece of asphalt at him and, horrified, I realize that he is bent over, and the tail flees carrying a human hand in gritted teeth! I pause for a moment in silence, but close explosions force me to flee, full of helpless rage." (Galić, 13.10.1991, PB)

The second part was published on October 15th, 1991 and contained the story of a 3-year-old boy, Matej and a story about a Croatian soldier who had been killed. The narrative was still naturalistic, with a description of shocking scenes:

We went on patrol, after a report that they were hiding in a house. The two of us walked past the houses in disguise. XXXXXXX ran over the road and stopped. I yelled at him to come back to me. Suddenly he got a trombone It was a direct hit to the chest of him, only the legs remain, in the boots ... We collected the remains in two bags ... (Galić, 15.10.1991, PB)

Vukovar was used for campaigns for the recognition of Croatian and Slovenia. For example, on October 18th, 1991, *Pisma Bralcev* published instructions on how to call and put pressure on the United Nations, the White House and the State Department:

After I called the White House regarding the recognition of Hrv. and Slov, the secretary drew my attention to the fact that it would be useful to call the United Nations. I found the right number and said "yes" to the US more actively including and recognizing Hrv. and Slov., to pay attention to Vukovar and Ilok, to send UN forces to Croatia, and generally to act more decisively, since Europe is clearly incompetent. She received the message, but it seems to me that, so far, she did not have many comments about so-called Yugoslavia. (Barle, 18.10.1991, PB)

Similarly, Professor Ante Lauc, from the University of Osijek, sent an appeal to the Friends of Croatia to help to stop the war in Croatia and Vukovar:

Please call everyone close to you and ask for cooperation. I am personally disappointed with a number of friends, who have left me in these ten days. Do not be disappointed, I have made new friends who are ready to give themselves for Vukovar because they have compassion. We will be a necklace more beautiful than Hesse's glass beads. Life is truly a song (T. Ujević) and society in Croatia will be truly a work of art. When, dear friends, you hear the original stories of the guards about personal courage, you will be happy to have contributed to their living testimony. (Lauc, 26.10.1991, PB)

Lauc later started contributing regularly to *Pisma Bralcev* with information from Vukovar. On October 28th, 1991, he distributed the information that "...dead lie on the streets for days. The city's infrastructure has been destroyed completely. The utility company is not able to bury the dead properly, and, after the rain, the shoes of corpses stick out of the shallow graves...".

He was trying to describe the desperation and horror of the people in Vukovar:

We do not ask anyone for any charity, we seek only a life worthy of man. We seek a chance for our children, the chance that these young men have a chance to have their children. How would the public of Europe react if, somewhere in the West, someone gathered 2,000 children, aged from a month to the high-schoolers, and locked them up underground, with the constant threat of death if they try to get out into the daylight, with possibly one hot meal a day, strictly determined quantities, and with the uncertainty of how long such a condition will last? Can anyone imagine that in Berlin, Vienna, London, Paris, Washington? (Lauc, 28.10.1991, PB)

Lauc was not the author of the texts, but he collected them and encouraged people to collect personal experiences about life in Vukovar:

Please, someone go to Zg and collect the testimonies of the wounded from Vukovar, and that we can assure, as much as possible, the documentation, as the basis for all those who have compassion, and who can reasonably demand that the military attaché go to Vukovar.

Dr. Bosanac promised to send me her personal contribution, and that it is important to distribute this as soon as possible to all those who want to help the success of the action. (Lauc, 31.10.1991, PB)

On October 31st, 1991, Lauc finally sent a desperate appeal, calling for a campaign among the international public, because "there was less and less hope for Vukovar" (Lauc, 31.10.1991, PB).

Brodnik, on the other hand, shared the other side's views on the situation in Vukovar. On October 30th, 1991, he published the texts taken from the USENET groups soc.culture.yugoslavia, and written by Goran S. Kovačević under the significant title "Mental health", and with a note that this text was not for people with "weak nerves".

...when we are mentioning Vukovar, that vermin that drags on sewers and potholes in Vukovar, that is, to you, a 'ticket to enter the legend', that human scumwho prayed a month ago to let them out of Vukovar, but they were not allowed [to do this] because ours found a mass of massacres.

