HRVATSKA RATNA POVIJEST

Boris Gregurić
Vojislav Jereb

CROATIAN ARMY VEHICLES 1991-1995

VOZILA HRVATSKE VOJSKE 1991.-1995.

Part I
Colors and markings
A PICTORAL HISTORY

I. dio
Boje i oznake
FOTO ALBUM

BORIS GREGURIĆ - VOJISLAV JEREB

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I dio BOJANJE I OZNAKE

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1. Jereb, Vojislav

Slika na prethodnoj strani:
Iako kategoriziran kao 'srednji', artiljerijski tegljač sovjetskog porijekla ATS-59G korišten je za vuču najtežih zarobljenih artiljerijskih oruđa. Zaplijenjen je vjerojatno u borongajskoj vojarni u Zagrebu. Ovdje ga vidimo prilikom pripremanja vatrenog položaja na kupskom bojištu u listopadu 1991 godine, vjerojatno u sastavu 1. haubičke baterije 203 mm. Vozilo je maskirano samo tankim crtama preko originalne JNA sivo-zelene boje i vrvi natpisima. Tako je preko bijelog evidencijskog broja JNA 14248 ispisano CRO, na ceradi ZAGREB B.B.B. (tj. kratica Bad Blue Boys-a odnosno navijača Dinama/Croatije) dok na prednjem blatobranu piše ZNG. Svi natpisi su vjerojatno plave boje. Iza vozila se nazire američka haubica M115 kalibra 203 mm, topničko oruđe najvećeg kalibra koje je ZNG/HV imalo u svom inventaru. (Foto arhiva Globus / foto Darko Bandić)

Photo on the previous page:
The medium artillery tractor ATS-59G was used to tow heavy artillery. This vehicle was probably captured at the Borongaj barracks in Zagreb. Here it is seen as a firing position is being prepared on the Kupa front in October 1991. It possibly belongs to the 1st howitzer battery 203 mm. The vehicle is camouflaged with narrow lines over the original JNA grey-green paint, and is covered with inscriptions. There is a CRO over the white JNA serial number 14248, ZAGREB B.B.B. (Bad Blue Boys are the footbal fans of the Dinamo/Croatia club) on the tarpaulin, and ZNG on the front mudguards. All inscriptions are most likely blue. Behind the vehicle is an M115 howitzer, the heaviest artillery piece in the ZNG/HV inventory. (Photo archives Globus / photo Darko Bandić)

Slike na naslovnoj strani: Boris Gregurić (tenk), Vojislav Jereb (kamion)

Authors of front page photos: Boris Gregurić (tank), Vojislav Jereb (truck).

Ova je knjiga posvećena svima
koji vole Hrvatsku.

This book is dedicatwd to all
who love Croatia

Ovom prilikom želimo zahvaliti svima koji su svojim materijalima, radom, sugestijama i podrškom pomogli u izradi ove knjige, a posebno Gordanu Laušiću, Davoru Kirinu i Tomislavu Brandtu za fotodokumentaciju HVG (Hrvatskih vojnih glasila), Emilu Požaru, Nenadu Šetini, Jadranku Ećimoviću, Stipi Živaljiću, Tihomiru Liksu, Vladimiru Superini, Dariju Vuljaniću, foto arhivi Večernjeg Lista (posebno gospođi Gordani Šoban), fototeci Muzeja grada Rijeke (posebno gospođi Tei Nikolić), Nedeljku Pineziću, Silvanu Ježini, foto arhivi Globusa, Draženu Bulatu, Marijanu Požaru, Draganu Staniću, Igoru Petroviću, Stevanu Rodiću, Damiru Kremeniću, Danijelu Frki, Mirku Sekovaniću, Mladenu Kajnoviću, Damiru Levaniću, Davidu Spenceru, Vladimiru Trendafilovskom, Dinku Predoeviću, Živku Gospiću, Goranu Popiću, Igoru Samaržiji, Nevenu Šimaniću, Zdravku Zrni i Marinu Karabaiću.

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POLOŽAJNI PLAN MOBILIZACIJSKIH SREDIŠTA BRIGADA ZNG / HV

SITUATION OF ZNG / HV BRIGADE MOBILISATION CENTERS

NAPOMENA: Zagreb je bio sjedište ovih 14 brigada:
NOTE: the following 14 brigades based in Zagreb:

1.(A), 2.(A), 98., 99., 100., 101., 102., 144., 145., 146., 147., 148., 149., 150.

Izrada mape / *Map by*: Boris Gregurić

PREMA RATU

Izbijanjem rata 1991. godine započela je završna faza raspada Jugoslavije.

Socijalistička federativna republika Jugoslavija bila je federacija šest republika i dvije autonomne pokrajine. Ustav SFRJ iz 1974. godine definirao je republike kao samostalne jedinice koje su se dobrovoljno udružile i koje se imaju pravo izdvojiti iz SFRJ.

Od smrti predsjednika Tita 1980.godine, Jugoslavijom je vladalo osmočlano Predsjedništvo – po jedan predstavnik iz svake republike i autonomne pokrajine - koje je iz svojih redova biralo predsjednika ograničenog mandata. Među ovlastima Predsjedništva bilo je i zapovjedništvo nad oružanim snagama. Dužnost oružanih snaga bila je obrana zemlje od napada druge države, dok su intervencije u zemlji bile su u nadležnosti Sekretarijata za unutarnje poslove (SUP), to jest policije. Tako je autonomaški pokret kosovskih Albanaca iz 1981.godine ugušio savezni SUP. JNA je u to vrijeme bila prisutna na Kosovu, ali nije neposredno intervenirala.

No desetak godina kasnije odvijao se drugačiji scenario. Incidenti prije višestranačnih izbora 1989, predizborna retorika, pobjede nacionalističkih stranaka, najave referenduma o izlasku iz federacije kao i poticanje bivših oficira JNA na pobunu, vode fizičkom obračunu koji započinje zaprečavanjem cesta balvanima na prilazu Kninu kolovoza 1990 godine. Sukob će na koncu kulminirati u otvoreni rat između pobunjenih Srba u Hrvatskoj, kojima se kao zaštitnik pridružuje JNA i hrvatskog naroda.

1 fototeka Muzeja Grada Rijeke

Plitvice, travanj 1991. Svojim 'razdvajanjem sukobljenih strana', JNA je spriječila MUP RH da zaustavi širenje pobune na to područje. Policijska postaja u motelu 'Plitvice' našla se u okruženju JNA, koja će je, nekoliko mjeseci kasnije, i likvidirati.

Plitvice District, April 1991. By 'separating the belligerent sides', the JNA effectively prevented Croatian Police from stopping the spread of rebellion in that area. The Police station in the 'Plitvice' motel was practically besieged, and, in a couple of months, liquidated by the JNA.

PATH TO WAR

The outbreak of war in 1991 signalled the beginning of the end of the disintegration of Yugoslavia.

The Federal Socialist Republic of Yugoslavia was a federation of six Republics and two autonomous regions. The 1974 Constitution defined the Republics as independent entities that were voluntarily united. It also indicated that the Republics had the right to separate from the Federation.

After the death of president Tito in 1980, the Federal leadership body that took control was composed of an eight-member Presidency – one member from every Republic and region. This group elected a one-year President from their members. This Presidency also retained absolute command of all the Armed Forces. The primary duty of the Armed Forces was to defend the country from an attack by another country, while military operations within the county were the responsability of the Ministry of Interior (SUP) i.e. Police. That is why the 1981 Albanian mutiny in Kosovo was suppressed by Federal SUP forces, while the JNA forces in Kosovo did not intervene directly.

However, ten years later it was a different scenario. Multiple elements contributed. These included incidents prior to the multi-party elections, volatile campaign rhetoric, victory of nationalist parties, planning of a referendum for seccession from the Federation, and finally former JNA officers call to mutiny. This led to a violent clash in August of 1990, which was started by groups obstructing roads with timbers in the Knin area. This clash was the origin of the conflict which culminated in an open war between Serb insurgents in Croatia supported and protected by the JNA against the Croats.

Although under the Constitution the JNA was not allowed to intervene, it was clear to the Croats from the beginning who was the main 'sponsor' of the Serb rebels in Croatia. That's why the planners of the most pessimistic scenarios – direct war against the JNA – were the leading force behind the inevitable question: what forces would defend Croatia? It has to be kept in mind that when the Republic of Croatia declared its independence, it did not have its own Army. The MUP (Police) forces were the only force under arms. But with the escalating armed clashes, a hasty reorganization of some Special Police units began which formed the nucleus of the future army. In the beginning it was known by the acronym ZNG.

Iako se po Ustavu JNA nije smijela miješati, od početka pobune Hrvatima je bilo jasno tko je glavni 'sponzor' pobunjenika. Zato se stratezima najcrnijih predviđanja - a to je bio otvoreni sukob sa JNA - postavilo neminovno pitanje: kojim snagama obraniti Hrvatsku? Valja se podsjetiti na činjenicu da Republika Hrvatska, u trenutku proglašenja svoje samostalnosti, nije imala vlastitu vojsku, već je pod oružjem imala samo snage MUP-a (Policije). Uporedo sa eskalacijom sukoba, započeo je užurbani preustroj specijalnih jedninica MUP-a koje će na koncu stvoriti jezgro buduće vojske pod nazivom Zbora Narodne Garde (ZNG).

Taj put, od običnih policijskih jedinica do prave vojske bio je veoma kratak, ubrzan i trnovit.

Entuzijazma, želje i hrabrosti da se obrani tek proglašena nezavisnot Hrvatske nije manjkalo, a još jedina stvar čega u Hrvatskoj u to vrijeme nije manjkalo bio je ljudski potencijal, ljudski resurs. Problem za obranu predstavljao je nedostatak oružja i vojnih sredstava.

Hrvatska je dočekala početak rata nespremna. Kada je započela otvorena srpska pobuna sa epicentrom

The evolution from simple police units to a real army was a very short, quick and ardous process.

There was no lack of enthusiasm, desire and bravery to defend the recently declared independence, and there was no shortage of men. The problem for defence was the lack of weapons and equipment.

Croatia came to war unprepared. When the Serbian insurrection began at the epicenter of Knin, its repression was planned using conventional Police forces armed with typical Police weaponry (pistols, sub-machine guns, automatic rifles, a few APCs and helicopters). As the plan was not executed, the mutiny continued, spreading accross areas inhabitated mostly by Serbs. The clashes with Croatian Police forces became more frequent and more violent. Under the guise of seperating the belligerant forces, the Yugoslav Army increasingly less clandestine defended the Serbs, and armed them.

Croatia's weapons belonging to its Territorial Defence (TO) were confiscated in early 1990 after the commanders of the JNA and part of the Presidency became aware that those weapons could be used against them. Small lots of weapons hidden and saved from these stocks (a few anti-aircraft

2 fotodokumentacija Večernjeg lista / foto: Dragan Hrvarić

Na stadionu NK Zagreb izvršena je 28.5.1991 godine prva smotra jedinica ZNG. Na rubu stadiona vidljiva su njihova vozila – lijevo nekoliko kamiona TAM različitih tipova, a desno TAB-71, BOV-M i jedan od četiri tada pokazanih UNIMOG-S. Na crnobijeloj fotografiji se ne može raspoznati kako se taj kamion svojom izvornom, njemačkom maslinastom bojom izdvaja među tamno plavim vozilima policije.

The initial presentation parade of the ZNG was held at the Zagreb soccer club stadium on 28th May 1991. Their vehicles can just be seen in the rear. There are several TAM trucks on the left, and a TAB-71, a BOV-M and a UNIMOG-S on the right. Being in original German Olive Drab, the UNIMOG stands out from other Police vehicles which are in regular dark blue livery.

u Kninu, gušenje pobune je planirano policijskim snagama naoružanim klasičnim policijskim oružjem (pištolji, automati, automatske puške, pokoji transporter i par helikoptera). No to se nije učinilo i pobuna se nastavila širiti u krajevima se značajnim brojem srpskog življa. Sukobi sa hrvatskom Policijom postajali su sve češći i žešći. Pod izgovorom razdvajanja sukobljenih strana, JNA sve otvorenije prelazi u zaštitu 'ugroženih Srba' što znači i njihovo naoružavanje.

Oružje koje je pripadalo Teritorijanoj Obrani SR Hrvatske (TOSRH) najvećim je dijelom oduzeto početkom 1990, nakon što je vrhu JNA i dijelu Predsjedništva SFRJ postalo jasno da bi moglo biti upotrebljeno protiv njih samih. Manji dio oružja koje nije oduzeto (nešto protivavionskih topova, strela, bestrzajnih topova i teških mitraljeza) bilo je još uvijek nedostatno za očiti prestojeći sukob sa JNA. Stoga se prišlo užurbanom naoružavanju novoformiranih jedinica nabavkom oružja iz inozemstva, prvenstveno iz Mađarske.

Nakon napada JNA na Sloveniju koncem lipnja 1991, poraza i rezultirajućeg povlačenja JNA, težište rata se prebacuje na teritorij Hrvatske korištenjem postojećih izvora srpske pobune kao polaznim pozicijama. Sukob se rasplamsava u kasno ljeto 1991 sa sve češćim teškim oružanim okršajima te naglim rastom mrtvih i ranjenih. JNA više ne prikriva svoje stvarne namjere te se direktno uključuje u sukobe tenkovima, oklopnim transporterima, artiljerijom i avijacijom kojima napada isključivo hrvatske položaje.

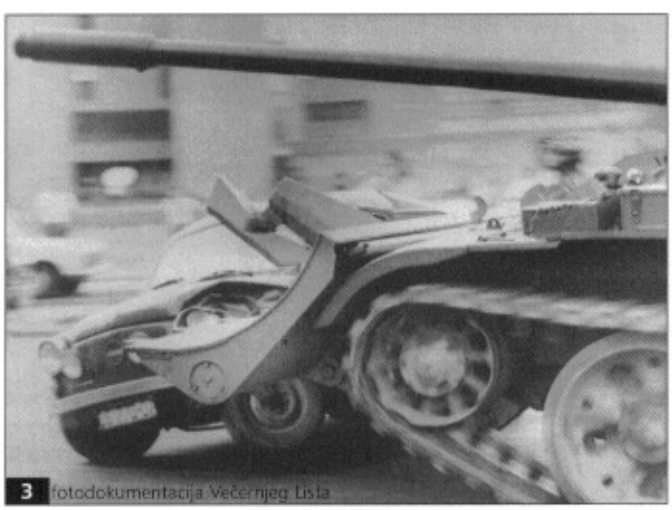
Ukoliko se žele nositi sa tako naoružanim neprijateljem, Hrvati su se nužno morali opremiti i naoružati i teškim naoružanjem. Iz tog razloga započinje spontana izrada raznog oružja i improviziranih oklopnjaka te nabavka teže vojne opreme iz inozemstva (uglavnom vozila - džipova i kamiona). Zarobljavanjem dijela opreme koju JNA povlači iz Slovenije i padom prvih vojarni JNA početkom jeseni, ZNG se konačno oprema kao prava vojska, te postaje moguće formiranje većih jedinica sposobnih za razvoj i izvođenje manevara. Ovo je knjiga o izgledu tih vozila. Nastala je kao produkt promatranja, bilježenja i slikanja jednog dijela tih vozila koja su na svoj način označila herojsko razdoblje stvaranja hrvatske države i Hrvatske vojske.

Znajući da će se, po završetku rata i prelaskom u mirno razdoblje vozila reducirati kako po broju, tako i po tipu, a pretpostavljajući da će se i maskirne sheme ukalupiti nekim propisom po kojem će sva vozila postati ista ili vrlo slična, pokušalo se zabi-

guns and missiles, recoilless rifles and heavy machine guns) were insufficient for the obvious upcoming war with the JNA. As a result, arming the newly organized units was achieved by buying weapons abroad, first, Hungary.

The JNA attacked the newly independent Republic of Slovenia in late June 1991. After the JNA debacle and retreat, the weight of the war fell on Croatian soil. The mutinous territories were used as staging areas for war operations. The conflict dramatically escalated in late summer 1991 with more heavy clashes and even more dead and wounded. The JNA stopped hiding its real intentions and committed tanks, APCs, artillery and aviation to attack Croatian forces.

In order to cope with such a formidable armed enemy the Croats needed heavy equipment and armament. That is the reason why construction of improvised armament and APCs began while simultaneous efforts were made to purchase heavy military equipment abroad, mainly trucks and jeeps. The ZNG only began to acquire the semblance of a regular army, with large units capable of maneuver, after capturing part of the equipment from the retreating JNA forces from Slovenia, and by capturing some JNA stocks during the 'battle of the barracks' in late September 1991 This book is the result of seeing, recording and photographing a portion of these vehicles. These vehicles tell, in a curious



3 fotodokumentacija Večernjeg Lista

Rat u Sloveniji doveo je do porasta napetosti i u Hrvatskoj. Crveni 'fićo' ostavljen je nasred ulice u Osijeku kao tenkovska zapreka. Ulica je bila prazna i lako ga se moglo zaobići, no vozač T-55 to nije niti pokušao. Na mjestu događaja bila je i TV ekipa, i snimka gnječenja 'fiće' obišla je svijet.

War in Slovenia brought tension to Croatia. A red Fiat car was left in the middle of the road in Osijek as a tank obstacle. The street was empty and the tank driver could easily go around it but instead chose to smash the car in front of a TV camera team. This act was immediately seen around the world.

lježiti čim više raznolikih shema koje svjedoče o nevjerojatnoj inventivnosti i maštovitosti njihovih kreatora s jedne strane, ali što je još važnije i što nas ispunjava neizmjernim ponosom, i neuništivoj volji tih pojedinaca i grupa da stvore, brane i obrane našu novu domovinu.

Sada su vozila Hrvatske vojske obojana jednoobrazno, maslinasto zelenom bojom. Gledajući ih danas, teško je i zamisliti kakvo je šarenilo vladalo među njima početkom 1990-ih. Hrvatska vojska nastala je 1991., što je čini jednom od najmlađih u svijetu. Jedna je od rijetkih u svijetu koja je stvorena doslovno u ratu, a po bojanju svojih vozila u početnoj fazi tog rata vjerojatno je bila i najživopisnija u svijetu.

Ova knjiga je skromni pokušaj prikaza nekih tipičnih shema i označavanja iz početnih perioda Domovinskog rata. Ona nema namjeru prikazati sve sheme i sva vozila koja su korištena, ali područje vizualnog identiteta vozila iz tog perioda je neistraženo i ovom knjigom želimo još više potaknuti istraživanja tog perioda.

way, the story of the heroic period of birth of Croatia as a state, and the birth of the Croatian Army.

We knew that when the war ended and peace began all these vehicles would decrease in types and numbers. We also assumed that the camouflage patterns after the initial period would become standardized. Because of this we tried to make a record of as many possible patterns and the unbelievable inventiveness and imagination of their creators. More important making this record filled us with pride, because of the indestructible will of individuals to create and defend their country.

Today all the vehicles are painted in the standardized pattern, of dark green paint. Viewing the same vehicles today, the variety of camouflage patterns of these vehicles in the early nineties can hardly be imagined. The Croatian Army was born in 1991 which makes it one of the youngest armies in the world. It is also one of the few born in battle, and is surely the only one that posessed so many picturesque vehicles at the beginning.

4 Stipe Živaljić

Vozilo kupljeno iz njemačkih vojnih viškova, tipa Büssig 0,75 GL, po dolasku u Hrvatsku je kompletno prebojano u policijsku plavu boju. Na vozilo je ispisan natpis POLICIJA RH. Ono 'RH' je vrlo neuobičajeno, no s obzirom na okolnosti (istočna Slavonija ljeti 1991 godine), očito se željelo jasno istaknuti kojoj strani vozilo pripada.

This Büssig 0,75 GL was bought from German Army surplus stocks. After its arrival in Croatia the vehicle was painted over in the overall dark blue Police pattern with a 'POLICIJA RH' inscription in white. The 'RH' (Republic of Croatia) part of the inscription is rather unusual; yet the time, place and events (Eastern Slavonia in summer 1991) account for the extreme desire to define the side the vehicle belonged to.

5 Dražen Šulat

6 Boris Gregorić

Nekoliko vozila MUP RH iz različitih faza rata u Hrvatskoj. Improvizirano oklopno vozilo na slici 5 vjerojatno je izrađeno ljeti 1991. Inače plava policijska vozila su u zonama borbenih djelovanja maskirana. Primjer za to je Pinzgauer 710K na slici 6, kojeg samo registarska pločica i natpis POLICIJA identificiraju kao policijsko vozilo. Boje i oznake kamiona TAM na slici 7 u skladu su s propisima, tj. policijsko plave sa natpisima POLICIJA ili samo nalijepljenim grbovima MUP-a.

Some Police vehicles from the different stages of the war. The improvised armored personnel carrier (APC) in photo 5 was in all probability manufactured in the Summer of 1991, and is finished in the regular overall dark blue Police color scheme. The Police blue vehicles in the combat zone were repainted in camouflage patterns. A nice example of this is the Pinzgauer 710K in photo 6, which could easily pass for an Army vehicle had it not been for its registration plate and white POLICIJA inscription. The TAM trucks in photo 7 are painted and marked in accordance to regulation, in Police blue with large POLICIJA inscriptions or MUP badge decals.

7 Emil Požar

SAMOORGANIZIRANJE

Samoorganiziranje ljudi u zaštitu stečene nezavisnosti počinje vrlo rano, mjestimično i koncem 1990. Pošto je TO onemogućena, formiraju se nove organizacije (Narodna zaštita) i stranačke skupine s ciljem obrane suvereniteta. Nakon krvavog Uskrsa na Plitvicama preko događaja u Glini, Škabrnji, Almašu, Dalju i ostalim mjestima ljeti 1991 te započimanjem otvorenog napada JNA na Hrvatsku nakon sloma državnog udara u SSSR-u, zadaci Policije i ZNG-a postaju čisto vojnički i korištenje vozila počinje biti uobičajeno kao i u svakoj drugoj vojsci u ratu.

Sva ta vozila vojske u nastajanju možemo u grubo podijeliti na dvije kategorije - policijska vozila, koja su redovno bila obojana 'policijsko plavom' bojom, te ostala vozila korištena u vojne svrhe koja su u načelu bila sva civilna i obojana civilnim bojama.

Dakle, takvim vozilima u 'veselim' bojama (čak se niti za plava policijska vozila ne može reći da imaju maskirni efekat) kreće se na bojište koje u početku i nije bila neka određena linija razdvajanja sukobljenih strana već zone pobune – pojedina sela, širi rejoni i sl.

Korištenje tako obojanih tj. nemaskiranih vozila mnogi borci, prvenstveno policajci, dobrovoljci, civili ali i medicinsko osoblje plaćaju vlastitim životima. Vozila su lako uočljiva i na njih se otvara vatra i sa većih udaljenosti, a nepostojanje određene linije fronta rezultira čestim upadanjem u zasjede.

Koncem kolovoza (30.8.1991) ZNG se službeno izdvaja od Policije i postaje republička vojska, ali se stanje bitno ne mijenja. Vojna vozila i oprema tek se nabavljaju i radi hitnosti do tada nabavljena vozila se koriste kakva jesu.

INDEPENDENT ORGANIZATION

Without central direction the people began to organize themselves to defend Croatian independence, some places as early as 1990. As the Territorial defence (TO) was useless new defence organizations began to appear (for instance the 'Narodna zaštita' – National Defence) as well as some party groups. Things changed after the bloody Easter in Plitvice, similar events in Glina, Škabrnja, Aljmaš, Dalj, etc., and the onslaught of the Yugoslav Army following the failure of the Soviet coup, during the Summer of 1991. During this time the missions of Police and ZNG units became strictly military and the vehicles were used in this role as just as in any other army at war.

All the vehicles of the new Army at this time can be roughly divided in two catgories – official police vehicles which were usualy painted in blue, and civilian vehicles used in the military role but remaining in their civilian paint.

All the brightly colored vehicles (because the police blue color cannot be considered very effective camouflage) were used to transport forces to the front. Actually, fronts per se did not really exist. It is more accurate to speak of war regions or villages.

Using such colored (uncamouflaged) vehicles, many fighters, first of all policemen but also volunteers, civilians and paramedics paid for this folly with their lives. Such vehicles were very easily detected and hit at even great distances. Furthermore, the lack of firm front lines meant that many vehicles to fell into ambushes

By the end of August 1991 the ZNG officialy separated from the Police and become the National Army but the situation did not change much. Military vehicles and equipment had not yet been purchased and because of the urgent circumstances, vehicles were used as they were.

8 fototeka Muzeja Grada Rijeke

U početku su korišteni obični, nemaskirani automobili, poput ovih snimljenih u kukuruzištu na prilazima Vukovaru.

In the beginning normal civilian cars were used for Police and military actions, like this photo, taken in a corn field near Vukovar.

9 Emil Požar

Tipična 'maskirna shema' civilnog vozila iz prvog perioda sukoba. Izuzev gornjeg dijela krova, svijetlo sivo vozilo je čitavo prebojano kvadratima tamno zeleno-smeđe boje, a preko svega su ispisani natpisi crvenom bojom. Prednji dio vozila je maskiran samo natpisom DALMATINSKA BOJNA, dok je sa strane natpis TOPNICI IZ SUHOVARA i hrvatski grb. Iznad prednjeg stakla je crveni natpis HOS, a vozilo je očito nekada pripadalo riječkom 'Novom Listu' ispred čije zgrade je i slikano.

A typical early-war civilian vehicle camouflage pattern. The light paint of the vehicle except the roof was painted over with patches of green-brown paint. Over this, inscriptions were applied with red paint. The front of the vehicle has the inscription DALMATINSKA BOJNA (Dalmatian battalion) while on the sides TOPNICI IZ SUHOVARA (artillery men from Suhovare) and a Croatian shield is painted. Above the windshield is a red HOS inscription. The vehicle was once a delivery van belonging to the Novi List newspaper.

Jedan primjer snalaženja: bijela civilna Zastava 620 je, u nedostatku adekvatnih boja, maskirana običnom širokom smeđom ljepljivom trakom za pakiranje kutija i zelenim flomasterom. Izložen vremenskim prilikama, flomaster je potpuno izblijedio i vidljiv je samo u tragovima, dok se ljepljiva traka pokazala otpornijom. Zanimljivo je kako je autor maskiranja nastojao polijepiti traku tako da popuni bjelinu vozila i sakrije crveno-žuto-plave ukrasne linije, a istodobno pokuša razbiti ravne konture oblika karoserije i stakla.

A quick camouflage-application method. This white Zastava 620 civilian truck was camouflaged with brown masking tape and green felt-tip pens. Due to the weather, the green color has almost completely disappeared and can barely be seen, while the tape proved more durable. The artist took care to obliterate white areas, at the same time trying to break up the shape of the vehicle.

10 Goran Popić collection

11 Vedel ko Pinezić

Civilni 'tamić' (TAM-80) furgon na ličkom ratištu, jesen 1991. Vozilo je nekada pripadalo Domu penzionera u Krku te je bez ikakvog maskirnog bojanja poslato na prvu liniju bojišta gdje je i slikano kod mjesta Džakule. Radi svijetle boje cijelog vozila (standardna tvornička TAM-ova svijetlo siva), a u nedostatku pogodnih boja i vremena, vozilo je premazano blatom radi težeg oučavanja. Čak je i registarska tablica premazana blatom.

A civilian 'Little TAM' (type designation TAM-80) in the vicinity of Džakule village, Lika front, autumn 1991. The light grey vehicle (standard factory color) originally belonged to the retirement home in Krk. It arrived at the front without being camouflaged, so, with no paint or time available, was plastered all over with mud – plates included.

12 Vojislav Jereb

Na vozilima HOS-a obično je bila napisana ta kratica. Vozilo na slici stiglo je iz Njemačke i zadržalo je sve natpise prijašnjeg vlasnika, preko kojih su nanešeni natpisi uobičajeni za HOS-ovu simboliku - ustaški 'U' u obliku potkove, parola ZA DOM i slični slogani sa strane vozila.

Vehicles belonging to the HOS usually displayed that acronym. The van in the photo came from Germany, as can be seen by the original inscriptions. The new owners applied slogans and symbols in accordance to their political orientation – 'U' for Ustaše, 'ZA DOM' (FOR HOME – Ustaše salutation), etc.

'Fićo kombi' na službi u HV-u maskirno pobojan u kućnoj radinosti. Vidljivo je grubo nanašanje boje kistom, tako da ne postoji neka osnovna maskirna boja preko koje su nanašane mrlje. Originalna boja vozila, koja je očito bila neka svijetla, premazana je sa nekoliko slojeva svijetlo smeđe, 'travnato' zelene i crno-smeđe boje. Ispod crno-smeđeg natpisa CRNI LEPTIRI na prednjem dijelu vozila nanešen je samo jedan sloj boje pa nije ni pokrivena osnovna boja vozila. Sa strane je stilizirani znak 'Crnih leptira' na podlozi hrvatskog grba kao i jedva vidljiv natpis istog sardžaja ispod toga.

A Fiat van used by the Croatian Army, locally painted in a camouflage pattern. The very crude job is evident, applied with brushes over the original car paint. There is no a specific pattern but the original light paint of the car was covered with heavy layers of light brown, grass green and black brown paint. Under the dark inscription CRNI LEPTIR (black butterfly) only a light layer of paint was applied and the original paint of the car is visible. On the car sides a butterfly is painted over the Croatian shield insignia.

13 [illegible]

Korištenje običnih civilnih nemaskiranih automobila bilo je uobičajeno u početku sukoba. Posebno su bila cijenjena kombi-vozila zbog mogućnosti prijevoza više ljudi, oružja ili municije. Na slici je prikazano takvo vozilo u okolici Vukovara na koje je otvorena snajperska vatra te se vozač radi toga sklonio iza vozila. Zbog neodgovarajuće boje jasno je da su takva vozila bila češće mete napada radi lakog uočavanja.

The use of civilian cars was normal at the beginning of the conflict. Vans were found to be very useful because of their capacity to carry more people, weapons and ammunition. In the photo such a van is seen in vicinity of Vukovar. A sniper has opened up and the driver has taken cover behind the vehicle. Due to their colors such vehicles were easily detected and fired upon.

14 fototeka Muzeja Grada Rijeke

15 Stipe Živaljić

Iako neosporno bez ikakve borbene vrijednosti, i osobni automobili su često maskirani. Ovaj nekada popularni Fićo korišten je u 4. gardijskoj brigadi (ako je suditi po natpisu na haubi - 4 BRIGADA) dok je opis maskirne sheme ili boja gotovo nemoguć - korištene su sve vrste zelene, smeđe i sive boje (vjerojatno miješanjem) dok bijela boja karoserije izbija mjestimično na vidjelo, isto kao i dobra količina rđe.

Although of undoubtedly no combat value, civilian cars were often camouflaged. This once very popular Fiat (Fiat-Zastava 750) was, judging by the inscription, used by the 4th Brigade. A description of the pattern is almost impossible - all different shades of green, brown and grey paint was used. Some of it was obviously mixed together as well. Some of the original light paint can be seen as well and some heavy rust.

16 Boris Gregurić

UAZ sa civilnom registracijom ali i urednom oznakom popisnog vozila na vjetrobranu. Maskirna shema je improvizacija boja i šara pri čemu su najzastupljenije zelena, smeđa i crna pa cijela shema djeluje vrlo tamno. Dodatna mogućnost maskiranja je maskirna mreža na krovu koja se po potrebi vjerojatno spuštala da prekrije vozilo.

