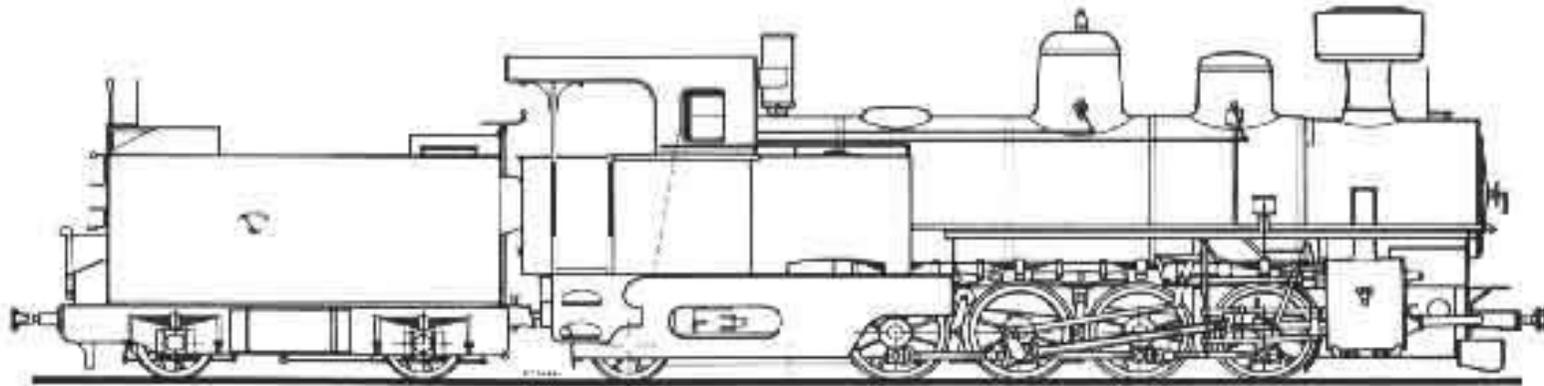


The 76cm gauge railways of Yugoslavia by Dave Sallery



Uskotracne (76-centimetarske) pruge bivse Jugoslavije

- autor: Dave Sallery



Class 83 0-8-2 No. 83166 is ready to leave Dubrovnik on a freight to Hum in 1967.

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An Introduction to Yugoslavia

The former state of Yugoslavia had a vast network of narrow gauge lines, most of which were laid to 76 cm (2 foot 6 inches) gauge. Taken as a whole they formed what was arguably the finest narrow gauge system in Europe. The origins of this network lay in the Austrian occupation from the 1870's on and the Austrian heritage of a lot of the locos is clear. Much of the mountainous western side of Yugoslavia was only accessible on the 76 cm gauge particularly in Bosnia and Hercegovina. At one time through trains ran from Belgrade to the Adriatic coast on the 76 cm gauge - a journey of over 700 Km. In British terms think of London to Stirling on a narrow gauge train!

The backbone of the motive power fleet were the mixed traffic Class 83 0-8-2's of which 185 were built. However, over the years many interesting and unique locomotives of all shapes and sizes were in use - these ranged from tiny 0-4-0 tank engines, rack equipped 0-6-4T's and Klose articulation locos to the huge Class 92 2-6-6-2 Mallet compounds.

During the 1960's there had been quite substantial investment in modernisation, which seemed to indicate that some of the narrow gauge lines had a secure future. In 1968 twenty five diesel hydraulic Bo-Bo diesels were built by Djuro Djakovic as Class 740-0 followed by a further fifteen modified locos of Class 740-1 in 1970. A couple of these locos are still in traffic at the Banovici coal mine complex north of Sarajevo as are a few of the venerable Class 83 0-8-2 steam locos. For passenger services twelve 4-car DMU's of Class 802 were built between 1966 and 1968. Ten of these sets saw further service in Portugal after the Yugoslav lines were closed. These were not the first narrow gauge DMU's as Ganz of Hungary had supplied seven 3 car units to work an accelerated service over the Belgrade to Sarajevo line as early as 1939. The speed of these units was such that the service they worked was known as "The Mad Sarajevan"!

A copy of a Yugoslav Railways timetable from 1968/69 shows the following 76 cm lines with a passenger service:

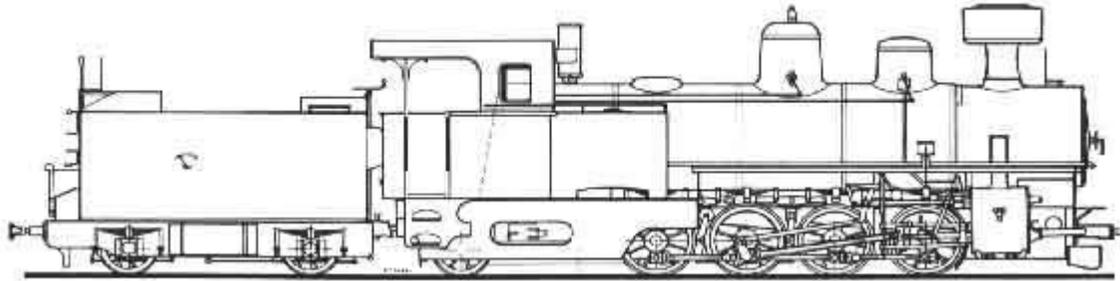
1	Bosanski Brod - Derventa	28 Km
2	Zavidovici - Olovo	85 Km
3	Bijelina - Bosanska Mezgraja	35 Km
4	Zajecar - Boljevac	42 Km
5	Prijedor - Licka Kaldrma	228 Km
6	Mliniste - Srnetica	53 Km
7	Lasva - Sipovo	134 Km
8	Donji Vakuf - Gornji Vakuf	34 Km
9	Sarajevo - Lajkovac	355 Km
10	Lajkovac - Mladenovac	75 Km
11	Ustipraca - Miljevina	66 Km
12	Medjedja - Priboj	54 Km
13	Capljina - Dubrovnik	131 Km
14	Uskoplje - Zeleneka	78 Km
15	Hum - Niksic	161 Km
	TOTAL	1559 Km.

There was also a metre gauge line from Osijek to Donji Miholjac of 51 Km. In addition to the list above there were also many quite lengthy forestry and mineral lines, each with their own unique collection of locos.

At one time most of these lines were linked together as a network and even at this late stage quite respectable lengths of track, based on the lines from Prijedor (5,6,7,8), Sarajevo (9,10,11,12), and Capljina (13,14 and 15), still functioned as distinct systems.

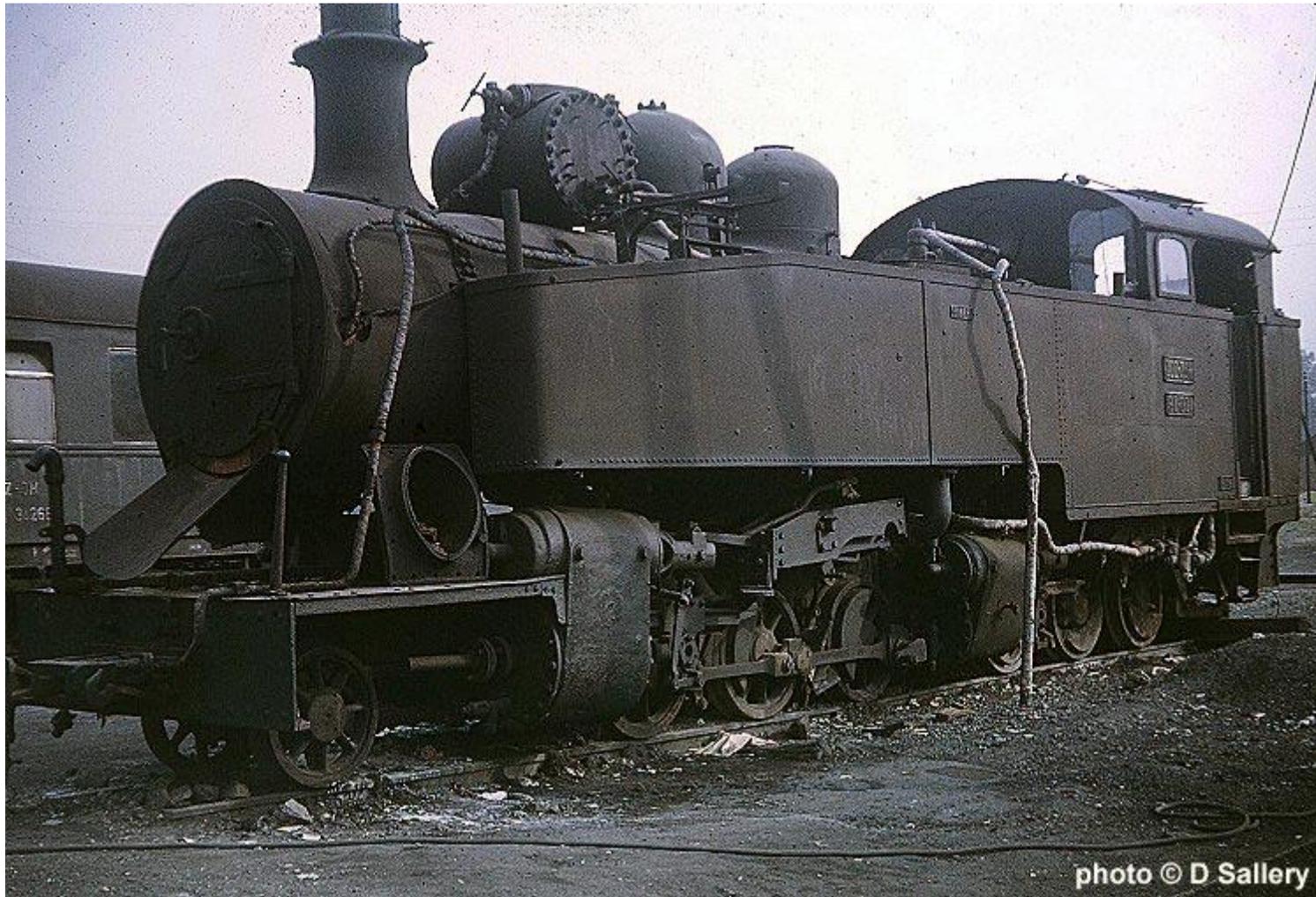
What really caused the narrow gauge to wither and die was the construction of a brand new standard gauge line from Sarajevo to Ploce on the Adriatic completed in 1966 and since electrified. This new line superseded the 76 cm Narentabahn from Sarajevo to the coast and had the effect of isolating the narrow gauge system which was left and based on Capljina. With the demise of a connecting network all the other remaining narrow gauge lines were then at risk and restricted to local traffic. Goods and passengers having all the inconvenience and expense of a change of gauge.

When the end came for the 76 cm lines it came with indecent haste. The system based on Capljina closed in 1975 and the incredible descent to Dubrovnik can now only be made on foot. By 1978 all the Bosnian lines had closed except Bijeljina - Bosanska Mezgraja which closed in May 1979. In Serbia the last lines were Zajecar - Boljevac (closed 1980) and Lajkovac - Mladenovac (1983). As regards preservation, the ambitious project to restore the line over the Sargan Mountain - the Sargan 8 - continues to progress.

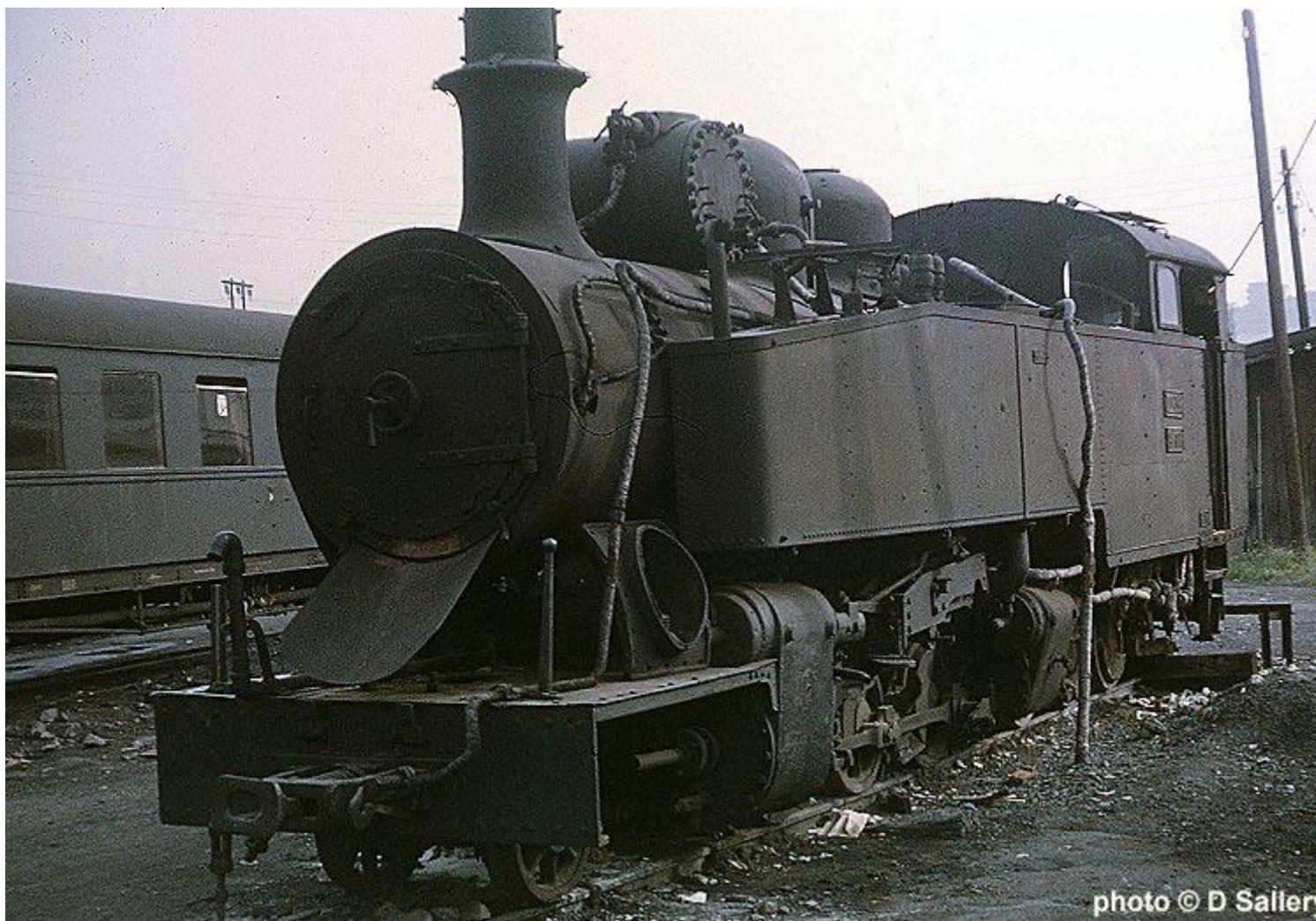


From Sarajevo to Dubrovnik in 1967 by Dave Sallery

In my early days I read a book called "On The Narrow Gauge" by P.B.Whitehouse The final chapter was called Dubrovnik Adventure and described a journey from Sarajevo to Dubrovnik in 1961. After reading this I decided that at the first opportunity I would try and do this trip. In 1967 I was working for British Railways and having the required 12 months service I now qualified for free overseas travel. A single to Dubrovnik and a single back from Split using the coastal steamer in between fitted the bill and planning began. Two of us set out from Liverpool on the outward journey via Newhaven - Dieppe - Paris - Lausanne - Milan - Trieste - Ljubljana and Zagreb, the return routing being Split - Zagreb - Villach - Innsbruck - Munchen - Koln - Brussels and Osend. By 1967 the narrow gauge line from Sarajevo had been cut back to Capljina from where it was 131 Km to Dubrovnik. However the 76cm line from Sarajevo to the east was still open and I managed to get a few photos of this. From Sarajevo to the coast we travelled on the brand new standard gauge line, since electrified, behind a diesel and at Capljina joined a nearly new narrow gauge DMU for the journey to Dubrovnik.



This loco was in use in 1967 as a stationary boiler at Sarajevo Novo - the new standard gauge station. It is a 2-6-6-0 compound tank No. 91-021. A total of 38 were built by Henschel. All have since been scrapped. These locos were all out of use in the 1950's and this could have been the last survivor. The size and sophistication of the loco gives an indication that the narrow gauge was very much a main line operation.



Here is another shot of 91-021. As can be seen the loco has been physically removed to this location - the nearest narrow gauge was about half a mile away. Although Sarajevo has very hot summers the winters can be bitter and the loco would have earned its keep pre-heating passenger coaches. To prepare the loco for its new role most of the valve gear had been removed and an ugly extension had been fitted to the chimney.



85-001 on shed in Sarajevo. The Class 85 were built to haul the faster long distance passenger trains and a total of 35 were built in Budapest in 1930 with a further 10 added in 1940 built by Djuro Djakovic of Slavonski Brod. 85-045 is preserved and is being restored to work on the Sargan Mountain Railway.



A Class 85 2-8-2 No. 85-042 leaves Sarajevo with the 15.15 to Cacak (arrive 00.17). Note the impeccable condition of the loco and the red star beneath the headlamp. The painted shell cases on either side of the smokebox contain flowers. Other services left Sarajevo at 06.22, 07.27, 14.20, 18.24 and 20.13 while the 23.05 ran right through to Lajkovac and arrived at 10.55 the following day. The train is about to pass the former junction of the Dubrovnik and Lajkovac lines. The section from Sarajevo to Capljina on the Dubrovnik route had by now been replaced by a new standard gauge line.