The Serbs are already in the suburbs of Vukovar, those 'bravest sons of Croatia' that didn't do anything human WILL NOT COME OUT OF VUKOVAR ALIVE. They will pay with their lives for all the slaughtered Serbs in Vukovar. And for those who were held as hostages. (Brodnik, 30.10.1991, PB)

Kovačević's hate speech caused reactions from *Pisma Bralcev*'s subscribers. For example, Peter Matic wrote "So, is this Kovacevic normal? Just to ask him, on which side is Vukovar. On the left or the right side of the Danube? Nobody called them to cross the Danube!" (Matic, 31.10.1991, PB).

Following the example of the Dubrovnik convoy, Libertas, the breakthrough of the siege of Vukovar was organized through *Pisma Bralcev*. The contact for the organization was the famous Croatian physicist, Ivan Supek, and

original information was taken from Croatian distribution lists:

Croatian women — artists, scientists, doctors, public workers, they are preparing a big and risky action for the end of next week 'Let's liberate the Children of Vukovar'. It is envisaged that women and mothers willorganize a similar action to save the children of Vukovar, as that for the delivery of food and humanitarian aid to Dubrovnik by the ship "Balkanija". The goal is to get out of what was once a city about 2,000 children, who are exposed daily to incessant savage bombing. Just yesterday, two 12-year-old boys were killed, and eight children wounded. The children of Vukovar have been detained for two months in damp and cold cellars, without food, water, medicine, sun, ... (Antonić, 31.10.1991, PB)

The experiences of these children from Vukovar were also shared through *Pisma Bralcev*. On November 6th, 1991 Brodnik distributed a message entitled "From Vukovar's children", containing their appeals for peace and their views on the war:

Life in Vukovar is difficult. All schools are destroyed. People have no food. They are all in shelters. The wounded are coming, children. People are dying from shrapnel and bullets. No one comes out of the shelter or sees the sun. New people, and the wounded, come every day. Every day, shots are fired and grenades fall. The hospital was demolished and the wounded moved to a shelter. Corpses float on the Danube instead of ships." (Racic, 5.11.1991, PB)

The fall of Vukovar caused outrage in Slovenia and Croatia. For example, a Slovenian, Zoran Ren, sent a message to Andrej Brodnik on November 20th, 1991, which was disseminated through *Pisma Bralcev*:

The pictures from Vukovar were horrible. Two columns of people move out of the place, each in their own direction, Croats and Serbs, thousands of them just with a passport in hand ... Pictures show "brave" Serbian volunteers (i.e., Chetniks) carrying a black flag with a skull, and they sing: "There will be meat, there will be meat, we will slaughter the Croats ...!". Of course, the translation of the song on the English reports is omitted, it is only a celebration and a tribal song!!!! The English reports are biased and interesting, their reports change depending on who the reporters are with at the moment. Sometimes I'm pretty sick when I listen to how poor soldiers suffer when they fight for the sovereignty of Yugoslavia, how Croats attack them with small arms, and they are easily forced to use guided missiles, heavy artillery, aircraft ... (Ren, 20.11.1991, PB)

On November 21st, 1991, Brodnik distributed the information that CNN had retracted the news about the Croats killing the 40 Serbian children.

Just a few minutes ago, CNN reported that the free-lance photographer from Belgrade who broke the unconfirmed story about the 40-odd massacred Serbian children in Vukovar HAS RETRACTED his statements, admitting he neither saw nor counted ANY bodies. Just another lie, it seems. (Brodnik, 21.11.1991, PB)

After the fall of Vukovar, the content mentioning Vukovar, in *Pisma Bralcev*, became more and more impersonal, and was less frequently based on primary sources.

Dubrovnik

The first mention of Dubrovnik was on September 30th, 1991, when Brodnik published a letter from Dubrovnik's mayor, Pero Poljanić, which was entitled "Dubrovnik SOS". Poljanić appealed to the international media and tried to explain the role of the JNA, which was trying to annex Dalmatia in order to be part of Greater Serbia, saying that the only solution for the escalating conflict was the international recognition of Croatia.