UAZ with civilian licence plates but with regular military markings on the windshield. The camoflage pattern is a total improvisation of colors and painted areas with green, brown and black colors making up most of the pattern. All the pattern looks very dark. Additional camouflage is provided by the camouflage net on the roof which is presumed could be lovered as needed.

17 Boris Gregurić

TAM-80 na slici nije bilo potrebno maskirno prebojavati - izvorno je bio zelene boje, a veliki natpisi crnom bojom (i manji natpisi crvenom) iz daljine čak djeluju kao maskirne linije. Na sanduku vozila je postolje za automatski top Oerlikon 20 mm. Vozilo je snimljeno ispred sjedišta stranke HSP-a u Zagrebu početkom 1992 godine.

This TAM-80 needed no camouflage – it was originally finished in green, and when viewed from a distance, the large inscriptions in black (and some smaller inscriptions in red) give the impression of a camouflage pattern. Note the gun mount for an Oerilkon 20 mm gun in the rear of the vehicle. This photo was taken in front of the Croatian Legal Party (HSP) headquarters in Zagreb in early 1992.

Tamno zeleni UAZ-469 maskiran trešnjama i natpisima crvene boje! Pošto crvena boja po sebi ima slaba pokrivna svojstva samo jedan sloj crvene boje jedva je vidljiv sa malo veće udaljenosti. Civilna tablica je također premazana u crveno, a pored popisnog znaka (romba) na vjetrobranu ima i natpis 'TREŠNJEVAČKA OLUJA 1149 ZG'. Sa strane i na prednjem braniku su natpisi TREŠNJEVKA.

A Dark green UAZ-469 camouflaged with cherry drawings and inscriptions in red! From even short distances, the one or two layers of red paint are nearly invisible, as they fail to contrast much, and swallowed by the dark green background. The civilian licence plate is also painted in red. On the windscreen is an inscription 'Strom from Trešnjevka' (a Zagreb suburb, trešnja means cherry) while inscriptions 'Trešnjevka' are in red on the sides and front of the vehicle.

18 Boris Gregurić

Crveni kamiončić Zastava TurboZeta sa natpisima 'ZNG' sprijeda i '100' na vratima, oba izvedena trakom za pakiranje (selotejpom). Romb popisnog vozila na vjetrobranu označava vozilo kao vojno, a zasjenjena svijetla govore da se vozilo koristi u blizini fronta. Slikano u Zagrebu početkom 1992.

A red Zastava TurboZeta truck with 'ZNG' and '100' inscriptions with masking tape on the door and front part of the vehicle. The insignia of a civilian vehicle being incorporated in the HV (a black rhomb on a white square) on the windshiels as well as the shaded lights indicate a vehicle being used in the vicinity of the front. The photo was taken in Zagreb in early 1992.

19 Boris Gregurić

POČETNO OZNAČAVANJE

Potreba za označavanjem vozila nije stvar prestiža ili mode – radi se o pitanju raspoznavanja ali i kontrole. Za prepoznavanje sa većih udaljnosti koriste se neki dogovoreni nacionalni simboli (odgovarajućih dimenzija – obično to veći što se želi dalje biti vidljiv), dok se za kontrolu i blisko prepoznavanje najčešće koriste oznake manjih dimenzija – tablice, brojevi na vozilima i sl. Kako je početak rata Hrvatska dočekala bez dogovorenih i razrađenih znakova prepoznavanja u početku se koriste oni za koje svi smatraju da su jednoznačno jasni.

Prve registarske tablice pojavljuju se sa osnivanjem ZNG-a. Pošto nije bilo propisa koji bi regulirao izgled tih pločica, svatko je izrađivao onakve kakve je najbolje znao. Zato je na mnogim tablicama upisivano 'ZNG' da bi se znalo da su to vojna vozila, dok je na drugima preovladavalo mjesto iz kuda su, ili je pak postojala kombinacija. Na tablicama je obavezno, ako je stao, prikazivan i državni grb. Tako npr. 1. auto-bataljun koristi tablice (naljepnice) jednostavno sa brojem '1' pa grbom, a iza toga broj vozila.

ZNG službeno mijenja naziv u HV (Hrvatska vojska) 22. rujna 1991, ali se vojne registarske tablice nisu pojavile prije prosinca iste godine.

No za mnoga vozila nije bilo vremena za izradu ili bojanje pločica sličnih registarskim. Neki su umjesto toga na ta mjesta upisivali slova ili brojke. Najdosljedniji u tome, poput Zagrebačke grupe, upisivali su šablonama 'ZGr' sa (ili bez) nekog broja. Drugi su jednostavno upisivali ZNG ili CRO ili CRO ARMY i sve je bilo jasno. Često su korištene i naljepnice sa raznim natpisima (ZNG, CRO) a često su, u nedostatku boljeg, korištene i ovalne automobilske oznake CRO. Mnogi su, uz civilne tablice, jednostavno dodavali naljepnice sa natpisima ZNG ili ZNG-RH.

Pored natpisa i 'tablica' koje su služile umjesto pravih registarskih pločica, vozila se označavalo i većim simbolima i natpisima. Najčešće je, logično, korišten državni grb. Vrlo često grb je ucrtavan bojom ali pojavom svakojakih naljepnica sa grbom često se koriste baš te naljepnice. Na njima je često, osim grba (u starom ili novom obliku) bilo i natpisa jedinice ili grada ili nečeg trećeg. No oni koji se nisu zadovoljavali veličinom naljepnica (od kojih najveće nisu bile veće od nekih pola metra) bojali bi državni grb ili drugi nacionalni simbol većih razmjera direktno na vozilo.

20 Boris Gregurić

Lijepi primjer registarskih pločica 'lokalne izvedbe', korištenih prije uvođenja službenih pločica HV. Na pločici pločicom 'ZNG No.1-SI' ono SI označava Sisak, a narančasto-smeđi Yugo snimljen je u Zagrebu.

A nice example of 'local-made' license plates used before the introduction of the official Croatian Army plates. The plates read 'ZNG No.1 – SI' where SI stands for Sisak. The photo of the orange-brown Yugo was taken in Zagreb.

INITIAL MARKINGS

The need for vehicle markings was not a matter of prestige or fashion. It was a question of recognition and control. To recognize vehicles at long distance, some commonly recognized national symbols are used (the bigger the size, the further away a vehicle can be recognized). For control purposes and close recognition small markings such as license plates or vehicle numbers are used. As Croatia entered the war with no standardized national symbols for use on vehicles, initially unambigous markings were used, those that were believed to be easily recognized by everyone.

The first registration plates were created by the ZNG. As there were not yet any official regulations, everyone made plates as they thought best. On many plates the letters «ZNG» were painted in order to identify it as a military vehicle. Many others had the abbreviated letters of the city where they were from. There were also combinations of both. If there were enough space on the plates, the national chequered shield could often be found. For instance the 1st auto-battalion used simple plates (usualy stickers) with the number '1', the national shield and the number of the vehicle.

The ZNG was converted into the HV (Hrvatska Vojska – Croatian Army) on 22nd of September 1991, but official registration plates were not seen until December of that year.

However, for many vehicles there was no time to install or paint registration plates. Some had only letters or numbers painted on them instead. The more consistent, like the Zagrebačka Grupa (Zagreb Group) stenciled a 'ZGr' with (or without) a number instead of the plates. Others simly painted ZNG or CRO or CRO ARMY on the vehicle to clearly identify it to everyone. Stickers with different inscriptions of the same kind (ZNG, CRO) were used frequently and sometimes even oval vehicle country stickers (CRO) were used. Many added a simple ZNG or ZNG-RH inscription next to civilian plates.

Besides registration plates and other inscriptions used as plates, vehicles were usualy marked with larger symbols and inscriptions. Most common was, of course, the Croatian chequered shield. This was often painted directly on the vehicle, but there were many variations of the shields, some in sticker form as well. Some of these stickers had, besides the national shield, unit identification, town identification or other unique features. Those who were not satisfied with the size of stickers (usualy not bigger than half a meter) painted large shields directly on their vehicles.

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Početne registarske pločice na vojnim vozilima – neka vozila uopće nisu imala registarske pločice (sl. 21), neka su zadržavala bivše JNA brojeve ili oznake jedinica od kuda su nabavljene (sl. 22) dok je većina vozila imala nekakve improvizacije kojim se prikazivalo da je vozilo u vojnoj službi (sl. 23, 24, 25, 26, 27 i 29) ili da pripada nekoj brigadi (sl. 28 i 30).

The initial licence plates on military vehicles. Some vehicles did not have plates of any kind (photo 21) Some retained the markings of the former user (photo 22 with the BOV-3 carying the ex JNA serial while the DAF vehicle carries former Dutch markings). Most vehicles used some improvisation which ranged from some kind of inscription showing it to be a military vehicle (photos 23, 24, 25, 26, 27 and 29) to the numbers indicating the brigade which used the vehicle (photos 28 and 30).

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28 Boris Gregurić

33 Boris Gregurić

34 Tihomir Likso collection

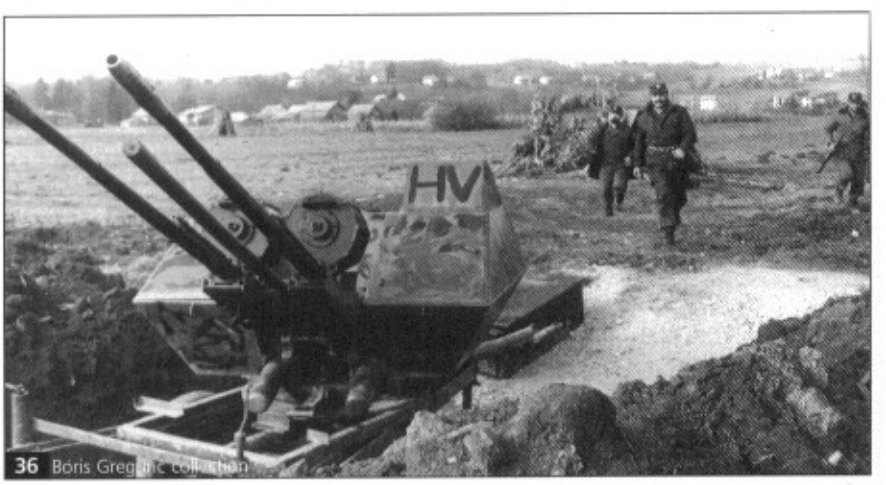
35 Nenad Šetina

37 Boris Gregurić

32 Nenad Šetina

Označavanje vozila kretalo se od ogromnih pobojanih hrvatskih grbova (slika 31) ne samo na borbenim vozilima, pa do minijaturnih naljepnica hrvatskih zastava na blatobranima i vratima zapovjednih kola Tam-5000 ZK1 (slika 33). Natpisi poput ZNG bojani su kontrastnim bojama (žutom na sl.32) ili crvenom bojom na kutijama alata tenka (sl.34). Često su korišteni i natpisi CRO ARMY (bijelo na PT-76, sl.35) ili HV (sl.36 na kupoli BOV-3 ali bez vozila!). Haubu stojadina (sl.37) krase naljepnica hrvatskog grba i naljepnica 'ZNG RH' dok je haubica 203 mm od milja nazvana BEBICA (sl.38).

Vehicle markings ranged from huge croatian shields, such as that painted on a pick-up car (photo 31) to miniature stickers of Croatian flags, such as on a TAM-5000 ZK1 command car (photo 33), positioned on the mudgards and doors. Inscriptions like ZNG were painted in contrasting colors (in yellow on this BOV-3, photo 32) or in red on tool boxes of a tank (photo 34). CRO ARMY and HV inscriptions were frequent (on a PT-76 light tank painted in white, photo 35, or on a BOV-3 turret without the body, photo 36). The engine cover of this car is adorned with stickers of the Croatian shield with 'Virovitica' inscription and a 'ZNG RH', while the crew of this 203 mm howitzer lovingly called it - BEBICA (baby, photo 38).



36 Boris Gregurić collection

38 Foto arhiva Globus / Foto Darko Band

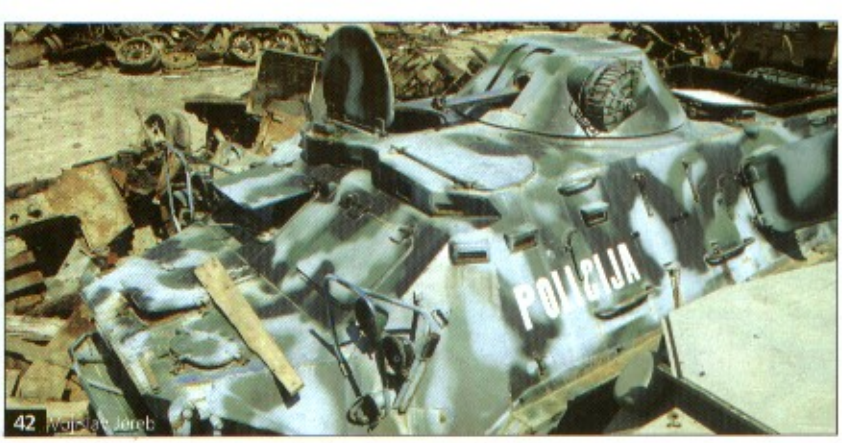
39 Gordan Laušić

40 Boris Gregurić

41 Stipe Živaljić

MUP-ova vozila su, prema potrebi, pored osnovne tamno plave boje, koristila i razne maskirne sheme. Vozila koje je MUP dobivao već maskirana ili u vojnim nijansama zelene boje poput Unimoga na sl.40, zadržavala su te boje i moguće ih je bilo prepoznati samo po plavim tablicama ili natpisima 'Policija'. Većina vozila na prvoj liniji ili na posebno opasnim područjima bojana su maskirnim nijansama. Kod 'kratkog' Land Rovera takva shema je uključivala i policijsko plavu boju (obratiti pažnju na jedva vidljiv polukružni natpis POLICIJA pobojan istom plavom nijansom na vratima vozila, sl.41). MUP je jedini u početku sukoba imao nekoliko oklopnih transportera sovjetskog porijekla tipa BTR-60 koji su nakon prvih okršaja umjesto policijske plave sa bijelim ukrasnim crtama dobili maskirne boje (sl.42). Stara 'kampanjola' (Fiat-Zastava AR-55) na sl.43, kakvih je MUP također imao u svom sastavu, maskirana je ali je oko natpisa POLICIJA još vidljiva originalna plava boja vozila.

Besides the basic dark blue color, vehicles of the MUP (Ministry of Interior Affairs) were also painted in different camouflage patterns. The vehicles which were acquired already camouflaged, or in some kind of military green (like the Unimog on photo 39), retained these colors and could be identified only by the blue registration plates or Police inscriptions. Other vehicles in use on the front, particularly in dangerous areas, were camouflaged. The short wheel base Land Rover (photo 40) was also camouflaged with Police blue (of further note is a blue inscription POLICIJA on the door). At the beginning of the conflict the MUP were the only force to have several Soviet built BTR-60 APCs which, after the first clashes against terrorists, were painted in camouflage patterns (photo 42) instead of the usual livery of Police blue with white trim. The old Campagnolas (Zastava built Fiat AR-55) in photo 41 were also in the MUP inventory and the original blue color can be seen under the new camo pattern around the white POLICIJA inscription.



42 Vojislav Jereb

Boris Gregurić 43

44 Vojislav Jereb

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46 Boris Gregurić

47 Boris Gregurić

48 Boris Gregurić

Civilni automobili u vojnoj službi kompletirani improviziranim maskiranim shemama i oznakama. Najcjenjenija vozila su bila svakako sa pogonom na sva četiri kotača, poput Lade Nive (sl.44) no takvih je bilo malo pa su se koristila najrazličitija vozila, od najčešćih 'Juga' i 'Stojadina' (slike 45 i 47) preko vječnih Golfova (sl. 46) do limuzina poput Citroenove ambulante (sl. 49) i raritetnih primjeraka poput NSU Prinz-1000 (sl. 48).

Civilian cars in military use completely painted with improvised patterns and markings. The most valued cars were of the 4x4 type like the Soviet Lada Niva 1600 (photo 44). However, since 4x4 cars were rare all other cars were put to good use too. Most numerous were the 'Zastava Yugo' and 'Zastava 101' types (photos 45 and 47) while quality cars like the Volkswagen Golf (photo 46) or the Citroen ambulance (photo 49) were rarely seen. There were some rare examples too, like this NSU Prinz-1000 (photo 48)

49 Marijan Požar

50 Vojislav Jereb

Prva oklopna vozila MUP-a i ZNG-a bili su improvizirani oklopnjaci, sklepani da bi na bilo koji način pružili kakvu-takvu zaštitu prilikom transporta. Oni oklopnjaci koji nisu rađeni pod kapom MUP-a bili su odmah po izradi maskirani i korišteni na bojištu. Na slici je prikazan jedan oklopni automobil na osnovi Volkswagenove 'bube' koji je korišten u Vukovaru ali je uspio izbjeći prije pada grada.

The first armor of the MUP and ZNG forces were the improvised APCs, hastly made out of whatever was on hand to provide at least some kind of armored protection to the ZNG units. Those homemade vehicles, which were not built for the MUP, were immediately painted in camouflage colors and sent to the front. In the photo we can see an armored car based on the VW 'bug' chassis which was used in Vukovar but managed to escape the encirclement before the town fell to the enemy.

Furgon na bazi kamiona TAM-80 u improviziranoj maskirnoj shemi od tamnih boja (tamno smeđa, tamno zelena i vjerojatno crna) i jedino sa žućkastim krugovima na sebi. Slikan početkom 1992, osim civilne tablice i velikog crvenog natpisa HOS na bijeloj podlozi na prednjem dijelu, vozilo nema drugih oznaka pripadnosti (romba ili sl.) te stoga ne pripada HV-u.

A van based on a TAM-80 truck painted in an improvised pattern. Only dark colors are used as base coat (dark brown, dark green and probably black) with some yellowish circles over it. Apart from civilian licence plates and a large red HOS inscription on the hood, the vehicle has no other military marking and has definitly not been incorporated into the HV.

51 Boris Gregurić

Ovaj narančasti Ford Transit kombibus slikan koncem 1991 pripada 109 brigadi, sudeći po natpisu na improviziranoj registarskoj pločici. Vozilo je premazano rijetkim crtama i šarama sivo zelene i oker boje, a natpis ZNG na nosu i MARINA iznad prednjeg kotača su isto oker boje. Slova i brojke na tablici su crveni a grbovi su na naljepnicama.

Judging from the improvised licence plate this orange Ford Transit minibus belongs to the 109th Brigade. The photo was taken in late 1991 and the vehicle is sprayed with dark green and ochre yellow lines and inscriptions (ZNG on the nose and the name MARINA on the front mudgard). The letters and numbers on the licence plate are red.

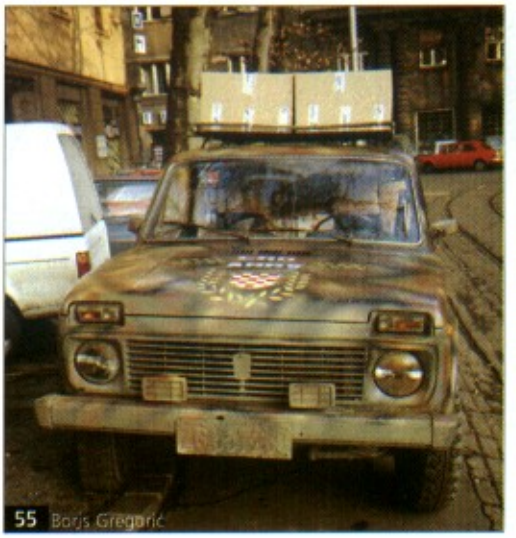
52 Boris Gregurić

53 Boris Gregurić

Ova civilna Citroenova Diana plave boje prešarana je crnim natpisima ZNG, RH, HV i slično te crvenim nazivom COBRE i još nekim crvenim znakovima. Vozilo ima na vjetrobranu popisnu oznaku u obliku romba. Slikana je u zagrebačkoj četvrti Travno u drugoj polovini 1992.

This civilian Citroen Diana in blue has been painted over with black ZNG, RH and HV inscriptions together with red COBRE and some unidentified signs. On the glass windshield the vehicle has the HV rhomb insignia. This photo was taken at Travno, a Zagreb subburb in the second half of 1992.

54 Boris Gregurić


55 Boris Gregurić

56 Boris Gregurić

57 Nedeljko Pinezić

58 Boris Gregurić

59 Vojislav Jerebić

Na ovoj strani je prikazano nekoliko civilnih vozila u prvim maskirnim shemama i sa nekim početnim označavanjem. Maskirne sheme su se u početku kretale od potpuno neprimjerenih (Renault-4 na sl.53) do gotovo savršenih (Lada Niva na sl.54). Tablice su u početku bile nepostojeće (na slici 55 vidimo Fiću-kombija sa 'tablicom', ustavri natpisom na mjestu tablice 'ZGr' - Zagrebačka Grupa). Iako su, prema svim konvencijama, ambulantna vozila zaštićena od napadanja u toku ratnog sukoba, hrvatski medicinari su na svojoj koži osjetili da se neprijateljska strana ne pridržava toga i krvavo platili iskustvo. Da se doskoči tim gubicima mnoga su vozila maskirana, posebno na prvoj liniji bojišta. Na slici 56 je prikazan jedan primjer 'ad hoc' maskiranja blatom, u nedostatku prigodnih boja. U ovom slučaju maskirna shema je nadopunjana i maskirnom mrežom iz JNA izvora. Stara Kampanjola vjerojatno iz JNA izvora na sl.57 dobila je kao oznaku pripadnosti samo natpise ZNG, dok je kamion Hanomag AL28 (na sl.58) pored jedinstvene maskirne sheme na vratima nosio priljepljene tablice sa oznakom brigade i vozila u brigadi.

Several vehicles, mostly of civilian origin, are seen on this page. They show the first paint patterns and 'registration plates' used during the war. The camouflage patterns range from totally inadequate jobs (like this Renault 4 in photo 53) to the almost perfect artworks (like the Lada Niva in photo 54). The registration plates were at the first painted on the body (as on this Fiat van inscribed 'ZGr' meaning Zagreb Group, photo 55). Although under the laws and conventions of war ambulances were protected from attacks, the Croatian ambulance crews learned quite the opposite and it was not rare to see camouflaged ambulances. In photo 56 note the 'ad hoc' pattern using mud instead of paint, as well as a captured JNA camouflage net. The old Campagnola in photo 57 was probably from ex JNA stocks and the only sign of belonging to the Croatian side is the rather large ZNG inscriptions. The Hanomag AL28 truck (photo 58), apart from a unique camouflage pattern, received 'registration plates' made from a piece of paper stuck on the side doors, the numbers indicate the Brigade and the vehicle No. within the brigade. In this case 11857 means the 118th Brigade, 57th vehicle in the Brigade. Note also the ZNG inscription on the front of the engine cover.

60 Emil Požar

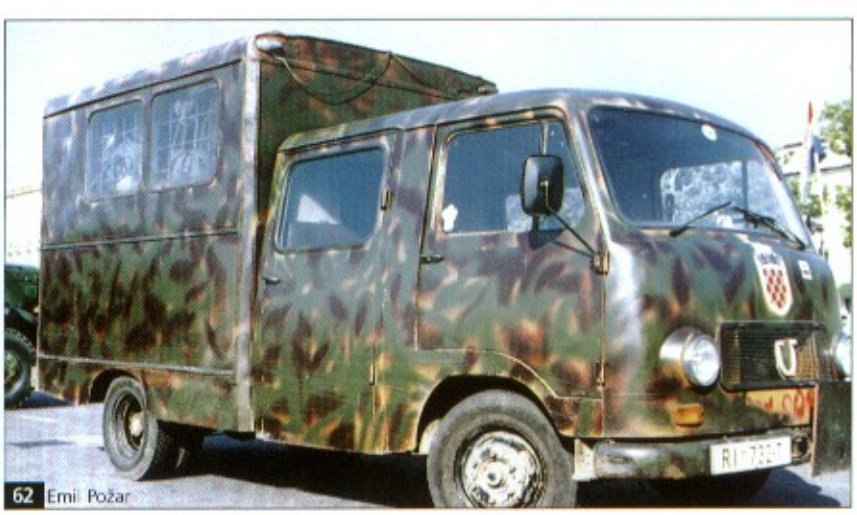
Ford Transit kombibus iz sastava 111. brigade. U početku sukoba korištenje običnih civilnih vozila bila je česta pojava, posebno za transport. Za maskiranje su korištene najvjerojatnije osnovna boja vozila (svijetlo sivo-zelena) na koju su nanašane zakrivljene crte tamnije sivo-zelene i tamno smeđe boje, sa ponekim potezom jako tamno smeđe, gotovo crne boje. Cijela shema djeluje veoma uvjerljivo. Obratiti pažnju na goveđe rogove na hladnjaku vozila.

A Ford Transit van of the 111th Brigade. The use of civilian vehicles was normal early in the conflict, especially to transport soldiers. In this case, to camouflage the vehicle they have started with the base color of the vehicle, over which irregular lines of dark grey-green and dark brown colors have been applied along with a few very dark, almost black line shades. The work looks very convincing. Of note are the horns on the front of the vehicle.

Civilni VW kombi 'Transporter' starijeg tipa (s motorom pozadi) u poluteretnoj izvedbi i maskirnoj shemi kućne radinosti. Boje su grubo nanašane kistom u obliku nepravilnih mrlja i velikih točka, a korištene su narančasto-smeđa, zelena i smeđe-crna, dok se od ispod nazire svijetla originalna nijansa vozila. Kasnije je, očito, vozilo uključeno u redovni sastav HV-a i dobilo je redovne vojne tablice.

An ex civilian old model semi-cargo VW Transporter with a rear engine that has been painted at a makeshift garage. The paint has been crudely applied in irregular patches and dots of orange-brown, green and black-brown colors. Under the paint the original color of the vehicle can be seen. Later the vehicle was incorporated into the HV regular units and received conventional Croatian Army plates.

61 Emil Požar



62 Emil Požar

TAM-80 sa duplom kabinom i velikim međuosovinskim razmakom, sa krutim teretnim nadgrađem, vjerojatno služi kao neka vrste radionice. Preko osnovne TAM-ove narančaste boje kojom su vrlo često bojani kamioni ovog tipa, nanešene su crte zelene i smeđe boje i s time da se vide dijelovi originalne narančaste boje. Ispod hladnjaka su ostaci nekog natpisa crvenim slovima.

A 'small' TAM-80 with long cab, long wheelbase and rigid box van, probably used as a kind of workshop. Over the original orange paint, very common on this type of TAM truck, patches and lines of green and brown paint have been applied. The original orange can also be seen. Under the front grill some inscriptions can be seen in red.

Kamion TAM-80 vjerojatno za prijevoz kruha sa vrlo zanimljivom improviziranom narančastom shemom. Za maskiranje su korištene razne boje, ali je osanovni dojam cijele sheme narančasti. Autori su se svojski trudili pobojati vozilo pa su maskirali čak i crni branik na nosu.

A TAM-80 truck used most probably for bread transport. The camouflage pattern is very curious as it uses many colors but the overall appearance is that of being orange. The authors of this paint job took it seriously as they camouflaged even the black front bumper.

63 Gordan Laušić

64 Vojislav Jereb

Džip tipa Fiat AR-55 (AR - Autovetura da Ricognizione - izviđačko vozilo, model 1955) kakvih je u velikom broju koristila JNA, nešto manje nekadašnja Milicija, a samim time i ZNG/HV. Vozilo na slici je maskirano kistom i to tako da je napravljena mreža od tamno smeđe, gotovo crne boje a onda su polja popunjavana ili smeđom ili zelenom bojom. Kroz grubo nanešenu boju nazire se originalna jako posvijetljena sivo-zelena boja.

The Fiat AR-55 (AR - Autovetura da Ricognizione - reconaissance vehicle, model 1955) was used in large numbers by the JNA, as well as by the former Milicija units. As a result it was also used by ZNG and HV units. The vehicle in the photo was painted with a net of large dark brown, almost black lines after which the areas were painted either green or brown. Through the roughly painted pattern the original very faded JNA grey-green appears.

Još jedna Fiatova 'Kampalnjola' u jedinstvenoj shemi. Cijelo vozilo koristi neku žućkasto sivu boju (moguće i jako izblijedjelu smb boju) sa crnim isprekidanim crtama kao osnovu, preko koje su vjerojatno preko šablona prskane mrlje u obliku nekakvog lišća zelene, oker-žute, pješčano-žute, smeđe i sive boje. Na vratima je prskanjem upisan crni natpis CRO ARMY. Sve u svemu izuzetno kompleksna ali efikasna shema.

Another Fiat Campagnola in a unique camouflage pattern. The entire vehicle was painted with a yellowish base coat with some black lines, over which patches similar to leaves were stenciled in green, ochre-yellow, sandy-yellow, brown and grey paint. On the door a black CRO ARMY has been sprayed. All in all en extremly complex but effective pattern.

Boris Gregurić 65

66 Boris Gregurić

Jednostavna ali zato ne manje efektna četverobojna shema. Iako nema velikih površina, žuta boja je osnovna koja se uočava, vjerojatno radi svoje kričavosti. Korištene su još i crno-zelena, smeđa i sive boje, a usprkos improviziranoj shemi (i prašini od vožnje) cijelo vozilo djeluje jako uredno.

A simple yet effective pattern on a Fiat AR-55 4x4 vehicle. Although rather small areas are painted in yellow the wholle pattern has a yellow overtone. Black-green, brown and light grey colors have been used as well. Despite being an improvisation and despite the dust the whole vehicle looks very neat.

Kampanjola slikana posljednih dana 1991 godine u Zagrebu. Improvizirana shema je tipično neodređena – nije moguće točno definirati niti boje niti oblik i veličinu šara. Na shemi prevladavaju zelena i smeđa boja, žuta polja su očito nekome djelovala pre demaskirajuća pa su ih izgleda prešpricali sa malo smeđe. Na tu neurednu shemu jako kontrastno djeluje čisto upisan natpis TENA kao i naljepnica grba RH/HV.

A Fiat Campagnola photographed in late 1991 in Zagreb. The improvised pattern is tipically indescribable – it is not possible to define colors and shapes used in the pattern. Colors that can be recognized are dark green and dark brown with yellow areas. These obviously seemed too bright to someone as a coat of brown has been sprayed over them. On this disorderly pattern the neat inscription TENA and Croatian shield sticker have been added, providing a clear contrast.

67 Boris Gregurić

68 Boris Gregurić

Vozilo koje se rijeđe sretalo u ZNG/HV-u – 'kampanjola' sa platnenim krovom. Iako je mnogo Fiatovih džipova zapljenjeno od JNA, takvih sa platnenim krovom bilo je malo. Maskirna shema je u osnovi vrlo jednostavna – poprečne valovite linije deblje smeđe, deblje zelene i tanje žute boje. Bojano je čak i pokrivno platno vozila preko kojeg je nacrtani žuti zmaj i natpis DRAGON (sa značenjem zmaja).

A rare vehicle, a Fiat AR-55 Campagnola with soft top. Many AR-55s vere captured in the JNA barracks, but only few were equipped with soft tops. The camouflage pattern is very simple – just runny lines of dark brown and dark green with thinner runny lines of yellow color. Even the tarpaulin was painted in the same way and on it a dragon with the DRAGON inscription was painted in yellow.