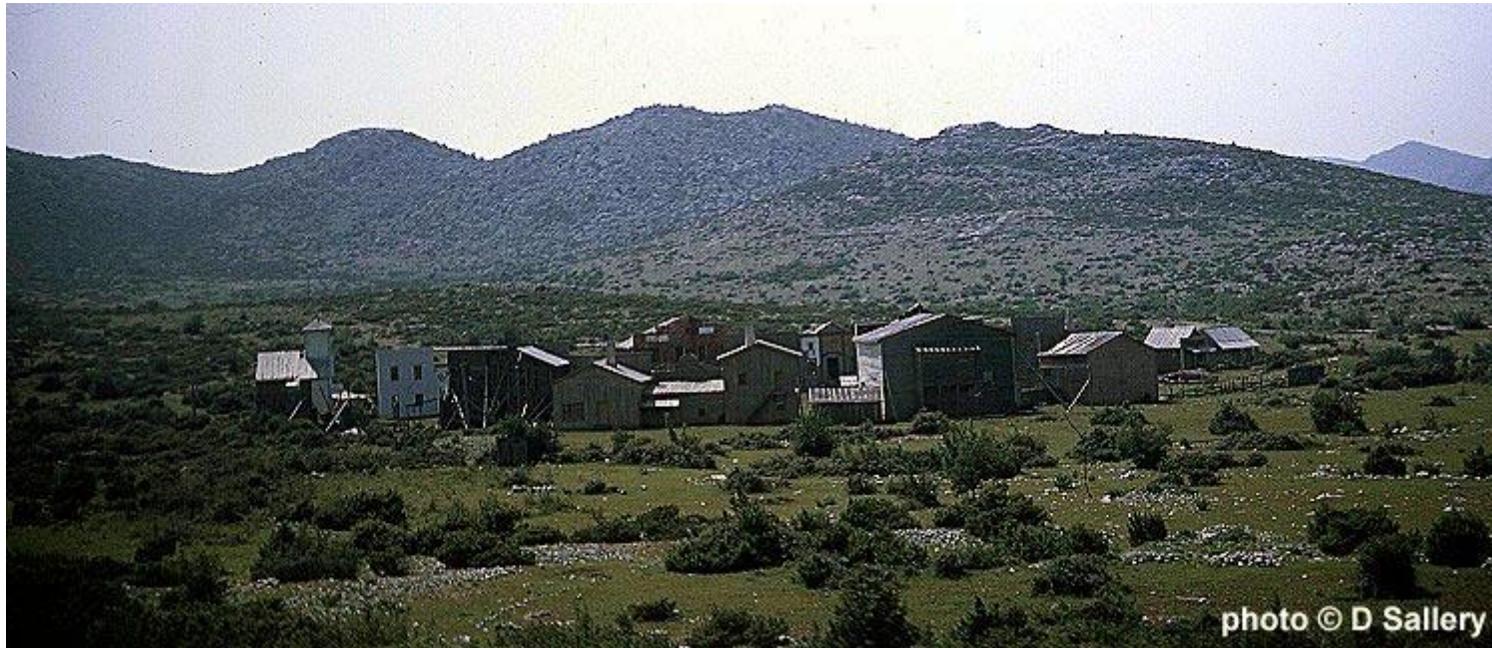




Leaving Sarajevo at 08.08 our diesel hauled standard gauge train to Ploce arrived at Capljina at 11.18 and the 76cm connection for Dubrovnik left there at 11.30, arrival being at 14.36. A further narrow gauge train left at 12.12 for Niksic (arrive 18.07). Taken from the train, this is the yard at Hum, 100Km from Capljina. This oddly named station was the junction for the line to Niksic which continued originally to Titograd. Hum was a busy junction where banking and assisting locos were added to and removed from trains. The gradients on this section of line through the Dinaric Alps being extremely steep.



At a passing loop Class 83-154 was waiting on a freight, it is not fitted with the large spark arrestor found on most members of the class. The countryside around here is extremely arid and probably qualifies as semi-desert.



A few miles further on the train passed the incongruous site of a replica Wild West town. The "town" was built for the German TV series "Winnetou". All the episodes were filmed in Croatia, mostly in National Parks.



This is a local train, hauled by 83-149 at the junction station of Uskoplje where the line to Hercegnovi and Zelenika branched off. Because these locos burned a very soft lignite coal, the smoke effects were always impressive but somewhat sulphurous.



The spectacular descent from the summit at 360m down to sea level at Dubrovnik included spiral tunnels and horseshoe curves. The final section being alongside this long inlet of the Adriatic. This is a view looking back towards the summit. The railcar is a 4 car DMU of class 802 and quite fast and comfortable. 12 of these sets were built by Duro Djakovic at Slavonski Brod in 1967/68. Following closure of the Yugoslav lines, 10 of these units were sold to Portugal where they were regauged and rebuilt for further service.



The locomotive shed at Dubrovnik was in an idyllic position on the shore of the Adriatic and this is a view from a train nearing the terminus. Quite large cargo ships visited Dubrovnik at this time but most of these have now been diverted to the new port of Ploce. The coastal passenger ships which run all the way north to Rijeka and Venice still use the port on a regular basis as do increasing numbers of cruise ships.



Another view showing the two road engine shed with six Class 83 in attendance, three of which are stored. A further two of the class were inside the shed building. Photography was difficult as along with most other railway installations in Yugoslavia the shed had its own contingent of guards. It was in fact illegal to photograph trains. The area alongside the shed was a popular bathing beach for locals - note the figures on the flat roof in the middle left of the photo. The then new coastal highway to Split can be seen across the inlet.



Two Class 83's are seen at the entrance to the shed in Dubrovnik. The cranes which were used to export one of the staple freight traffics - bauxite mined near Hum - can be seen in the background. On the hillside above can be seen the scar of the coastal road which had recently opened - this section being the Dubrovnik bypass. The road runs all the way down the Adriatic coast and has done wonders for the tourist trade. The passenger terminus was beyond the footbridge.



The Class 83 0-8-2 locos were the staple motive power for the Yugoslav narrow gauge lines and this is 83-166 on shed at Dubrovnik. The first, of a final total of 185, was built by Krauss of Linz in 1904 and further batches were built over the years. The final locos being Nos. 83-169 to 83-185 built in 1949 by Duro Djakovic. As late as 1965 a total of 169 were still in service allocated to Sarajevo (118), Belgrade (41) and Titograd (10). The odd 0-8-2 wheel arrangement enabled a wide firebox to be provided to burn the poor quality coal on offer but lack of a front pony wheel restricted maximum speed to only 35 Km/h.



photo © D Sallery

Most of the class were fitted with this distinctive spark arrester chimney because of the danger of fires in the dry summer season. Quite a number of this highly successful class have been preserved although many of these are in poor condition. One of the best known of the surviving locos is 83-076 which now works on the popular Zillertalbahn in Austria. Also currently under restoration to working order are 83-017, 83-062 and 83-173 for use on the Sargan Mountain railway. When completed this will run for 15.5 Km from Mokra Gora to Sargan Vitasi. With 3 examples of Class 83 and also 2-8-2 85-005 the line will be a fitting tribute to the great days of the narrow gauge.



photo © D Sallery



No. 83-166 has finished marshalling its train and is ready to leave Dubrovnik on an afternoon freight. The bogie goods vans were quite large vehicles for the 76cm gauge.



Two Class 83 0-8-2's leave Dubrovnik double heading a mixed train.



The terminus, in the suburb of Gruz, was about 2 Km from the old city and connection was made using an extremely rickety street tramway which closed a few years after the railway.

Dubrovnik to Sarajevo in 1965 by Charlie Lewis



During a five-week visit to Yugoslavia in August/September 1965, my wife, Melly and I spent the first three weeks chasing trains in an old London taxi across the length and breadth of the Balkans. Eventually the primitive rural roads proved too much for our ten-year old vehicle and it broke down at Split. As Melly's leave was about to expire and I was between jobs, I stayed behind while the repairs were done, using spares that had to be flown out from England.

I used this time to travel by narrow gauge from Dubrovnik to Sarajevo, on the 'Ohrid Express' and on the Steinbeis Railway, each of which will be covered in turn in this website. I have also included a page on the unique Klose locomotives. We went to Yugoslavia again in 1967 but with the closing of the main line south of Sarajevo the heart had gone out of the narrow gauge, and this was noticeable even amongst the staff.

Between 1974 and 1982 all the remaining Yugoslav narrow-gauge lines were closed by decree from head office - apparently on advice from foreign consultants. Those consultants did Yugoslavia and the world at large a great disservice. Whereas Switzerland has long banked on the scenic beauty of its country to keep its narrow-gauge lines open mainly for tourism, Yugoslavia, with scenery that is arguably every bit as good as Switzerland's, could have been advised to do the same. A by-product of such a policy would have been the retention of rural services to isolated communities.

Considering the tragic events of the 1990s, the rebuilding of the Mokra-Gora spirals over the Sargan Mountains, on the line which used to run all the way from Belgrade to Sarajevo, has been a heroic initiative to revive tourism in the area. However, one cannot help but remember how much easier it would have been had the railway not been lifted in the first place.

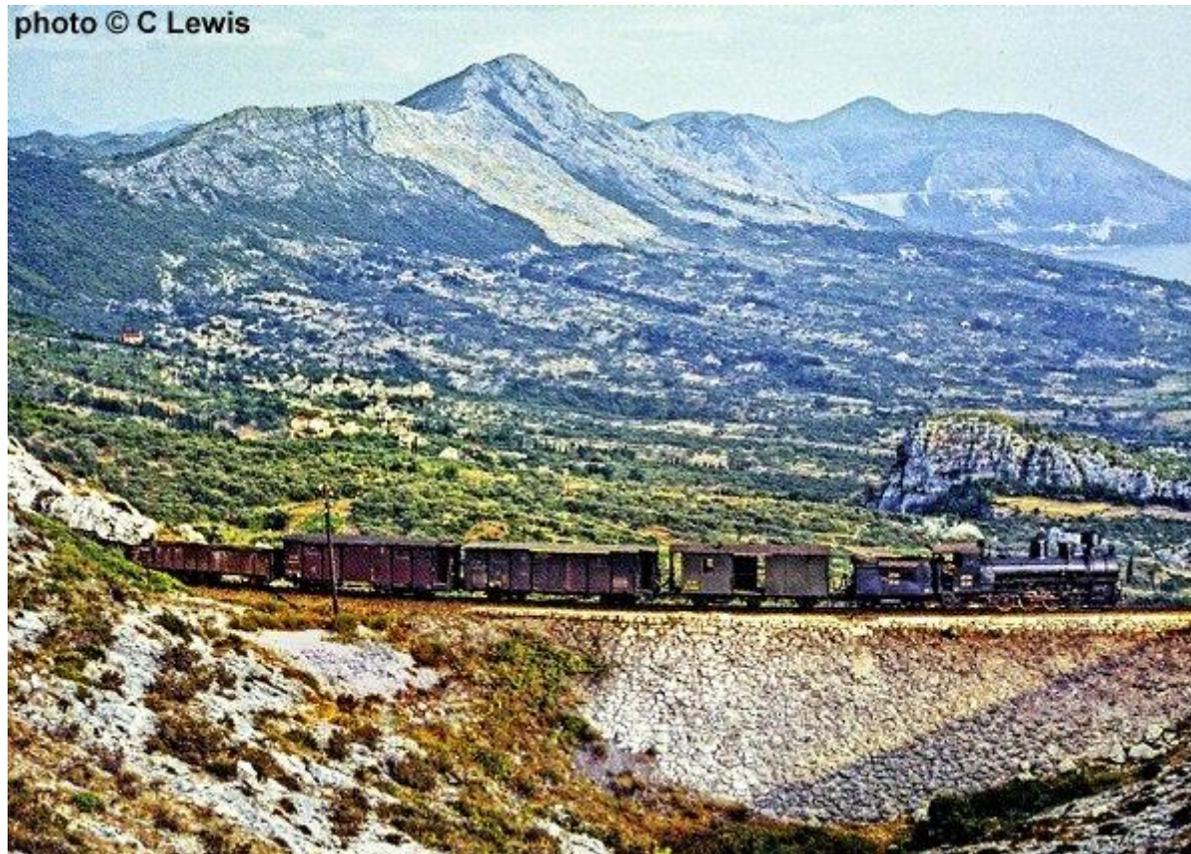
photo © C Lewis



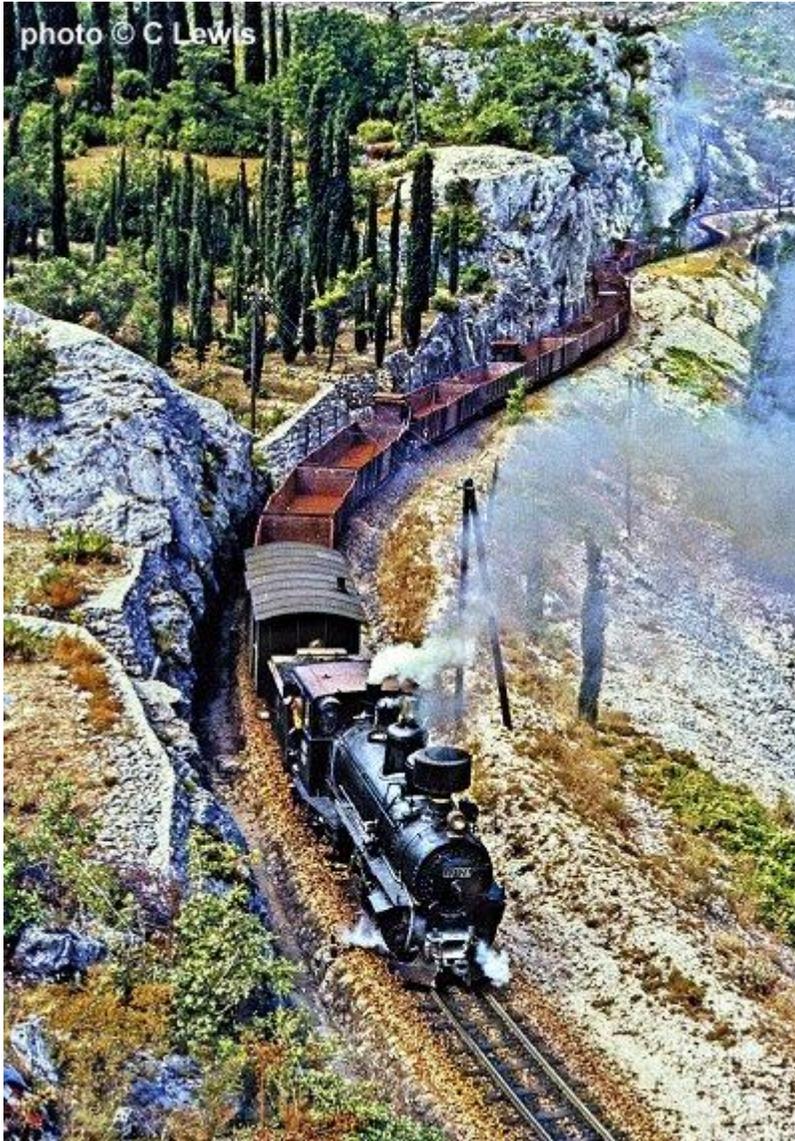
The 08:10 dining-car express from Dubrovnik to Sarajevo only three kilometres out of town but already high above an inlet of the Adriatic. These bustling trains were operated very smartly and, because of the stupendous scenery, seemed to go much faster than they actually were. Running time for the 270 kilometres to Sarajevo was a little more than twelve hours. The pilot is the two-cylinder compound version of class 83, No. 83-148 built by Krauss-Linz c. 1908, and the train engine is class 85 2-8-2 No. 85-019.

For a narrow-gauge enthusiast, travelling through the Dinaric Alps and over the Sargan Mountains from Dubrovnik to Belgrade via Sarajevo (with steam all the way) was probably one of the most fascinating journeys anywhere in the 1960s. In 680 kilometres of 76cm gauge there were deep limestone gorges, fast-flowing rivers and streams, tunnels by the hundreds, spirals (at two different locations), a rack section, an incomparable array of motive power and plenty of traffic. By catching the early morning trains from Dubrovnik and Sarajevo, in summer it was possible to travel most of the way in two days in daylight.

Because of being arrested at Titovo Uzice for subversive activities (photographing the Mokra Gora spirals), my journey took three days even though I only started from Gabela, the junction for Ploce. Many of the photos in this section were taken while touring by car for a fortnight before riding the trains.



The very first of a famous class that continued in production for almost fifty years, 0-8-2 No. 83-124 (Krauss-Linz, 1903) in her sixty-second year, is seen drifting downgrade between Brgat and Ivanica heading a freight for Dubrovnik . In the middle distance is the village of Grbavac, while in the distance can be seen the scar of the ,then new, coastal highway above the bay of Tiha.



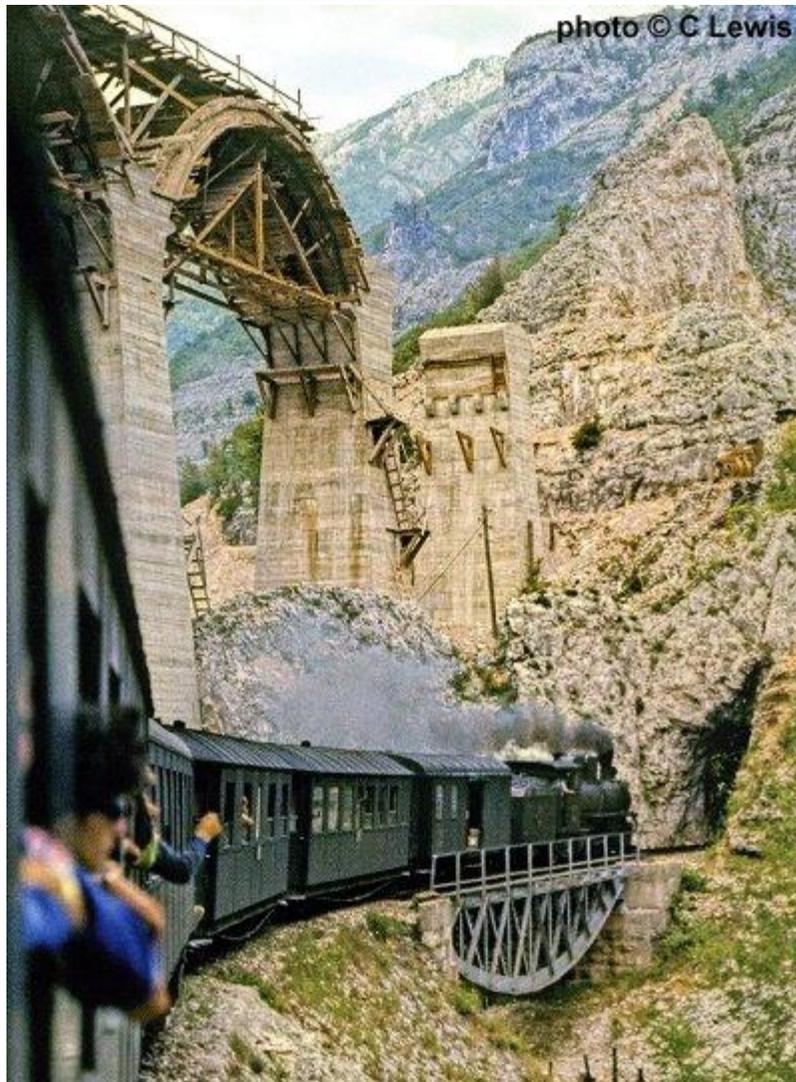
In this view near Uskoplje, junction for the line to Hercegnovi, No. 83-126 banked by 83-151 were working upgrade with empties for the bauxite mines at Hum. Unfortunately the picture cannot reproduce the characteristic two-beats-to-the-bar CHUFF-chuff, very loud and quite regular, made by these wonderful engines, so obviously well maintained.



A freight train hauled by 0-8-2 No.83-126, passes through Sumet station, 10 Kms from Dubrovnik..



Beyond Mostar the line followed the limestone gorge of the River Neretva with the narrow gauge line just above the torrent. Here, 83-159 crosses the river at Aleksin Han with the 09.00 local from Sarajevo to Dubrovnik. Nowadays this section of the river is dammed by the Grabovacko hydro electric scheme. The main span of the bridge is still in existence but normally hidden under water.