At this very moment, other cities are suffering far more (we are trying to look after hundreds of refugees here now). But, as Mayor, my first concern must, of course be for Dubrovnik and the surrounding region; although I would dearly like to plead for Osijek or Pakrac, I must now plead for Dubrovnik itself. (Poljanić, 30.09.1991, PB)

On October 4th, 1991, Brodnik distributed a letter from Professor Predrag Cvitanović, which addressed the prime ministers and presidents: Franz Eranitzky, Vaclav Havel, Jozsef Antall, Lech Walensa (originally published on *RokPress*).

The army and the nationalist militias are committing atrocities against civilian populations that the survivors of the second world war experience as being worse than the civil war terror of those times. Europe's precious heritage; Roman, Middle Ages, Renaissance, Baroque treasures, are systematically and irretrievably destroyed - irreplaceable jewels, like the city of Dubrovnik, are under siege, and every passing day marks more innocent victims, more destruction. This war has nothing to do with preserving Yugoslavia - no army could treat its own people so viciously. The war is Serbia's territorial war against its neighbors. The generals seem to operate in a mental frame frozen at 1891, not 1991, and as proud victors of WWII internecine slaughter, they skrink from nothing. They must be stopped. (Cvitanović, 04.10.1991, PB)

Cvitanović's letter prompted a reply from a Serbian professor, Milan Mijić, who sent a letter the next day trying to split the blame for the destruction and the war:

And for the record, yes, I agree with appeals from Croatian physicists (Andrasi, Tadic, Cindro, Pisk, Cvitanovic, ...): the destruction should stop, refugees should be taken care of, and so the persistent political will for an independent Croatian

state should be recognized. The only possible legitimate interest of the Serbs is the protection of their own people. Fighting for an improved bargaining position, or for strategic locations, is shameful. But this in no way means support for the current regime in Croatia and for the war they are waging. By supporting the policies of the Croatian nationalist government, rather than the genuine interests of the Croatian people, one endorses the policy of force. This includes the much heralded rush for "an immediate international recognition". Even more, by supporting that government as it is, one helps to drive the Croatian people to the terrible tragedy of war, destruction, guilt, and life in a totalitarian state... Serbian and Croatian nationalists have poisoned the souls of our two peoples and have brought us nothing but tragedy and shame. To save our cities and our lives, to survive and prosper, we need regimes which respects the lives and heritage of its own citizens; who are guided by love for their own people, not by hate of others. (Mijić, 05.10.1991, PB)

Mijić's letter caused a reaction from Professor Dubravko Tadić, who praised him for moderate views, but criticized him for his "reckless push for secession".

- 1) Belgrade, Budva and Kotor cannot be bombed. Croats do not possess any war airplanes, and, for them, any offensive actions are not practical. Having already lost 1/3 of their territory, they are desperately fighting for mere survival.
- 2) I hope that Mijic's parents and relatives are not threatened in any way. My mother (she is 78 years old) has had to run away from the town Hrvatska Kostajnica (where her home has been destroyed and robbed), just because of her Croat ethnic background.
- 3) I do not know why Dubrovnik was attacked, although I could offer some educated guesses, based on geopolitical and military considerations. But I do know why it is defended. This is the choice of the majority of its citizens. They have overwhelmingly voted to be a part of Croatia. They know that if the other side occupies them, they will be persecuted, some of them slaughtered, and the rest driven out of their homes. This has happened in other occupied parts of Croatia: Bania, Baranja and Slavonia (...) (Tadić, 16.10.1991, PB)

On October 22nd, 1991, a group of students from Dubrovnik, who were studying in Zagreb, started a hunger-strike demanding the stopping of the attack on Dubrovnik, the unblocking of the harbor and the roads, and the withdrawal of the JNA. Their appeal was published by *Pisma Bralcev*:

Already for 20 days, in Dubrovnik – the heart of Europe – 60,000 of our citizens have been sealed off from the rest of the world by the so-called JNA (SNA). They have no food, no water, no electricity,

nor any other of the means which are necessary for survival. They are left alone to die from different diseases, and the occupiers are threatening to kill them all... In case nothing should be undertaken, we shall consider the European, and all of the others of the world's politicians, responsible for the death of 150 students who, starting today, 10/22/91 at 12:00 am, refuse to take food, and will not stop until their requests are fulfilled." (Krstelj, 22.10.1991, PB)