Još jedna zanimljiva 'kampanjola' sa tvrdim krovom i vojnim 'proba' tablicama. Maskirna shema je vrlo jednostavna – preko originalne smb boje polu-šablonama (maskiranjem samo jednog dijela koji se prska) su prskane samo sitne smeđe i oker mrlje pa se dobiva dojam lišća na podu. Džipovi ovog tipa korišteni su uglavnom sa radio opremom kao i za ABK izviđanje.

Another interesting hard top Fiat Campagnola with military 'probe' licence plates. The camouflage pattern is very simple – over the original Yugoslav weathered grey-green base coat samll patches of brown and ochre yellow were sprayed. The final result looks like leaves on the ground. Vehicles with hard top were mostly used for radio comunications or NBC reconaissance.

69 Boris Gregurić

70 Gordan Laušić

Land Rover sa platnenim krovom u sastavu riječke 111. brigade (na sl.70) u tipičnoj shemi iz početka sukoba. Još jedan Land Rover sa platnenim krovom iz nepoznate jedinice (sl.71). Sanitetski Land Rover u sastavu 138. pukovnije (sl. 72). Svi su vjerojatno kupljeni iz vojnih viškova ali je moguće i da su civilnog porijekla. Sanitatski Land Rover je 1991 korišten u 111. brigadi u originalnoj tamno zelenoj shemi, a naknadno je, 1992 ili 1993. prebojan u improviziranu maskirnu shemu u kakvoj je korišten do Oluje.

A soft top Land Rover of the 111th Brigade from Rijeka (photo 70). Another soft top Land Rover from an unknown unit (photo 71). An ambulance Land Rover in use by the 138th Home Defense Regiment (photo 72). All were probably acquired from Western surplus stocks but it is possible that some were of ex civilian origin. The ambulance vehicle was used in 1991 by the 111th Brigade wearing its original dark green pattern. In 1992 or 1993 it was painted in this original camouflage pattern. So painted the vehicle was used until the final operations.

71 Vojislav Jereb

72

73 Boris Gregurić

74 Boris Gregurić

75 Boris Gregurić

Pinzgaueri (sl. 73 i 74), nova 'kampanjola' (sl. 75) i Styer-Puch džipovi (sl. 76) su redovno korišteni u bivšoj JNA, dio kojih je zarobila i Hrvatska vojska. Po zarobljavanju najveći dio vozila je maskiran. Ovi na slikama imaju svaki svoju individualnu shemu. Pinzgauer na sl. 74 i nova 'kampanjola' na sl. 75 imaju vrlo sličnu maskirnu shemu (gotovo istu onoj na sl. 69 na str. 23) dok preostala dva vozila imaju tipičnu individualnu improviziranu shemu.

Styer Pinzgauer-710s (photo 73 and 74), new Campagnolas (Fiat-1107) and Styer-Puch light utility cars were used regularly by the former Yugoslav Army, some of which were captured by the Croatian Army. After capture most of the vehicles were camouflaged. The vehicles shown each have their own pattern. The pattern of the Pinzgauer (photo 74) and Nuova Campagnola (photo 75) are very similar to that on photo 69 on page 23. The other vehicles on this page have their own improvised pattern.

76 Vojislav Jereb

70 Gordan Laušić

Land Rover sa platnenim krovom u sastavu riječke 111. brigade (na sl.70) u tipičnoj shemi iz početka sukoba. Još jedan Land Rover sa platnenim krovom iz nepoznate jedinice (sl.71). Sanitetski Land Rover u sastavu 138. pukovnije (sl. 72). Svi su vjerojatno kupljeni iz vojnih viškova ali je moguće i da su civilnog porijekla. Sanitatski Land Rover je 1991 korišten u 111. brigadi u originalnoj tamno zelenoj shemi, a naknadno je, 1992 ili 1993 prebojan u improviziranu maskirnu shemu u kakvoj je korišten do Oluje.

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71 Vojislav Jereb

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73 Boris Gregurić

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76 Vojislav Jereb

Kamioni obojani nekim vrstama zmijolikih shema. Na sl. 77 je istočnonjemački Robur LO2002 u ambulantnoj verziji sa žutim i crnim linijama preko tamno zelene osnovne boje sa smeđim poljima. Na sl. 78 vidimo tipičnog vojnog TAM-5000 4x4 u zanimljivoj shemi sa svijetlo zelenim linijama preko osnovne zagasito smeđe boje. Slike 79 i 80 prikazuju holandske DAF-ove YA-126 kakve je Hrvatska nabavila na početku sukoba od kojih vozilo na sl. 79 ima oznake crvenog križa dok je identično vozilo na sl. 80 vjerojatno korišteno u neke druge svrhe.

77 Boris Gregurić

78 Boris Gregurić

Several trucks pictured with some kind of snake camouflage patterns. On photo 77 a Robur LO2002 ambulance truck can be seen painted with yellow and black snake lines over a basicly green and brown coat. On photo 78 a typical Yugoslav truck, a TAM-5000 4x4 painted with strange colors – light green lines over a grey-brown base. Photos 79 and 80 shows Dutch DAF YA-126 trucks several of which Croatia managed to purchase at the beginning of the conflict. The truck in photo 79 has red cross insignia while an identical type on photo 80 was obviously used for other purposes.

79 Boris Gregurić

80 Boris Gregurić

Nekoliko kamiona u maskirnim shemama ili oznakama iz početka sukoba. Na sl.81 je TAM-5000 4x2 vjerojatno civilnog porijekla sa tipično neodređenom maskirnom shemom i oznakama koje prikazuju vozilo u sastavu 111. brigade, dok značenje tablice na 'kileru' (ZNG5101) nije poznato. Robur LO2002 na sl. 82 ima oznake crvenog križa i na vratima, a prednja 'maska' (kiler) je posuđena od nekog kamiona sa natpisom 'Famos'. Još jedan TAM 4x2 nepoznatog porijekla (sl. 83), ali je plastična narančasta cerada na njemu sigurno civilnog porijekla. Obratiti pažnju na registracijsku tablicu. Vojni TAM-5000 4x4 (sl. 84) sa primitivnom maskirnom shemom (samo plave crte preko originalne smb boje) ali sa neodoljivim nazivom na ceradi – VOD LJUBAVI. Obratiti pažnju na oznake na vratima džipa u pozadini.

81 Vojislav Jereb

82 Goran Lauš

83 Boris Gregurić

Several trucks with camouflage patterns or markings from the beginning of the conflict. Photo 81 depicts a TAM-5000 4x2 most probably of civilian origin with typical unspecified pattern and markings showing it in use by the 111th Brigade. The meaning of the green licence plate is not know. A Robur LO2002 in photo 82 with red cross markings on the door and a front grill taken from another (Yugoslav Famos) truck. Another TAM 4x2 in photo 83 of unknown origin, but the originaly orange tarpaulin is surely of civilian origin. A military TAM-5000 4x4 (photo 84) with a primitive pattern of only blue lines over the original grey-green base coat but with a very attractive inscription on the tarpaulin – the platoon of love.

84 Boris Gregurić

85 Goran Popić collection

Nekoliko primjera individualnih i jedinstvenih maskirnih shema. BOV-3 maskiran samo sa sitnim točkicama raznih boja (sl.85) na Ličkom bojištu i bijelim 'stecil' oznakama ZNG CRO. BOV-3 išaran neodređenim poljima i crtama raznih nijansi (sl.86) sa žutim natpisima ZNG i koji na zadnjem dijelu ima ucrtane siluete avione koje je oborila ta jedinica (detalj toga vidi na str.16 sl.32) sa slavonskog ratišta, te kamion TAM110T7 koji vuče top Bofors 40 mm (sl.87), također prošaran tamnim 'žvrljotinama' sa crvenim natpisom ZNG i oznakom 51-02 na vratima.

Several examples of unique camouflage patterns. Photo 85 is a BOV-3 painted with small spots of different colors and white ZNG CRO stencils on the Lika front. In photo 86 we have another BOV-3 from the Slavonian front, painted with unspecified areas and lines of different hue with yellow ZNG stencils and kill markings on the back of the vehicle (see details on page 16, photo 32), while photo 87 shows a TM110 T7 2 ton truck towing a Bofors 40 mm gun painted with indefinite lines and with a red ZNG inscription and the numbers 51-02 in white on the side door.

86 Nenad Šetina

87 Vladimir Superina

88 Nenad Šetina

Primjeri početnih shema bojanja na oklopnim gusjeničkim vozilima. Oklopni transporter M-60P jugoslavenskog porijekla (sl.88) je odmah po zarobljavanju pobojan tako da sa njega nije niti skidana oprema. Kada je kasnije skinuta pila ispod nje je vidljiva original JNA 'smb' boja. Neki transporteri su umjesto maskiranja po zarobljavanju dobivali samo grubo ispisane velike brojke brigade kojoj pripadaju (sl.89). Laki amfibijski tenkovi sovjetskog porijekla PT-76 (sl.90) kao i mnogobrojni 'BeVePejci' (BVP - borbena vozila pješadije, sl.91) su također u početku maskirani improviziranim i jedinstvenim shemama - svako vozilo je predstavljalo neponovljivu shemu za sebe.

Some examples of early paint patterns. The M-60P APC of Yugoslav origin (photo 88) was hastily painted with the equipment still tied on, so when some equipment was eventually removed the original JNA 'smb' (olive green) paint was visible. Some captured vehicles were not painted in camouflage patterns, but instead were painted with large brigade insignias (photo 89). Soviet built light amphibious tanks PT-76 (photo 90) as well as numerous 'BVP' IFVs (BVP - infantry combat vehicles, photo 91) were painted in unique and improvised patterns - every vehicle had its own unduplicated pattern.

89 Vojislav Jereb

90

91 Marin Karabaić collection

92 Boris Gregurić

Najveći broj tenkova bivše armije bio je sovjetskog tipa T-55 te je padom vojarni JNA ZNG/HV došla u posjed tih tenkova. Mnogi od tih tenkova su bacani u borbu bez ikakvog prebojavanja radi hitnosti situacije, a na frontu su dodavani natpisi i bojane sheme ako je bilo moguće. Na sl. 92 vidimo takav tenk na kojem su samo na prednjem dijelu dodavani natpisi i neki crteži dok je tenk u osnovi ostao u originalnoj boji. 'Martina 1' na slici 93 je dobila i novu maskirnu shemu ali sa jasno istaknutim natpisima imena i broja. Nije poznato što broj '155' znači jer je tenk propadao 108. brigadi od kada je zapljenjen.

Most tanks in the Yugoslav army were of the Soviet T-55 type. Capturing significant amounts of equipment during the battle of the barracks the ZNG/HV also captured large quantities of these vehicles. Many of them initially went into battle without being repainted. Later on the front they received some attention. Photo 92 shows such a vehicle which had some inscriptions added later, but basicaly remained unchanged from when it was captured. The tank named 'Martina 1' (photo 93) received a new camouflage pattern but with highly visible inscriptions. The meaning of the number 155 is not known as the vehicle was used by the 108th brigade from the day it was captured forward.

Nenad Šetina 93

94 Boris Gregurić

Izvrsna studija primitivno maskiranog tenka T-55 kod Starog Grabovca (sl. 94). Cijeli tenk je 'nažvrljan' samo sa tankim tamnim linijama te mu je dodano ime (Čedožder), hrvatski grb (naljepnica) i kasnije naljepnica 1. gardijske brigade. Tenk M-84 na sl. 95 je, pored nove maskirne sheme, dobio i oznake hrvatskog grba pobojanog samo crvenom bojom na maskirnoj podlozi. Sama maskirna shema vozila je jednostavno neopisiva – cijelo vozilo je preprskano crveno-smeđom, tamno smeđom i pješčano žutom a na vidjelo izlazi i originalna JNA boja. Kada je slikano, vozilo je pripadalo 108. brigadi.

A perfect study of a primitive camouflage pattern on this T-55 tank (photo 94). The whole vehicle was painted with thin dark lines, a name was added (Čedožder – Četnik eater), Croatian shield decals were stuck and later a 1st Guards Brigade insignia added. Besides the new camo paint this captured M-84 MBT (photo 95) was only painted with red national shield insignia. The camo pattern is almost indescribable – on top of the still visible JNA grey-green the vehicle has been sprayed with red-brown, dark brown and sandy yellow. When photographed, this tank belonged to the 108th Brigade.

95 Boris Gregurić

96 Emil Požar

Sl.96 - Ovog Styer-710 Pinzgauera, popularno zvanog 'Pinc', pobojao je netko tko je sigurno čitao literaturu o njemačkim tenkovima iz II svijetskog rata, posebno o tzv. 'ambush' shemama (shemama za zasjede). Autor sheme je najprije pobojao Pinca sa pravilnim mrljama žute, smeđe, zelene i crne boje, a onda na njih nanašao točkice suprotnih boja koje su kontrastne (crne točke na žuta i smeđa polja, smeđe točke na crna i zelena polja itd.). Za primjetiti da su se bijela polja crvenog križa autoru činila očito preuočljiva pa ih je malo 'zaprljao' tamnim crvićima.

Photo 96 - This Styer-710 Pinzgauer, commonly known as 'Pintz' was painted by a WWI German 'ambush' pattern admirer. The artist painted the entire vehicle in regular areas of yellow, brown, green and black paint and then applied dots of contrasting colors in each area (black spots on yellow and brown, brown spots on black and green etc.). Of note are the white areas around the red cross – too visible, the artist sprayed over them with black 'snakes'.

SL.97 - Prikaz savršenog maskiranja - TAM110 sa radio-uređajima, zvan 'kockica' radi svog kockastog izgleda, u smeđoj 'delničkoj' kamuflažnoj shemi uz tipičnu ličku kuću. Iako je zimsko doba i bjelina snijega djeluje kontrastno u odnosu na vozilo, već sa stotinjak metara nemoguće je uočiti razliku između kuće i vozila. Uobičajena zelena boja za maskiranje uopće ne nedostaje ovoj shemi!

Photo 97 - A photo showing perfect camouflage - a TAM110 with radio equipment, commonly called 'kockica' (little cube) for its shape, painted in a brown 'Delnice' type pattern beside a typical house in the Lika region. Although it's winter and the white of the snow makes for strong contrast, observed at more than 100 meters one cannot recognize the difference between the house and the vehicle. Green shades are definitely not needed in this pattern!

97 Vojislav Jereb

POČETNO MASKIRANJE

Korištenje civilnih vozila u civilnim bojama pokazalo se izrazito neefikasno. Radi toga se vrlo brzo započinje sa maskiranjem vozila – najprije onih koji su bliže zonama pobune, kasnije sve češće vozila koje koristi Policija i vojska (ZNG). Početna maskiranja su, kao i sve u nametnutom ratu, čista improvizacija. Koristi se sve do čega se može doći da bi se prikrila boja i oblik vozila, te otklonila mogućnost brzog uočavanja i prepoznavanja – prvenstveno granje i ostala vegetacija koja je pri ruci, boje bilo kojih nijansi, čak i crvene i narančaste, blato, flomasteri, čak i ljepljive trake za pakiranje. Vremena i prilike za kvalitetno maskiranje nema.

Zapljenom velikog broja vozila u vojarnama i pri povlačenju JNA iz Slovenije, naoružanje i vozila do kojih je ZNG/HV došla u posjed postaje identično naoružanju i vozilima koje posjeduje neprijateljska strana. Nadalje, krvavo iskustvo do tada vođenog sukoba pokazalo je da neprijateljska strana ima moćno ratno zrakoplovstvo koje koristi kako za izviđanje tako i za oružano djelovanje po našim ciljevima. Postojala je radi toga hitna potreba da se naša vozila učine različitim od istih takvih neprijateljskih s jedne, odnosno da se maskiraju i radi napada iz zraka s druge strane.

Kako je to učinjeno moguće je vidjeti na slijedećim stranama. Potrebno je obratiti pažnju na raznolikost boja i maskirnih šara, na maštovitost korištenja boja i nijansi (što je često bilo uvjetovano onime što je bilo na raspolaganju). Posebno treba obratiti pažnju na natpise, crteže i ostale individualne oznake kojima su se posade pojedinih vozila, neovisno da li se radilo o moćnom oruđu kao što je tenk ili o 'običnoj stodesetki' (kamionu TAM110), željele izdvojiti iz mase istih vozila.

INITIAL CAMOUFLAGING

The use of civilian vehicles in their original paint proved to be very ineffective. So very early attempts were made to provide them with some kind of camouflage – the first attempts appeared in the areas surrounding the areas of Serbian mutiny, then Police and ZNG vehicles were more and more frequently seen with camouflage patterns. The initial camouflage patterns, as is common in all wars of this type, were totally improvised. Everything that could be used to mask the color and shape of the original vehicle, and reduce the possibility of quick detection and recognition was used. Tree branches and other vegetation were first on the list followed by paint of many colors (even red and orange), mud, magic markers, even masking tape were used. There was not much time or opportunity to apply a quality camouflage job.

When the Croats captured large numbers of vehicles from the JNA barracks and retreating forces, the ZNG/HV acquired vehicles and equipment that were of the same type as the enemy. Also, the Croatians learned through bloody experience of war and many losses that the enemy had strong aviation assets that it could use to locate and attack Croatian forces. These were strong incentives to apply different camouflage patterns to Croatian vehicles to make them different form the identical enemy vehicles and to camouflage them and hide them from the eyes in the sky.

The story of how this was done is told through pictures on these pages. Pay particulary attention has been on inscriptions, drawings and other individual markings that were used by the crews of many vehicles, from mighty M-84 tanks to the common '110' trucks (TAM110 type) to distinguish their vehicles from similar vehicles of other crews.

manja na zadnjoj strani motocikla te amblem vojne policije s obje strane spremnika za gorivo.

Članak 27.

Vojna vozila, osim vozila vojne policije, autobusa i vozila za prijevoz čašnika Hrvatske vojske, boje se maskirnom bojom koja se sastoji od kombinacije crvene, zelene i smeđe boje propisanih standarda.

VI. PRIJELAZNE I ZAVRŠNE ODREDBE

Članak 28.

Čak se i zakon pozabavio maskiranjem vozila novoustrojene Hrvatske vojske. Prvi službeni dokumenat u vezi toga objavljen je u Narodnim Novinama (službeni list Republike Hrvatske) u broju 60 od 15. studenog 1991 gdje se u članku 27 izričito navodi kako se vojna vozila imaju bojati. Zanimljivost u tom članku je da se među nijansama kojima treba bojati vojna vozila spominje i crvena što je potpuno nelogično i vjerojatno se radi o grešci umjesto crne boje.

The first official document dealing with vehicle camouflage standards was issued on 15th November 1991 in which it was listed exactly which vehicles were to be painted in what way. Interestingly enough, amongst the colors mentioned to be used for camouflage was the color red, probably a typo that meant to say black (in Croatian the words for red and black are very close: red – crvena, black – crna)

98 Emil Požar

UAZ-469B iz sastava 111. brigade slikan srpnja 1992 u Rijeci. Maskirna shema se sastoji od širokih crta blijedo žute, zelene i tamno smeđe boje, sa rijetkim mali površinama svijetlije smeđe-zelene, moguće originalne, boje. Na sve to je na vratima crvenom bojom nasprejano tanko HV. Moguće je da je vozilo zarobljeno od JNA.

An UAZ-469B belonging to the 111th Brigade photographed in Rijeka in July 1992. The camo pattern consists of larger areas of pale yellow, green and dark brown with smaller patches of light brown, possibly the original car color. On the doors there is a thin HV inscription in red. It is possible that the vehicle was captured from the JNA.

Još jedno civilno vozilo sa pogonom na sva četiri kotača, maskirano i odbačeno nakon nekog većeg kvara. Slikano na otpadu u Osijeku, ima zanimljivu shemu jer je potpuno prekrivena originalna civilna boja (svijetlo siva ili bijela) sa žutom kao osnovnom maskirnom bojom te preko nje crtama smeđe, sivo-zelene i crne ili crnozelene boje. U takvim su situacijama prebojavana kompletna vozila, tako da je i prednji odbojnik, originalno crne boje, također prebojan.

Another civilian 4x4 car hastily camouflaged and discarded after the first major mechanical failure. The photo was taken at the Osijek junkyard and it has an interesting scheme as all the original white or light gray paint was painted over with a base of yellow on which lines of brown, grey-green and black or black-green were sprayed. Interestingly in such situations the entire vehicle was painted over, including the front bumper that is usually made of black plastic material.

99 Stipe Zvalić

100 Vojislav Jereb

'Tamić'-topovnjača sa duplom kabinom i potpunom kamuflažom. Iako je vozilo originalno bilo narančaste boje, cijelo je prebojano sivo-zelenom, svijetlo smeđom i tamno smeđom bojom, a kromirani dijelovi crnom. Prebojana je čak i tablica. Na stražnjem, teretnom dijelu smješten je teški mitraljez DŠK od 12,7 mm koji je prekriven maskirnim mrežama pa je potpuno neuočljiv.

A 'Small TAM' gun truck with long cab, completely camouflaged. The original orange paint of the vehicle was totally brush-painted with grey-green, light brown and dark brown while the chromed parts were covered with matt black paint. Even the registration plate was painted over. In the cargo box a DŠK 12,7 mm heavy machine gun is camouflaged with nets.

101 Jadranko Ećimović

Jedna od primitivnijih, ali ne zato manje efikasnih početnih shema u ZNG korištena je kod maskiranja kamiona. Nanašanje crta u obliku grana stabala tamnom, najčešće crnom bojom. Vrlo efikasno razbija konturu vozila kao i jednoličnost sivo-zelene osnovne boje. U rijetkim prilikama, kao u slučaju na slici, vozilo je tu početnu shemu zadržalo do 1998 kada je i slikano, vjerojatno jer nije duže vremena korišteno radi nekakvog kvara.

One very primitive, but nonetheless effective early ZNG camo pattern was used for camouflaging trucks. This consisted of painting lines in the shape of tree branches, most often with black paint. It disrupted the vehicles shape as well as the monotonous original grey-green paintwork. In very rare instances such camo patterns were retained well after the end of the conflict (this one was photographed in 1998). Possibly this vehicle was abandoned due to a major mechanical failure.

Furgon minibus TAM-80 sa zanimljivom peterobojnom maskirnom shemom. Osnovnu shemu čine približno jednaka polja zelene, blijedo žute, smeđe i bež boje a preko svega su povučene crne. Iako je logično da su vozila koristila i hrvatsku zastavu za označavanje, to je bio rijedak slučaj. Da li radi demaskirajućih boja, straha od pogrešne interpretacije ili nečeg trećeg, činjenica da vozila sa zastavom RH susrećemo vrlo rijetko. Vozilo na slici je korišteno u pozadini pa je to možda razlog lijepljena zastave na njega.

A TAM-80 mini-bus with an interesting five-color camouflage pattern. The basic coat is of equal areas of green, dark brown, beige and sand yellow over which black lines were sprayed. Although it seems logical to use the Croatian national flag for identification, the thruth is that it was seldom used. Maybe because of its high visibility color combination or fear of misinterpretation (Yugoslavia had a similar flag with same colors but different combination). The vehicle in the photo was used for second line duties and possibly that is the reason for using the flag.

102 Boris Gregurić

103 Nenad Šetina

Određeni broj Land Rovera tipa 'Defender' kupljen je legalno u Velikoj Britaniji i dopremljen brodom. Ti kvalitetni džipovi su originalno bili pobojani u bijelo. Po dolasku u Hrvatsku odmah su maskirani prema već donešenim propisima, sa zelenom, tamno zelenom, smeđom i crnom bojom. Pošto je to prebojavanje išlo brzo i preko kvalitetnog originalnog laka, uslijed korištenja vozila, novonanešena boja se polako ljuštila i mnoga vozila su uskoro imala izgled poput ovog na slici - u maskirnu shemu se umješala bijela boja kao peta maskirna nijansa.

Numerous Land Rover Defenders were purchased legally in Great Britain and shipped to Croatia. These quality trucks were delivered from the factory painted white. After arrival they were hastily camouflaged in a standard pattern of green, dark green, brown and black paint. Due to weathering and the high quality of the original paint, the new paint began to peel off and soon many of the vehicles looked like the one in the photo, with larger and larger patches of white.

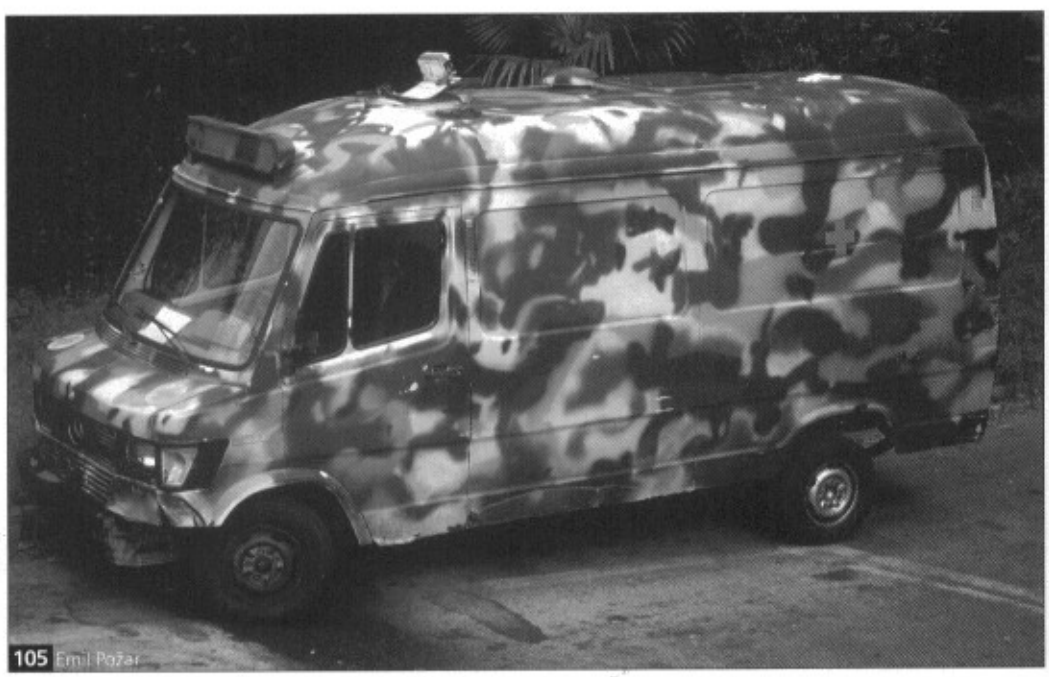
104 Boris Gregurić

Logično je bilo za očekivati da će popularna i veoma raširena 'četvorka' također biti korištena u ratu. Ovdje vidimo jedan primjerak toga veoma praktičnog vozila u sastavu 110. brigade. Iako su, po običaju na početnim improviziranim maskirnim shemama, korištene mnoge boje (vjerojatno dobivene miješanjem) na ovom vozilu preovladava žuto smeđa nijansa. Pored velikih grbova (starog tipa) na vratima i haubi, vozilo ima i neki natpis (ime) na haubi.

As the Renault-4 car was available all over the country (it was built under licence in Slovenia before the war) it was not surprising to find camouflaged examples in Croatia. This one was used by the 110th Brigade and has a mostly yellowish camouflage pattern. Of note are the large Croatian shields (of the older type) as well as an inscription (name) on the engine hood.

Jedan od faktora relativno povoljnog omjera ranjenih i poginulih sukoba bila je blizina kvalitetnih bolničkih centara te oslanjanje na bolnički vozni park. Česti posjetitelji ličkog ratišta bila su ambulantna vozila riječkog KBC-a, jednu od kojih vidimo na slici u Rijeci. Vozilo je, moglo bi se reći, doslovce 'zamrljano' bojama, ali krajnji učinak je sasvim dobar.

One of the major factors contributing to a low wound to death ratio was the close vicinity to the front of quality hospitals as well as transport aboard civilian ambulances. Vehicles of the Rijeka General Hospital regularly visited the Lika front and one of their ambulances is shown in this photo. The whole vehicle is almost entirely dirtied with paint, but the final effect is quite impressive.


105 Emil Požar

106 Boris Gregurić

Zanimljiva maskirna shema na ambulantnom Citroenovom kombiju slikanom u Zagrebu. Osnovna boja je metalno siva a na nju su špricane preko polu-šablona valovite linije crne, smeđe i oker boje. Vozilo ima na gornjem dijelu zadnjih vrata crveni križ koji je jedva uočljiv.

An interesting camouflage pattern of a vehicle which cannot be recognized as an ambulance. The basic color is a kind of metallic grey on which wavy lines of ochre yellow, brown and black was sprayed partly using stencils. On the upper side of the back door a red cross is barely visible. The vehicle was photographed in Zagreb.

107 Boris Gregurić

Još jedna maskirana 'četvorka' snimljena u Dubrovniku (sl. 107). Maskirna shema se originalno sastojala od zelene, sive, smeđe i crtama crne boje, ali se maskirna boja počela guliti pa se mjestimično vidi originalna crvena boja vozila. Pinzgauer na slici 108 ima pored improvizirane maskirne sheme i prekrasno upisan sjenčani natpis HV na vratima (kao i crnu oznaku Z-5040 nepoznatog značenja). 'Stodesetka' na slici 109 ima zanimljivu 'crtovnu' shemu jer su preko jednobojne smeđe-žute boje vozila samo povučene ravne tamne crte.

108 Boris Gregurić

109 Boris Gregurić

Another camouflaged Renault-4TL in use at Dubrovnik (photo 107). The pattern was originally a mix of green, grey and brown with black lines, but due to weathering and use the original red paint begun to show through and there is a new color in the pattern. The Pinzgauer utility vehicle (photo 108) has, besides an improvised camouflage pattern, a beautifully painted shadowed inscription HV as well as a Z-5040 markings of unknown meaning. The TAM110 in photo 109 has an interesting 'lines' pattern. The whole vehicle has been painted in yellowish brown with straight dark lines over the base coat.

110 Vojislav Jereb

Neka vozila korištena na aerodromima su također maskirno bojana - opasnost od bombardiranja iz zraka kao i osjetljivost takvih vozila, posebno cisterni za visokozapaljivo avio-gorivo, prisiljavali su pripadnike HV na efikasno maskirno bojanje takvih vozila. Na slici 110 prikazana je zarobljena standardna JNA cisterna na šasiji FAP-13 kako opslužuje avione tipa Utva-75 na aerodromu Pleso u bazično žutoj maskirnoj shemi sa zelenim i smeđim mrljicama, dok je na slici 112 ista takva cisterna u tamno smeđoj shemi na aerodromu Zadar. U sredini (sl.111) je vozilo slične namjene ali na podvozju sovjetskog ZIL-157K. Shema tog vozila je u osnovi trobojna (blijedo-žuta, zelena i smeđa) sa nepravilnim crtama tamne (crne?) boje preko svega.

111 Gordan Laušić

112 Boris Gregurić

Airport vehicles were also usually camouflaged – the menace from aerial bombing as well as the vulnerable nature of these vehicles, especially tankers with highly flammable aircraft fuel, forced the members of the HV to effectively camouflage such vehicles. Photo 110 shows a captured standard JNA aircraft tanker on FAP-13 chassis refueling UTVA-75 light planes on the Pleso airport in a basic yellow camo pattern over which small green and brown patches were applied, while photo 111 shows a similar tanker in a generally brown pattern at the Zadar airport. The center picture (photo 112) shows a vehicle of similar design based on a Soviet ZIL-157K chassis in a simple three color pattern (pale yellow, dark green and brown) over which irregular lines of dark (black?) paint was sprayed.