Until 1966, Sarajevo, capital city of Bosnia-Herzegovina, population 500,000, was connected to its principal ports by a single-track 76cm-gauge railway. This was tremendous for narrow-gauge enthusiasts but must have been a nightmare for shippers. Construction of a standard-gauge link, engineered to a high standard, had started in the late fifties and by mid 1965 it was well advanced. Between Mostar and Jablanica both the old and the new lines needed many bridges and tunnels to thread the 500 metre deep Neretva river gorge. While the narrow gauge stuck to the valley floor, burrowing in and out of the vertical cliffs at short intervals, the standard gauge soared boldly over high viaducts to maintain a flatter grade.



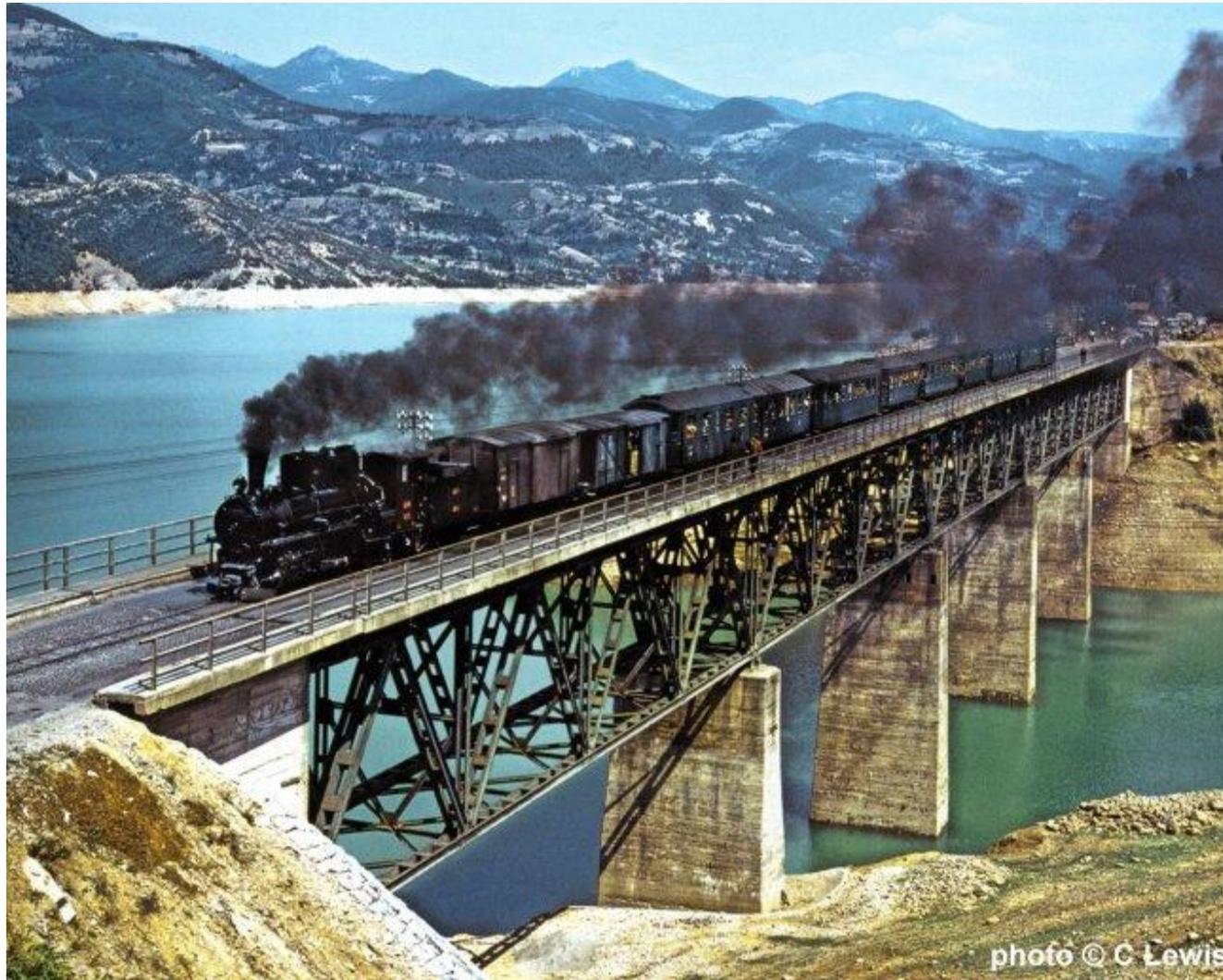
Another view in the Neretva gorge of a class 83 on a long express.



During the 1950's a large dam was built on the Neretva River just above Jablanica. Removing the railway from the riverbank necessitated a long deviation, the first few kilometres of which were steeply graded to surmount the dam wall. Consequently most northbound trains out of Jablanica had to be banked and in 1965 this duty was being performed by class 189 Klose-articulated inside-cylindere 0-6-2Ts dating back to 1885. On the left is No. 189-032 built by Krauss in 1896, about to bank a freight from Jablanica to Konjic at the foot of the rack section to Bradina. Drifting in on the right with the daily all-stations Mostar to Sarajevo is two-cylinder compound, inside-cylindere 0-6-4T No. 185-018 built by Krauss in 1901, with Klose mechanism removed. In the middle is a passenger train waiting to depart the other way with sixteen-year old No. 83-173, one of the last series built by Djuro Djakovic, Slavonski Brod in 1949 - a case of modern and ancient in one photograph. Today, restored and healthy, 83-173 hauls tourist trains in the Sargan Mountains of Serbia.



On the stretch above the dam, another Class 83 is on a mixed train.



As plans for the replacement line were already in place, the trackbed on the diverted stretch used some bridges built to carry the later standard gauge line.

photo © C Lewis

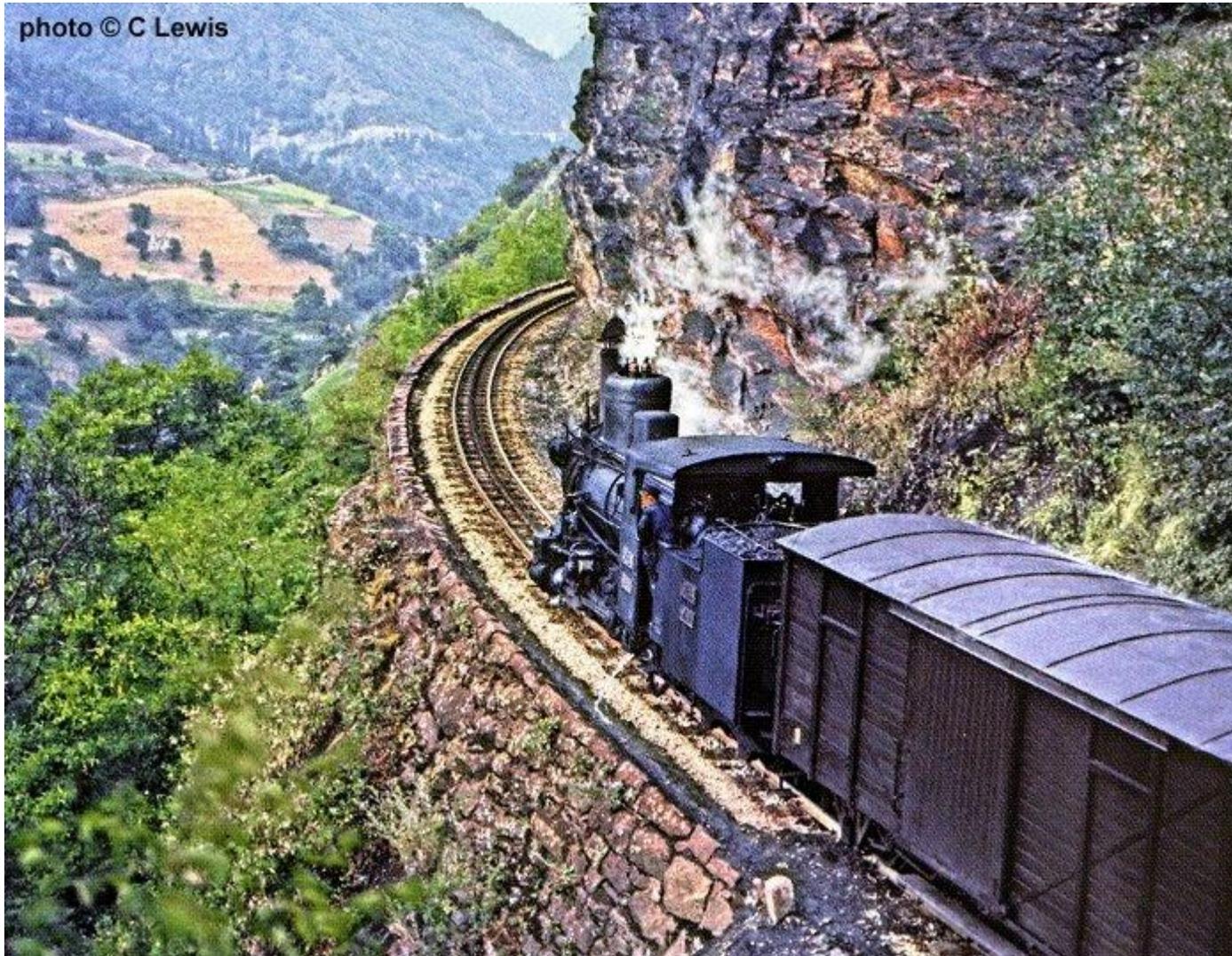


The class 97s, built by Floridsdorf in Vienna at the turn of the nineteenth century, surely deserve to rank as one of the all-time great steam designs.

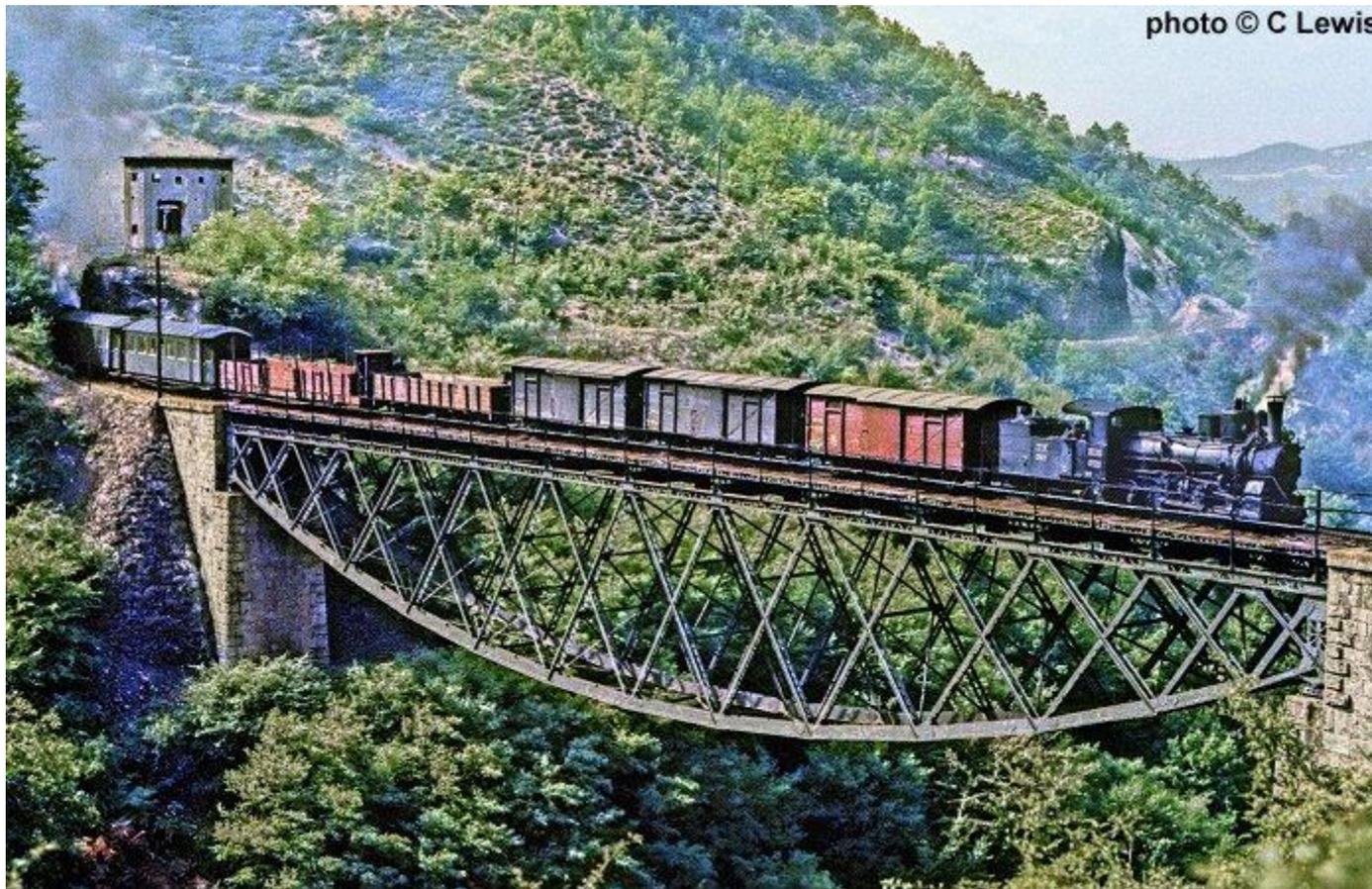
Imagine a 76cm gauge, four-cylinder rack engine in the most punishing service, handling main-line freight and passenger trains for more than sixty years! Like all the narrow gauge locomotives in those days they were beautifully maintained. They had to be! Most

of their working territory was inclined at 1 in 17. During two days spent along the lineside between Konjic and Bradina there was hardly a moment when the loud exhausts of the 97s could not be heard. Uphill trains sounded as if they had double headers front and back,

as the rack and the adhesion cylinders worked in and out of phase. Downhill trains were accompanied by the muffled explosions of the counter-pressure brake. In this scene at Brdani pod Ivanom, No. 97-034 was waiting on the main line, while a freight, bound for the coast, took the loop with 97-015 doubling with another unidentified 97 class running tender first, this was common practice at this time.



With her left-hand cylinder hovering over an airy precipice, No. 97-013 emerges from a short tunnel at all of 15 km/h on the six kilometre-long rack worked gradient from Konjic to Bradina. Another Class 97 was assisting at the rear.

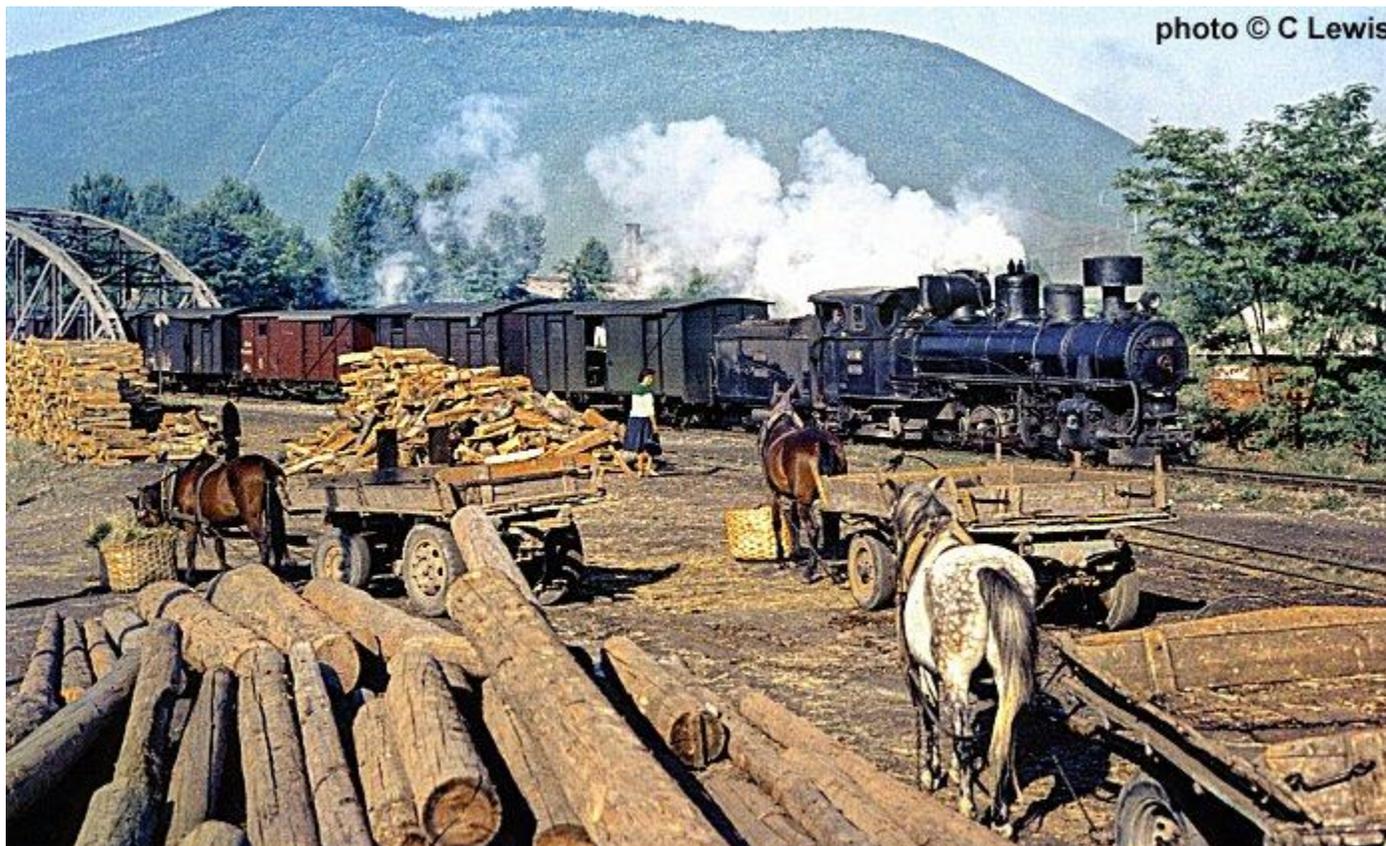


With less than two kilometres to go to the summit of the Ivan Pass, trains crossed this famous fish-belly truss bridge over the Luka ravine. This mixed train had just emerged from a tunnel and was about to plunge into another with its banker (only its smoke visible) pushing at the rear. On the opposite side of the valley you can see the line clinging to the hillside. The bridge was guarded by gun towers at each end, probably dating from the nineteenth century. Just beyond the summit, at Bradina station, the line entered a 3.8 kilometre-long tunnel (now used by the standard gauge) through the watershed between the Adriatic and Black seas.

The original alignment, which was replaced in the 1930's, went over the mountain with only a short tunnel at the top and the rack extended to Rastelica on the Sarajevo side of the ridge.



Class 85 2-8-2 No. 85-021 crossing the girder bridge over the River Zeljeznica at Ilidza near Sarajevo with the overnight sleeping car express from Dubrovnik. The Class 85's were built to haul the faster long distance passenger trains and a total of 35 were built in Budapest in 1930 and a further 10 in 1940 by Djuro Djakovic of Slavonski Brod. 85-045 is preserved and is being restored to work on the Sargan Mountain Railway.