The first attack on the Old City of Dubrovnik (October 24th, 1991) caused an increase in the number of information posts/news/letters/appeals about Dubrovnik in the *Pisma Bralcev* distribution lists. For example, a Cornell University student, Emil Zavadlav, started a campaign against the bombing of Dubrovnik in the USA, and he used *Pisma Bralcev* to promote activities:

Sonja and I found a calendar picture of Dubrovnik and made a poster out of it, which we hung at the busiest point in Cornell. We all added an article from today's New York Times. Our text goes something like this:

- Dubrovnik, a city bombed by the (former) Yugoslav army
- help prevent the destruction of UNESCO's world cultural heritage
- Call Bush at (202) 456-1111
- tell him to take a more active role in stopping savage armies

I suggest to all of you who have a picture of Dubrovnik to make a similar one you show the poster and, as much as possible, to people [telling them] what the bandits are destroying. (Zavadlav, 1991, PB)

The situation of the area around Dubrovnik, shared over computer networks, started to influence the people in the USA. For example, Brodnik published an observation, written by E. Gergen on October 28th, 1991, addressing an incident in which "a ship from Bari carrying Red Cross supplies to Dubrovnik has been denied entry by the Serbian Navy."

Blocking access to medical supplies and preventing the exit of information is the most intelligent thing to do if you are hell-bent on achieving the following:

- -STEALING a 1300-year-old city from your neighbor,
- KILLING-off as much as possible, and
- CHASING AWAY the rest of its indigenous population of 60,000,
- LOOTING its treasures, and
- ANNIHILATING every sacral object that is not Serbian-Orthodox. (Gergen, 28.10.1991, PB)

Pisma Bralcev was the place where the letter of the spouse of Milan Milišić, the first civilian victim in Du-

brovnik, who was of Serbian origin and a famous poet, was published. Jelena Trpković Milišić wanted to disprove the claims in the Serbian and Montenegrin media that her husband was killed by Croats:

You have already heard that my husband Milan Milišić was killed in a JNA attack on Dubrovnik. Our house is located in the area of Ploče, above the Hotels Excelsior and Argentina. There are only civilian houses around us. How many mortars fell, I don't know, we stopped counting. The mortar that killed Milan was of 120 mm caliber, and fell on the doorstep. We were alone in the house, but I was not judged. Milan died in my arms ... I am addressing you because of the disgusting lie told by Radio Titograd and Radio Belgrade: that Milan was killed by the Ustashas. Because of the truth, because of Milan, who was fighting for the truth all of his life, and in the name of your friendship, I beg you to help to publish my correction." (Trpković Milišić, 07.11.1991, PB)

In November, 1991, Brodnik started to disseminate content coming from the non-moderated distribution list Cro-News, which was managed by a doctoral student from University College, London, UK, Nino Margetić. For example, on November 23rd, 1991, *Pisma Bralcev* called for a humanitarian concert to be organized "...in aid of the victims of the war in DUBROVNIK, CROATIA", in London (Margetić, 23.11.1991, PB).

Besides organizing awareness events, pro-Croatian artists were writing letters and appeals to foreign politicians and influential people. The famous, Croatian-origin, pianist, Ivo Pogorelić, sent a letter to the JNA's General, Veljko Kadijević, which was distributed via *Pisma Bralcev* on December 2nd, 1991:

Our city, it is stated in the appeal, was once the most beautiful city in the world. Today, after 55 days of siege, it is the most beautiful concentration camp in the world, and tomorrow it will be the most beautiful graveyard in the world.

You, General Kadijevic, can prevent this from happening.

In the name of 'history', which you usually quote, in the name of the future, which almost everybody forgets, you can, and must save Dubrovnik and its people. Apart from a soldier's honor, there is also something called – human dignity. If you have denied the dignity of the mothers and children of Dubrovnik, do not lose it yourself. Do not expect the surrender of people who cannot surrender.

Was Vukovar not enough?

You, General Kadijevic, bear the brunt of the responsibility for the destruction or preservation of Dubrovnik. (Pogorelić, 02.12.1991, PB)

As in the case of Vukovar, in December, 1991, the reports became more and more impersonal and relied on the news media as their source.