113 Emil Požar

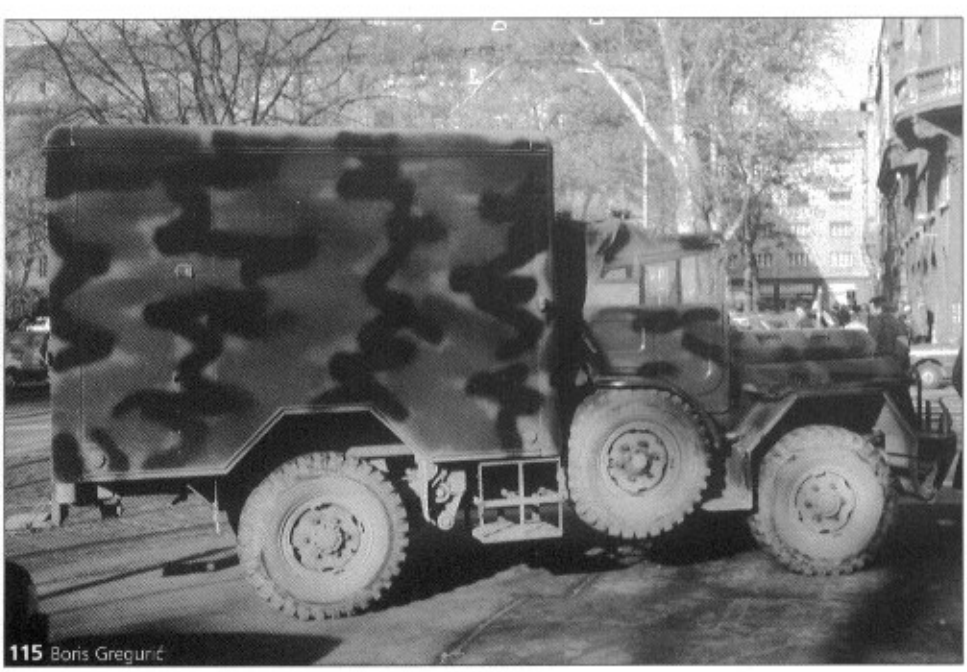
Fiat AR-55, popularno zvana Campagnola (kampanjola) bila je vrlo raširena vozila u JNA jer je proizvedena po licenci u 'Crvenoj Zastavi' u Kragujevcu i tek je početkom osamdesetih proizvodnja zamjenjena sa Nouvom Campagnolom. Usprkos godinama, džipova toga tipa bilo je još u veoma velikom broju u JNA i dio toga zarobile su 'Zenge'. Na slici vidimo bezimenu 'kampanjolu' koja, sudeći po nazivu na unutrašnjosti vrata, pripada 101. brigadi HV-a. Maskirna shema je vrlo jednostavna - na osnovnu blijedo-žutu boju nanašane su kratke kose crte smeđe i zelene boje, vjerojatno kistom.

The Fiat AR-55, called 'Campagnola', was used widely by the JNA, and was produced under license at the 'Crvena Zastava' plant in Kragujevac, Serbia. Despite its age, large numbers of these vehicles were in the JNA inventory, and were captured by the ZNG. This vehicle seems to belong to the 101st Brigade, judging by the inscription on the inside of the door. The camo pattern is very simple – a pale yellow base over which short lines of green and brown paint were applied with a brush.

'Tamić' za razvoz kruha u tipčnoj 'sisačkoj' maskirnoj shemi. Ta shema se koristila od samih početaka i viđena je već na prvim improviziranim oklopnjacima koji su izrađeni u okolici Siska. Shema je u osnovi vrlo jednostavna jer koristi kao osnovnu zelenu ili sivo zelenu boju na koju se nanašaju kratke crte u dvije boje, najčešće neka žuta i neka tamna nijansa. Vozilo na slici koristi baš žutu i crnu boju, i na sebi nema nikakve druge vidljive oznake.

A TAM-80 truck (called usualy 'small Tam') in a typical Sisak camouflage pattern. This pattern was in use from the very beginning and was seen on the first improvised armored transports built in the Sisak suburbs too. The pattern is very simple – on a base coat of green or grey-green short lines of yellowish and dark colors are painted. The bread transport truck in the photo is painted with yellow and black lines. There are no other insignia on the vehicle.

114 Boris Gregurić



115 Boris Gregurić

Holandski vojni kamion tipa DAF YA-126 na slici maskiran je kao da je pobojan sa olovkom. Crne i tamnozelene linije špricane su po karoseriji vozila u cik-caku preko neke smeđe boje, a od ispod se vidi i originalna zelenkasta nijansa. Vidljivo je kako je tamna maskirna shema kontrastna u odnosu na osušenu zemlju i blato na kotačima. Kamion je slikan u Zagrebu početkom siječnja 1992.

The DAF YA-126 4x4 truck in the photo uses a camoflage pattern which is very similar to a pencil drawing. Wide lines of dark green and black colors were sprayed over some brown base color and pieces of original green paint are visible under the job. In this photo the dark camouflage pattern clearly contrasts with the dried up mud and dirt on the wheels and lower body of the vehicle. The photo was taken in Zagreb in early 1992.

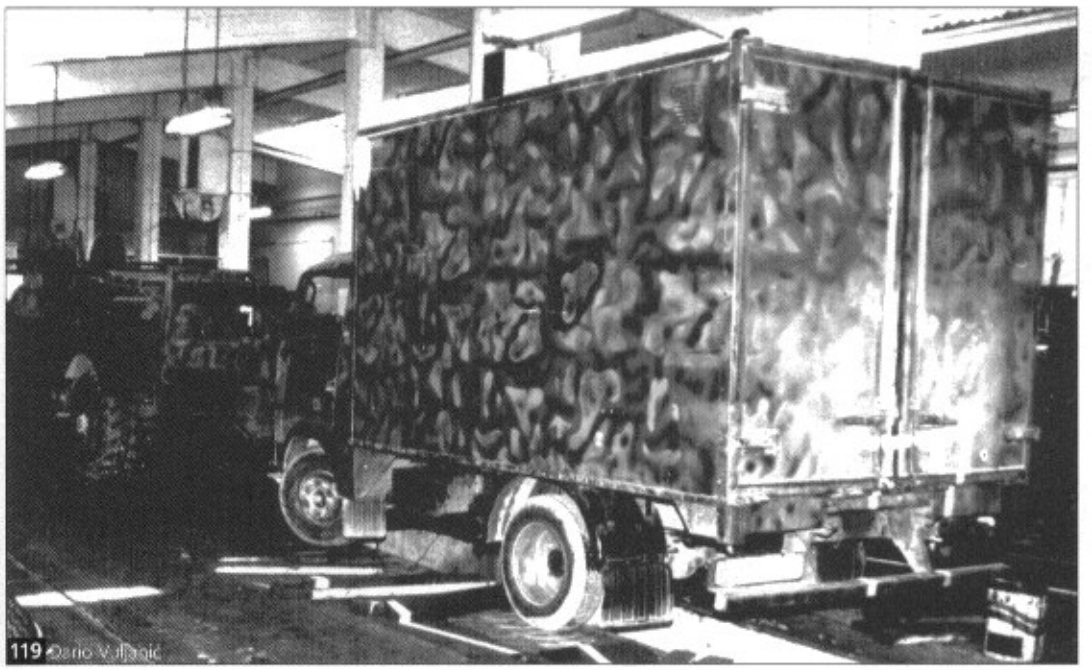
116 Boris Gregurić

Trojka popularnih i često sretanih 'tamića' (Tamov model 80). Na slici 116 je običan model sa standardnim međuosovinskim razmakom i ceradom u jednostavnoj shemi sa mrljama tamno zelene, smeđe i crne boje preko originalne JNA boje. U sredini (slika 117) je model sa duplom kabinom i većim međuosovinskim razmakom u shemi smeđih i crnih mrlja (i po ceradi) na osnovi zelenkaste boje. Na vratima je, pored naljepnice grba/HV i oznaka I-3336 nepoznatog značenja. Treći 'tamić' je 'Hrvatska ruža' (bijeli natpis na krovu, slika 118)) odnosno Fenix (na vratima) u nekakvoj zamrljanoj smeđoj shemi sa crvenim naljepnicama reklame za Walter Wolf cigarete na nosu i crvenim poljima hrvatskog grba na vratima.

117 Boris Gregurić

118 Boris Gregurić

A trio of the very popular and frequently seen little Tam trucks (model TAM-80). Photo 116 shows a tarpaulin covered TAM with a standard wheelbase in a simple camouflage pattern of small patches of green, brown and black paint over the original JNA grey-green paint. In the center photo 117 shows a double cab long wheelbased truck with brown and black patches over a greenish base paint. On the door is the Croatian shield (with Croatian Army inscription) sticker and the I-3336 marking. The third truck (photo 118) is the 'Hrvatska Ruža' (Croatian Rose, painted on the roof) or Fenix (painted on the door) in a basicaly brownish pattern with large red stickers of the Walter Wolf cigarettes on the hood and a large red Croatian shield on the door.



119 Dario Viljagić

Zanimljiva shema na kamionu TAM-80. Na osnovu plavo zelene (tirkizne) boje nanešene su mrlje žute i crne boje, a vjerojatno su žuta polja bila pre kontrastna pa su zaprljana prskanjem smeđe boje. Radi se o kamionu hladnjači ili namjenjenom za prijevoz kruha.

An intersting pattern on another TAM-80 truck. The base is a coat of blue-green paint over which patches of yellow and black were sprayed. The yellow color must have contrasted too much and brown paint was sprayed over. The truck is a refrigerator van or bread truck.

Bivša vojna sanitetska 'kockica' prenamjenjena u policijske svrhe. Pored policijskih tablica, naknadno su prebojani crveni križevi ucrtani na bijelim krugovima i dodana naljepnica CRO na vratima i to je sve. Vozilo još nije dobilo policijsku plavu boju što u budućnosti vjerojatno jest.

A former military ambulance taken over by the MUP for Police work. Apart from registration plates the white circles with red crosses were painted over and a small CRO sticker was applied on the door. The vehicle probably eventually received Police blue livery.

120 Vojislav Jereb

121 Boris Gregurić

Ova 'stodesetka' mora da je nekad bila ambulantna jer su mjesta gdje su bili crveni križevi pobojana naknadno a ima i plavo rotaciono svijetlo na krovu. Kada je slikana u Splitu vjerojatno je služila kao neka vrsta radionice. Maskirna shema je dosta gruba postignuta kratkim linijama zelene, žute i smeđe boje na podlogu 'smb' boje.

Judging by the painted over areas which were once painted with red crosses, this TAM110 T7 4x4 truck must have been an ambulance. On the roof there is also a blue ambulance light. The whole pattern is rather crude – short lines of green, brown and yellow painted over the original grey-green Yugoslav paint. When photographed in Split this vehicle was probably used as a workshop.

122 Boris Gregurić

Kampanjola (sl. 122) korištena kao ABKO izviđačko vozilo. Namjena vozila je naglašena malim žutim natpisom između prozora ali i velikim žutim slovima posprejanim preko cijelog vozila. Maskirna shema džipa je neopisiva gužva zeleno žutih boja i tamnih linija. TAM-5000 16 ABKO jedinice (na sl. 123) ima uredniju shemu bez natpisa ali je nemoguće prebrojiti boje koje su korištene za maskiranje – par nijansi zelene, par smeđe boje, žuta, siva, crna itd. TAM-4500 sa vitlom, vojni model iz 70-tih godina sa radionicom (slika 124) ima ne manje kompliciranu shemu ali su sitnijim uzorkom. Preovladava osjećaj žućkasto maslinasto zelene boje sa tamnijim (smeđim ili crnim) crticama.

123 Dario Vuljanić

124 Boris Gregurić

A Fiat AR-55 (photo 122) used as a NBC reconessaince vehicle. The assignment of the vehicle is stressed by the inscription between the windows as well as with a large yellow inscription with spray over the entire vehicle. The pattern is a confusion of greenish yellow paint and dark lines. The TAM-5000 truck of the 16th NBC unit has a more ordered pattern (photo 123) with contless colors – several shades of green, several shades of brown, yellow, grey, black etc. The TAM-4500 with a winch, a seventies model truck carrying a workshop (photo 124) has a less complex pattern with smaller pathes and lines. The general color is a yellowis olive-green with dark (brown or black) lines.

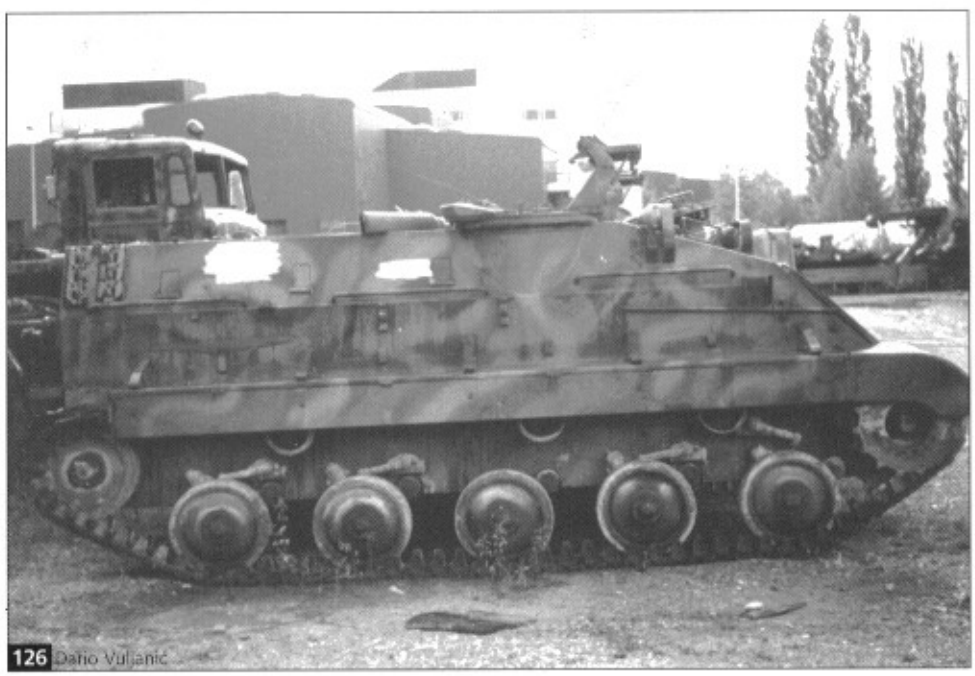
125 Vojni arhiv

U namjeri da se dâ do znanja tko je trenutni korisnik vozila, a bez dostupnih šablona, na ovom je oklopljenom traktoru, koji je isporučen ZNG/HV-u koncem 1991 godine, preko uobičajene sheme tvornice Torpedo koja je izrađivala ta vozila jednostavno sprejem velikim slovima ispisano '17 D.P. Sunja' (D.P. – domobranska pukovnija). Tvornička maskirna shema koristi zelenu, smeđu, oker i crnu boju, a natpis se nije pojavio prije proljeća 1992.

With no stencils at hand, yet determined to make their mark on their mount, the users of this makeshift armored tractor simply sprayed '17 D.P. Sunja' (for 'Domobranska Pukovnija' – Home Defense regiment) in large letters on the vehicle's side. The 'APC' was delivered in late 1991 in the standard Torpedo factory camouflage pattern of green, brown, ochre yellow and black, and the inscription did not appear before the Spring of 1992.

Oklopni transporter jugoslavenskog porijekla tipa M-60 u nekoj pozadinskoj radioni. Maskirna shema se satoji od sivo-zelene podloge sa žućkastim zmijastim šarama uokvirenim debelim zelenim crtama. Sve boje su jako izbledjele jer se vozilo nalazi duže vremena na otvorenome. Oznaka jedinice i vjerojatno neki broj ili natpis su prebojani jer će vozilo po popravku sigurno biti prebojano u novu shemu i vraćeno u neku drugu jedinicu.

A M-60 APC of Yugoslav origin photographed in a second line workshop. The camouflage pattern consists of a grey-green base coat with snake lines of yellow outlined with green lines. The vehicle must have been outside for a longer period and all colors are weathered. Some kind of unit marking and individual number have been painted over with white paint, as the vehicle will suerly be given a new paint job as assigned to another unit.



126 Dario Vuljanić

127 Dario Vuljanić

Varijanta 'Borbenog vozila pješadije' (BVP) sa maskirnom shemom karakterističnom za mnoga vozila. Hitna potreba za oklopnim vozilima na početku otvorene agresije uvjetovala je hitan odlazak tek zaljenjenih vozila na front. Od trenutka zapljene do dolaska na front nije bilo vremena da se vozilo maskira. Zato su vozila često dolazila na prvu liniju bojišta nemaskirana (tj. u JNA smb boji) ili su po njima ucrtavane ovakve 'žvrljotine' kao na slici a to su najčešće bile tanke zmijaste linije jedne ili dvije boje.

A variant of the 'BVP' (Infanty Combat Vehicle) with a pattern very characteristic of many vehicles. The urgent need for armored vehicles at the beginning f the Yugoslav aggression meant that just captured vehicles were immediately sent to the front. Between the moment of capture to arrival on the front there was no time for applying camouflage paint. That is why many vehicles arrived at the front in the old Yugoslav grey-green pattern. Some were painted like this in the photo – with narrow snake like lines of one or two colors.

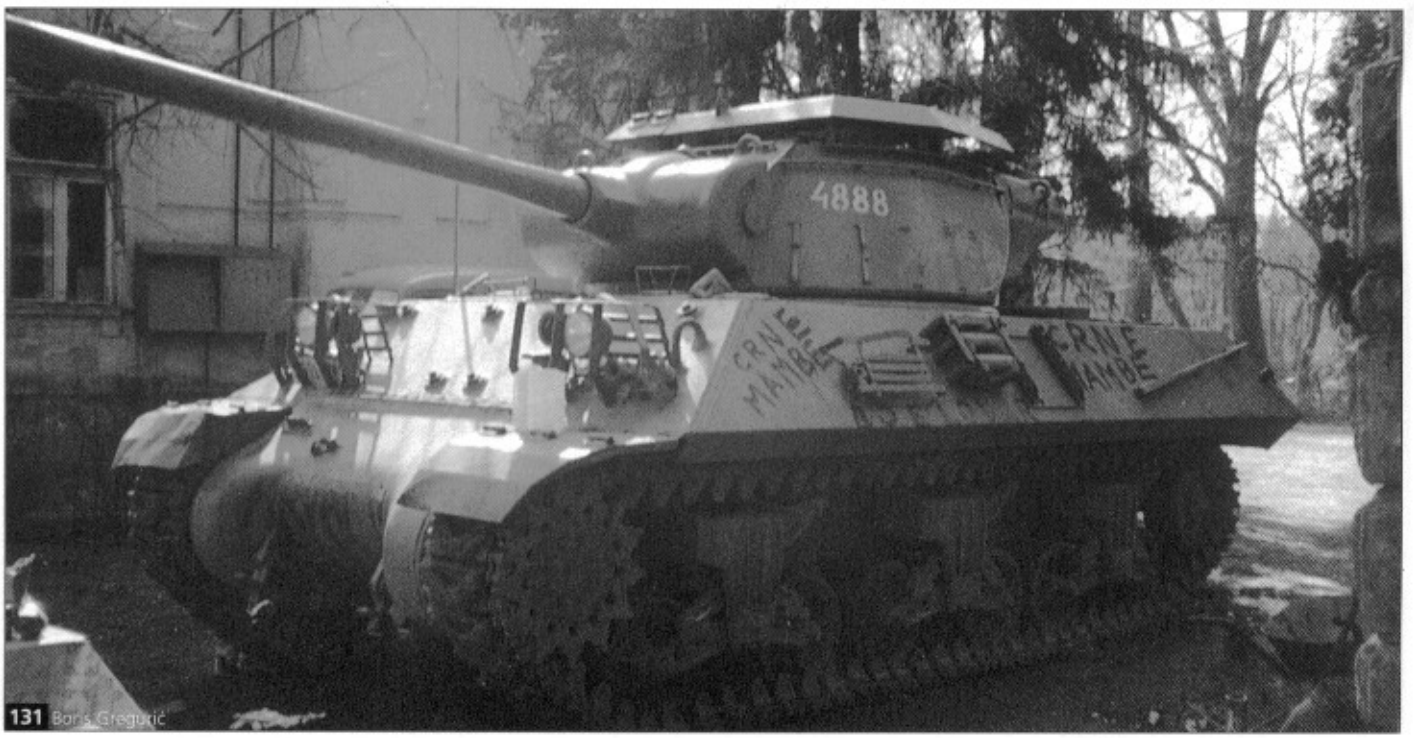
128 Boris Gregurić

129 Boris Gregurić

Dva pogleda na isti tenk T-55 (sl.128 i 130) 1. gardijske brigade. Vozilo je pobojano zelenom bojom sa smeđim i crnim mrljama, a na kutiji alata ima plavi natpis CROATIA pored kojeg je mali crveni broj 25. Bijeli broj 25 se ponavlja na prednjoj ploči pa je to vjerojatno broj vozila u jedinici. Na sl. 129 je tipičan izgled ucrtanog državnog grba na zadnjoj strani kupole tenka. Zapljenjeni američki lovac tenkova tipa M36B-2 Jackson (slika 131) snimljen u Lipiku u ožujku 1992. Novi ga se vlasnici nisu trudili dodatno maskirno obojati ali su natpisima ipak dali do znanja koji su novi korisnici. Tako preko originalne sivo-zelene boje vidimo samo natpise crvenom bojom CRNE MAMBE, BJELOVAR, HRVATSKA itd., a na kupoli je još ostavljen bivši bijeli evidencijski broj JNA.

Two views (photos 128 and 130) of the same T-55 tank, of the 1st Guards Brigade. The vehicle is painted overall green with patches of brown and black. On the toolbox are the blue inscription CROATIA and a red '25' while another white 25 is on the front glacis plate. '25' must be the vehicle number in the unit. A typical position for the Croatian checkered shield was on the back of the T-55 turret (photo 129). An American made GMC M36B-2 Jackson photographed in Lipik in March 1992 (photo 131). The new owners did not bother to re-camouflage the captured vehicle, but did paint some graffiti (BLACK MAMBAS, BJELOVAR, CROATIA etc.) to show who was the owner. The vehicle is still in the original pattern.

130 Boris Gregurić



131 Boris Gregurić

132 Boris Gregurić

Kupola tenka T-55 na frontu kod Starog Grabovca bez ikakave oznake ili natpisa pripadnosti. Jedino je crvenom bojom na kutiji alata upisano ime FAĆUK, a kako je cijelo vozilo ostalo u originalnoj sivo-zelenoj boji u kojoj je zapljenjeno, taj crveni natpis se potpuno uklapa u sivilo vozila. Vjerojatno je ispod kutije još upisan bijeli JNA evidencijski broj koji bi zbog kontrasta bio lako uočljiv.

Photo of a T-55 turret on the front near Stari Grabovac without any unit sign or unit marking. On the toolbox we see only a name (Faćuk) painted in red. As the vehicle remained in the original grey-green paint, the red inscription fits in the pattern perfectly. Most probably under the toolbox is stil the white JNA serial which would, because of the contrast, be highly visible.

Američki lovac tenkova tipa M18 Hellcat, kakvih je bivša JNA imala na stotine, premazan primitivnom maskirnom shemom sa jednom bojom, smeđe-crvenom. Maskiranje se pokušalo postići ravnim i valovitim crtama, nepravilnim mrljama kao i natpisima. Veliki natpis ZNG na prednjoj ploči je nekakve ružičaste nijanse, postignute vjerojatno miješanjem maskirne smeđe boje sa bijelom, dok su ostali natpisi (NDH i U) što ružičaste, što smeđe boje kao i maskirne crte. S druge strane vozila ispisano je i ime vozila GROFICA ružičastom bojom (vidi sliku 325 na str.93).

One of hundreds of US M18 Hellcat tank destroyers from the JNA inventory. This captured example was rather crudely camouflaged with straight and wavy lines, and irregular areas of red-brown paint. The inscriptions, such as the big 'ZNG' on the front armor plate, are mostly in pink, the color itself being probably a mix of camouflage red-brown and white. On the other side of the vehicle is its name 'GROFICA' (Duchess), also in pink (see photo 325 on page 93).

133 Tihomir Likso

134 fotodokumentacija HVS

Inženerijski tenk BTS-3 (u JNA nazivan i 'TZI' – tenk za izvlačenje) bez ikakvih oznaka osim grba (naljepnice) na kupoli zapovjednika vozila. Cijelo vozilo je prebojano sa smeđim i tamno-sivim neodređenim šarama a od ispod se vidi zelena, vjerojatno originalna, boja.

An armored recovery vehicle BTS-3 of Sivet origin. In the former JNA it had the designation TZI (tank for recovery). The vehicle in the photo does not have any markings, except for the checkered shield placed on the commander's cupola. The pattern consists of irregular brown and dark grey lines over what appears to be the original grey green JNA paint.

135 fotodokumentacija Večernjeg Lista / foto - Željko Grgurinović

'BeVePejac' M-80 na položaju (slika 135) u improviziranoj maskirnoj shemi i sa minijaturnim oznakama. Državni grb (starog tipa, bez pet malih grbova iznad šahovnice) na vozilu je pobojan isto kao i dvobojni natpis ZNG (vjerojatno samo crvene i bijele boje). Rijetko i vrlo vrijedno vozilo u ZNG/HV-u je bio sovjetski gusjeničar 9A34M nazivom Strela-10M (slika 136), vrlo efikasan protiv niskoletećih aviona. U ZNG-u su ta zapljenjena vozila maskirana poput ovog na slici. Još jedan BVP (slika 137) na snijegu u zanimljivoj shemi. U 1991 nije zabilježena niti jedna zimska maskirna shema (sa bijelom bojom), vjerojatno radi toga što te zime (do sarajevskog primirja) nije palo mnogo snijega.

A 'BVP' M-80 vehicle on the front (photo 135) with an improvised pattern and miniature markings. The national shields (of the early type with no small shields above the large checkered one) as well as the ZNG inscriptions are painted in two colors, probably red and white. A rare piece of equipment was this Soviet built 9A34M tracked missile launcher called also Strela-10M (photo 136), very effective agains low level aircraft. In ZNG use all these vehicles were camouflaged like this in the photo. Another 'BVP' in a snow covered countryside (photo 137) in a typical unique pattern. A winter camouflage pattern (with white color included) has not been reported from the initial period of war. Probaly this was due to the lack of signficant snow in late 1991.

136 fotodokumentacija HVO

137 Gordan Lajšić

138 Boris Gregurić

139 Emil Požar

Natpisi i znakovlje na vozilima ZNG/HV imali su najrazličitije sadržaje. Natpisi su se kretali od običnih i najčešćih (poput ZNG na sl.138) ili vrlo primjerenih situaciji ili vozilu (poput KORNI KORNJAČE na tegljaču MAZ-537, sl.139) do sasvim bizarnih (KIŠNE GLISTE na sl.140). Znakovlje je također imalo široki raspon značenja, najčešće u skladu sa vozačevim sklonostima. Tako imamo dijapazon simbola od potpuno nerazumljivih (kao na sl.141) do najobičnijih naljepnica iz trgovina (sl.142). Te naljepnice najčešće nisu imale nikakve veze sa jedinicom ili sa sklonostima vozača, jednostavno su se nekome svidjele i time je ukrašavano vozilo.

The names and inscriptions on ZNG-HV vehicles were of the most diverse types – from the most common (like the ZNG in photo 138), or very appropriate (KORNI THE TURTLE on the MAZ-537 heavy tractor, photo 139), to the most bizarre (RAiN WORMS in photo 140). Badges and signs also varied depending on the situation, from the totally inexplicable (photo 141) to conventional advertisement stickers (photo 142). These stickers had nothing to do with the unit. They were fancied by the driver and stuck on the vehicle!

140 Boris Gregurić collection

141 Vojislav Jereb

142 Vojislav Jereb

143 Boris Gregurić

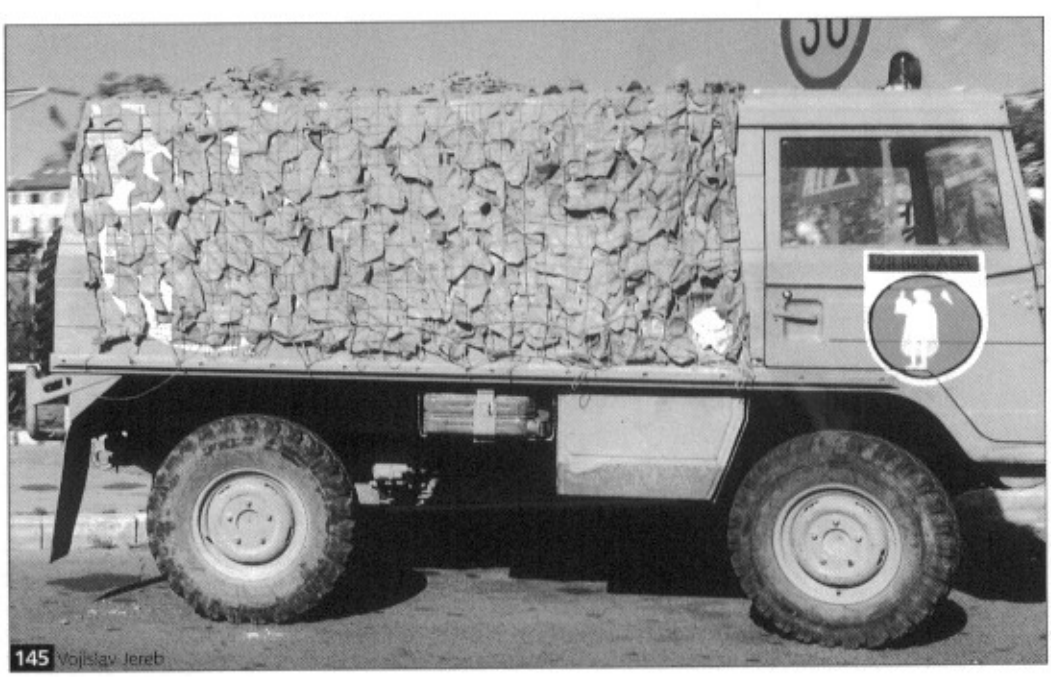
Mnoga vozila su cijeli početni period rata prošla bez maskirnog bojanja. Međutim kako ih je cijelo vrijeme koristio ZNG/HV ipak se na to neki način htjelo obilježiti. Tako su i prije dobivanja vojnih tablica upisivani natpisi poput velikih ZNG ili manjih CRO ARMY (crvenom bojom ispod hladnjaka na nosu), dodavane su naljepnice (državni grb na vratima li mali CRO na nosu) itd. Moguće je da je na početnu odluku o nemaskiranju vozila utjecala osnovna plavo-zelena boja vozila.

Many vehicles spent the initial period of war with no multi-color camouflage pattern. Nevertheless, as they were used by the ZNG/HV units somehow they had to be marked. Even before receiving the official military licence plate this vehicle was adorned with large ZNG inscriptions, smaller CRO ARMY inscription in red under the engine grill and some stickers. It is possible that the vehicle was not painted in camouflage colors due to its original blue-green color.

Loša slika vrlo zanimljivo obojanog vozila negdje u Dalmatinskoj zagori. Radi se o kamiončiću njemačkog porijekla Mercedes Unimog S404 u plavo-zelenoj shemi. Nije jasno da li je vozilo nabavljeno takve boje ili je naknadno obojano, niti da li pripada Policiji (MUP) ili ZNG/HV jer bi prema boji mogao pripadati objema službama, a nisu vidljive nikakve oznake.