At Alipasin Most, four kilometres west of Sarajevo Novo station, there was an exchange yard between the standard gauge, which at this point swung away to the north for Belgrade and Zagreb, and the narrow-gauge main line to the ports of Ploce and Dubrovnik. Some of the yard tracks were extraordinarily long, as were some of the freight trains heading towards the coast. Many were banked as far as Bradina, where long consists were broken into shorter lengths for the descent of the rack section. The converse was also true.

With barely a kilometre to go to the reception yards one of these banked trains is shown here entering the station at Ilidza with No. 83-088 leading, there was another 83-class at the rear. The train has just crossed over the River Zeljeznica and Mount Igman can be seen in the background.

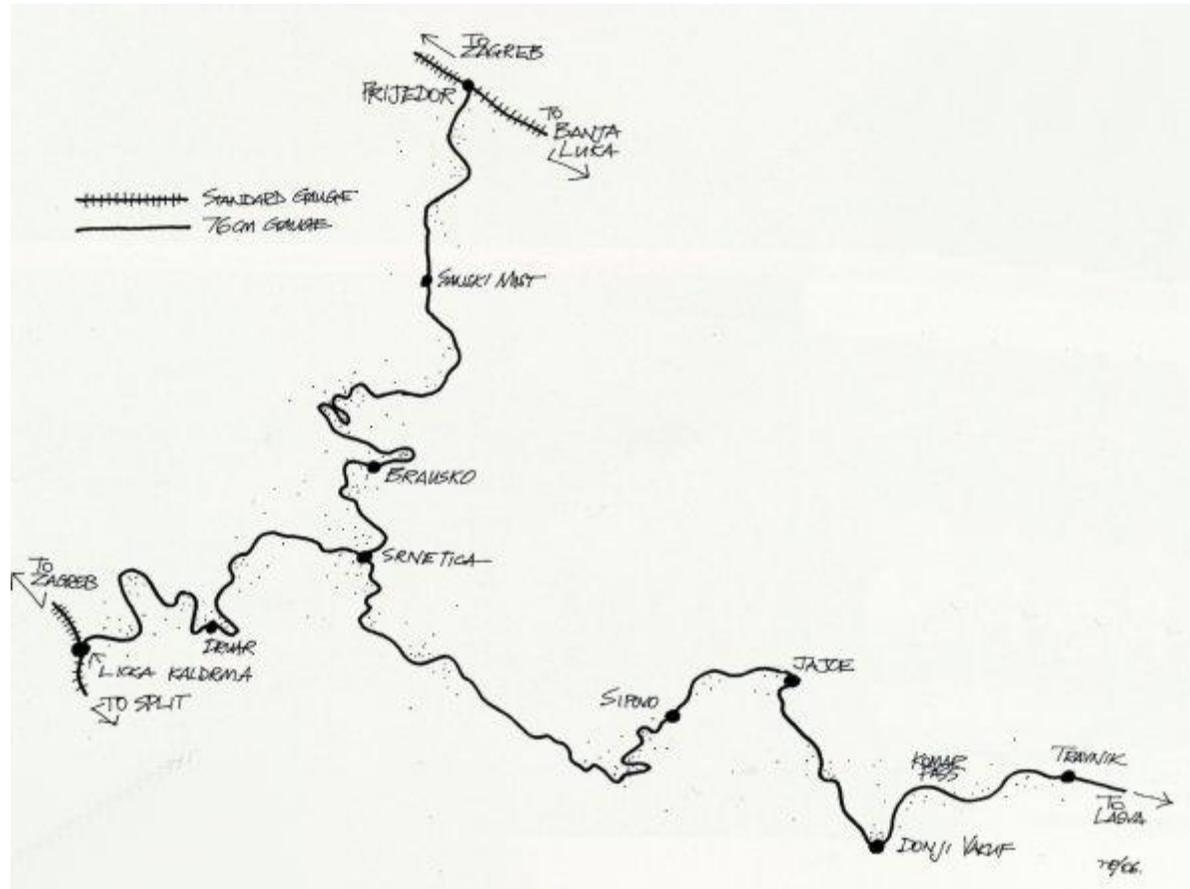


Sarajevo lies in a hollow, drained by the insignificant Miljacka River. The narrow-gauge main line to Visegrad, Titovo Uzice and Belgrade climbed steeply through minaret-dotted suburbs to the south of the city, passing through a succession of tunnels before entering the valley of the River Drina. 0-8-2 No. 83-037 is seen here on the 14:20 local train to Renovica approaching the suburban station of Bistrik in August 1965.



Looking in the other direction, 85-008 pulls out of Bistrik station on the 00.01 Belgrade to Sarajevo, nearing the end of its 15 hour journey. The smoke of 83-037, which was passed at Bistrik, can be seen in the distance.

The Steinbeis railway in 1965 by Charlie Lewis



The 400km network of the Steinbeisbahn (its original name) served a well-forested plateau - a karst region, characterised by deep glacially-carved gorges, limestone sinkholes, caves and lakes.

If ever a Shangri-La for railway enthusiasts existed, it must have been Srnetica, the three-way junction at the heart of the Steinbeis Railway. From here lines radiated to Prijedor on the standard gauge to Zagreb, to Jajce on the narrow gauge to Sarajevo and, via legendary Drvar, to Knin on the standard gauge to Split on the Dalmatian coast. An area only reachable by dirt roads meant that transport was animal power or train. When the railway was abandoned in 1975, hardship to many thousands was caused - probably greater in value than the savings achieved by destroying the region's transport infrastructure.

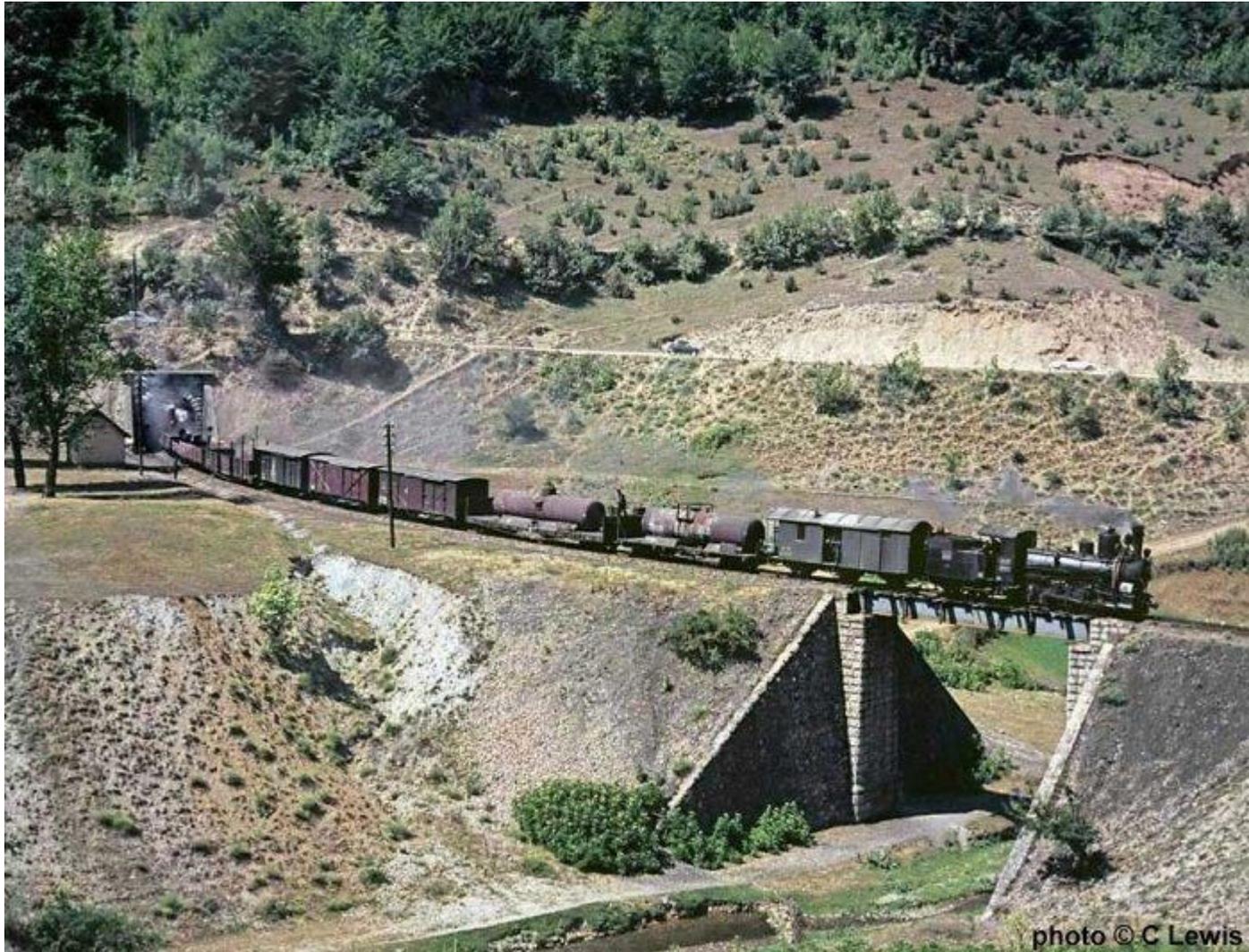
The locomotive fleet was as varied as the landscape, with over a hundred locomotives of twenty-five different classes in ten different wheel arrangements in service at one time or another. As late as 1965 there was still considerable variety and I was fortunate to see UNRRA 0-8-0s, modern post-war 0-10-0's by Skoda, classic Steinbeis 0-10-0's and an assortment of Mallet tanks. What struck me at the time was how busy the system was and how well patronised the passenger and mixed trains were, as can be seen from the photographs.



This is Srnetica, junction for Jajce, Prijedor and Licka Kaldrma. After the Second World War, thirty four H K Porter 0-8-0s were delivered to Yugoslavia for the 76cm lines. By the time I got to travel on the Steinbeis in August 1965 the UNRRA's seemed to be the predominant power on passenger trains. On the right is No. 23 with the recently arrived 07:00 Prijedor - Licka Kaldrma while on the left is the train's opposite number, about to depart with No. 20 in charge. Incidentally, UNRRA stands for United Nations Relief and Rehabilitation Administration.

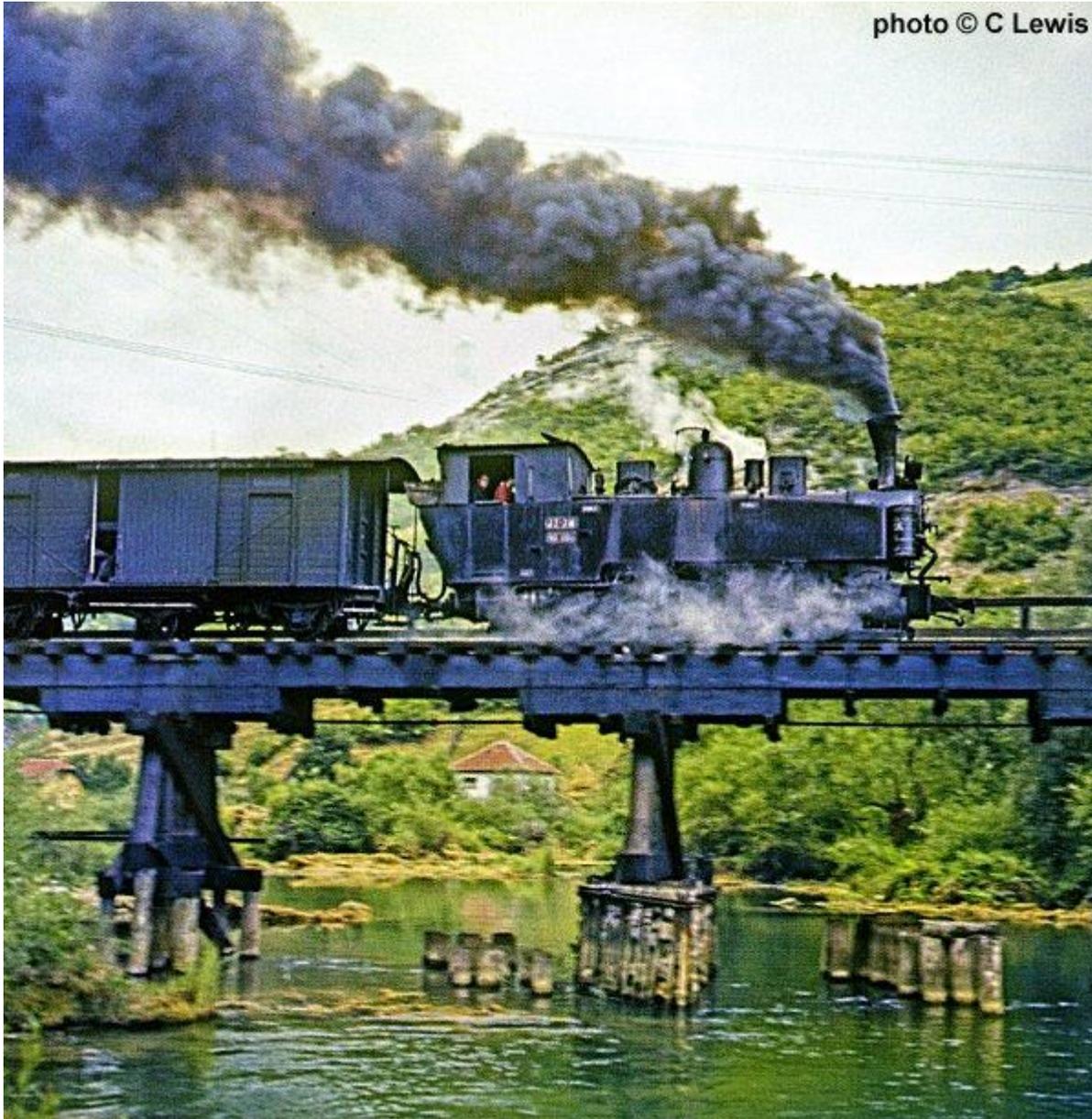


The 73-class 2-6-2s could be fast locomotives and, having chased one on the winding road from Travnik to the standard-gauge interchange at Lasva, I can confirm that they were lively indeed. This was the only picture we managed of this freight being brought down from Jajce where there was an end-on connection with the Steinbeis system. Note the well-maintained permanent way, clean engine and long train.



Another banked freight with 97s top and tail, emerges from the summit tunnel of the Komar Pass, in August 1965.

photo © C Lewis



Bound for the Steinbeis, the 05:42 daily passenger departure from Jajce with 0-4-4-0 Mallet No. 90-006 in charge, storming across the wooden trestle at the western end of town. Almost seven hours and 106 kilometres later she would reach Srnetica. The three-axle radial van dated back to the 1880s.



On another day the 05:42 Jajce-Srnetica, this time with a UNRRA 0-8-0, overtook an early morning freight hauled by 90-007 at Sipovo. In the next thirty kilometres the route rises more than 500 metres to the eastern Bosnian plateau via a succession of horseshoe bends.



About five kilometres after leaving Sipovu, having just passed the halt for the little hamlet of Sokovac, No. 90-007 was beginning to climb in earnest with a tank car and some empty bolster wagons for timber.

photo © C Lewis



The famous town of Drvar, is situated at the bottom of a deep glaciated valley drained by the Unac stream. Trains from Srnetica had to zig-zag down a cliff to a reversing station before descending to the valley floor. At the reversing station another UNNRA 0-8-0, No. 10, coupled on behind to help the train down the last three kilometres into Drvar station.



The Czech firm of Skoda built a series of large 0-10-0's Nos. 1932 to 1937 in 1946. At least three of these impressive locos were working on the Steinbeis in 1965. This is No. 1936 which we passed at a loop between Prijedor and Drvar. No. 1937 is preserved in Doboj. Notice the salute of the passing train, saluting of trains and other staff members was a serious business back in 1965!



A busy scene at Drvar. The train I came in on from Srnetica is in the middle with No. 10 on the front of it and No. 23, which had brought us all the way from Prijedor, still coupled on at the back.

On the left, Steinbeisbahn No. 30, a superb superheated 0-10-0 built by O&K in 1924, with Klein-Lindner axles at both ends, was already coupled to the train to take us on to Licka Kaldrma.

On the right, yet another UNRRA, No. 6, was all set to pilot No. 29, a 1916 O&K 0-10-0, on a load of sawn timber that would follow our train out to the standard-gauge interchange at Licka Kaldrma. Note the Srnetica line high on the hillside in the background.

photo © C Lewis



The train from Drvar to Licka Kaldrma climbed out of the Unac valley for more than an hour before we stopped for water and fire cleaning at this remote spot. Steinbeisbahn No. 30 had been handling the load with ease. No. 30 was one of a series of four 0-10-0's Nos. 29 to 32 built by Orenstein & Koppel.

Slavonski Brod to Doboј in 1965 by Charlie Lewis
A "Klose" arrest



A portrait of No.185-003 with its truly peculiar motion, taken at Derventa just prior to arrest and interrogation.

By 1965 the isolated track from Slavonski Brod (on the Zagreb -Belgrade main line) to Dobož (where a branch extended to Teslic) was the last remaining segment of the original narrow gauge main line to Sarajevo which the Austrians had started building as a military railway in 1879. It was this stretch of line that had drawn me to Yugoslavia in the first place.

We spotted the 10:30 local from Bosanski Brod (across the Sava River from Slavonski Brod) at a level crossing near Sjekovac and the amazing sight of No. 185-003, Klose mechanism intact and hauling the return working of the morning commuter run from Derventa.

In spite of the complexity of its motion with its dozens of pins and bushes, the engine seemed to be in excellent good health. When drifting or working lightly no knocks or rattling of the motion could be heard, only a kind of gentle ticking as one would expect from a sewing machine, or a well-oiled clock.

We hedge-hopped with the local along the parallel road, taking several photographs between stations. As we approached Derventa the engine's crew repeatedly made handcuff signs, pointing ahead and then to us. We assumed this meant trouble and so it proved when shortly after arriving at Derventa (but not before getting a portrait of No. 185-003), we were arrested. After a brisk and fairly brief interrogation we were released with a grave warning never to take photographs of trains again.

There had been little time to study this marvellous machine. No. 185-003 was a living memorial to the ingenuity of its designers and the dedication and skill of the men who had maintained her for more than sixty years. She was a two-cylinder compound with both cylinders between the frames (on 2ft 6in gauge!) and the valves and motion outside. The Klose articulation gave her a rigid wheelbase of zero(!), which was thought necessary at the time for coping with curves down to 38-metre radius. Classification was tricky because she had a four-wheeled articulated tender that was an integral part of the radial suspension, so it could be 0-6-4T or 0-6-0+4 or just plain 0-6-0. I have followed A.E Durrant's practice of calling it a 0-6-4T. Later, several of the class had the Klose mechanism removed (but retained the articulated tender) and we encountered several of these during the following weeks. We only ever saw one other unmodified class 185 - at Dubrovnik shed, in steam.



Our first sighting of No. 185-003 on the 10.30am local from Bosanski Brod to Derventa. Looking like anything but the original main line, the track had deteriorated badly and weeds were everywhere.

photo © C Lewis



Like all the JZ narrow-gauge passenger trains, this service was crammed full of off-peak customers, no doubt quite unaware of the rarity of the machine that was taking them home.