Conclusions

The findings show that computer networks were heavily used for reporting about the war in Dubrovnik and Vukovar. The reporting consisted of material that ranged from personal testimonies to anti-war activities, and they were primarily written by Croatians abroad, or by those who were situated in free parts of Croatia. The majority of the content of the Slovenian distribution lists *Pisma Bralcev* was about the war in Croatia.

Further, empirical data showed that BBS Sezam and Pisma Bralcev enabled citizens from Croatia and Serbia to be informed about the war in Dubrovnik and Vukovar, and there was a flow of information that was blocked by the mainstream media on both sides. Based on this, we can speculate that people who had access to a computer network could be informed about the situation on the other side (primarily the Croatian one).

The findings also show that, in the reporting that was carried out through the use of computer networks about the war in Dubrovnik and Vukovar, elements and forms of contemporary online communication could be found. For example, Žugec's messages demonstrated that citizen journalism existed in pre-web times. He could be considered to be the first Croatian blogger and citizen journalist. Also, journalists were using early computer networks to find information and sources for their reports. The Serbian *Politika*, and the Croatian *Nedjeljna Slobodna*, used different computer networks as their sources.

On the other hand, Kusovac's example showed that journalists used computer networks for reporting in a way that is similar to contemporary journalistic blogging, and that he used his observations as a way to build relationships with his community. Also, he used the reports to fix his image (he worked for the independent medium B92, and he was a fixer for foreign TV, so he was not perceived well among the general Serbian public), by making his reports more transparent and giving behind the scene details in order to excuse himself.

Due to their message, which echoed the routines and quantities of primary and secondary sources, BBS Sezam and Pisma Bralcev represent exceptional historical sources that can be used for researching the contemporary history of the region, the history of computer networks, the development of online communication or the use of computer networks for public relations, journalism.

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M. Brautović

University of Dubrovnik, Branitelja Dubrovnika 29, 20000 Dubrovnik, Croatia e-mail: mbraut@unidu.hr

KORIŠTENJE PRE-WEB RAČUNALNIH MREŽA ZA INFORMIRANJE O NAPADIMA NA DUBROVNIK I VUKOVAR

SAŽETAK

Iako je prije 30 godina u bivšoj Jugoslaviji, kao i u svijetu, postojao ograničen broj računalnih mreža i računala, njima su se koristile akademske zajednice i elite, koje su imale dovoljno znanja i pristupa računalima i modemima. Njihovi pogledi na političku situaciju, koji su sačuvani u digitalnom svijetu, mogu dati vrijedan uvid u tadašnje događaje, posebno u vezi različitih gledišta artikuliranih u pojedinim jugoslavenskim republikama vezanih za raspad države. Glavni problem u vezi s istraživanjem bili su ograničeni dostupni resursi, budući da je većina digitalnih dokumenata zauvijek izgubljena, pa je proučavanje ove teme korištenjem digitalnih dokumenata prije weba više izgledalo kao digitalna arheologija, a manje poput povijesne/tekstualne analize. Ovaj rad je pisan na temelju dvije studije slučaja: sustava oglasnih ploča (BBS) Sezam BBS i e-mail distribucijske liste 'Pisma Bralcev', koji su korišteni za izvještavanje o napadima Jugoslavenske narodne armije na Dubrovnik i Vukovar u jesen 1991. godine. 'Sezam BBS', sa sjedištem u Beogradu, koristili su srpski, hrvatski i slovenski akademici, političari i novinari, a bio je u to vrijeme najpopularniji forum otvoren za javnost i nije bila pod kontrolom vlade. Lista elektroničke pošte, Pisma Bralcev, koju su vodili slovenski akademici, služila je za distribuciju vijesti u inozemstvo. Podaci za analizu prikupljeni su arhivskim istraživanjem izvornih rasprava, e-mailova, izvješća, a glavni nalazi pokazuju da su ovi sustavi komunikacije omogućili prve forume za razmjenu suprotstavljenih ideja te postali mjesta na kojima se jugoslavenska elita mogla informirati mimo informacija koje su davali masovni mediji i politički kontrolirani izvori.