A poor photo of a very interesting pattern taken somewhere in the Dalmatinska zagora region. The vehicle is a Mercedes Unimog S404 in a blue-green pattern. It is not clear if the color was original or the vehicle was painted in that pattern, nor if the vehicle was used by the Police (MUP) forces or the ZNG/HV as there is no markings on it at all.

144 Boris Gregurić


145 Vojislav Jereb

Na sanitetskom Pinzgaueru 128. brigade nisu se mnogo mučili oko maskiranja. Cijeli rat 1991/92 kao i korištenje sve do Oluje 1995 prošao je u originalnoj 'smb' boji. Po potrebi je preko vozila prebacivana kamuflažna mreža da se maskira kontura, ali velika naljepnica brigade na vratima djeluje prilično demaskirajuće.

No great effort has been made to camouflage this Pinzgauer ambulance of the 128th Brigade. During the entire 1991/92 war, and up through the final operations in 1995 the vehicle was used in the original captured JNA color, occasionally complemented with a camouflage net The brigade insignia sticker on the door does not aid camouflage purposes.

146 Vojislav Jereb

Maskirno bojanje uslužnih vozila na aerodromima je bilo rijetko. Osim cisterni za gorivo, razna vučna i servisna vozila kao i traktori rijetko su kamuflirani, posebno kada su nabavljani novi. Tako je maskirani traktor bila prava rijetkost, posebno kada je bio ovako pažljivo maskiran kao ovaj na slici. Slikano je u ZTC-u u Velikoj Gorici, a ispred vozila su ostaci bosanskog aviona Utva-66 koji je pao nedaleko Zagreba 18.7.92.

Camouflage of secondary vehicles at airports was not usual. Except for fuel tankers, very few tractors, service trolleys etc. were repainted and mostly served in the colors in which they had been painted by the former users, so seeing a camouflaged agricultural tractor serving as a towing vehicle was rather rare, especially one so carefully painted like the one in the photo. The photo was taken at the Velika Gorica aircraft facility. In front of the tractor are the remains of a Bosnian Utva-66 liaison plane that crashed near Zagreb on 18.7.92.

Nekad popularni Fićo pobojan u neobičnu shemu sličnu policijskoj ali sa sivim i bijelim površinama. Korišten je u 305. logističkoj bazi i služio je sve do završetka operacije oslobađanja Hrvatske, kada je i slikan. Ni sa završetkom 'Oluje' smisao vojnika da ukrašavaju svoja vozila natpisima nije splasnuo, pa vidimo vojnika iz te jedinice koji se sprema pobojati natpise na vozilu - konačno će, pored natpisa '305 Rijeka' na haubi dobiti i slogane 'Krepat ma ne molat' i 'Forza Fiume' na vratima.

The once popular small Fiat car painted in an unusual police-like livery with grey and white areas. Used by the 305th Logistical Base this car served right up to the end of the conflict when was this photo taken. Even after the conclusion of Operation Storm and the reoccupation of most of Croatian territory, the painting of inscriptions on vehicles did not disappear. Here we see a soldier preparing to paint some slogans on the vehicle, in addition to the inscription on the engine cover.

147 Igor Samaržija collection

148 Boris Gregurić

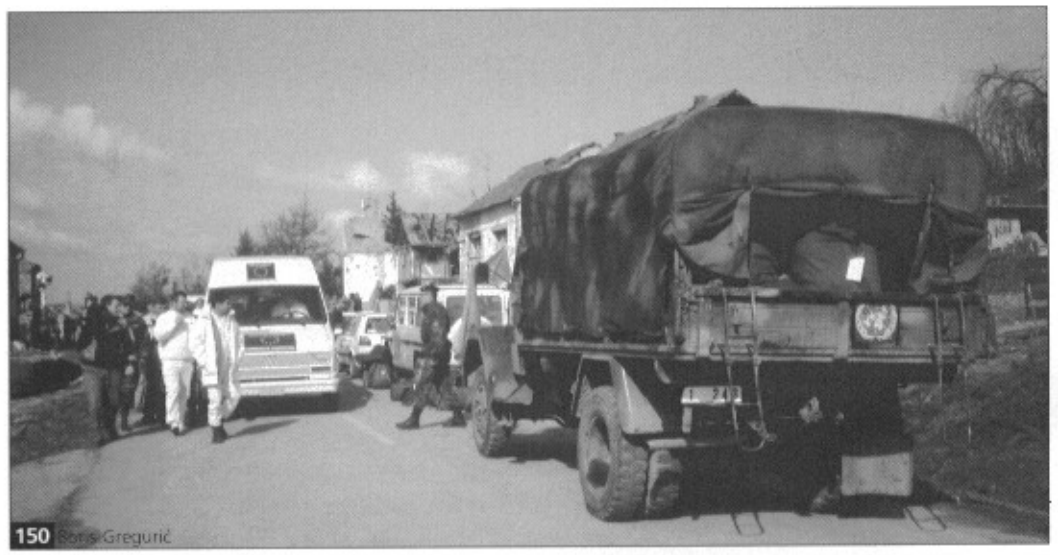
Maskirana ambulantna kola tipa Citoren C25 slikana u Dubrovniku. Radi čestih napada na sanitetska kola mnoga su od njih maskirana. Cijelo vozilo je maskirano veoma tamnim bojama (tamno zelena, tamno smeđa i crna) ali su naknadno na haubi ucrtane neke šare bijelom bojom nepoznatog značenja. Vozilo nema na sebi nikakve oznake crvenog križa.

A camouflage Citroen C25 ambulance vehicle photographed in Dubrovnik. Due to frequent attacks on ambulance vehicles many of them were camouflaged. This one has a very dark pattern painted with dark green, dark brown and black. For unknown reasons later some white lines were added on the engine cover. This vehicle has no red cross markings.

149 Boris Gregurić

Oznaka na ovom Opel Kadetu sa plavim križem (sl. 149) označava pripadnost Veterinaskoj službi HV-a. Vozilo je slikano u Osijeku početkom 1992. Za potrebe prijevoza Argentinskog kontingenta UN-a 1. gardijska brigada je stavila na raspolaganje svoje kamione od kojih vidimo jednog (sl. 150) sa plavom naljepnicom UN-a. Vozilo je slikano u ožujku 1992 kod Novske na liniji razgraničenja. BTR-60 slikan u Novoj Gradišci rujna 1991 (sl. 151) vjerojatno neposredno po maskiranju dok se na njega lijepe slova ZNG-RH kao i natpis brigade ali nije vidljiv broj koje brigade.

The blue cross marking on this Opel Kadett station wagon (photo 149) denotes a vehicle of the HV veterinary service, photographed in Osijek in early 1992. Fot transport duties of the Argentinian UN forces the 1st Guards Brigade disposed several trucks, seen here with blue UN sticker on the back of this TAM 4x4 truck (photo 150). The photo was taken in March 1992 near Novska. A BTR-60 APC photographed in Nova Gradiška in September 1991 (photo 151). The vehicle was most probably just painted and some self sticking letters are just applied, a white 'ZNG-RH' and the brigade inscription but the brigade number cannot be seen.



150 Boris Gregurić

151 fotodokumentacija Večernjeg lista / foto Ivica Galović

RAZVIJENE MASKIRNE SHEME

Prva i najžešća navala rata završena je Sarajevskim primirjem početkom 1992. godine. Hrvatska je obranjena.

Stupanjem na snagu primirja, završene su žestoke borbe i nastavlja se rat osjetno smanjenim intenzitetom. U takvoj novoj situaciji pronašlo se više vremena za popravak i održavanje vozila, a samim time i za popravak ili ponovno bojanje maskirnih shema. Došlo je do zasluženog predaha koje omogućava zamjenu improviziranih i neodgovarajućih sa smišljenim shemama korištenjem odgovarajućih nijansi i kvalitetnih boja. Bojanje novih shema vršeno je najčešće u remontnim radionama pa je tako broj različitih shema znatno smanjen.

Gardijske brigade su također sa svoje strane počele bojati vozila svojim originalnim (i međusobno različitim) shemama. Vozila u njihovom posjedu su sistematski bojana tim shemama ali vozila koja su dolazila iz drugih jedinica (posebno nakon rasformiranja pričuvnih brigada) uglavnom su dugo ostalajala u tim, originalnim, shemama.

Ipak, mora se priznati da je bilo dobrih i smišljenih shema već i kod prvih, improviziranih bojanja. Bilo je školovanih ljudi koji su znali od početka kako najefikasnije maskirati vozila čak i sa priručnim sredstvima na raspolaganju. Takve su se sheme posljednje prepravljale.

Bez obzira na dostatno vrijeme i sredstva nakon Sarajevskog primirja, šarenilo shema i posebno nijansi i dalje je postojalo. To se pokušalo urediti propisom iz ožujka 1993. kojim se definitivno propisuju standardi boja (nijansi) prema RAL-u (njemačkom standardu boja) te površine na vozilima (u postocima) koje trebaju biti pobojane dotičnom nijansom. Ali kako su u međuvremenu mnoga vozila bila novo pobojana na drugi način, primjena tog propisa teče sporo i HV dočekuje završne operacije za oslobođenje zemlje sa još uvijek šarenim voznim parkom.

Zanimljiva je činjenica da za vrijeme trajanja sukoba u Hrvatskoj agresor (JNA) nije koristio višebojno maskirno bojanjem svojih vozila. Pretpostavlja se da je glavni razlog tomu to što se JNA osjećala toliko superiornom da tome nije pridavala posebnu važnost, potpuno podcjenivši hrvatsku stranu kao neprijatelja. Ipak vjerojatniji razlog nemaskiranja svojih vozila je činjenica da je JNA imala tehnike na pretek ali zbog nedostatka ljudstva tu tehniku nije imao tko niti opsluživati a kamoli prebojavati.

cije s obje strane spremnika za gorivo.

Članak 30.

Vojna vozila, osim vozila vojne **policije, autobusa i osobnih vozila koje** se koriste za prijenju **i u kontroli prometa, boje se maski**nom bojom koja se **sastoji od kombinacije crne, zelene i smeđe boje.**

Osnovna boja je zeleni NATO (50%). **Ostale boje su:**

— zelena (30%) RAL 6003,

— smeđa (10%) RAL 8027,

— crna (10%) RAL 9021.

Članak 31.

DEVELOPMENT OF CAMOUFLAGE PATTERNS

The first and most fierce part of war finished with the Sarajevo cease fire at the beginning of 1992. Croatia suceeded in defending itself.

With the beginning of the treaty the war continues but with lower intensity. Is such new situation there was more spare time for vehicle maintenance, repairing and of course, coloring. A deserved pause has begun which allowed changing of the first improvised and inadequate camouflage patterns with more adequate hues and quality paints. This new coloring were done mostly in the repair shops so the number of different patterns was reduced considerably.

The Guards Brigades begun applying their own patterns, different from brigade to brigade. All their vehicles received in time these new patterns, but the incoming vehicles from other disbanded brigades remained in their original pattern.

Nevertheless one have to admit that there were some very good and concieved patterns on some vehicles from the very first days. There were schooled people who knew from the beginning how and what to to even with the improvised paints on hand. Those patterns were changed last.

Not regarding the cease fire and having enough time, the diversity of patterns and especially color hues continued to dominate. This situation was tried to put in order in early 1993 with the regulation in which strict color hues (based on the German RAL standard) were prescribed, as well as the area (in percentage) of the vehicle which have to be painted with each color. As in the meantime many vehicles were nevertheless newly painted not regarding this regulation, the variety of patterns continued to be observed and this lasted well up to the finishing operations and over.

Interestigly enough to note that the JNA forces did not make any use of multiple colored patterns during the agression. The assumption is that their forces felt so secure in Craotia and was so sure of the victory underestimating the Croatian forces that they did not feel the need for camouflaging their vehicles. Another reason for that is more probabale – the JNA had a huge amount of vehicles and equipment and with a very low mobilisation rate was not capable of driving all the vehicle, to say nothing of painting them.

Članak iz Narodnih novina broj 22 od 23. ožujka 1993 gdje se spominju nijanse za maskirno bojanje i postotak površina koje moraju zahvatiti.

An article from the Official gazette where colors and percentage area for camouflaging of military vehicles was mentioned. This gazzete was issued in March 1993.

152 Vojislav Jereb

TAM110 pobojan jednoj od tipčnih 'zelenih' shema sa područja Karlovca koja se sastoji od dosta kričave zelene osnovne boje, preko koje su nanešene dosta široke mrlje/linije smeđe i tanje crte crne boje. Takvih vozila je bilo dosta i svi su imali iste nijanse, ali nejednake sheme (veličine i oblike mrlja i crta).

A TAM110 truck in the typical 'green' camouflage pattern, seen mostly around the Karlovac front. The pattern consists of a base coat of grass green paint, painted over with rather large patches of brown and smaller patches or lines of black. Vehicles displaying such a pattern were quite numerous, all with the same hues but different sized patches.

TAM-4500 u zanimljivoj varijaciji 'zelene' sheme često viđanoj na području Karlovca. Na osnovnu travnato zelenu boju nanašane su šare u obliku smeđih i crnih linija umjesto uobičajenih velikih mrlja. Iako na slici izgleda kao da je kamion udario u zid kuće, ustvari je to način parkiranja na nizbrdici jer je kamion imao neispravnu parkirnu kočnicu.

A TAM-4500 4x4 truck with an interesting variation of the 'green' pattern seen around Karlovac. Over the grass green base coat, lines of brown and black were applied, instead of the more usual large patches. Although from the photo it looks like the truck has crashed into the house, this was the only way to park the truck on a downhill slope, as the parking brake didn't work!

153 Vojislav Jereb

154 Gordan Kušić

Mali kamiončić istočnonjemačkog porijekla Robur 4x4 sa dobrom maskirnom shemom koja je u osnovi trobojna podloga preko koje su nanešene crne crte pa djeluje poput granjem pokrivena podloga. Kamion je sigurno vojnog porijekla jer ima i zasjenjena svijetla.

A small Robur 4x4 truck of East German origin smartly camoufiaged with a three tone base coat and black lines added over the base coat to imitate tree branches over some natural ground. The vehicle is most probably of military origin judging by the shaded light reflectors.

155 Vojislav Jereb

Kampanjola AR-55 (sl. 155) u shemi kakva je često viđena u okolici Karlovca. Najveći dio 'kampanjola' koje su zarobljene od JNA bile su sa tvdim krovom, dio njih uređenih kao vozila za vezu. Nepostojanje cerade olakšavao je posao maskiranja koji je na ovom džipu besprijekorno izveden. Sama shema se sastoji od osnovne žućkasto zelene boje (moguće JNA sivo-zelena) sa poljima sivo zelene, tamno zelene i smeđe boje. Na bočnoj strani naljepljena je naljepnica sa hrvatskim grbom i natpisom Hrvatska Vojska. Istu shemu bojanja ima i ovo ABKO vozilo na šasiji TAM150 T11 (sl. 156), također u upotrebi na karlovačkom bojištu. FAP-13 u izvedbi cisterne za gorivo (sl. 157) u sastavu 111. brigade na smotri tehničke opreme u Rijeci, srpnja 1992. Cisterna je prebojana u četverobojnu maskirnu shemu koja uključuje oker-žutu, smeđu, zelenu i crnu boju u obliku poprečnih nepravilnih polja.

156 Vojislav Jereb

157 Emil Požar

A Fiat AR-55 Campagnola (photo 155) in a camouflage pattern seen mostly around the Karlovac front. Most such captured vehicles were of the hard top variant, some of them with communications equipment. With no tarpaulin, the painting was easy and mostly well done. The pattern consists of a base yellowish green coat (possibly the original JNA paint) with patches of grey green, dark green and brown added. On the sides of the vehicles the Croatian shield and CROATIAN ARMY inscriptions have been added in the form of a sticker. The same pattern is seen on this NBC (nuclear, biological and chemical) warfare truck on a TAM150 T11 chassis (photo 156), also used in the same area. Photo 157 shows a tanker truck based on the FAP-13 chassis with the 111th Brigade on show in Rijeka in July 1992. The vehicle is painted in a four-color pattern of ochre yellow, brown, green and black paint.

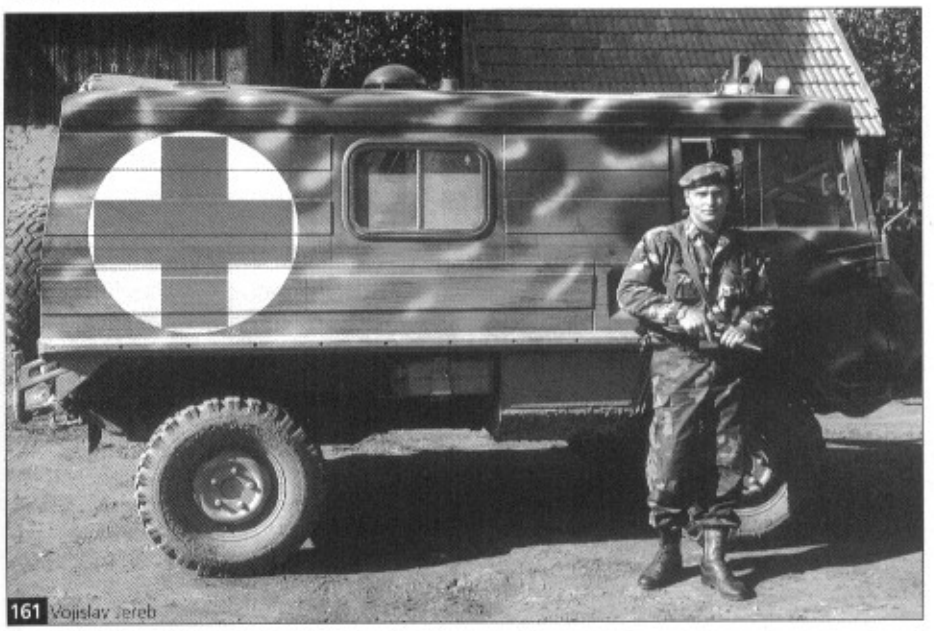
158 Vojislav Jereb

Ford Transit kombibus iz sastava 128. brigade (sl. 158). Za maskiranje je korištene osnovna boja vozila (svijetlo sivo-zelena) na koju su nanašane zakrivljene crte tamnije sivo-zelene i tamno smeđe boje, sa ponekim potezom crne boje. Nijanse boja su miješane da bi bile čim sličnije propisanom RAL standardu. Fiat-1107J (sl. 159) proizveden po licenci, u maskirnoj shemi koja podsjeća na poljske sheme početkom drugog svijetskog rata - blijedo žuta, sivo zelena, smeđa i crna polja odjeljene tankom tamnom crtom. 'Zvečarke', 'Vere' i slične zmije (na sl. 160) opasnog ujeda rashodovane i spremne za rezalište. Maskirna shema je vrlo uredna na sva tri vozila, a sastoji se od mrlja svijetlo-žute, smeđe i tamno-zelene boje jednakih veličina i površina. Ovi lovci tenkova tipa M36B-2 Jackson su inače dobivali osobna imena upisana na kupolama, skupa sa individualnim brojkama. I imena i brojke upisivani su žutom bojom.

A Ford Transit van of the 128th Brigade (photo 158). For camouflage the base gray-green paint of the vehicle was used, over which darker green, brown and black patches were applied. All the hues were mixed to match the appropriate RAL color. A license built Fiat-1107J (photo 159) in a camouflage pattern that resembles Polish patterns from the beginning of WWII - large pale yellow, grey-green, brown and black areas divided by thin dark lines. 'Rattlesnake', 'Vera' and similar snakes (photo 160) of very dangerous bite, broken up and readied for salvage. The Camouflage pattern is very neat consisting of equal areas of light yellow, brown and dark green colors. These M36B-2 GMCs had names and individual numbers painted in yellow on their turrets.

159 Jadranko Ećimović

160 Vojislav Jereb



161 Vojislav Jereb

Terensko vozilo Styer-710 Pinzgauer (sl. 161) u sanitetskoj izvedbi sa tvrdim krovom. Maskirna je shema uredno odrađena bojanjem smeđih polja i žutih i crnih crvića na tirkizno zelenoj podlozi. Pretpostavka je da je u borbenim uvjetima crveni križ prekrivan maskirnom mrežom. Vojnik ispred vozila nosi slovenski automat Gorenje MGV 176 22 LR. Zanimljiva shema na Pinzgaueru (sl. 162) snimljena u okolici Karlovca. Na osnovnu podlogu zelene, žute i smeđe boje nanašani su crvići i kružići tamne, vjerojatno crne boje. Upočetku su na vozilima korištene jednobojne cerade, uglavnom zaplijenjene od JNA, ali su s vremenom sve više korištene cerade koje su već bile prebojane maskirnim bojama. Protuavionski kompleks V3S 'Praga' (sl. 163) u urednoj trobojnoj shemi (crveno smeđa, zelena i crna boja) sa tankim linijama koje razdvajaju pojedina polja.

A Styer-710 ambulance Pinzgauer utility truck (photo 161) with hardtop. The camouflage pattern is very neatly done with brown areas and yellow 'worms' painted over a turquoise green base coat of paint. The soldier in front of the vehicle carries a Slovenian built Gorenje MGV 176 22 LR sub machine gun. An interesting camouflage pattern on another Styer-710 Pinzgauer (photo 162) in the Karlovac region. Over a coat of base green, yellow and brown small 'worms' and circles of dark, probably black, paint were applied. In this way the effect of the pattern was smoother. In the beginning captured solid green JNA tarpaulins were used. Later production pre-printed camouflaged tarpaulins were used. A V3S 'Praga' anti-aircraft system (photo 163) in a neat three color pattern (red-brown, dark-green and black) with narrow lines dividing the different shades.

162 Vojislav Jereb

163 Vladimir Superina

164 Boris Gregurić

Još jedna 'četvorka' sa smišljenijom maskirnom shemom slikana zimi u Zagrebu. Obojana je prilično svijetlo sa blijedo žutom, svijetlo smeđom i mrljama tamno smeđe boje (sl. 164). AR-55 prve satnije ABKO (sl. 165) sa uglađenom četverobojnom shemom (blijedo zelena, zelena, žuto smeđa i smeđa). TAM150 T11 'topovnjača' (sl.166) sa vrlo efikasnom razvijenom shemom slikan još u početku sukoba, srpnja 1991. na ulicama Osijeka. Osnovna 'smb' shema je nadopunjena pravilnim poljima tamnije zelene i smeđe boje. Na teretnom dijelu kamiona jedva je vidljiv top Oerlikon 20 mm na mornaričkom postolju.

A Renault-4TL car in a smart camouflage pattern photographed during the winter in Zagreb (photo 164). The pattern is rather light consisting of pale yellow, light brown and patches of brown paint. A Fiat AR-55 of the First battalion with a four color smart pattern with pale green, green, yellowish brown and brown colors. A TAM150 T11 Gun truck painted in a very effective pattern early in the conflict, pictured in Osijek in July 1991. Over the original JNA grey-green paint disruptive patches of brown and dark green were applied equally. In the cargo bed, an Oerlikon 20 mm automatic naval cannon can barely be seen.

165 Dario Vuljanić

166 foto arhiva Globus / foto Roman Majetić

167 Vojislav Jereb

Tri različite sheme na tri tipa vozila - na 'tamiću' sa duplom kabinom (sl. 167) prikazana je specifična shema kakva je viđena na više vozila na riječkom području. Sastoji se od osnovne sive boje sa mrljama zelene, smeđe i crne boje. Land Rover na sl. 168 je vjerojatno civilnog porijekla te je pobojan u vrlo efektnu crveno-smeđu shemu (sa poljima crveno-smeđe, smeđe i tamno zelene boje) dok je FAP-13 dizalica sa oznakama ZMIN-a na vratima (sl. 169) u shemi sa crtama (crte sive i crne boje preko osnovne tamno sivo-zelene boje).

Three different patterns on three different types of vehicles. Photo 167 shows a TAM-80 truck with long cab in a pattern particular to various vehicles in the Rijeka area. Over a base coat of grey paint green, brown and black have been applied. The Land Rover in photo 168 is most probably of civilian origin and is painted in a very effective red-brown pattern consisting of shades of brown, red brown and dark green while the crane on a FAP-13 chassis (photo 169) with the ZMIN inscription on the door has black and light grey lines over a dark grey-green base.

168 Vojislav Jereb

169 Jadranko Ećimović

170 Boris Gregurić

Varijacije maskirne sheme Zagrebačke grupe – u osnovi se shema sastoji od žuto obrubljenih smeđih polja na zelenoj ili sivo-zelenoj podlozi. Smeđa polja su ili u obliku mrlja ili širokih linija, a ponekad je izostavljan žuti obrub. Gotovo sva vozila imaju i žuti natpis CRO pobojan na nekom od branika. Shema je od početka bila vrlo pogođena i zadržala se vrlo dugo u opticaju. Korištena je na mnogo vrlo različitih vozila (obratiti pažnju da je i artiljerijski traktor koji se ukrcava na labudicu, slika 172, maskiran u istoj shemi).

171 Boris Gregurić

172 Gordan Laušić

173 Boris Gregurić

Variations of the 'Zagreb Group' camouflage pattern. The pattern itself is a combination of yellow outlined dark brown areas on a dark green or grey green base coat. The brown areas are painted as patches or large lines and sometimes there is no yellow outline. Almost all vehicles had a yellow CRO painted on the bumper or similar place. The pattern was very smart from the beginning and it lasted for a long time on the vehicles. It was used on many vehicle types. Note that the tractor being loaded on the trailer (photo 172) has the same pattern.

174 Boris Gregurić collection

Par zanimljivih shema – na samohodnoj haubici 2S1 'Gvozdika' (slika 174) prikazana je točkasta shema sa raznim bojama (žuta, zelena, smeđa itd.) prskanih u obliku točaka ili malih mrlja. Vrlo jednostavna, mogla bi se nazvati 'obična' trobojna shema na TAM-5000 4x4 cisterni za dekontaminaciju (slika 175). Koristi samo mrlje smeđe i crne boje za zelenoj površini. Teški sovjetski tegljač MAZ-537 8x8 (sl. 176) u sastavu 1. auto-bojne (sudeći po pločicama na vratima) u 'valovitoj shemi' sa kratkim ali valovitim linijama.

Several interesting patterns – on a Soviet self propelled gun type 2S1 (called Gvozdika, photo 174) a dotted pattern is visible with a variety of dots and small patches of different colors (yellow, green, brown etc.). A very simple pattern on this TAM-5000 tanker (for NBC decontamination, photo 175) with large patches of brown and black on a dark green base paint. Finally a heavy Soviet MAZ-537 tractor of the 1st auto-battalion (after looking at the licence plates on the doors) with a wavy pattern of short curved lines.

175 Emil Požar

176 Gordan Laušić

177 fotodokumentacija HVG

178 fotodokumentacija HVG

Artiljerijska oruđa su nezahvalna za maskiranje – osim zaštitne ploče ostale površine su male i radi posluživanja boja se brzo istroši. Stoga su topovi i haubice rijetko maskirno bojani, a shemu na njima je moguće prepoznati samo dok je nova. Na noćnom snimku (slika 177) je haubica američkog porijekla M2A1 od 105 mm zapljenjena od JNA u sivo, žuto, zeleno i crnoj shemi, dok je na slici 178 sovjetski top ZIS-3 od 76 mm, vrlo često oružje u rukama ZNG/HV. Na slici 179 je par Tamovih 'stodesetki' u nekakvoj crnoj shemi (velike površine zelenog vozila obojane crno) za žutim zastrašujućim natpisima APOKALIPSA.

Artillery pieces were seldom painted. Except for the armor plate there was not much to be painted on as all the areas were rather small and subject to wearing off. The pattern on these weapons could be identified only when newly painted. In a night shot of a 105 mm M2A1 howitzer of American origin (photo 177) a grey, yellow, green and black pattern is visible. Photo 178 shows a Soviet ZIS-3 76 mm gun. Many such guns were in use by the ZNG/HV. The bottom photo (179) shows a pair of TAM110 trucks in a black pattern (large black patches over the green body) with a chilling yellow inscription – Apocalypse.

179 fotodokumentacija HVG

180 Vojislav Jereb

Na slijedećim slikama je maskirna shema koja se često viđala u okolici Zagreba. Satoji se u osnovi od temeljne tamno zelene boje na koju su nanešene žuto obrubljene smeđe mrlje. Na slici 180 prikazana je varijacija na malom autobusu sa dodatnim tamno smeđe oivičenim smeđim poljima. Nije poznato zašto je, prilikom maskiranja ovog BTR-60PU ostavljen bivši JNA broj na vozilu (sl. 181), ali je drugom prilikom viđeno isto vozilo sa brojem prebojanim hrvatskim grbom. Mnoštvo vozila različite namjene je dobilo tu shemu i često ih je bilo moguće susresti.

181 Vojislav Jereb

182 Zadranko Ećimović

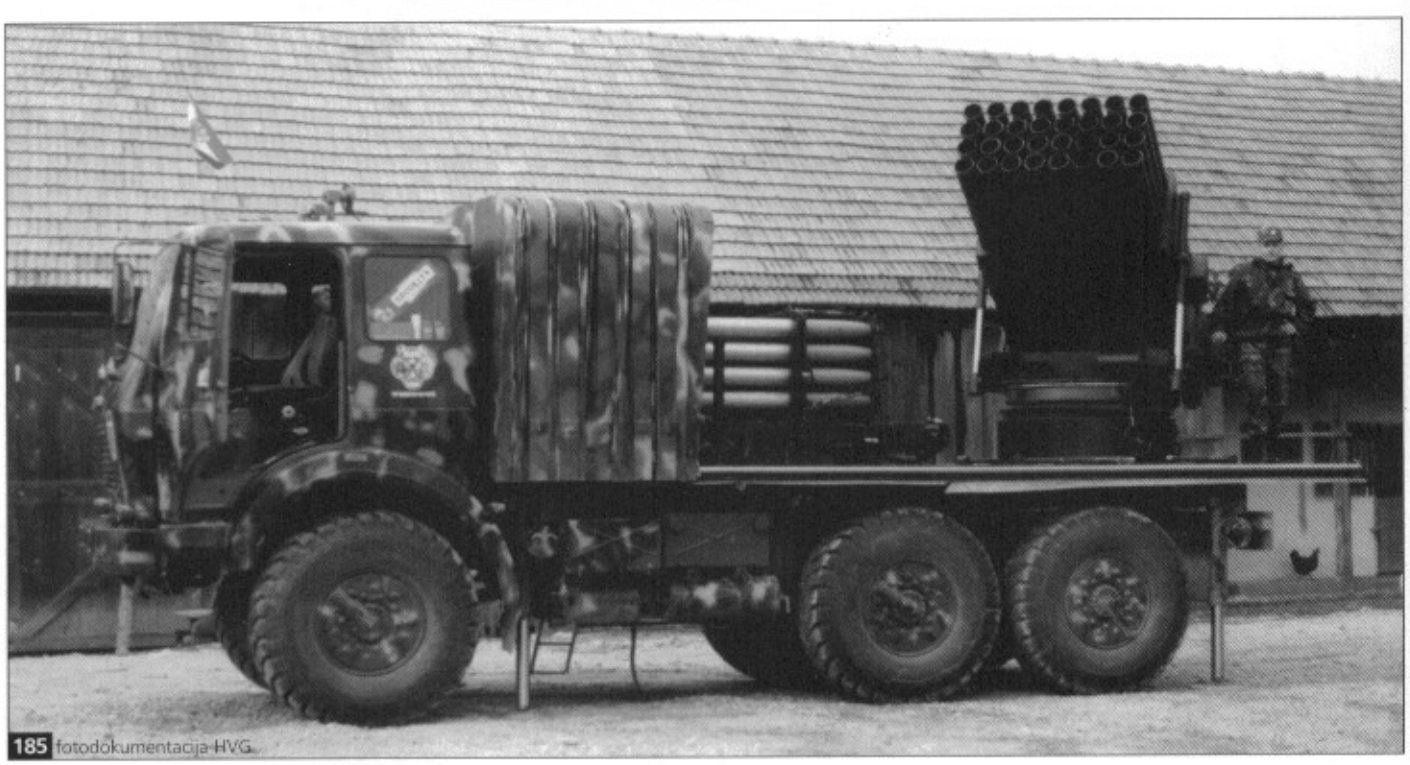
The following photos show a camouflage pattern frequently seen in the Zagreb area. Basically it consisted of an overall dark green coat over which yellow outlined brown patches are applied. A slightly modified pattern is shown on a small bus in photo 180 where more dark-brown outlined brown patches were added. It is not clear why the 8-wheeled BTR-60PU (photo 181) retained the white JNA serial number, but when observed later the same vehicle received a Croatian checkered shield over the numbers. Many vehicles were painted in this pattern and it was common to encounter vehicles painted in such a manner.