Jim Horsford visited Dubrovnik in 1972 and writes: I went on a weekend trip to Dubrovnik to see the narrow gauge - it was truly a wonderful line. The steam had finished at the coast, but I managed a few slides of 83s at Capljina.



photo © J Horsford

An overall view of Dubrovnik station and harbour in 1972. The station was in the suburb of Gruz, about 2km north of the old walled city. The station building is just to the right of the yellow bus.



A Class 740 hauled local train arrives at Dubrovnik.



Shunting in progress at Dubrovnik.



A Class 740 diesel hydraulic at Dubrovnik station.



Hum station, junction of the lines to Dubrovnik and Niksik.

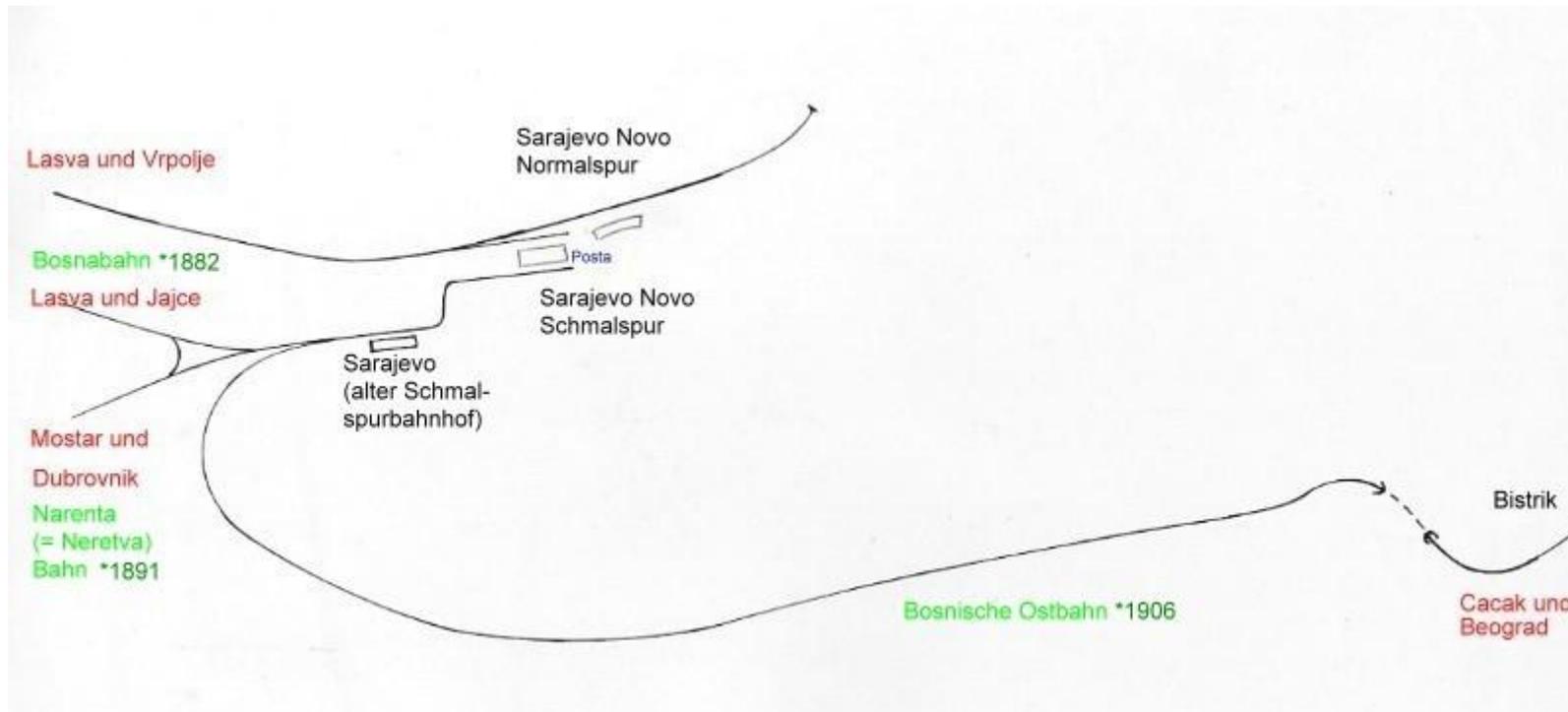


photo © J Horsford



The modern interchange station of Capljina was opened in 1967 when the standard gauge line from Sarajevo replaced the narrow gauge. Two Class 83 0-8-2's are seen engaged on shunting duties.

These photographs are included thanks to the kind permission of Helmut Dahlhaus who travelled extensively in Yugoslavia in the 1960's.



The track layout in Sarajevo in 1966. The standard gauge line terminated at Sarajevo Novo (new) station at the top. All other lines shown are narrow gauge (schmalspur).



In 1954 a 1Km extension was built to Sarajevo Novo standard gauge station where this photo is taken. It shows 2-8-2 85-043 (Slavonski Brod 30/1940) about to leave with the 09.35 to Hum (arrive 19.56), a journey of 246Km. Above the 6 wheel van on the left can be seen the front a General Motors built Co-Co diesel on a standard gauge train. 7th August 1966.



This is 85-031 (ex SHS 1531, Budapest 5060/1931) after arrival at Sarajevo with the 22.21 from Cacak on 7th August 1966. The building in the background between the narrow and standard gauge was the new post office.



85-027 is ready to work train 16, the 17.22 Sarajevo Novo to Ploce - arrive 02.38, 7th August 1966.



85-027 is seen on the section of track between the old and new stations. 7th August 1966



How could I resist this shot of 83-028 (ex SHS 1328, Budapest 4990/1929) bathed in the evening sunlight in the old station? 7th August 1966.



0-6-2 tank No.72-011 (Henschel 8580/1908) is busily engaged on shunting duties in the narrow gauge yard, 11th August 1966.



Newly overhauled 81-006, an 0-8-0 tank built in Budapest in 1914, waits to return to its home depot of Zavidovici. This loco was built with Klien Lindner axles and was identical to the Budapest/MAVAG type 70 which was built between 1905 and 1950. A total of 142 were built and they were also found in Romania. 11th August 1966.



The sad remains of 185-023 (Arad 110/1901), a Klose system 0-6+4 tender loco. Altogether Krauss in Linz and Weitzer in Arad built 45 of this class. Between the wars some machines had the Klose mechanism removed. 11th August 1966.



85-034 has just arrived at the crossing loop of Bistrik station and is on the last 6Km stretch to Sarajevo. According to the timetable, this train had left Cukarica (4 km from Belgrade main station) at 23:46 the previous evening. Bistrik was exactly 400 km from the starting point and departure time was 14:47, its arrival time at Sarajevo Novo was 15:07. Note the flowers decorating the front of the loco. 7th August 1966.



photo © H Dahlhaus

On the Sarajevo side of Bistrick, this is 85-004 (Budapest 5033/1930) on train 315, Sarajevo Novo depart 15:25 and arrive Cukarica at 06.19. The train has just passed through Tunnel No. 1, 7th August 1966.



A goods train in Bistrik had waited for the crossing with train 315, because soon after 83-056 (Jung 3538/1923) rolled by with an impressively long train. 83-056 was destined to become a monument in Trebinje. 7th August 1966.



After the Second World War the original narrow gauge Bosnabahn was replaced with a new standard gauge line from Vrpolje to Sarajevo. This gave Sarajevo its first ever standard gauge connection with the outside world. However the narrow gauge was retained between Sarajevo and Lasva/Zenica for goods traffic to Jajce and the Steinbeisbahn. With the standard gauge line behind here is 83-081 (Krauss, Linz 6443/1911) on a goods to Sarajevo at Semizovac, 11th August 1966.



With the 76cm line on the right this is 4-8-0 11-054 (MAVAG 7413/1955) with a goods train from Sarajevo at Semizovac on 11th August 1966. These impressive locos were identical to the Hungarian class 424 and a total of 63 were built for service in Yugoslavia.



A treat for us in Samizovac was this old Hungarian 0-6-0 carrying the number 125-049 (BP 636/1894), it was formerly MAV 326-346. I don't know if this locomotive still belonged to the JZ but here it is working the sidings at the RK car factory on 11th August 1966.



Just outside Sarajevo this is 83-084 (Krauss, Linz 6583/1912) with a goods train on the Narentabahn - the line from Mostar, Ploce and Dubrovnik, 7th August 1966.



Shortly afterwards another Class 83 appeared on a local passenger train for Sarajevo, 7th August 1966.

The Ivan Pass in 1966 by Helmut Dahlhaus

I made my first visit to the rack operated section on August 8th 1966. The rack section was between Bradina and Konjic. Originally 18.8 Km had been rack worked but a realignment and new tunnel between Pazaric and Tarcin, finished in 1935, had reduced this to 8 Km. The rack section in its final form was upgrade to Sarajevo and downgrade to the coast. The new tunnel of 1935 is now used by the standard gauge line.

All traffic was worked by the four cylinder rack and adhesion Class 97 0-6-4's. The Austrian builders Floridsdorf supplied 38 locomotives of this class between the years 1894 and 1919. The 97's had independent sets of cylinders and motion for the adhesion and rack drives. Each engine also had two regulators and two sets of reversing gear so keeping them in unison when double-heading was a highly skilled task.

photo © H Dahlhaus



As we waited for train B6 (Brzi Voz = express train) from Sarajevo Novo (depart 08.24) to Dubrovnik (arrive 18:25), this goods train appeared heading up the gradient. Unfortunately I only managed a photo of the banker 97-025.

photo © H Dahlhaus



B6 had probably waited for the crossing with the goods train in Bradina, because soon after the typical noise of working counter-pressure brakes was to be heard. Here the express train rolls past heading downhill. 97-031 and 028 led the train, with 97-019 and 006 at the rear.

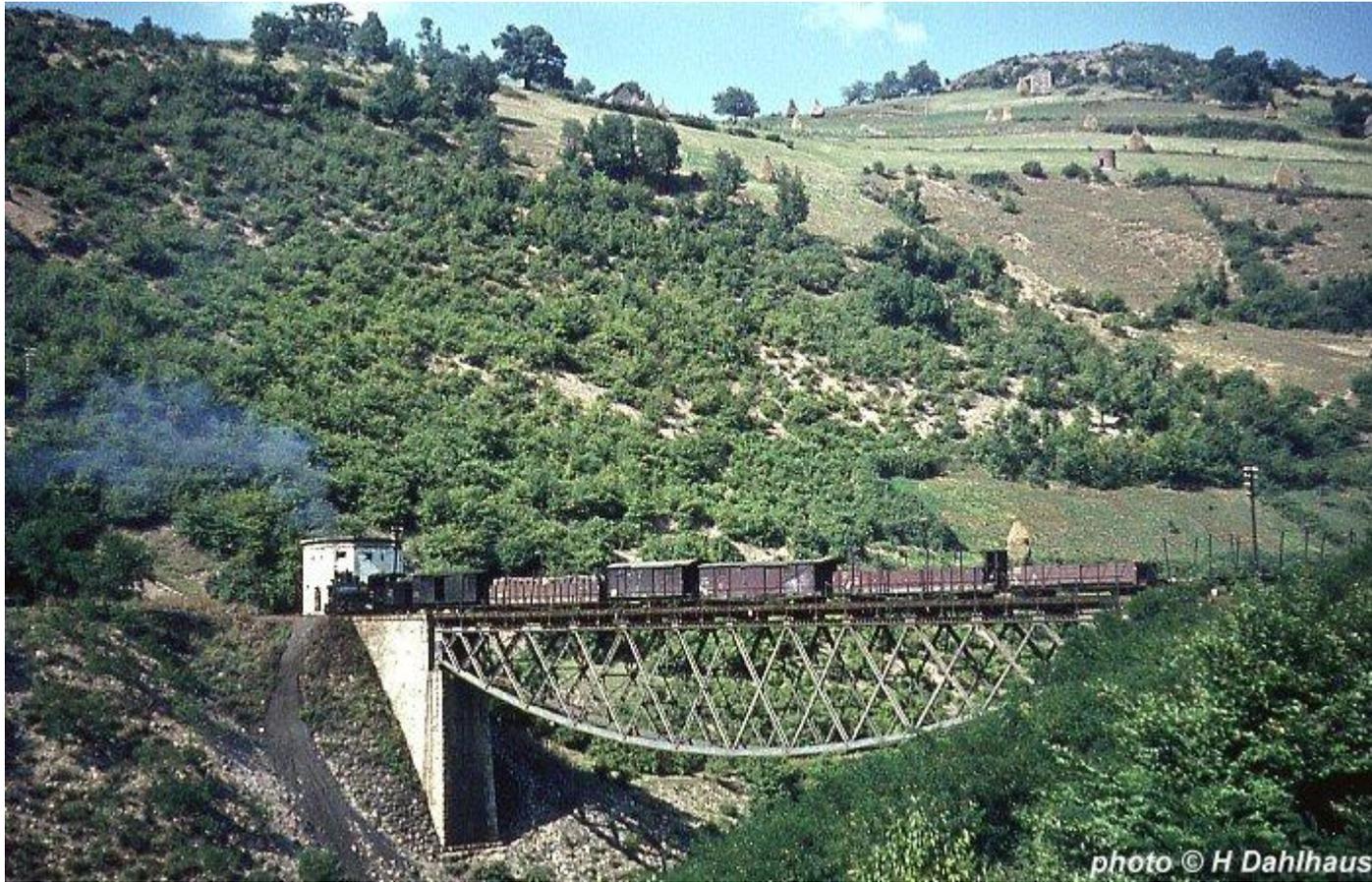


97-019 and 006 at the rear of the Dubrovnik express, August 8th 1966.

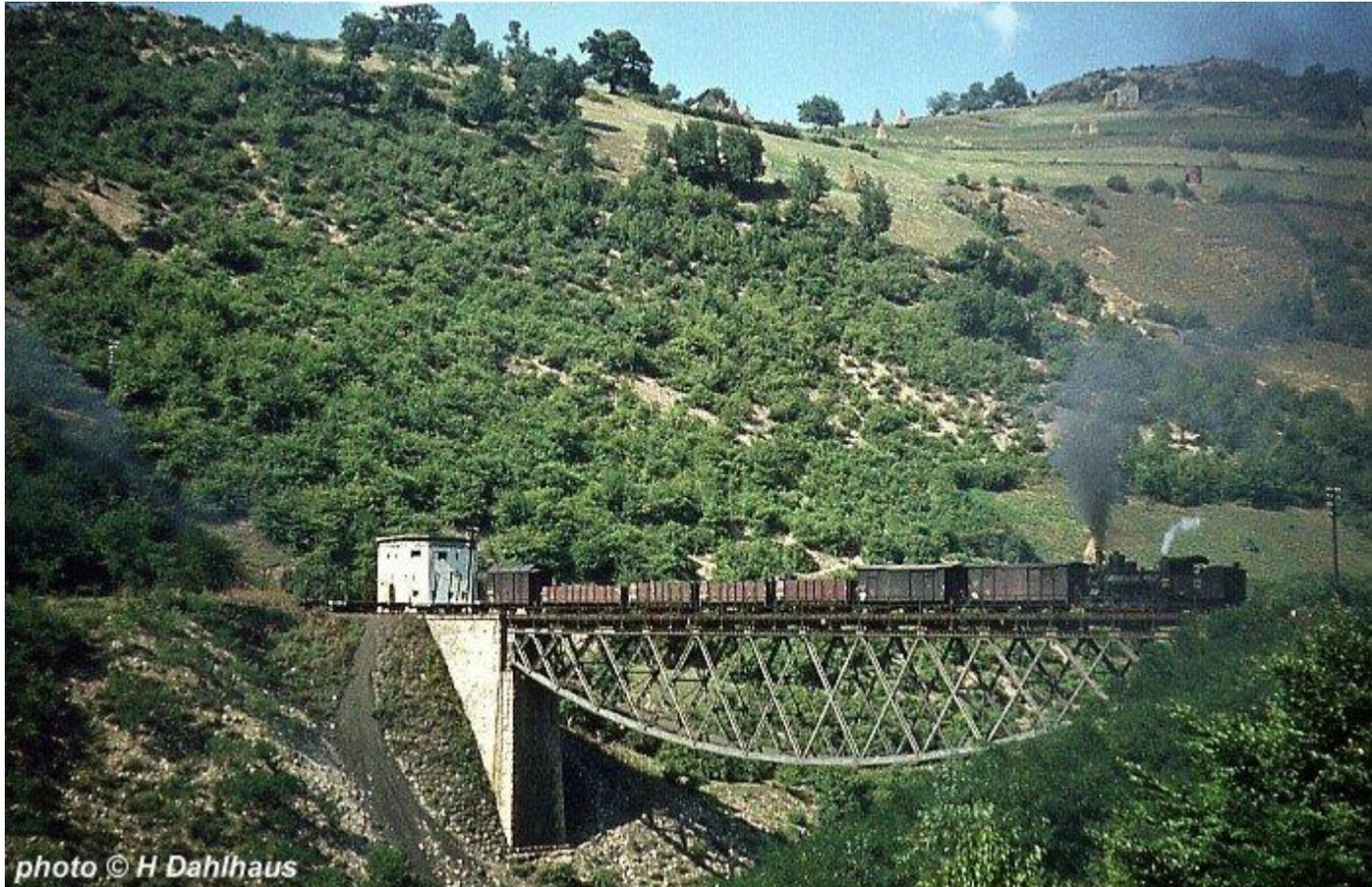




**Two views of 97-032 at Brdani pod Ivanom on 10th August 1966.
All Sarajevo bound trains stopped here to take on water.**



97-013 on the front of a freight for Sarajevo is crossing the famous bridge over the Luka ravine.



While 97-019 is banking at the rear, 10th August 1966.



When we inspected the bridge more closely, we had doubts as to whether it would be a good idea to cross it to go to the other side. The bridge timbers were showing signs of wear no doubt because of the imminent closure of the line. However we risked it - "Everything for a good picture!". We were rewarded with this goods train headed by 97-014.



and banked at the rear by 97-038.



On the way back to Brdani pod Ivanom we photographed this goods train with 97-013 and 032, rolling down the valley towards Konjic. Only 3 months later, on November 5th 1966, the last narrow gauge train ran from Ploce to Sarajevo and the long reign of the Class 97's over the Ivan Pass had ended forever.

Various locations by Helmut Dahlhaus



97-002 and 97-029 are seen on the rack section of the Komar Pass between Travnik and Donji Vakuf, 7th August 1967.



83-154 near Zavala on train L21 - the 14.13 from Dubrovnik to Hutovo, 14th August 1967.



Train 1716 - the 12.23 Medjedja to Priboj na Limu headed by 83-016 is seen just after leaving Medjedja on 12th May 1974.