183 Dario Vuljanić

Kako su se gardijske brigade ustrojavale i razvijale, razvijale su se i maskirne sheme koje su najčešće viđane na njihovim vozilima. Na slici 183 vidimo tri kamiona (lijevo TAM110 'kockica', denso dvije TAM150 radionice) u shemi 1. gardijske brigade koja je s vremenom postala najčešća četverobojna kombinacija u obliku hrastovog lišća koja koristi dvije zelene, smeđu i crnu boju kako propisano. Veličina mrlja (lista) varira od vozila do vozila). Druga gadrijska koristi često uzorak 'sitnog veza' kao na ovom LOV-u (lako oklopno vozilo, slika 184) a identična je uzorku na vozilu na slici 214 (str. 69). Poznati 'VBR' (višecjevni bacač raketa od 128 mm M77) u shemi koja se u početku često viđala na vozilima 1. gardijske brigade.

With the organisation and development of the Guards Brigades, their camouflage patterns also developed. Photo 183 shows us three trucks (left a TAM110, right two TAM150 workshops) in a pattern which would became very familiar in the 1st Guards Brigade – a kind of 'oak leaves' pattern with the four colors prescribed by the regulation. The size of the patches (leaves) vary from vehicle to vehicle. The 2nd Guards Brigade used the small patches pattern with colors outlined with narrow black lines (photo 184, see also photo 214 on page 69). A well known vehicle, the 'VBR' (128 mm Multiple Rocket Launcher M77) in an old 1st Guards Brigade pattern.

184 fotodokumentacija HVG



185 fotodokumentacija HVG

186 fotodokumentacija HVG

Još nekoliko vozila gardijskih brigada. Amfibijski gusjeničar K-61 zapljenjen od JNA sa neodređenom shemom (sitne mrljice zelene i crne boje) kojeg oznaka tigra među prozorima vozača odaje kao vozilo 1. gardijske brigade. Neobično je da vozilo ima na nosu crveni natpis HRVATSKA VOJSKA, vjerojatno ostatak iz vremena početaka rata. Sa strane vozila je i hrvatski grb ucrtan samo sa crvenom bojom.

More vehicles of the Guards Brigades. A Soviet tracked amphibian vehicle type K-61 captured from the JNA in a confusing pattern (green and black patches) with the tiger symbol between the windows indicating that it belonged to the 1st Guards Brigade. It was unusual to see the red inscritpion HRVATSKA VOJSKA (Croatian Army) on the nose of the vehicle, probably a marking from the beginning of the conflict. On the side of the vehicle is also a checkered Croatian shield in red.

Inženjerijski tenk na osnovi tenka T-55 tipa BTS-3 iz sastava 2. gardijske brigade. Maskirna shema podsjeća na veoma izbledjelu shemu 'Zagrebačke grupe' (žuto obrubljene smeđe mrlje na zelenoj podlozi), a jedino naziv i simbol brigade (GROM odnosno šaka koja je uhvatila munje) je pobojan šablonom na postolje dizalice. Na lijevom dijelu slike (desna strana vozila) nazire se kutija sa alatom ili opremom na kojoj bijelim slovima piše BUBIMIR.

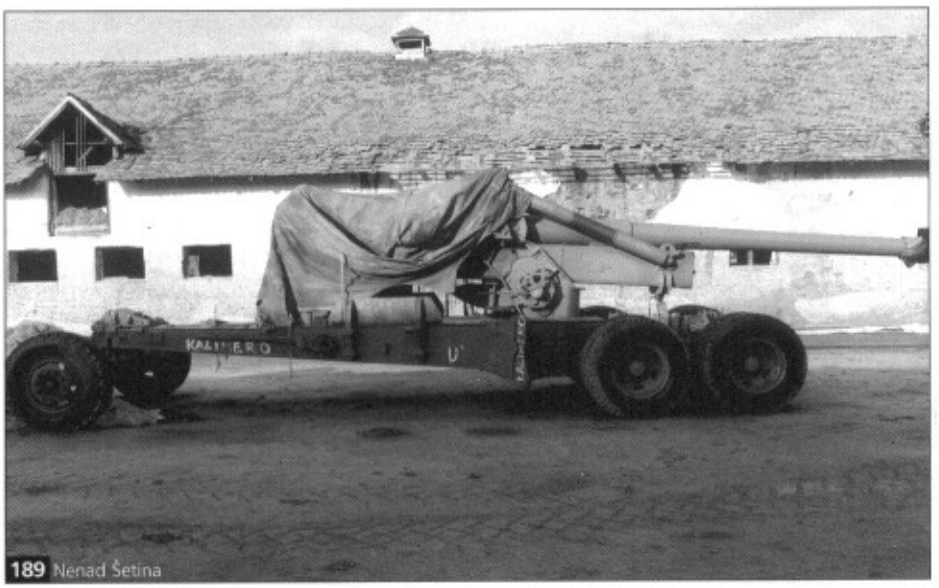
An armored recovery vehicle based on the T-55 tank type BTS-3 from the 2nd Guards brigade. The camouflage pattern resembles a very faded 'Zagreb Group' one with yellow outlined patches on a green base coat. The name of the brigade and symbol (GROM – thunder, and a fist catching lightnings) are stenciled on the crane mount. On the left side of the photo (right part of the vehicle) the white inscription BUBIMIR (a cartoon figure) can be seen on an equipment or tools box.

187 fotodokumentacija HVG

188 fotodokumentacija HVG

Radi embarga na oružje, a ipak odlučna u obrani suvereniteta, Hrvatska je nabavila nekoliko VBR-a od 122 mm na osnovi kamiona Dacia-66T. Ta vozila su dolazila u svojim originalnim shemama (vidi sliku 198 strana 65) ali su kasnije ipak prebojavana. Na slici vidimo jedno takvo vozilo u žuto-sivo-zelenoj shemi negdje na dalmatinskom kršu. Vozilo je vjerojatno iz sastava 1. gardijske brigade.

Because of the arms embargo, but determined to defend its soveregnity, Croatia purchased several 122 mm multiple rocket launchers based on the 6x6 Dacia-66T trucks. These vehicles came in their original patterns (see photo 198 on page 65) but were nevertheless later repainted in a yellow-grey-green pattern. The photo shows such a vehicle somewhere in the Dalmatian rocky ground, most probably belonging to the 1st Guards brigade.



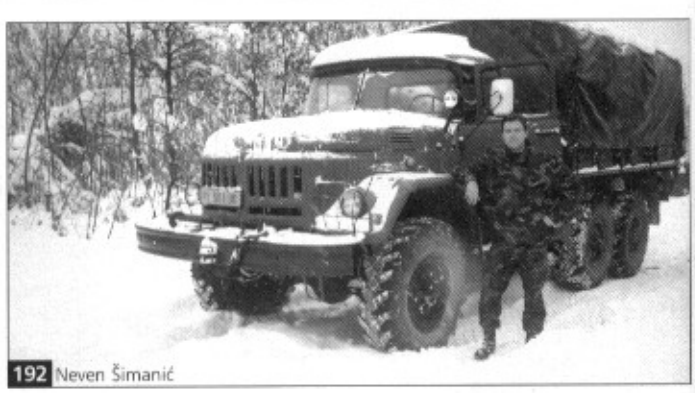
189 Nenad Šetina

Mnoga vozila uključena u jedinice HV-a ostala su u originalnim (vojnim) maskirnim shemama, u istima u kojima su nabavljana. To se prvenstveno odnosi na dio zaplijenjenih vozila JNA koji je tokom cijelog sukoba korišten u originalnoj, najčešće vrlo izbledjeloj 'smb' boji. Na nekim od tih vozila samo su ucrtavani individualni znakovi ili natpisi (poput natpisa KALIMERO na topu M59 od 155 mm, slika br. 189) dok su mnoga vozila prošla i bez toga (Pinzgauer na sl. 191). Novonabavljena vozila, uglavnom posebne namjene, najčešće su zadržavala 'matične' maskirne sheme koje su na nekima bile jednobojne (tamno zelene kao na slikama 190 i 192) dok su na drugima, uglavnom vozilima iz zapadnih izvora, postojale i razvijene maskirne sheme (poput sanitetskih Land Rovera na slikama 193 i 194 u tipičnoj britanskoj tamnozeleno/crnoj shemi).

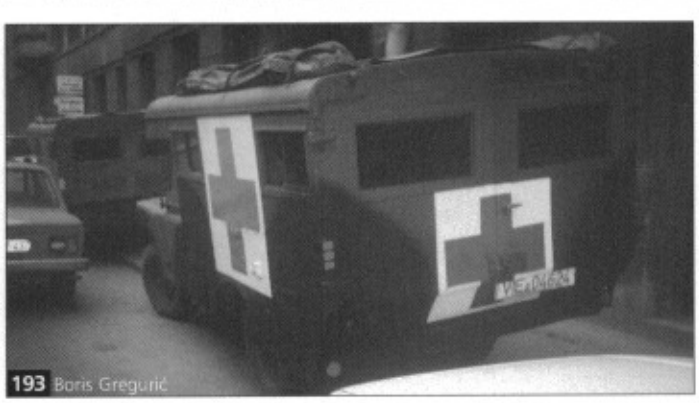
Many vehicles incorporated into the Croatian Army remained in their original paint. In this manner some of the former Yugoslav Army (JNA) vehicles spent all their service life in the Croatian Army in the original faded grey-green scheme, some occasionally received an insignia or inscription (like the KALIMREO on the M59 155 mm gun in photo 189) others simply retained their original livery (like the Pinzgauer on photo 191). Vehicles aquired new were mostly special purpose vehicles and they generally retained the liveries in which they had been acquired. Mostly these were dark green (like the trucks in photos 190 and 191) while others, primarily vehicles bought in the West from military surplus stocks, retained some kind of NATO camouflage pattern (like the green/black ambulance Land Rovers in photos 193 and 194).

190 Vojislav Jereb

191 Jadranko Ećimović



192 Neven Šimanić



193 Boris Gregurić

194 Gordan Laušić

195 Boris Gregurić

196 Nenad Šetina

Nekoliko vozila sa izvornim shemama kako su viđena po dolasku u Hrvatsku. Na slici 195 je istočnonjemački Robur u tamno zelenoj boji, vjerojatno originalnoj nijansi bivše Istočnonjemačke armije. Na slici 196 je Dodge M893/M886 ambulanta, pobojana u tipičnoj američkoj pustinjskoj shemi (svijetlo siva, crveno smeđa i crna boja). Slika 197 prikazuje češki teški kamion Tatra-813 Kolos u originalnoj tamno zelenoj boji sa crveno/bijelim površinama na prednjim odbojnicima te konačno slika 198 pokazuje VBR tipa BM-21 na kamionu Dacia-66T u shemi u kakvoj je kamion dopremljen u Hrvatsku.

Shown are several vehicles in their original colours as they were purchased. In photo 195 is an East German Robur 4x4 truck probably in the original East German dark green pattern. In photo 196 is a Dodge M893/886 ambulance painted in the original US Army desert pattern (weathered light grey, red-brown and black). Photo No 197 shows a heavy Czech 8x8 Tatra-813 'Kolos' truck in its original dark green pattern with red and white areas on the front bumpers. A BM-21 Multiple Rocket Launcher on a Dacia-66T 6x6 truck purchased in Croatia with this original pattern with white short curved lines over a green base coat.

197 fotodokumentacija HVG

198 fotodokumentacija HVG

199 Boris Gregurić

Prikaz u boji nekoliko zanimljivh maskirnih shema. Na slici 199 je UAZ-469 sa višebojnom žuto-zeleno-smeđom shemom preko koje su poprskane crne linije. Obratiti pažnju na natpis na vratima kao i na potpis (vjerojatno autora) ispod stražnjeg prozora. BVP M-80 (sl. 200) na liniji fronte kod Novske početkom 1992 u tamno žutoj, smeđoj, zelenoj i crnoj shemi. UAZ-69 u shemi 'Zagrebačke grupe' (sl. 201) te jedna od originalnijih shema na ovom TAM150 u okolici Karlovca (sl. 202). Na osnovnu žutu boju nanašane su široke linije tamno-zelene i smeđe boje koje su odjeljivane tanjom bijelom linijom. Nije poznato kojoj jedinici pripada.

Several camouflage patterns shown in color. First is an UAZ-469 4x4 utility car (photo 199) with a multicolored pattern. Of note are the HV markings and logo (of the ZMIN service) neatly sprayed on the door, as well as the author's autogram under the back window. An M-80 infantry combat vehicle in a dark yellow, brown, green and black pattern on the Novska front in early 1992 (photo 200). An UAZ-69 in the characteristic pattern of the 'Zagreb Group' (photo 201) and finally a very intriguing attempt – brown and green wide lines with a narrow white line on this TAM150 6x6 in the vicinity of Karlovac (photo 202) of an unknown unit.

200 Boris Gregurić

201 Boris Gregurić

202 Dragan Stanić

203 fotodokumentacija HVG

204 fotodokumentacija HVG

Nekoliko zanimljivih višebojnih maskirnih shema na različitim vozilima – na amfibijskom gusjeničkom transporteru K-61 (slika 203), na dvije 'Prage' V3S M-59 (slike 204 i 205), na trocjevcu BOV-3 (slika 206) i na borbenom vozilu pješadije (BVP) M-80A (slika 207).

Several interesting camouflage patterns on different vehicle types – on an amphibious tracked vehicle K-61 (photo 203), on two 'Praga' V3S M-59 twin 30 mm mounts (photos 204 and 205), on a BOV-3 triple 20 mm mount and on a BVP M-80A infanty combat vehicle.

205 Gordan Laušić

206 fotodokumentacija HVG

207 fotodokumentacija HVG

Prikaz u boji nekih vozila gardijskih brigada. U periodu od početka sukoba, a naročito nakon Sarajevskog primirja, gardijske brigade su bojale svoja vozila u originalnim shemama. Na slikama 208, 209 i 210 su vozila 1. gardijske brigade. Tenk M-84 i BVP M-80 su u tipičnoj četverobojnoj shemi 'hrastovog lišća' dok je T-55 (sl. 208) u pomalo kričavo zelenoj shemi sa crveno smeđim poljima kakva je često viđana u zapadnoj Slavoniji. Oznake vozila na oklopnim vozilima te brigade se rijetko bojaju, tako da je slika 'Bevepejca' sa brojem 1-042 prava rijetkost. BVP 4. gardijske brigade (slika 211) sa tipičnim bojama za tu brigadu do Oluje, te sa urednim bijelim brojem vozila. Bojanje gardijskih vozila u originalnim shemama trajalo je do 1993/94 nakon čega se vozila postepeno bojaju standardno tamno zeleno.

208 fotodokumentacija HVG

209 fotodokumentacija HVG

210 fotodokumentacija HVG

211 Gordan Lausić

Several vehicles of the Guards Brigades in color. From the beginning of the conflict, and particulary after the Sarajevo cease fire, the Guard brigades painted their vehicles with their own patterns. The first three photos show tracked vehicles of the 1st Guards Brigade. The T-55 tank (photo 208) is in a somewhat odd pattern with grass green and brown patches, but the M-84 MBT (photo 209) and M-80 ICV (photo 210) are in the typical 'oak leaves' pattern. Of note are the numbers of the brigade/vehicle (1-042) on the M-80 which are most unusual and very rare to see. Another M-80 BVP (ICV) from the 4th Guards Brigade in their typical pattern with aditional camouflaging nets and white brigade/vehicle number. These original patterns lasted until 1993/94 after which all the vehicle were gradually painted in dark green.

212 fotodokumentacija HVG

213 Danijel Frka

BOV-3 sa natpisima GROM (sl. 212) što podsjeća na ime 2. gardijske birgade ali se ne vidi da li je to stvarno vozilo te brigade ili samo slučajni naziv. Stodesetka iz sastava 1. gardijske brigade (sl. 213) u ponešto 'nestandardoj' shemi, slikan početkom 1993. 'TZI' (Tenk za izvlačenje, slika 214) je ustvari BTS-3 sovjetskog porijekla ali istočnonjemačke konstrukcije, sa maskirnim uzorkom u obliku 'sitnog veza' tj. malih polja boje obrubljenih tankom crnom linijom, česta shema 2. gardijske brigade. BVP M-80A na vježbi gađanja (slika 215) sa amblemom i brojem 3. gardijske brigade. Obratiti pažnju na različitu shemu vozila BOV-1 (POLO M-83) iza 'Bevepejca'.

214 fotodokumentacija HVG

215 fotodokumentacija HVG

A BOV-3 with GROM (Thunder) inscription (photo 212) which was the name of the 2nd Guards Brigade but does not mean the vehicle was theirs. A TAM110 truck of the 1st Guards Brigade (photo 213) in a non-standard pattern, photographed in 1993. A Soviet BTS-3 ARV (photo 214), originally of East German construction, with a very fancy pattern – small colored areas outlined by narrow black lines. This pattern was well liked by the 2nd Guards Brigade. A M-80A BVP (ICV, photo 215) carrying numbers and emblem of the 3rd Guards Brigade on a firing practice. Of note is the anti-tank missile vehicle (BOV-1 M-83) in the back with a totally different pattern.

216 Vojislav Jereb

Kako je na slikama na ovoj strani vidljivo, maskiralo se praktički sve, od pomoćnih vučenih agregata-prikolica do tenkova. Poslije početnih bitaka, od 1992. nadalje, bilo je dovoljno vremena za bojanje pravih shema pa su se time i pojavljivale zanimljive razvijene sheme. Shema na agregatu na slici 216 je neobična jer koristi tanke zelene linije za razdvajanje žutih i smeđih polja, slika 217 prikazuje dva aerodromska vozila na Plesu, dok je slika 218 prava mala studija maskirne sheme tenka T-55 odozgo iz sastava riječke 111. brigade u ljeto 1992.

As seen on the photos of this page, almost everything was painted in camouflage patterns. Starting in 1992, after the initial battles, there was enough time to make reasonable camouflage patterns and therefore some curious developments appeared. In photo 216 a trailer generator is painted in an unusual manner - the green color is used between the yellow and brown tones. Photo 217 shows a pair of airport vehicles at the Pleso airport, while photo 218 is a fine study of the upper camouflage pattern on this T-55 of the 111th Brigade in Summer 1992.

217 Boris Gregurić

218 Emil Požar

219 Vojislav Jereb

220 Vojislav Jereb

Neke maskirne sheme korištene na dalmatinskom i južnom bojištu - na sl. 219 je oklopni automobil UR-416 u četverobojnoj shemi (osnovna tamno zelena sa mrljicama svijetlo smeđe, smeđe i crne boje), ZIL-157K radionica na sl. 220 u trobojnoj shemi (pješčano žuta, tamno zelena i tamno smeđa), red 'tridesetčetvorki' u različitim maskirnim shemama spremnih za rezalište (sl. 221), od kojih je najzanimljivija ona sa dodatnim oklopom na kupoli i tijelu (treća s lijeva) te još jedan red 'tridesetčetvorki' koje čekaju sudbinu (sl. 222) sa shemom 'sivih pjega' (sive pjege obrubljene smeđom bojom te manje tamno zelene pjege na osnovnu svijetlo zelenu, moguće 'smb' boju).

221 Vojislav Jereb

222 Jadranko Ečimović

View of some camouflage patterns used on the Dalmatian (southern) front. Photo 219 shows an UR-416 armored car in a four-color pattern (basic dark green with patches of light brown, brown and black), a ZIL-157K workshop (photo 220) in a three tone pattern (sand, dark green and dark brown), a line up of different camouflaged T-34/85 MBTs being readied for scrapyard (photo 221), the most interesting being the third from the left with additional armor on the turret and on the hull, and finally another line up of T-34/85 tanks also awaiting the torch (photo 222), the nearest having an interesting 'grey patches' pattern (grey patches bordered in brown plus small dark green patches on a pale green, possibly original JNA coat).

223 fotodokumentacija HVG

Prikaz nekoliko tipičnih 'sivih' shema. Takve sheme su se razvile u primorskom dijelu Hrvatske radi velikih površina pod kršom (kamenom) koji je izrazito svijetle, gotovo bijele, boje. Prvi puta su primjećene na vozilima postavljenim za obranu paškog mosta (protuavionskim lanserima raketa 9P31M Strela-1, slika 223) ali su se kasnije razvijane i na ostalim vozilima, kao na pr. na ovoj V3S 'Pragi' (slika 224) te na lanseru protubrodskih raketa MOL (Mobilni obalni lanser, slika 225). Sve su te sheme imale dobar dio maskirne površine pobojan u svijetlo sivoj nijansi.

224 Nenad Šetina

225 Darij Vujanić

View of several typical grey patterns. These patterns were developed in the coastal part of Croatia as there is a substantial proportion of this area covered with stones (Karst) which are very light in color. Such patterns were first noted during the defence of the Pag bridge in 1991 (as seen on the 9P31M Strela-1 anti aircraft missile launcher, photo 223). Later these schemes were developed and can be seen in the photo of a twin 30 mm V3S 'Praga' mount (photo 224) and on the MOL surface-to-ship launcher (MOL – Mobile coastal launcher, photo 225). All these patterns have a substantial proportion of light grey color.

226 Vojislav Jereb

Tamova 'stodesetka' u karlovačkoj 'zelenoj' shemi (slika 226) slikana u Lici u jesen 1994 godine. Osim temeljne maskirne sheme (travnato zelena, smeđa i crna boja) na kamionu je samo uobičajena naljepnica sa hrvatskim grbom. TAM-5000 ZK-1 (slika 227) u maskirnoj shemi koja svojim bojama i uzorkom neodoljivo podsjeća na američke pustinjske sheme. Kako sve to izgleda u stvarnosti na terenu vidimo na slici 228. Ispred vojnika su laki izviđački tenkovi tipa PT-76.

A TAM110 truck in the 'green Karlovac' pattern (photo 226) photographed in the Lika region in 1994. Except for the pattern on the vehicle there is only a Criatian shield sticker. A TAM-5000 ZK-1 command car with colors and pattern very similar to the American desert pattern. How all of it look in reality is seen in photo 228 with two PT-76 light reconassaince amphibious tanks in the foreground.

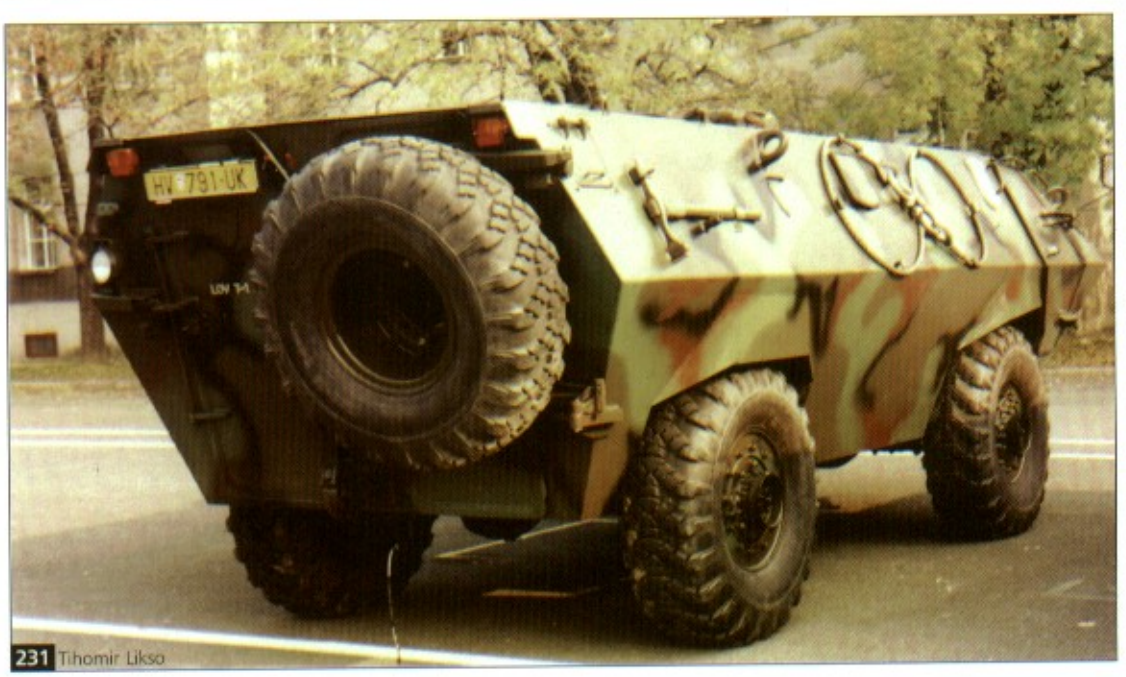
227 Boris Gregurić

228 Boris Gregurić

229 Dokumentacija HVG

Zanimljiva maskirna shema na vozilu BOV-1 (POLO – protiv oklopno lansirno oruđe M-83) 9. gardijske brigade 'Vukovi' (slika 229). Tko kaže da se maskiranje postiže samo bojanjem? Ozbiljnim glasinama da je Njemačka prodala novouspostavljenoj Hrvatskoj Vojsci tenkove Leopard sigurno su doprinjela i ovakva vozila i oznake na njima (slika 230). Opustite se, ne radi se o njemačkom Leopardu nego o 'običnoj pedesetipetici' obučenoj u oklopnu gumu. Novo proizvedeno laka oklopna vozila LOV u zanimljivoj maskirnoj shemi (slika 231).

230 Gordan Laušić

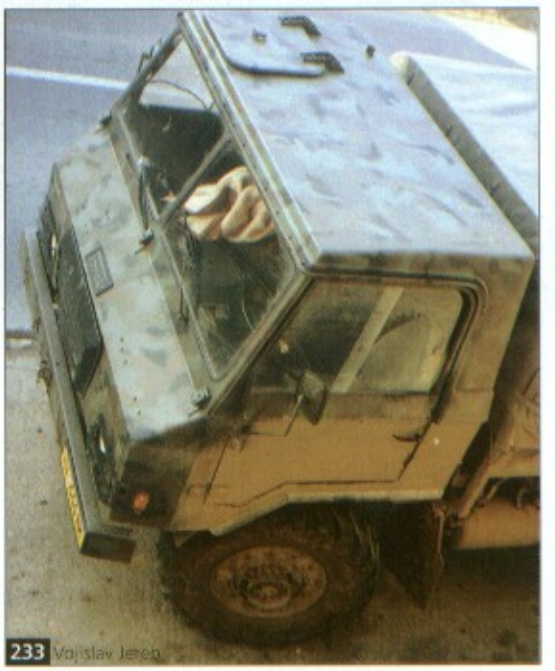


231 Tihomir Likso

An interesting pattern on an anti-tank missile launcher vehicle type BOV-1 M-83 (POLO, photo 229). And who says good camouflage is only achieved with paint? The rumors that Germany has sold some Leopard tanks to the Croatian Army must have been fed by vehicles like this one in photo 230. Relax, it is not a Leopard, it's a common T-55 with some additional rubber armor around it. A Light Armored Vehicle (LOV) of new production with an interesting pattern (photo 231).

232 Vojislav Jereb

Postojale su i neke vrste 'tvorničkih' shema. Proizvodnja vojnih vozila stasala je nakon Sarajevskog primirja, i do završnih operacija za oslobođenje proizvedena su neka vozila za HV u Hrvatskoj. Tako se u riječkoj tvornici Torpedo krenulo sa proizvodnjom hrvatske 'stodesetke' što je bio razvoj slovenskog TAM110 pod oznakom Torpedo 130 (sa motorom od 130 KS) kao i familije lakih oklopnih vozila (LOV). Torpedove 'stodesetke' su iz tvornice dolazile u dvije osnovne sheme - krupnom i sitnom. Obe su koristile četiri boje propisane zakonom od 1993. U tu grupu baš i ne spada shema na sl. 234, no u toj shemi su bojana sva vozila na vojnom mimohodu na Jarunu 1997. godine.

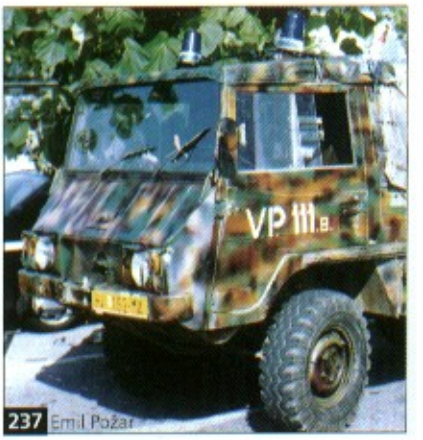

233 Vojislav Jereb

Some industrial patterns existed too. The production of military vehicles began only after the Sarajevo treaty in early 1992, and some vehicles were manufactured in Croatia for the Croatian Army up through the final operations in 1995. For instance the Torpedo factory in Rijeka started the production of an upgrade of the popular '110' truck, the Slovenian built TAM110. This truck was designated Torpedo 130 (with a 130 HP engine). In addition they manufactured a family of light armored vehicles (LOV). The Torpedo 130s left the factory with two different paint patterns - the 'large patches' and the 'small patches'. Both pattern used the four standard colors as prescribed in 1993. This group does not match the pattern in photo 234, but represents a pattern seen on all vehicles used in the Zagreb - Jarun 1997 parade.

234 Miroslav Lekovanić

235 Nedeljko Pinezić

236 Gordan Laušić



237 Emil Požar

238 Boris Gregurić

239 Boris Gregurić

Početno označavanje vozila Vojne policije bilo je vrlo raznovrsno. Pored natpisa VOJNA POLICIJA, POLICIJA HV ili jednostavno V.P. na vratima, haubama i tablicama, počeli su se pojavljivati i bedževi Vojne policije. Tako na slici 235 vidimo jednu od početnih oznaka sa natpisom VOJNO REDARSTVO koja se preko raznih varijacija pretvorila u okrugli znak Vojne Policije (vidi sl. 245 na str. 77) koji se zadržao prilično dugo. Vozila Vojne policije nisu u početku bila posebno bojana - jednostavno su zadržavala boju ili shemu prijašnjeg korisnika, bilo da se radilo o običnim civilnim vozilima (sl. 238 ili 239) ili vozilima vojnog porijekla (ostale slike).