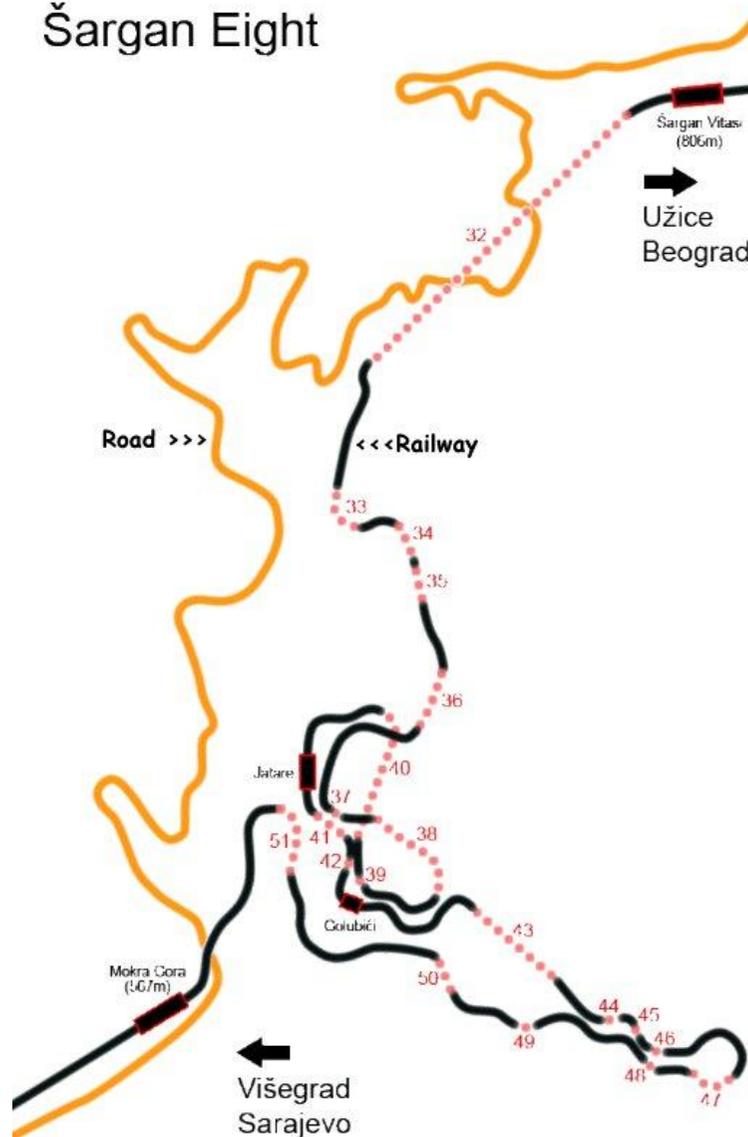


Two more views of train 1716, again headed by 83-016, between Medjedja and Most Na Drini, 13th May 1974.



A heavy freight headed by two Class 83's heading towards Ustipraca and Sarajevo on 12th May 1974.

Šargan Eight

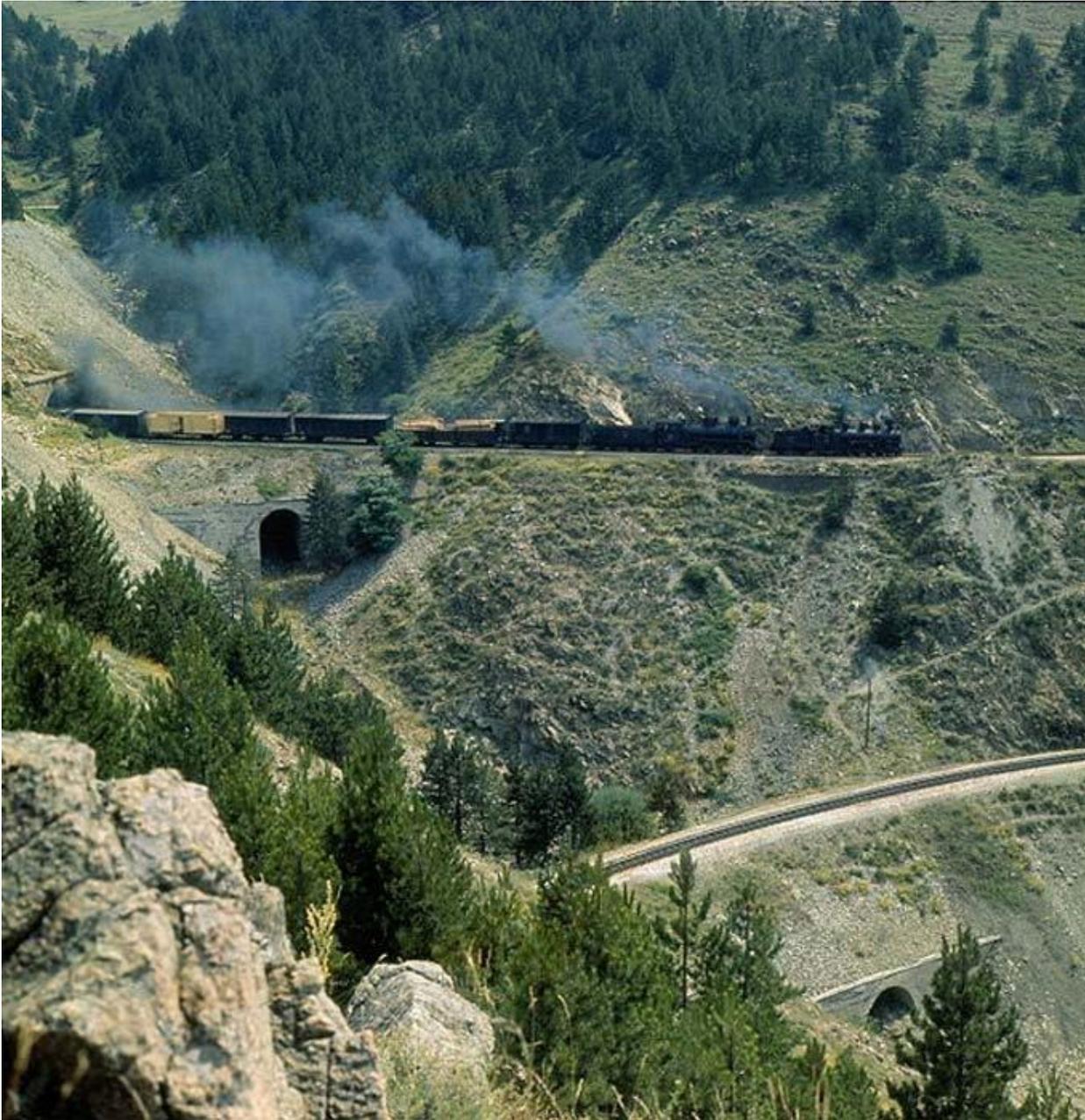


Mokra Gora and the Sargan 8

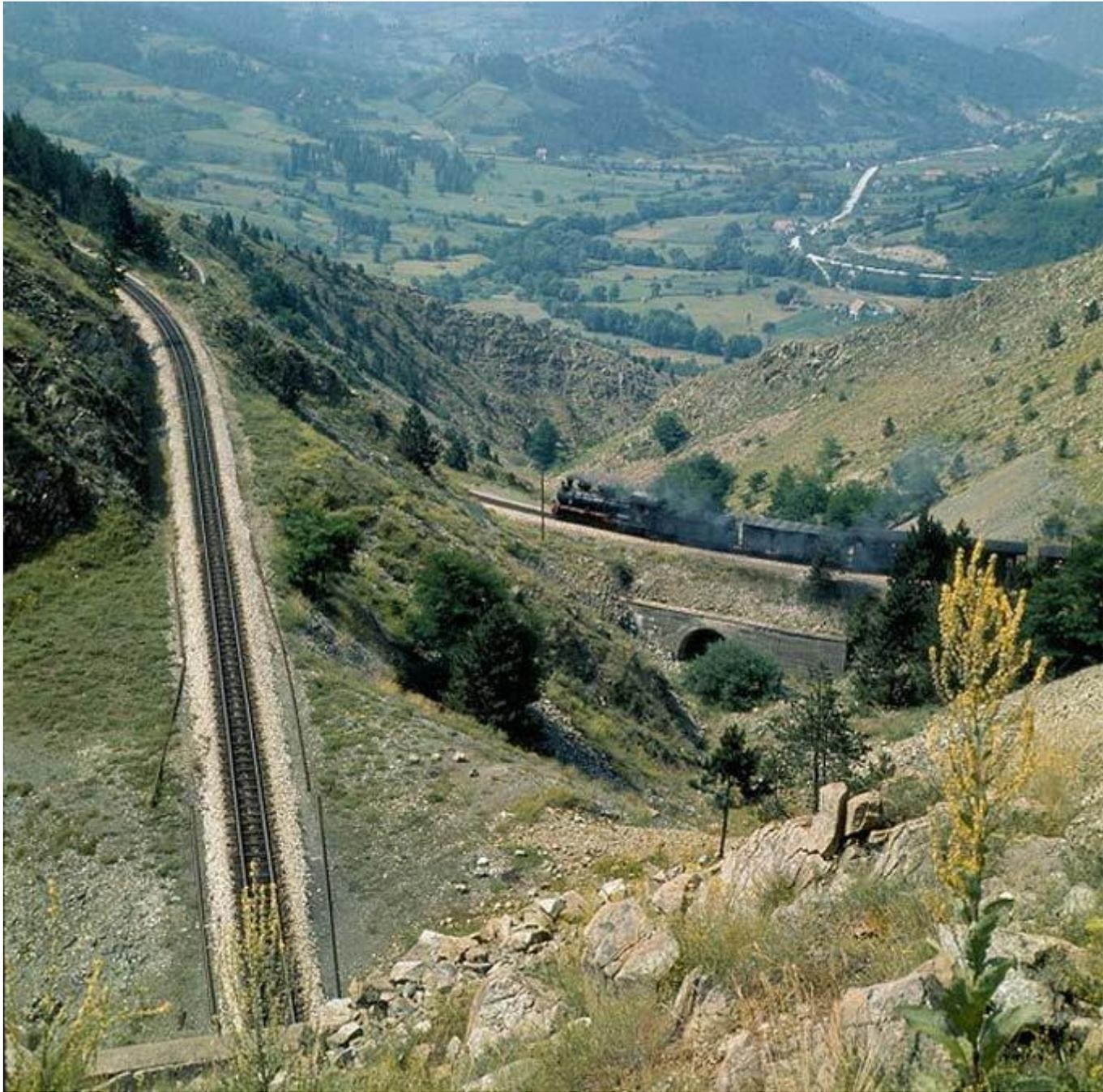
At the end of the First World War, the 57 Km stretch between Użice and Vardiste was the main missing link in a continuous 76 cm railway between the state capital Belgrade and the Bosnian capital Sarajevo. Its construction became a priority for the new state of Yugoslavia. The most difficult task was how to build a railway over the Sargan mountain which did not need a rack section or excessive gradients. The map illustrates how it was done:

Construction began on March 1st 1921 and, despite many setbacks, the section opened on 2nd February 1925. The final 40 Km missing link between Belgrade and Obrenovac opened on 30th October 1928 and a through 76 cm railway now existed over the 444 Km from Belgrade to Sarajevo.

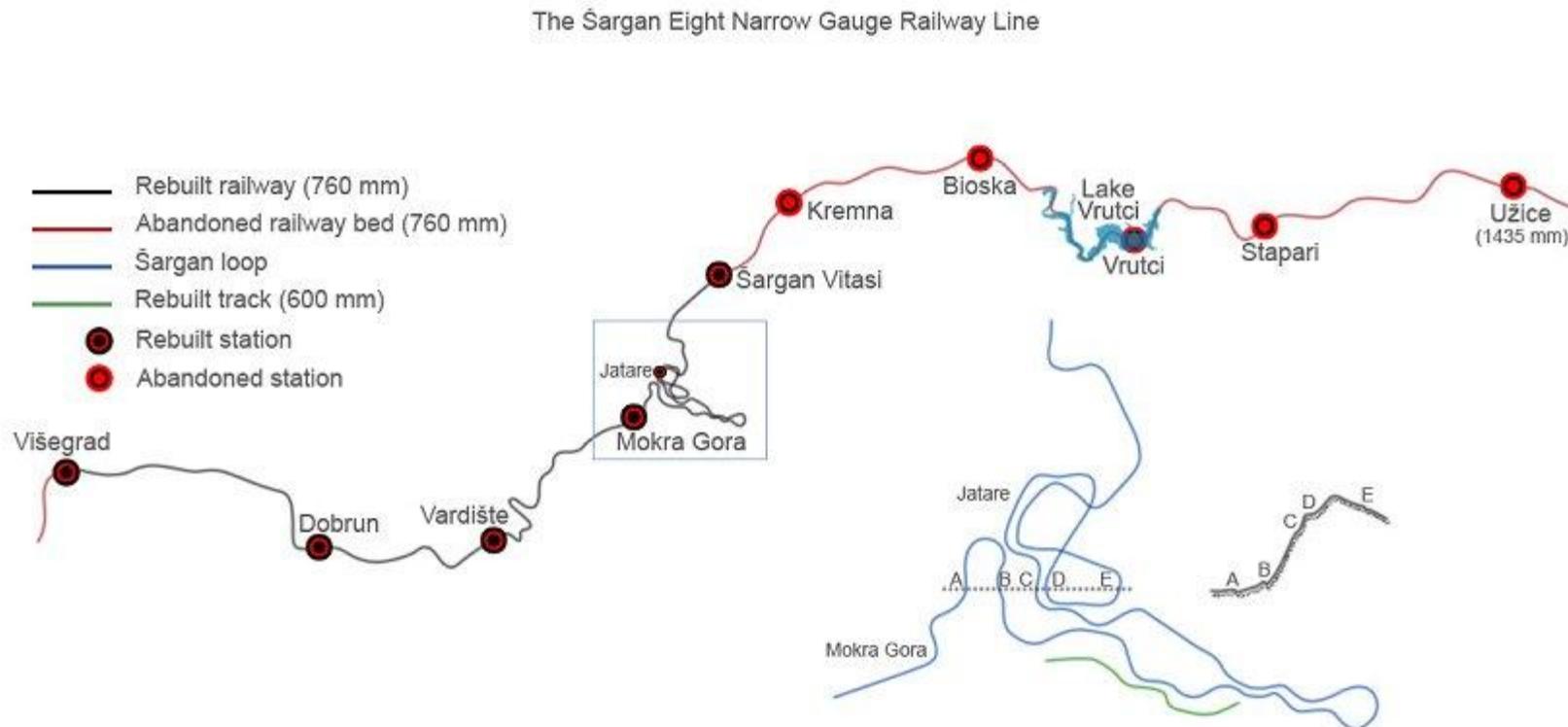
The climb over the Sargan Mountain was an engineering masterpiece. From Użice to the summit the height difference was 240 metres. As the crow flies it was 3.5 Km but by rail it was 15.4 Km. The average gradient was 18% (1 in 55) and there were 20 tunnels including the summit tunnel of 1,666m.



Two unaccredited photos of the line in use, taken before 1974.



Just short of 50 years later, on February 28th 1974, the last train ran over the Šargan Mountain. Fortunately the line between Mokra Gora and the top of Šargan Mountain has been revived, this is now the only section of the once great Yugoslav 760mm system to be preserved as a living railway. Trains currently run between Šargan Vitasi and Mokra Gora (Serbia). An extension to Višegrad in Bosnia was completed in 2010 but there doesn't yet appear to be a regular service.



Thanks to Milan Suvajac for the use of the maps.

The photos below are by Helmut Dahlhaus and were taken of a private charter goods train organised by German enthusiast Guenter Oczko on 6th October 2005.

photo © H Dahlhaus



83-052 stands in the restored Mokra Gora station.



83-052 between Vardiste and Mokra Gora.



photo © H Dahlhaus

83-052 leaving one of the many tunnels on the climb to Sargan.



83-052, still climbing, near Jatare.



Two levels of the line visible near the intermediate station of Jatare.



Heading back down to Mokra Gora near Jatare. Another part of the line can be seen above on the left. There is a triangle at Sargan allowing locos to be turned.

A selection of photos by Dr. E Scherer

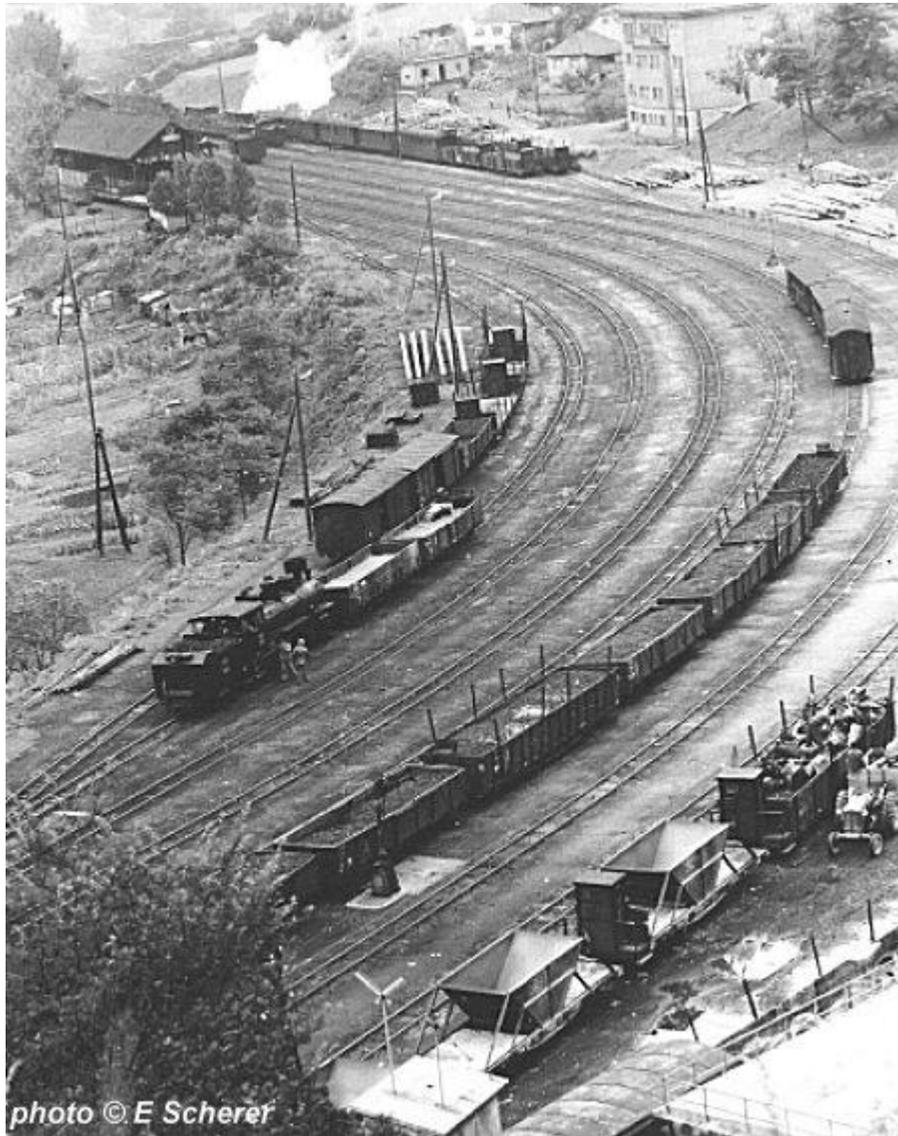


(Titovo) Uzice

The station, goods yard and loco shed at Titovo Uzice (as it was known then) on 31st of July 1970. At least 10 locos can be seen plus a large number of wagons carrying logs.

photo © E Scherer

Visegrad



Visegrad seen on 2nd August 1970, a class 83 is shunting in the yard while another is entering on a freight at the top of the photo.