First markings on the vehicles of the Military Police were very heterogeneous. These included inscriptions like VOJNA POLICIJA (Military Police), POLICIJA HV (Police of the Croatian Army) or simply V.P. (MP) on the doors, engine covers and registration plates. They also included military police shields. Photo 235 shows an early vehicle with the inscription VOJNO REDARSTVO (Military monitor duty). The innumerable variations led to the development of the circle like badge (see photo 245 on page 77), which lasted reasonably long. Military Police vehicles did not have a special livery in the beginning. They simply retained the colors of the former user of the car - either civilian (photos 238 and 239) or military (other photos on this page)

240 Boris Gregurić

241 Gordan Laušić

242 Boris Gregurić

243 Vojislav Jereb

244 Gordan Laušić

245 Gordan Laušić

246 Gordan Laušić

247 Vojislav Jereb

Nakon početnih 'ad hoc' shema i označavanja s vremenom su vozila Vojne policije dobivala izgled primjereniji toj službi. Konačni izgled (u obliku trokuta) znaka Vojne policije zamjenio je početni (u obliku kruga, sl. 245), a patrolna vozila dobivaju bijelo-zelene sheme slične početnim shemama civilne Policije (MUP-a). Na slikama su prikazane i neke rijetke sheme (poput furgona na sl. 247), a na koncu su se pojavile i sheme slične suvremenim shemama civilne Policije (sl. 249)

248 Tihomir Likso

249 Vojislav Jereb

After the first 'ad hoc' patterns and markings, more standard patterns were applied as time passed. The final triangular shape of the badge suppressed the circle-like shape (photo 244), and the patrol cars began receiving more suitable white-green patterns very similar to the initial civilian Police vehicles. Photos show a very rare pattern (the van on photo 247) and the final pattern that are very similar to the recent civilian Police patterns (photo 249).

250 Boris Gregurić

251 Gordan Laušić

252 Gordan Laušić

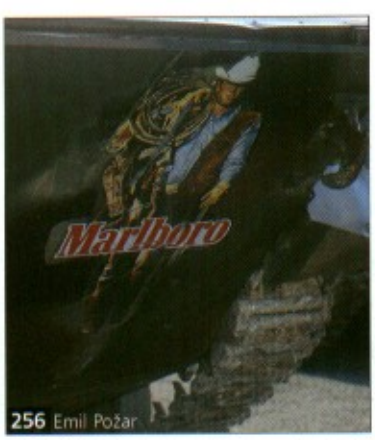
253 Vojislav Jereb

254 Gordan Laušić

Razne oznake na vozilima Hrvatske vojske. U početku sukoba najčešća oznaka je bila naljepnica sa grbom i natpisom HRVATSKA VOJSKA (sl. 251), a kasnije su se s vremenom razvijane i ostale originalne oznake, bilo na naljepnicama bilo bojane preko šablona. Uglavnom su prevladavali motivi nacionalnog sadržaja (sa hrvatskom šahovnicom kao najčešće korištenim simbolom), ali pojedine oznake (poput 'Jastoga' na sl. 250 ili oznaka na sl. 252, 253 i 254) simboliziraju samo pojedinu jedinicu. Bilo je i oznaka (sl. 256) koje nisu imale nikakve veze sa ničim. U takvim situacijama izgleda da je bitno bilo ukrasiti vozilo.

Several different shields and insignias on vehicles of the Croatian Army. At the beginning of the conflict the most numerous were the decals with the Croatian shield and the inscription HRVATSKA VOJSKA (CROATIAN ARMY, photo 251) while later different and more original insignias were developed, either painted or decals. The most numerous were insignias with the national symbol (Croatian checkered shield) but some units (like the Lobsters on photo 250 or the insignias on photos 252, 253 and 254) painted only their markings. There were markings, which did not symbolize anything. It seems that on such occasions the only thing that matter was to somehow decorate the vehicle (photo 256).

255 Boris Gregurić



256 Emil Požar

257 Jadranko Ećimović

258 Emil Požar

259 Emil Požar

260 Emil Požar

261 Boris Gregurić

Ponekad se u maskiranju i označavanju vozila išlo i u ekstreme, pa tako susrećemo crteže i natpise koji su prava mala umjetnička remek-dijela koja međutim sigurno nisu imala nikakve maskirne niti borbene vrijednosti, možda jedino na polju podizanja morala. Dva slikana vozila (slike 258, 259 i 260) su iz sastava 118. brigade dok 'Spaček' slikan u Zagrebu (slika 261) sa maskirnim mrljama u obliku Playbojevih zečića i patkica vjerojatno ne pripada niti jednoj brigadi.

Sometimes the mania to paint and mark the vehicles went far beyond the true need for battle camouflage. These airbrush decorations were of little value on the battlefield but were well liked by the troops. Two vehicles (in photos 258, 259 and 260) were from the 118th Brigade, while the Citroen 2CV photographed in Zagreb (photo 261) with camo patches in the shape of the Playboy bunny and small ducks probably did not belong to any brigade.

262 fotodokumentacija HVG

263 fotodokumentacija HVG

264 fotodokumentacija HVG

Završne operacije za oslobođene okupiranih dijelova Hrvatskog teritorija planirane su i izvršene munjevito sa velikom koncentracijom snaga i velikim brojem vozila. Pošto je većina vozila u sastavu Hrvatske vojske zarobljena od neprijatelja s kojim je u tim operacijama predstojila borba, za brzo raspoznavanje svojih vozila od neprijateljevih korištene su posebne oznake za brzo raspoznavanje. U prvoj od tih operacija (Blijesku) kojom je osobađena zapadna Slavonija (početkom svibnja 1995) primjećene su samo bijele i žute šesterokrake zvijezde na vozilima 3. gardijske brigade (sl.262). Mnogo masovnija i sveobuhvatnija operacija oslobađanja sektora Sjever i Jug (Oluja) pripremljena je detaljnije i po pitanju tog označavanja, pa su u zoru 4. kolovoza 1995 vozila Hrvatske vojske osvanula najčešće sa točkama, krugovima, trokutima raznih veličina bijele, kričavo žute, kričavo zelene ili kričavo ružičaste boje (sl.264, 265 i 266), dok su neka vozila (uglavnom oklopljeni točkaši) imala i uzdužne bijele široke crte na gornjim površinama vozila (sl.263). Na sl.266 prikazana je kupola tenka T-55 nakon Oluje, sa anakronim oznakama svih situacija kroz koje je prošao u samo pet godina - od JNA bijelog armijskog broja preko hrvatskog grba do bijelog kruga 'Oluje'.

The final operations for liberation of the occupied Croatian territories were carefully planned and executed very rapidly with a high concentration of forces and a lot of vehicles. As most of the vehicles and equipment had originally come from enemy stocks, there was an urgent need for quick and positive identification of friendly vehicles. The first operation (Blijesak - Lightning) led to the liberation of the western Slavonia area in early May 1995. On this occasion only some white and yellow six pointed stars on the vehicles of the 3rd Guards Brigade were noted (photo 262). The second operation (Oluja - Storm) was much greater and led to the liberation of former UNPROFOR sectors North and South. This operation was planned more carefully, to include the identification of friendly vehicles. In the early dawn of the 4th August 1995, Croatian vehicles appeared carrying various sizes of dots, circles and triangles of white, day-glo yellow, green or pink color (photos 264, 265 and 266), while some wheeled armored vehicles displayed horizontal white stripes on upper surfaces (photo 263). In photo 266 a T-55 turret is shown after Operation Storm, with insignias of all the periods of the war, over the previous five years. This starts with the white JNA serial number, through the Croatian shield to the white Operation Storm circle.

265 fotodokumentacija HVG

266 Vojislav Jereb

VOJNA POLICIJA

Kao i kod svih armija u svijetu, nastankom ZNG-a nastajala je i Vojna policija. Poput vojske iz koje je iznjedrena i Vojna policija dijeli njenu sudbinu, a time i tipove i sheme vozila koje su u upotrebi u ZNG i kasnije HV.

U početku su korištena obična civilna vozila, sa minimalnim oznakama Vojne policije. Za normalne patrolne zadatke po dobrim cestama to je bilo dovoljno, no za potrebe terenskog dijelovanja ne. Zato se gledaju koristiti i civilni automobili sa pogonom na sva četiri kotača (džipovi) dok nije bilo na raspolaganju dovoljno džipova ili sličnih vozila (najčešće Pincgauera) vojnog porijekla.

Kao ni kod ZNG-a, u početku nisu postojale određene dogovorene oznake Vojne policije. Radi toga postoji šarenilo amblema, grbova, bedževa i naročito natpisa poput 'VOJNO REDARSTVO', 'POLICIJA', 'V.POLICIJA', 'VOJNA POLICIJA', 'V.P.', 'POLICIJA HV' i sl. Tek se u proljeće 1992 pojavljuje jedinstveni zlatni okrugli amblem Vojne policije koji zamjenjuje sve početne improvizacije. Taj amblem je 1994 zamijenjen trokutastim 'V' amblemom koji je u upotrebi i danas

Posebne sheme na vozilima Vojne policije u početku nisu postojale. Vozila koja su dolazila iz civilnih izvora najčešće su zadržavala originalnu boju, a vozila dobivana od stane ZNG/HV zadržavala su svoje sheme, uglavnom maskirne.

Prve 'policijske' sheme na osobnim automobilima počele su se korirstiti tek nakon primirja 1992 godine, a u osnovi se nisu promijenile do danas. Za vozila koja služe za pratnju i kontrolu prometa koriste se kombinacije bijele i travnato zelene boje (nijanse propisane u ožujku 1993 prema RAL-u). Ostala vozila se počinju prebojavati u jedinstvenu tamno zelenu boju kao i sva druga vozila HV-a, naravno sa obaveznim policijskim obilježjima.

267 Dario Vuljanić

Oklopno izviđačko vozilo BRDM-2 u maskirnoj shemi 'Zagrebačke grupe' sa natpisima i oznakama Vojne policije.

A light armored reconessaince car BRDM-2 in the 'Zagreb Group' camouflage pattern and with inscriptions and insignias of the Military Police.

MILTARY POLICE

As with all armies in the world, with the origination of the ZNG the Military Police was developed too. As with the parent army the Military Police shared its destiny and with it the vehicle types and patterns.

In the beginning civilian vehicles were in use of course, with minimal Military Police insignia. For regular patrol duties on roads it was enough, but for off road duties it was not. That is why many civilian 4x4 cars were purchased until more military type 4x4 vehicles were available, mostly 'jeeps' and Pinzgauers of military origin.

As in the ZNG, in the beginning there were no uniform Military Police insignias. In use was a variety of amblems, shields, badges and especially inscriptions like 'MILITARY MONITOR DUTY', 'POLICE', 'M. POLICE', 'MILITARY POLICE', 'M.P.', 'HV POLICE' or similar. Only in spring 1992 a uniform Military Police golden badge appeared which superseded all previous improvisations. In 1994 this amblem was changed to a V-type triangular badge which is in use today too.

In the beginning neither unique patterns did not exist for Military Police cars. Cars coming from civilian sources retained their original color while those coming from ZNG/HV retained their military, most often camouflage colors.

The first police patterns on cars were noted only after the cease fire in 1992 and are very similar to the pattern in use today. Vehicles used for escort or traffic control had a combination of white and grass green (asparagus green RAL-36) areas prescribed in 1993. Other vehicles share the destiny of all army vehicles being painted in dark green overall, with the proscribed Military Police marks.

268 Vojislav Jereb

Na početku rata osnova motocikličke snage Vojne policije činili su donirani motocikli tipa Kawasaki 400.

At the beginning of the war the motocycle force of the Military Police was represented by donated Kawasaki 400 bikes.

RAZVIJANJE OZNAČAVANJA

Kako je već spomenuto, zakon o obaveznom označavanju vojnih vozila vojnim registarskim pločicama donešen je u studenom 1991., a prve pločice su se mogle vidjeti na vojnim vozilima u prosincu iste godine. Tako je šarenilo registarskih tablica nestalo uglavnom u prvoj polovini 1992. godine.

Nije poznato da je u to vrijeme donešen neki propis koji regulira označavanje borbenih vozila nekakvim nacionalnim simbolom ili individualnim brojkama. Radi toga oznake na svim, pa tako i borbenim, vozilima ostaju veoma raznolike.

Isto tako nema propisa o individualnom označavanju jedinice na vozilima, pa se nakon primirja s početka 1992. godine nastavlja šarenilo natpisa i crteža po mnogim vojnim vozilima. Na nekim vozilima oznake i natpisi se samo nakalemljuju jedni na druge, a dio oklopnih vozila zadržava čak i bivše JNA evidencijske brojeve. Kako ciklički odlaze na prebojavanje (od 1994. pa nadalje u jedinstvenu tamno zelenu nijansu) sa vozila nestaju i svi ti individualni natpisi, crteži ili oznake jedinica. Na novopobojanim vozilima primjećivane su samo oznake gardijskih brigada i Vojne policije.

Šarenilo označavanja natpisima, oznakama i najraznovrsnijim naljepnicama (koje često nisu imale nikakve veze sa vozilom ili jedinicom) trajalo je nekako do završnih vojnih operacija za oslobođenje zemlje 1995. Nakon Oluje veliki broj pričuvnih brigada i domobranskih pukovnija se rasformira i time je veliki broj vozila povučen u rezervu. Ispravna se vozila i dalje prebojavaju, ali ne dobivaju nikakve oznake.

Niti neposredno po završetku rata nije primjećeno da su se oklopna vozila počela označavati po nekakvom jedinstvenom sistemu.

Posebnu, jedinstvenu i kratkotrajnu, priču predstavlja označavanje vozila za vrijeme akcija kojim su oslobđeni gotovi svi okupirani krajevi Hrvatske. Radi velike koncentracije ljudstva i tehnike u tim operacijama te posebno radi priče koja se ponavljala još od 1991. da je većina vozila bila identična tipovima koje koristi neprijatelj, moglo je pre lako dolaziti do zabuna. Radi toga se uvode privremene oznake velike uočljivosti da mogućnost zabune bude svedena na minimum. U operaciji za oslobođenje zapadne Slavonije (Blijesak) primjećene su samo neke manje oznake na vozilima 3. gardijske brigade, kao da je iskušavan taj sistem. No u Oluji je to maksimalno korišteno, posebno na borbenim vozilima. Noć prije početka operacije na vozila su ucrtavana mala ili velika polja bijele boje. Najčešće su to bili točke, krugovi, kvadrati, puni i prazni trokuti, ili su jednostavno pojedini dijelovi vozila/oruđa bojani u bijelo - poput komora za evakuaciju barutnih plinova na tenkovskim topovima. Na nekim vozilima su na gornjim površinama bojane široke bijele trake uzduž vozila. Nastavljanjem zajedničkih operacija oslobođenja u BiH korištene su na vozilima HV i žute, kričavo zelene ili ružičaste površine.

Završetkom tih operacija sve te privremene oznake vrlo brzo nestaju.

THE DEVELOMPENT OF MARKINGS

As mentioned earlier, the regulation of obligatory markings on military vehicles with registration plates was prescribed in November 1991. The first miltary registration plates were noted in December of that year and by early 1992 all the variety of other plates dissapeared.

It is not known if any regulation of that time exists which prescribes any use of national or other symbols or numerals on combat vehicles. That is why markings on all, including combat, vehicles remain very various.

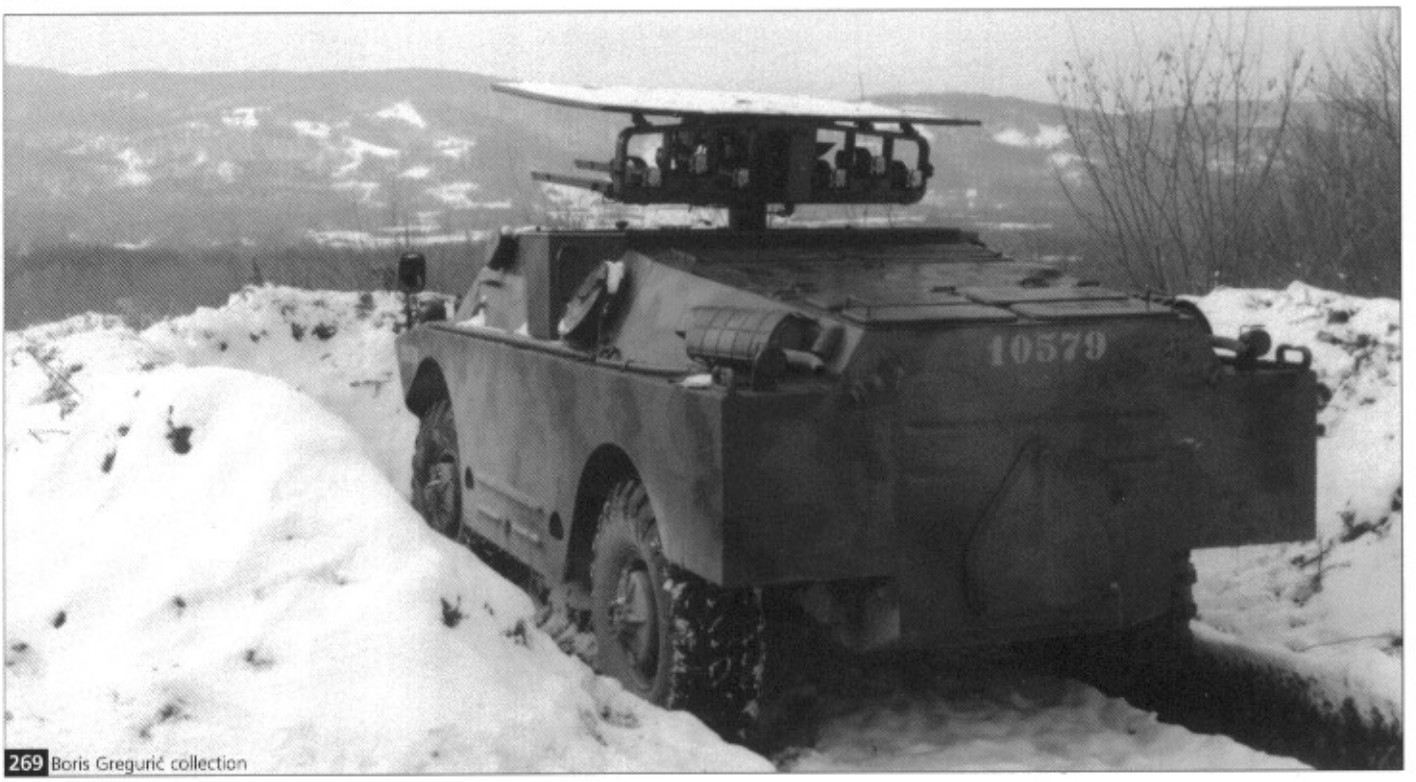
There is also no regulation proscribing individual unit markings and that's why after the armistice the incredible variety of inscriptions and drawings on vehicles goes on. On some vehicles markings and inscriptions ware painted one upon another while many combat vehicles retained the original Yugoslav Army serials. As the vehicles were ciclicaly withdrawn for painting (from 1994 onwards in an overall dark green pattern) all those markings and inscriptions dissapear. On newly painted vehicles only Guards Brigades badges and Military Police insignia were noted.

The variety of markings, inscriptions and stickers (which often did not have anything to do with the vehicle or unit) lasted somehow until the final operations for liberation of Croatia in 1995. After the 'Storm' operation all the Reserve Brigades and Home-defence Regiments were disbanded and their vehicles put into reserve. All usefull vehicles continue to be repainted but they do not receive any markings.

Not even after the final campaigns any unique system of combat vehicles markings were noted.

Another uniqe and short story represent the markings used for final operations, Bljesak (Lightning – liberation of the western Slavonia region) and Oluja (Storm – liberation of Lika, Banija, Kordun and the Knin area) in mid 1995. Because of huge concentration of man and vehicles, and because of the types used (identical of those used by the enemy) confusion could very easily occur. That is why quick identification markings were introduced to minimize these posibilities. In the first of this operations (Bljesak) only some smaller markings were noted on vehicles of the 3rd Guards Brigade, as if the system was to be proved. In the final operation (Bljesak) during August 1995 this system was further developed and the night before beginning of the opeartion smaller and larger areas of the vehicles were painted in white. Most frequently they were spots and circles but also squares, trinagles and parts of the vehicle (especialy parts of gun tubes) receiving a coat of white paint. Some vehicles had also large white lines on the top surfaces. The continuing operations in Bosnia and Herzegovina after the 'Oluja' marked the introduction of similar areas in yellow, dayglo orange and dayglo green paint.

With the end of combat operations all those marks dissapeared.



269 Boris Gregurić collection

Dvije slike tipičnog označavanja vozila od početka rata pa sve do završnih operacija 1995. Prve brojke bi označavale brigadu, a ostale brojke vozilo unutar brigade. Tako na slici 269 vidimo protuoklopno lansirno oruđe (POLO) sovjetskog porijekla 9P122 sa žutim brojevima 10579 što označava 79. vozilo u 105. brigadi. Na slici 270 je tenk T-55 iz sastava 4. gardijske brigade sa bijelim brojem na prednjoj oklopnoj ploči od čega prvi broj (4) označava gardijsku brigadu.

Two photos of typical markings on vehicles during the period from the beginning of the war up to the final operations in 1995. The first digits represented the Brigade number while the others denoted the vehicle number inside the unit. In photo 269 an anti-tank missile launcher type 9P122 is seen with the yellow 10579 numbers. The '105' denotes the 105th Brigade while '79' is the vehicle number. The T-55 tank on photo 270 is on the roster of the the 4th Guards Brigade. The first digit of the number on the glacis plate (4) denotes the Guards Brigade.

270 Gordan Lausić

272 Emil Požar

271 Emil Požar

Označavanje pripadnosti Hrvatskoj bilo je vrlo maštovito na mnogim vozilima. Pored veoma rasprostranjenih višebojnih naljepnica sa hrvatskim grbom sa i bez natpisa HRVATSKA VOJSKA preko najobičnijih oznaka države za osobne automobile (CRO), crtanje grbova ili čak cijele Hrvatske nije bila rijetkost. Na kamionu TAM-4500 4x4 (sl.271) autor se potrudio ucrtati siluetu Hrvatske, ispuniti je nacionalnim bojama te u gornjem crvenom polju ucrtati i malu šahovnicu (vidi umetak sl. 272). Ne želeći se odreći šahovnice kao simbola državne pripadnosti a ne želeći suviše demaskirati svoja sredstva, neka vozila 108. brigade ucrtavala su pojednostavljeni grb (bez gornje krune sa malim povijesnim grbovima) samo sa crvenim poljima (slika br. 273). Isti sistem obilježavanja, samo sa crvenom bojom, korišten je i na ovoj protivavionskoj samohotki ZSU-57-2 (sl.274), ali je autor izradio šablone i za gornju krunu. Ta samohotka je kasnije, korištenjem u 121. brigadi, dobila još i natpise te brigade.

273 Nenad Šetina

274 Nenad Šetina

The need to demonstrate Croatian origin was felt very strongly and many crew equipped their vehicles with any kind of available national insignia. Most common were the multi-colored stickers with the Croatian shield (with and without the inscription CROATIAN ARMY), but also simple car stickers denoting the country of origin (CRO) were frequently used. Drawings of such insignia were very common too. In photo 271 a TAM-4500 4x4 truck is shown with a silhouette of the map of Croatia, filled with national colors (red, white and blue) and a small Croatian checkered symbol on the band of color (see insert, photo 272). Not wanting vehicles to be without the red and white checkered national shield but knowing the particular vulnerability of such insignias in battle, crews of the 108th Brigade painted their vehicles with the shield, but only the red squares (photo 273), omitting even the 'crown' on top of the national shield containing the five historic Croatian shields. The same job was done on this ZSU-57-2 self propelled twin AA gun carriage (photo 274) but using stencil type spraying, although in this case the 'crown' was painted as well. This particular vehicle was later assigned to the 121st Brigade and received inscriptions from that unit.

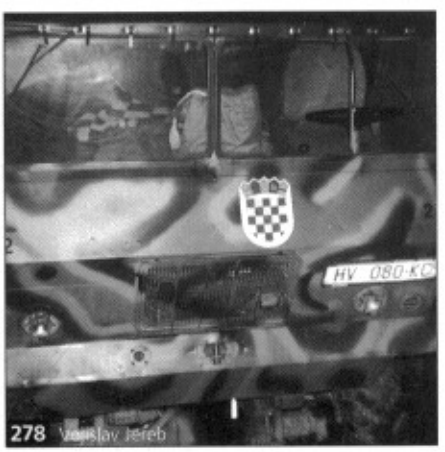
275 fotodokumentacija HVG

Maskirne sheme nakon ratnih zbivanja 1991/92 mijenjaju se s vremenom i variraju od šarenih poput ove na komandnom gusjeničnom vozilu BTR-50PU na smotri 2. gardijske brigade (slika 275) do jednobojnih poput zelenog lansera raketa Strela-10 na modificiranom oklopnom vozilu na bazi TAM150 T11 nazvanog CroStrela-10 (slika 276). Vozila su često prebojavana prije nekog mimohoda i nakon toga su ostajala u tim maskirnim shemama.

Camouflage patterns after the war events in 1991/92 changed in time and varied from multi-colored patterns like the command vehicle type BTR-50PU seen on a 2nd Guards Brigade inspection (photo 275) to the overall green seen on the CroStrela-10 modification (photo 276). The CroStrela-10 was an armored modification of the TAM150 T11 truck fitted with a Strela-10 launcher turret. Vehicles were often painted before a parade and then left in that pattern.

276 fotodokumentacija HVG

277 Silvano Ježina

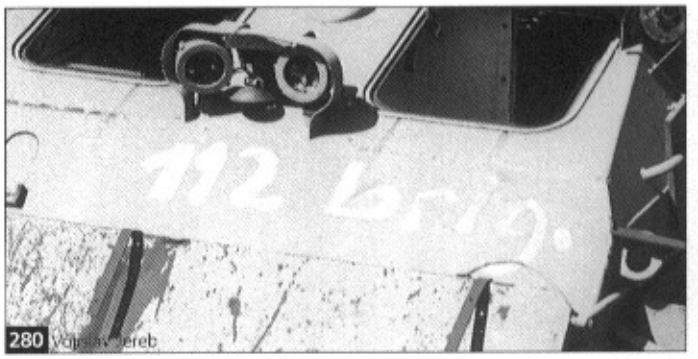


278 Vjekoslav Jeřeb

Sa razvojem Hrvatske vojske razvijao se i način obilježavanja vozila brojevima, iako generalni sistem nije postojao do 1995. Mnogi tenkovi starijeg tipa poput T-34/85 na sl. 277 dobivali su brojeve iz serije 9xx, dok su neka artiljerijska oruđa i njihova prateća vozila dobivali brojeve ovisno o položaju unutar jedinice/bitnice. Tako na slici 279 vidimo 'Pragu' V3S sa bijelim brojem '04' na prednjem motornom dijelu, pored oznaka za brzu identifikaciju korištenim u toku 'Oluje'. Mala slika (sl. 278) prikazuje vučno vozilo TAM150 u sastavu neke bitnice 9. gardijske brigade, a na prednjem dijelu lijevo i desno vide se mali crni brojevi '2' koji označavaju kojem oruđu pripada.

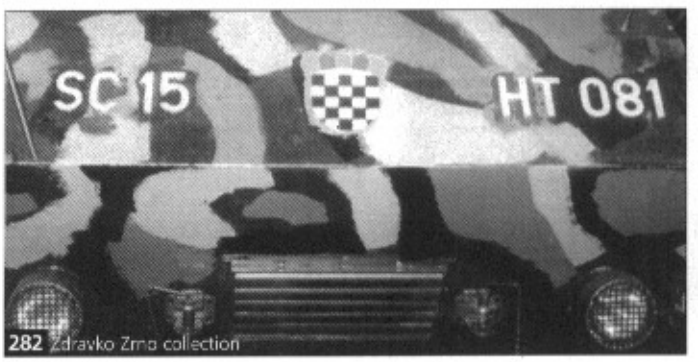
As the Croatian army continued to develop so did vehicle numbering, although until the end of combat operations in 1995 no system had been fully implemented. Many older tanks, like this Soviet WWII T-34/85 (photo 277) received numbers in the 9xx range, while artillery pieces and their tractors received numbers according to the position in the unit. In photo 279 a V3S 'Praga' is shown with a white '04' number together with Operation Storm quick identification dots and stripes. The smaller photo (No.278) shows a TAM150 artillery tractor of the 9th Guards Brigade with small black '2' on the far left and right front of the vehicle, indicating the number of the artillery piece within the battery.

279 fotodokumentacija HVG

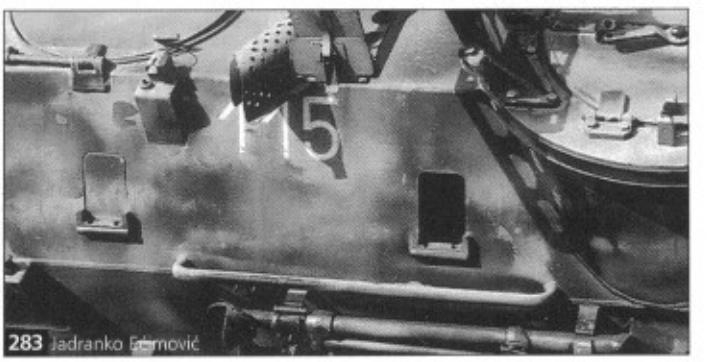


280 Vojislav Jereb

281 Emil Požar

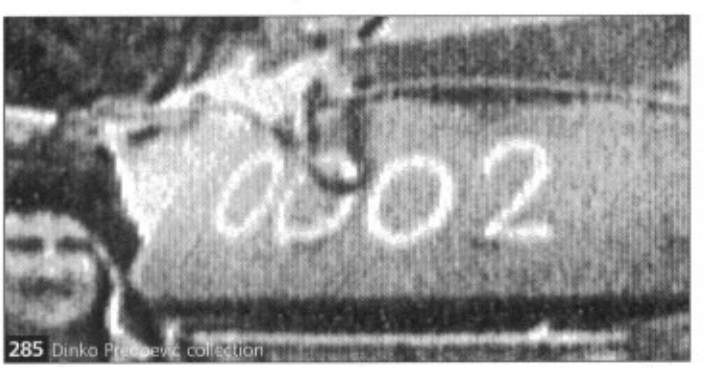


282 Zdravko Zmo collection



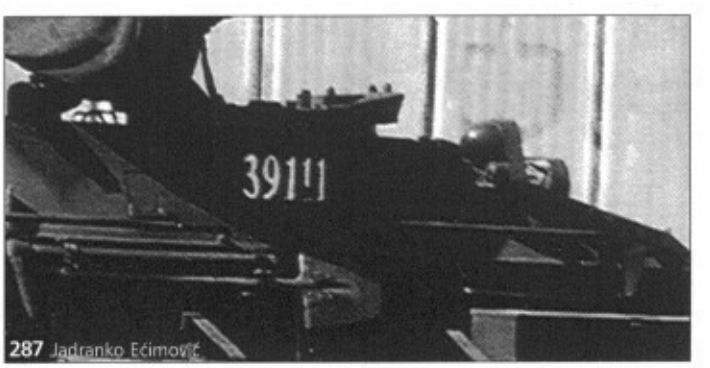
283 Jadranko Ećimović

284 Jadranko Ećimović



285 Dinko Prečepević collection

286 Jadranko Ećimović



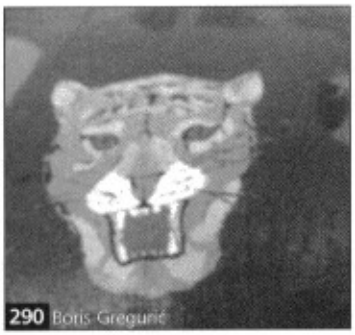
287 Jadranko Ećimović

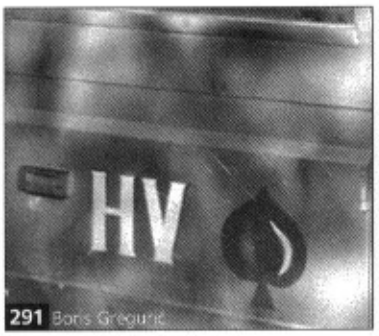
Primjeri obilježavanja vozila brojevima. Značenje brojeva je različito i ponekad potpuno nepoznato, a najčešće prve znamenke označavaju broj brigade (kao na sl. 281 i 286). Na sl. 283 je dio bivšeg JNA broja vjerojatno iskorišten za broj brigade. Na improviziranim oklopnjacima iz početka rata (slika 282) namjerno su upisivani visoki brojevi da bi se zavaralo neprijatelja o stvarnom broju tih vozila.

Several examples of vehicle numbering. The meaning of the numbers is different and sometimes unknown. Most common was that the first three digits representing the number of the Brigade (as shown in photos 281 and 286). In photo 283 part of the ex JNA number was used probably to represent the Brigade number as well. On improvised armored vehicles (photo 282) high numbers were painted from the beginning to confuse enemy intelligence about the real number of such vehicles.

288 Jadranko Ećimović

289 Gordan Laušić


290 Boris Gregurić



291 Boris Gregurić

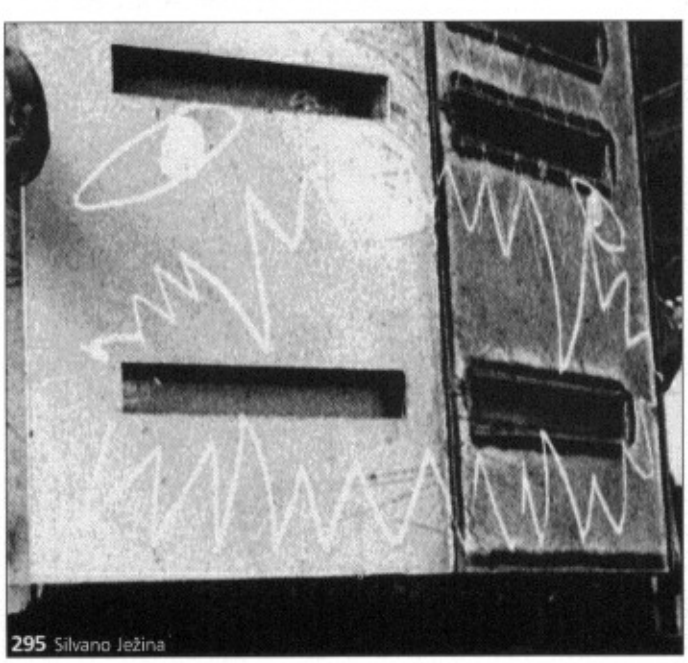
292 Boris Gregurić

293 Emil Požar

294 fotodokumentacija HVG

Slike na ovoj i slijedećoj strani: Prikaz nekoliko tipičnih oznaka na vozilima. Pored najčešće korištenih i uobičajenih oznaka pripadnosti (grb RH, natpis ZNG ili CRO, naljepnice sa grbom i natpisom HRVATSKA VOJSKA i sl.) mnoga su vozila na sebi nosila oznake bedža jedinice ili jednostavno neki crtež. Gardijske brigade su među prvima razvile svoje specifične oznake/crteže koji su se mijenjale tokom vremena. Mnogi crteži su bili čisto individualni i nevezani za jedinicu kojoj je vozilo trenutno pripadalo.

Photos on this and opposite page: Several examples of typical shields and insignia on different vehicles. Apart from the most common used markings (Croatian shield, ZNG or CRO inscriptions, stickers with the shield and CROATIAN ARMY inscription etc.) many vehicles carried the unit badge or simply some drawings. The Guards Brigades first developed their specific markings that changed as time passed. Many drawings were informal individual ones, nothing to do with the unit to which the vehicle belonged.


295 Silvano Ježina

296 Boris Gregurić collection

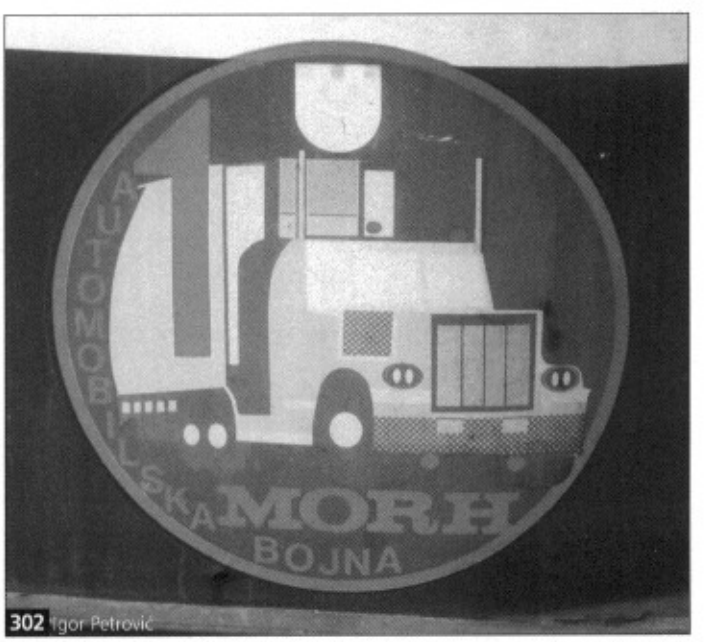
297 Boris Gregurić

298 fotodokumentacija HVG

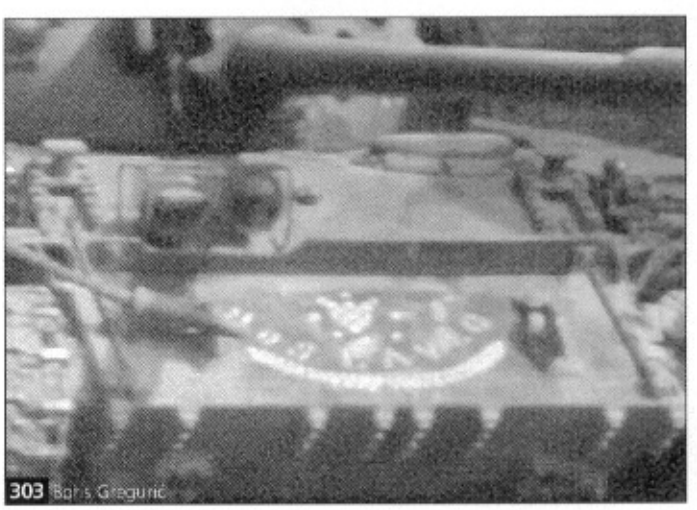
299 Vojislav Jereb

300 Emil Požar

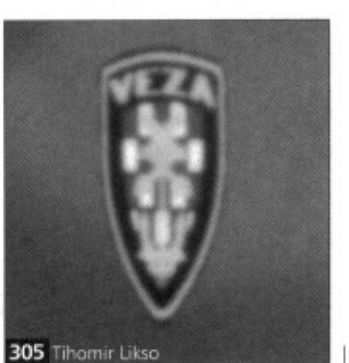
301 fotodokumentacija HVS



302 Igor Petrović


303 Boris Gregurić

304 Stipe Živaljić



305 Tihomir Likso

Slike na ovoj strani: Neke posade, posebno za oruđa sa mnogobrojnim posadama, osjećale su potrebu da imena svih članova posade zapišu na nekom mjestu, najčešće na samom oruđu. Tako su mnoga vozila i oruđa imali na sebi ispisana mnoga imena, ponekad i nadimke. Obratiti pažnju da je na haubi kamiona na sl. 306 ispisano i ime vozača.

Photos on this page: Some crews, especially the more numerous ones, felt that they had to paint their names somewhere, generally on the very piece of equipment they were serving. A large number of trucks or weapons had a multitude of names and nicknames painted on them. Note that on the engine cover of the truck in photo 306 is painted the name of the driver.

306 fototeka Muzeja Grada Rijeke

307 Gordan Lauš

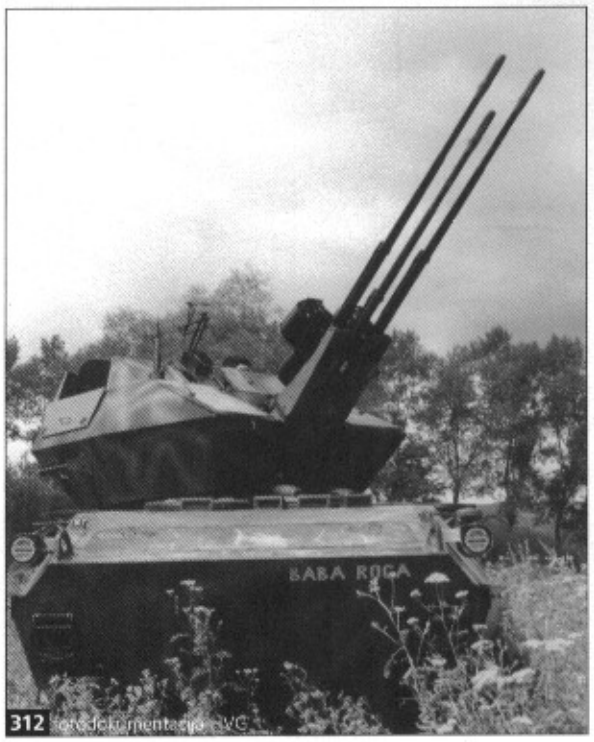
308 Stipe Živaljić collection

309 Nenad Šetina

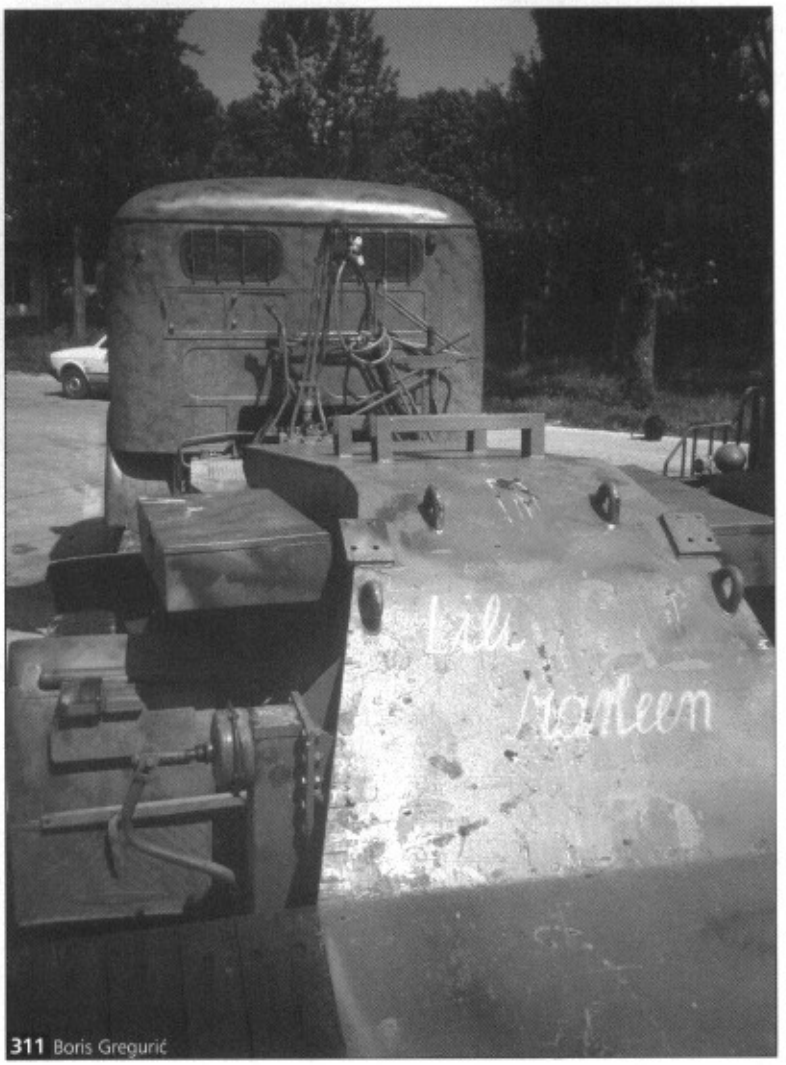
Slike na slijedećoj strani: Nazivi/imena na vozilima kretala su se u maštovitim rasponima, od mitskih likova poput Vile Velebita na tegljaču protivavionskih raketa ZIL-157 (slika 313) preko legendarnih pjevačica poput Lili Marleen na tegljaču tenkova FAP-13 BST (slika 311) do neodređenih pojmova poput Crnog leptira na tenku M-84 (slika 310) ili zastrašujućih likova poput Baba Roge kojima se plaše mala djeca na BOV-3 (slika 312).

Photos on opposite page: Inscriptions/names of vehicles varied greatly, from mythological creatures such as Vila Velebita on the SAM-2 tractor (Velebit fairy, photo 313), legendary singers like Lily Marleen on a tank trailer (photo 311), unspecified items like Black Butterfly on an M-84 MBT (photo 310), to some frightful creatures like Baba Roga on the BOV-3 AA vehicle (Baba Roga is a kind of imaginary witch used to frighten little children, photo 312).

310 Gordan Lausić



312 fotodokumentacija HVG



311 Boris Gregurić

313 fotodokumentacija HVG

314 Jadranko Ećimović

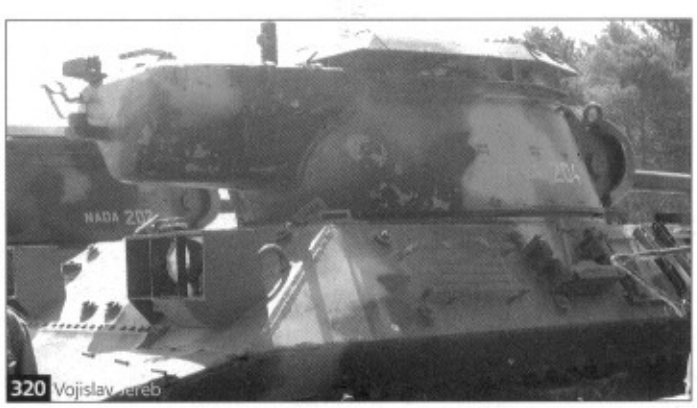
315 Jadranko Ećimović

316 Vojislav Jereb

317 Vojislav Jereb

318 Jadranko Ećimović

319 Jadranko Ećimović


320 Vojislav Jereb

321 Vojislav Jereb

322 Silvano Ježina

Slike na ovoj i slijedećoj strani: Razni natpisi/imena na vozilima - iz prikazanih slika vidljivo je da je maštovitost pri određivanju i bojanju tih naziva na vozila bila praktički bez granica. Na tenkovima su se natpisi pisali najčešće na kupolama, dok je na kamionima to bio slučaj na vratima i na prednjem dijelu vozila.

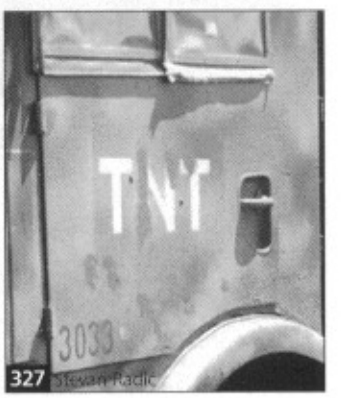
Photos on this and opposite page: Different names and inscriptions on various vehicles. From the samples shown it can be seen that imagination for names and other inscriptions was endless. On tanks these names were mostly painted on turrets while on trucks they were painted on the doors and hoods.

323 Vojislav Jereb

324 Vojislav Jereb

325 Tihomir Liksa

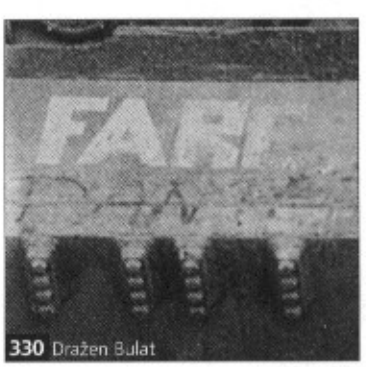
326 Vojislav Jereb collection



327 Stevan Radić

328 fotodokumentacija HVG

329 Nenad Šetina



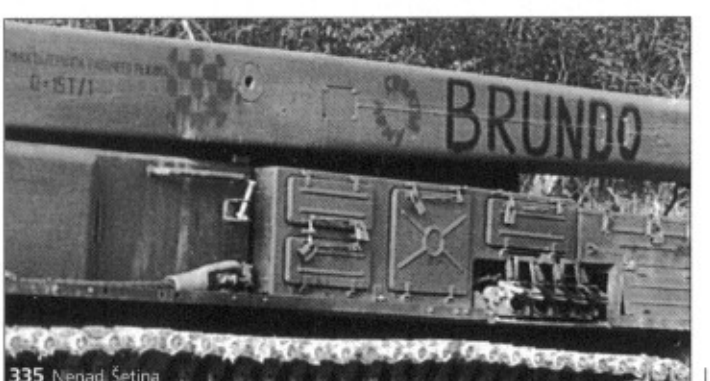
330 Dražen Bulat

331 Vojislav Jereb

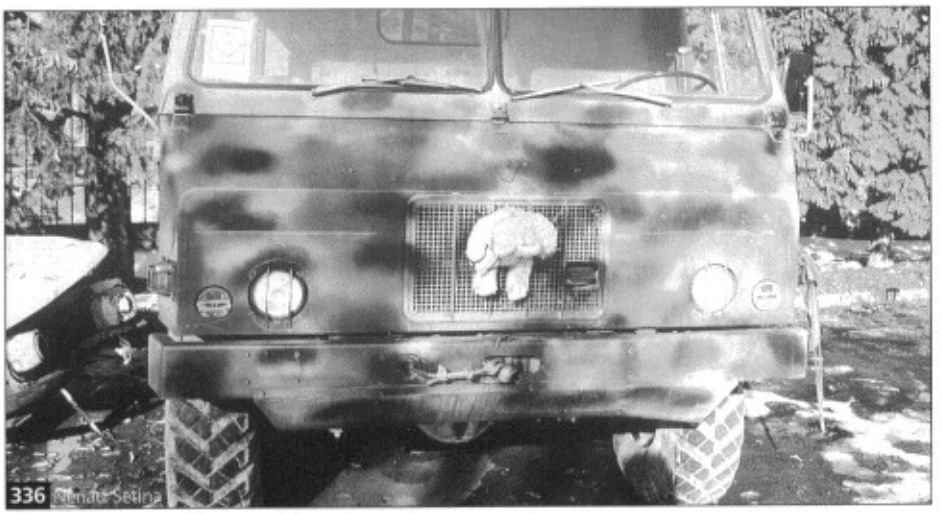
332 Damir Kremenić

333 Andranko Edimović

334 Stipe Živaljić



335 Nenad Šetina


336 Damir Šetina

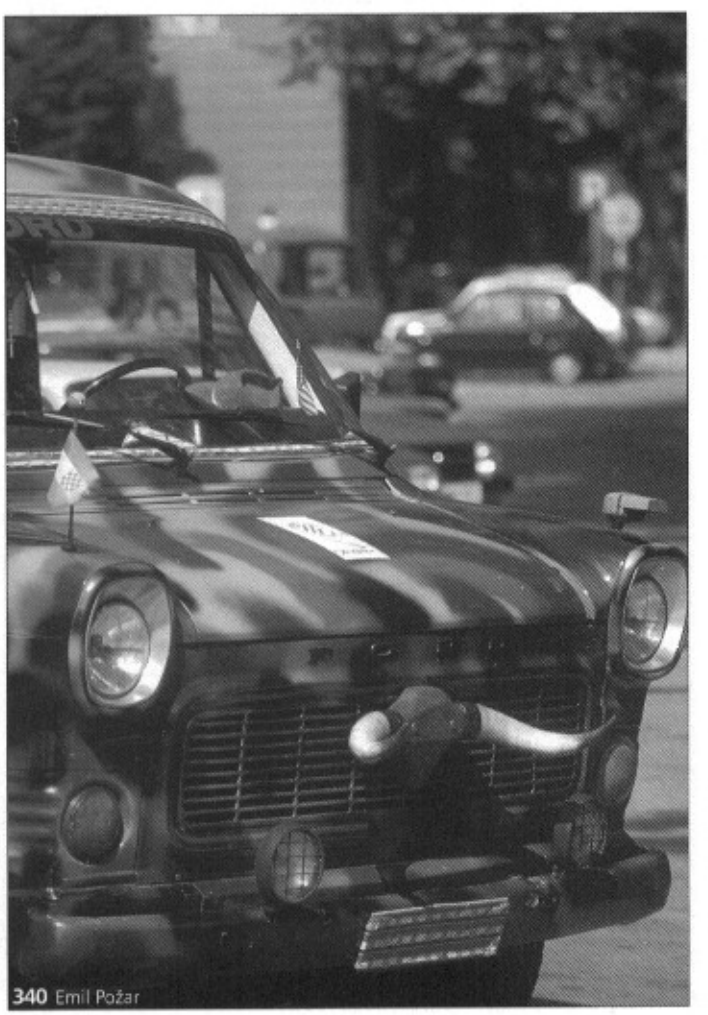
Čest običaj pri individualiziranju označavanja vozila je bio taj da se na nos ili hladnjak kamiona stavljaju vlastite maskote. Te maskote su bile različite - od običnih platnenih ili plastičnih lutaka do vrlo cijenjenih rogova domaćih životinja. Ipak je vrlo neobično vidjeti Isusa Krista na križu (sl. 338) na mjestu maskote.

It was a common habit to put mascots on the front of the vehicle, especially on truck grills. The individual items ranged from simple fabric or plastic dolls and toys to the highly valued horns of domestic animals. Nevertheless it was very unusual to see a crucified Jesus like that of the truck in photo 338.

337 Vojislav Jereb

338 Boris Gregurić

339 Boris Gregurić


340 Emil Požar

341 fotodokumentacija HVG

342 fotodokumentacija HVG

343 fotodokumentacija HVG

344 fotodokumentacija HVG

Po oslobađanju okupiranih teritorija čest običaj je bio da se na nos vozila, tako da svi dobro vide, postavljaju zarobljene ploče i natpisi sa donedavno okupiranih mjesta. Posebno su cijenjeni bili natpisi institucija tzv. Srpske krajine ili saobraćajni putokazi ili natpisi sa nazivima mjestima, ali kako je njih bilo malo, najčešće su se koristile registarske pločice sa zarobljenih vozila. U svemu tome se išlo čak toliko daleko da su na vozilo (sl. 342) postavili i sliku ratnog zločinca Karadžića! Zarobljena vozila, poput ovog TAM110 plave boje sa bijelim ćirilićnim natpisom MILICIJA (sl. 343), prebojavana su odmah našim natpisima (u ovom slučaju crvene boje).

After liberation of the occupied areas of Croatia a frequent custom was to put plates with the names of recently occupied places on the front of the vehicle where everyone could see them. The most valued were plates and road signs with the inscriptions of village names of the so called 'Srpska Krajina', but due to the scarcity of such road signs, license plates from civilian vehicles of the so called 'Srpska Krajina' were most frequently used. The joy of victory went so far that on this truck (photo 342) the portrait of the war criminal Karadžić was taped. Captured vehicles, like this blue TAM110 truck with the cyrilic inscription MILICIJA (on photo 343) were instantaneously covered with red inscriptions.

Izdanja u pripremi biblioteke HRVATSKA RATNA POVIJEST:

IMPROVIZIRANA OKLOPNA VOZILA 1991.-1995.

Vojislav Jereb i David Spencer

Pored nepostojanja vojske, početak sukoba 1991. godine Hrvatska je dočekala bez ikakvih oklopnih vozila. Već su prvi okršaji pokazali nedostatak i osjetljivost takvog stanja te se samoinicijativno na gotovo cijelom zaraćenom području prišlo izradi improviziranih vozila koja će više ili manje poslužiti toj svrsi. S obzirom na raspoloživa sredstva, izrađena vozila imala su vrlo skromne borbene mogućnosti, ali njihova je pojava fantastično djelovala na moral i učvrstila vjeru i odlučnost u konačnu pobjedu. U knjizi su prikazana sva takva vozila za koje su autori, nakon dugog istraživanja, uspjeli prikupiti bilo kakve podatke. Meki uvez, A4 format, 96 strana.

CROATIAN MAKESHIFT AFVs 1991-1995

by Vojislav Jereb and David Spencer

Without an Army, the Croatians went to war in 1991 with no armored vehicles. When the Croatians suffered heavy losses in the early clashes due to lack of protection, almost simultaneously improvised armored vehicles began to appear on the battlefield across the country. Because of the relatively poor quality of available materials, the combat value of these vehicles was modest, but their appearance was a great boost to morale as well as a symbol of determination to win. In this book all of the known improvised vehicles are shown, as well as the data the authors have managed to collect over 10 years of research. 96 pages, softbound, A4 format.

OKLOPNA VOZILA I OKLOPNE POSTROJBE U DRUGOM SVJETSKOM RATU U HRVATSKOJ
I. dio - Savezničke oklopna vozila

Dinko Predoević

Hrvatska je u završnoj fazi drugog svjetskog rata bila dio neprekidne savezničke linije fronte na kojoj su se njemačke armije grčevito borile za opstanak. NOVJ je u sporazumu sa saveznicima formirala dvije oklopne brigade koje su saveznici opremili i izvježbali. Uz mnoštvo fotografija ispričana je priča o ljudima i njihovim vozilima koji su u nizu žestokih bitaka duž Jadranske obale, Srijema i Slavonije, potiskujući njemačke divizije, kraj rata dočekale u Trstu spojivši se sa savezničkim snagama u Italiji. Tenkovi T-34 i Stuart, oklopni automobili i samohotke sovjetske, američke i engleske proizvodnje borili su se i dokazali svoju vrijednost u često nemogućim uvjetima našeg ratišta. Meki uvez, A4 format, 96 strana.

ARMORED UNITS AND VEHICLES IN CROATIA DURING WWII
Part I - Allied armored vehicles

by Dinko Predoević

During the final days of WWII Croatia was part of the uninterrupted Allied front against which the German armies fought desperately for survival. With the assistance of the Allies, the NOVJ (People's Liberation Army of Yugoslavia) formed two armored brigades that were equipped and trained by Allied advisers. Lavishly illustrated with period photographs the story of these men and their equipment is told. The brigades fought a fierce campaign against the Germans along the Adriatic coast, Srijem and Slavonia regions, ending the war in Trieste, Italy. T-34, Stuart tanks, armored cars of Soviet, American and British origin fought alongside each other and proved their value in extremely difficult terrain of Croatia. 96 pages, softbound, A4 format.

OKLOPNA VOZILA I OKLOPNE POSTROJBE U DRUGOM SVJETSKOM RATU U HRVATSKOJ
II. dio - Oklopna vozila sila osovine

Dinko Predoević

Izrazito zanimljiv dio drugog svjetskog rata predstavlja gerilski rat vođen u Hrvatskoj od 1941.-45. god. Nastojeći ga obuzdati i slomiti, njemačka okupaciona sila poseže za svim raspoloživim zalihama trofejnog naoružanja opremajući svoje i savezničke nacionalne oružane formacije. S druge strane talijanska okupaciona sila u istu svrhu upotrebljava sve što ima. U žestokim bitkama oklopna vozila se nemilice koriste često mijenjajući gospodare. Nastaju i nestaju razne oružane formacije te je ova knjiga pokušaj da se fotografijom i tekstom prikažu oklopne formacije suprostavljenih strana opremljenih njemačkom i talijanskom tehnikom, te vozilima prikupljenim od armija poraženih njemačkim nastupanjem početkom drugog svjetskog rata. Meki uvez, A4 format, 96 strana.

ARMORED UNITS AND VEHICLES IN CROATIA DURING WWII
Part II - Axis armored vehicles

by Dinko Predoević

A fascinating chapter of the Second World War was written in during the partisan war in Croatia 1941-45. Trying to break the insurgency, German occupation forces employed all types of captured armament equipping both their own formations as well as those of their allies. Concurrently, the Italian occupation forces also used a very diverse inventory of weapons. In fierce battles, armored vehicles were ruthlessly used, changing sides frequently. Due to the fierceness of combat, different units appeared and disappeared. Lavishly illustrated with photographs this book documents the armored units of the German and Italian forces, as well as vehicles of the armies defeated by the German advance in 1939-41. 96 pages, softbound, A4 format.

HRVATSKA ZRAKOPLOVNA LOVAČKA LEGIJA

Danijel Frka i Josip Novak

U knjizi je prikazana povijest Hrvatske zrakoplovne lovačke legije koja je najveći dio svojega ratnog djelovanja izvršila na Istočnom bojištu u sastavu njemačkog zrakoplovstva. Opisani su ratni zadaci, zračne pobjede, tipovi aviona te piloti koji su bili u sastavu ove jedinice.

Knjiga je opremljena velikim brojem neobjavljivanih fotografija i brojnim ilustracijama. Meki uvez, A4 format, 96 strana.

CROATIAN FIGHTER LEGION

by Danijel Frka and Josip Novak

This book describes the history of the Croatian Volunteer fighter unit that flew on the Eastern front under German command. All aircraft types used are described, with lists of pilots and victories. The book is richly illustrated with a large number of previously unpublished photographs. 96 pages, softbound, A4 format.

POMORSKO ZRAKOPLOVSTVO 1918.-1941.

Danijel Frka i Vladimir Isaić

Knjiga predstavlja tipove aviona koji su korišteni u Pomorskom zrakoplovstvu Kraljevine Jugoslavije u razdobju od njegovog nastanka 1918. godine pa do njegova uništenja 1941. godine. Opisana je kratka povijest svakog pojedinog tipa hidroplana i njegovog služenja u zrakoplovstvu. Prikaz dopunjuje velik broj do sada neobjavljenih fotografija i ilustracija. Meki uvez, A4 format, 96 strana.

NAVAL AIR FORCE OF THE KINGDOM OF YUGOSLAVIA, 1918-1941

by Danijel Frka and Vladimir Isaić

This book discusses flying boats and floatplanes used by the Naval Air Force of the Kingdom of Yugoslavia from its inception in 1918 until its demise in 1941. A brief history of every type of aircraft is provided as well as its use by the Air Force. The book is illustrated with many previously unpublished photographs and quality illustrations. 96 pages, softbound, A4 format.

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345 Boris Gregurić

Sigurno jedna od najoriginalnijih i, moglo bi se reći, najmiroljubljivijih shema iz samih početaka sukoba bilo je ovo 'cvijeće' na BOV-3. Usprkos svojoj miroljubivosti, dobar efekat maskiranja se ne može poreći.

One of the most original and probably the most peaceful camouflage scheme seen were the 'flowers' painted on this BOV-3. Despite the peaceful concept, one cannot dispute the military effectiveness of the overall pattern.

Novonabavljeni VBR 122 mm na kamionu Dacia-66T izgledom tipičnim za vozilo Hrvatske vojske od 1991. do 1995. – neobična maskirna shema, neobično ime, neobična maskota (rogovi) na nosu.

A Dacia-66T based 122 mm Multiple rocket launcher freshly purchased by the Croatian Army (HV). All items are tipical for the 1991-1995 period – unusual pattern, unusual name (FANTOM – phantom), unusual mascot (bull horns) on nose.

346 Boris Gregurić