Three views of the narrow gauge station in Sarajevo



The passenger station, 3 August 1965.



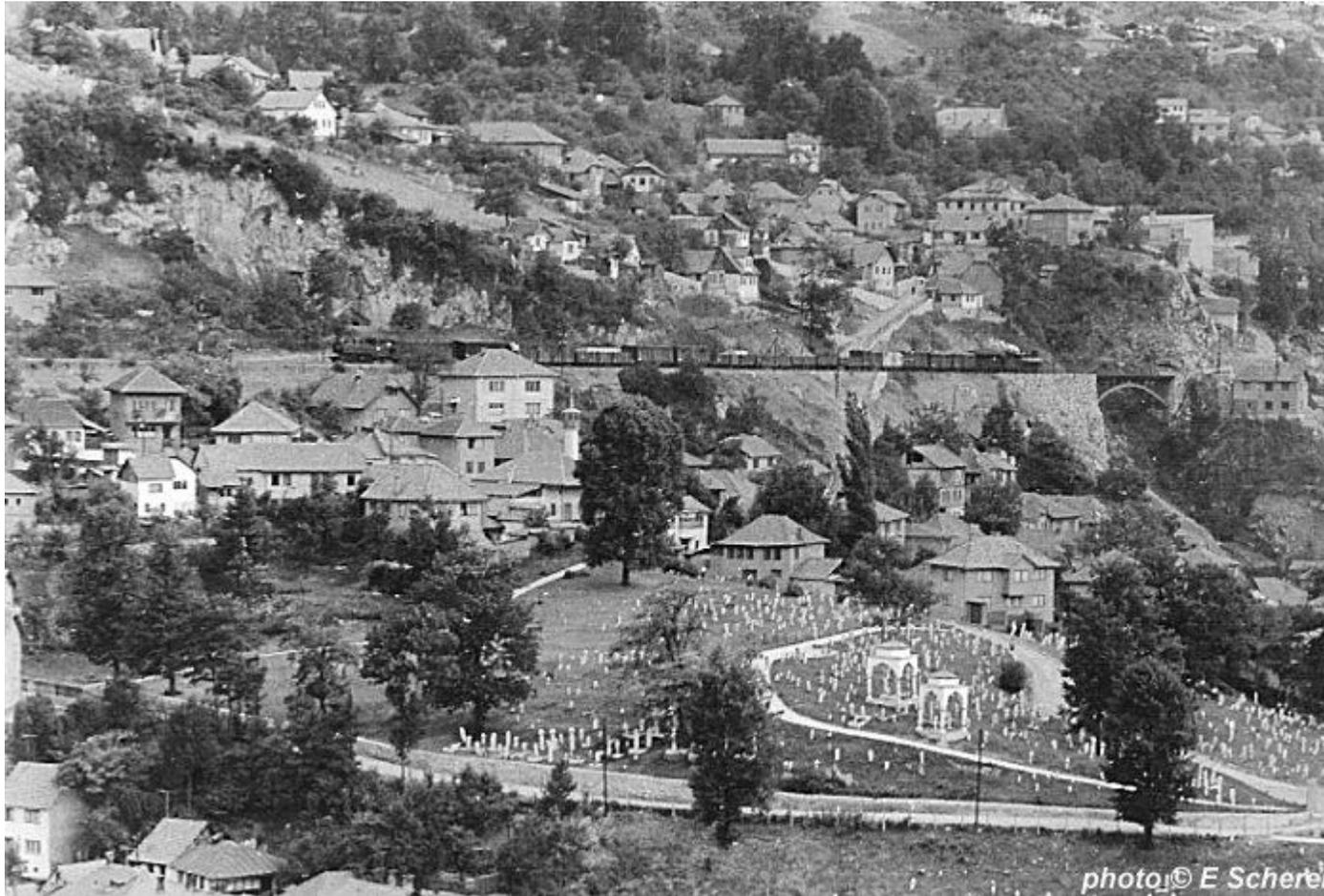
photo © E Scherer

The carriage sidings, 2 August 1965.



The goods depot and marshalling yard on the same date.

Bistrik



A freight from the Visegrad direction heads for Sarajevo near Bistrik station, 3rd August 1965. The train is headed by a class 83 with a mallet tank engine on the rear.



2-8-2 85-008 at Sarajevo, 3rd August 1965.



Klose fitted 0-6+2 tank 189-013 at Sarajevo, 3rd August 1965. There were 33 of this class of loco and they were introduced from 1885, the last one was withdrawn in August 1967.



0-6-2 tank No.72-010 is seen shunting at Sarajevo during August 1965.

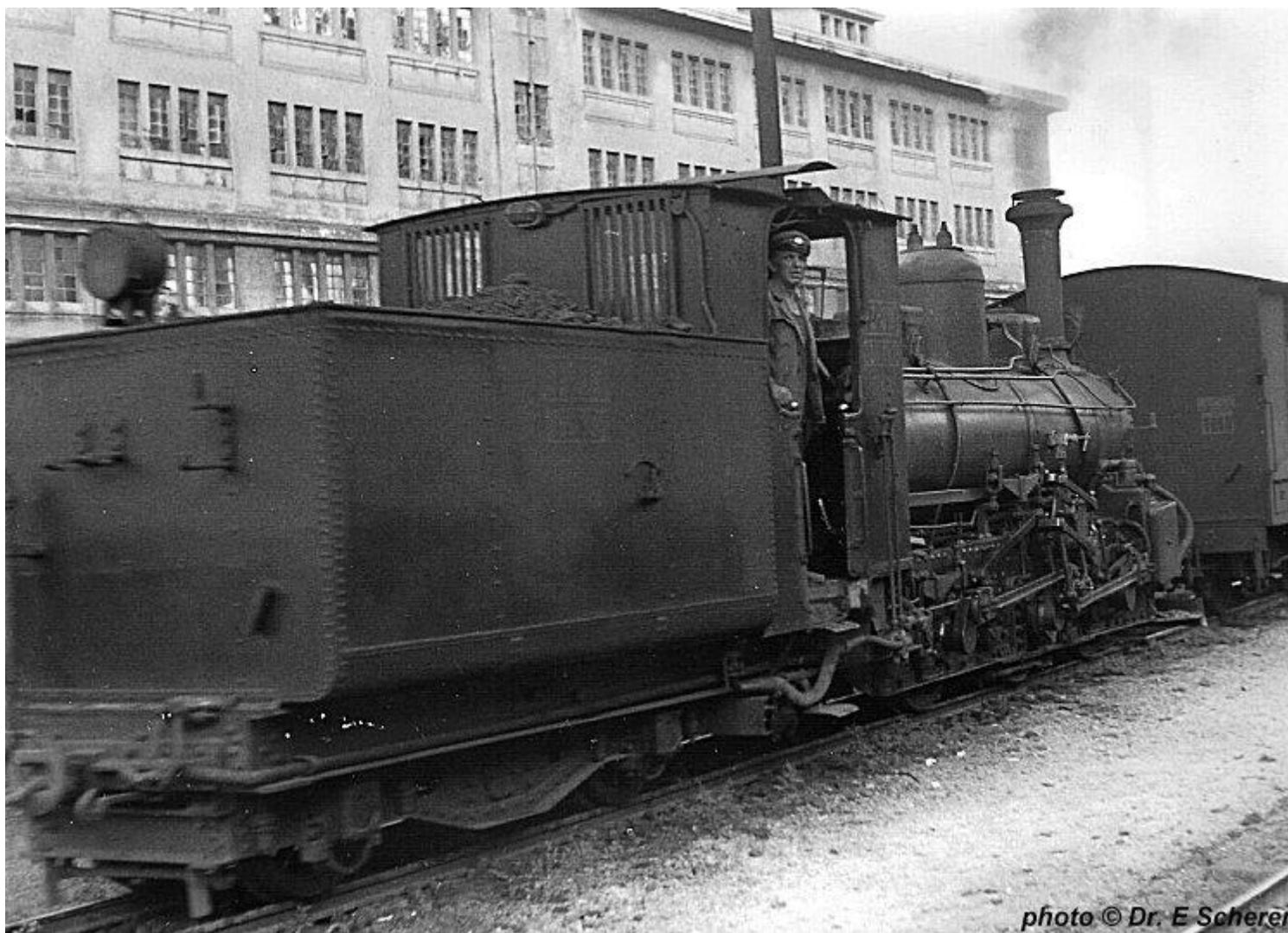


photo © Dr. E Scherer

**0-4-4-0 90-005 is seen in ex-works condition at Sarajevo during August 1965.
This loco was built by Hohenzollern in 1911**



185-025 at Capljina in August 1965. 41 examples of this class of 0-6+4 tender locomotives were built between 1900 and 1901. This one has had its Klose mechanism removed.



**A Class 186 with Klose mechanism intact at Dubrovnik during August 1965.
Nine of this class of 0-6+4 were built.**



Rack fitted 97-025 is being turned on the turntable at Bradina shed while a Class 85 2-8-2 simmers in the roundhouse, August 1965.



Two Class 802 DMU's at Dubrovnik in 1967.



**2-6-2 73-008 on a passenger train at Prijedor, the northern terminus of the Steinbeis Railway, in August 1967.
The loco is standing on a crossover with the standard gauge line.**

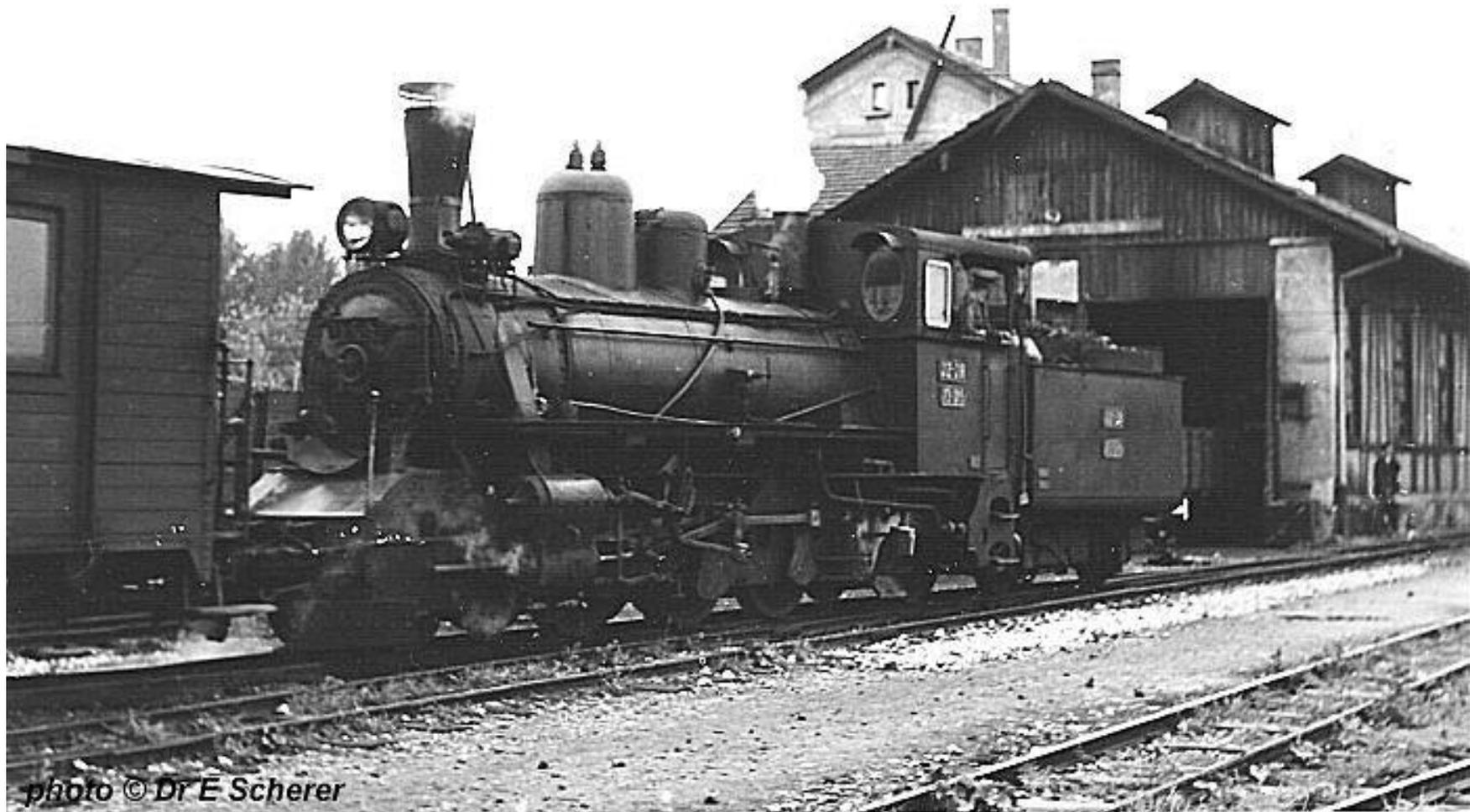
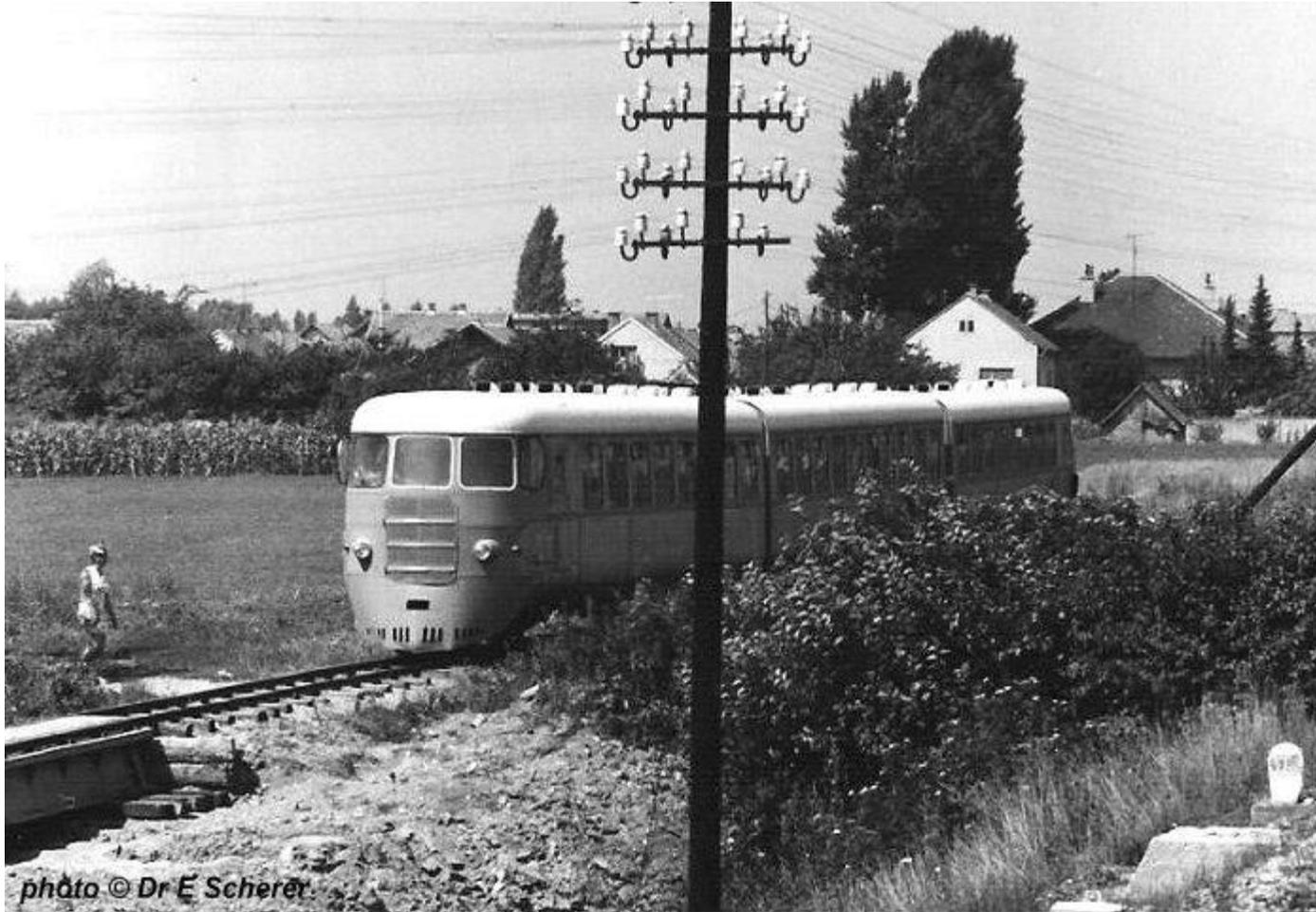


photo © Dr E Scherer

73-015 passing the shed at Prijedor in August 1967.



Two views of DMU's on the 76cm Zagreb to Samobor line on July 29th 1970. The Samobor line was not part of the national system but was run by the city of Zagreb. The railway opened in 1901 and closed in 1979. It had four of these diesel trainsets, three of which were scrapped on closure.

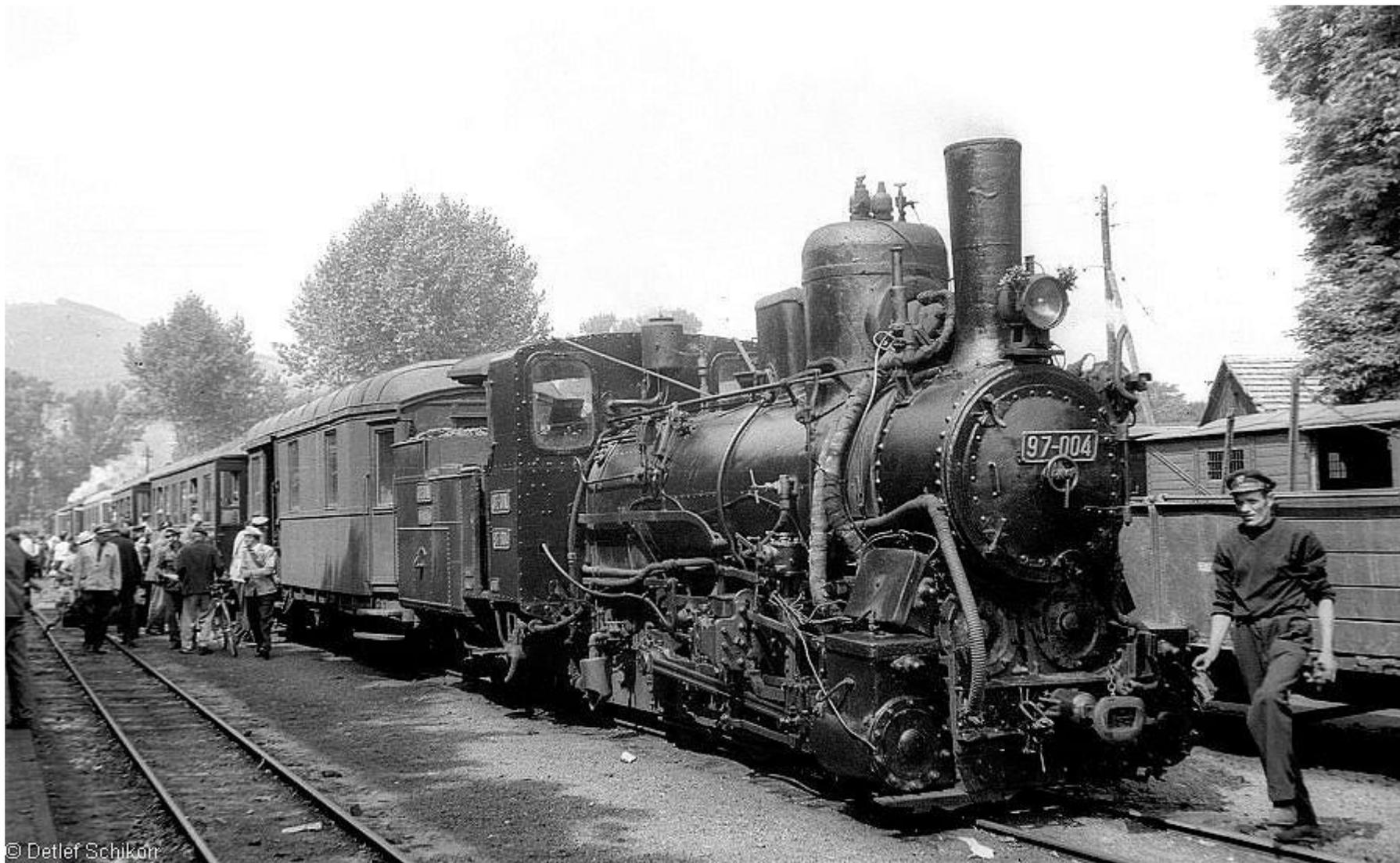
One DMU survived and the body is now at Zagreb Marshalling Yard while the bogies are in the Croatian Railway Museum. The surviving unit is DEV-3. Plans are now being made for a new railway to run from Zagreb to Samobor. The line could be viewed from the main line from northern Europe to Zagreb and was often a passing enthusiasts first view of the Yugoslav narrow gauge.



A selection of photos by Detlef Schikorr

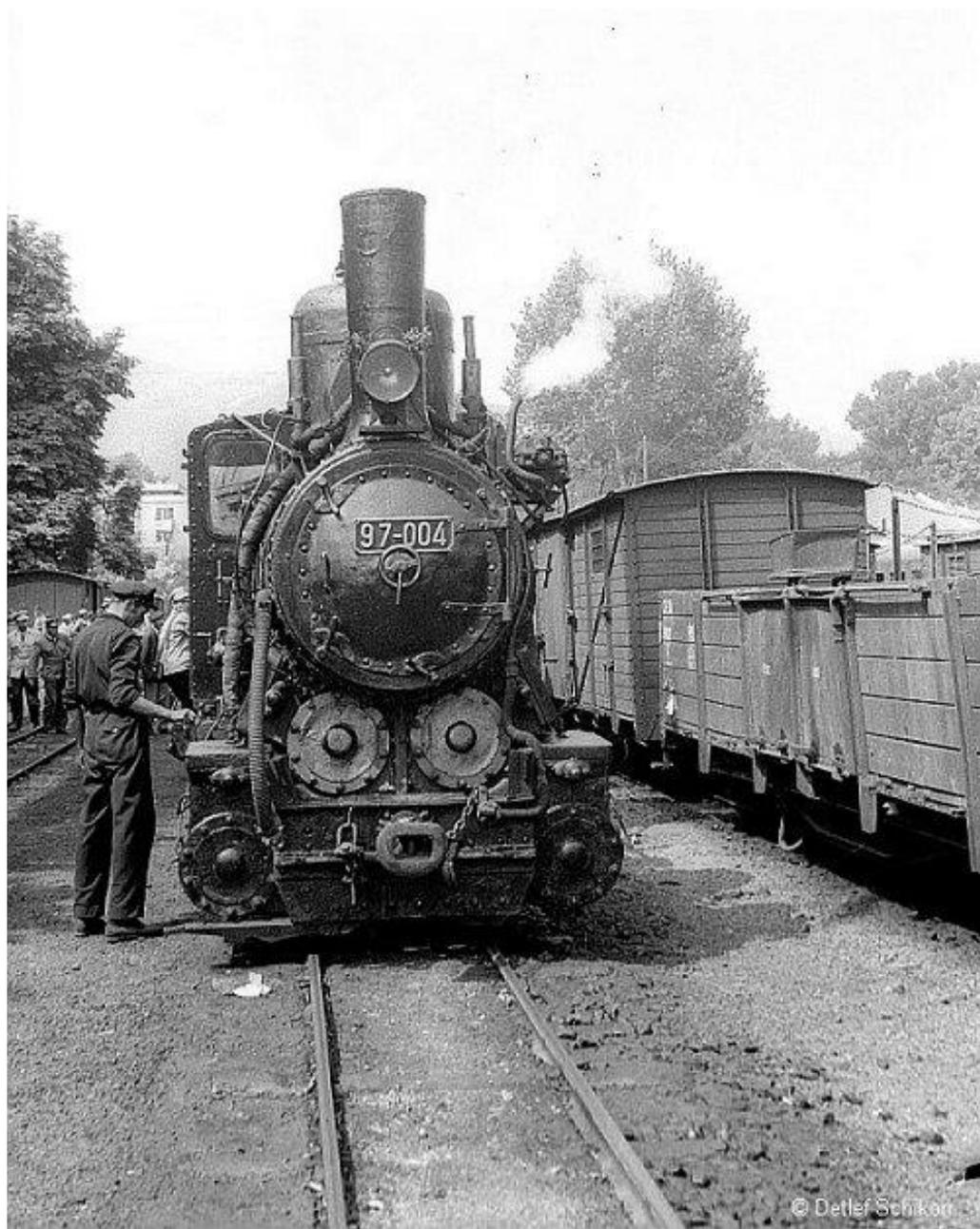
Donji Vakuf and the Komar Pass

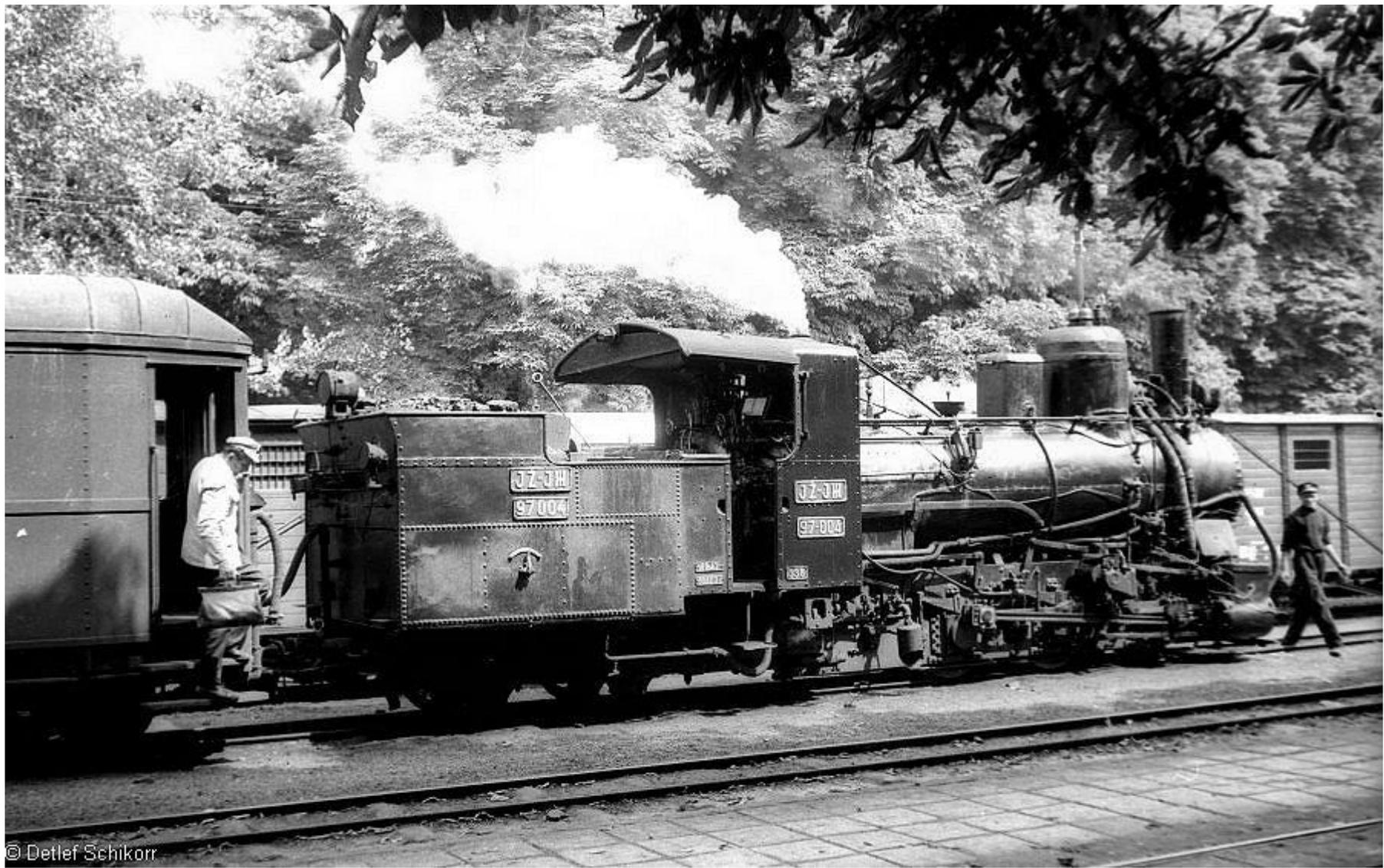
Donji Vakuf was situated on the line between Lašva, Travnik, Jajce and Šipovo. It was also a junction for a 34 Km branch line to Gornji Vakuf. Between Donji Vakuf and Lašva lay the Komar Pass, this was 900 m high, rack worked and had a 2 Km long tunnel at the summit. Locomotives were changed at Donji Vakuf with the Class 97 rack locomotives taking over the trains for the climb over the Komar Pass. Trains to and from Lašva also reversed in the station. All the photographs were taken on 19.07.1969.



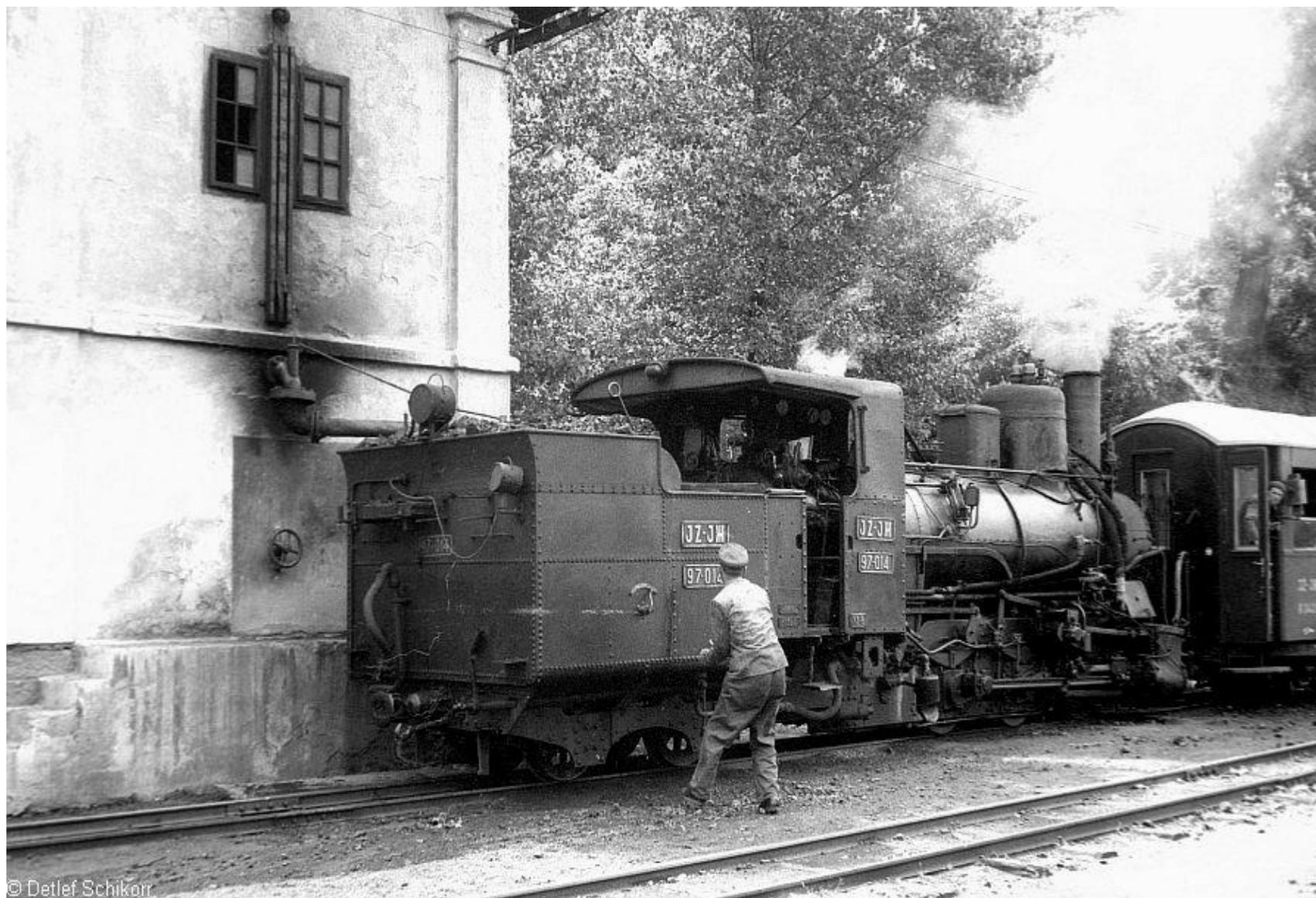
© Detlef Schikorr

Three views of rack locomotive 97-004 (Floridsdorf 958/1895) at Travnik shortly after arriving from Donji Vakuf.





© Detlef Schikorr



© Detlef Schikorr

**97-014, acting as banker, is seen taking water at Goles at the start of the rack section.
This train was hauled by 97-031**



97-014 is seen again, this time at Oborci having crossed the Komar Pass. Detlef writes "We sat in the last carriage to record the sound of 97-014 banking the train. The fumes from the front loco were so bad that while passing through the summit tunnel we had to lie on the floor and gasp for breath!"



A passenger train from Donji Vakuf to Gornji Vakuf at Bugojno. The train is hauled by UNRRA 0-8-0 No. 22 (H.K.Porter 8068/1945). After the Second World War, thirty four of these American built locos were delivered to Yugoslavia for the 76cm lines.



UNRRA 0-8-0 No. 28 is seen being coaled at Donji Vakuf



© Detlef Schikori

97-020 (Floridsdorf 1804/1908) at Donji Vakuf awaiting its next turn over the Komar Pass.



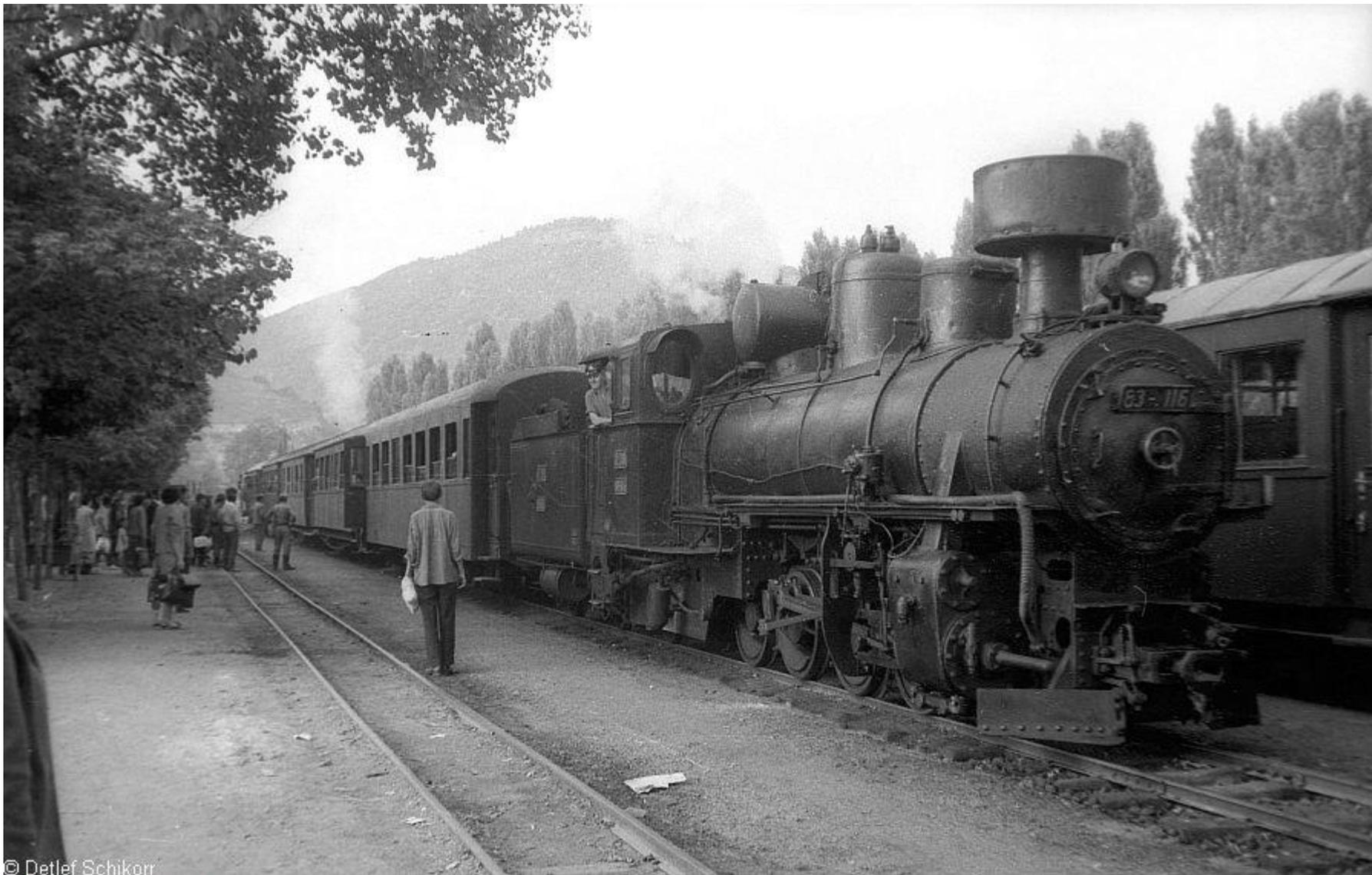
97-020 on the turntable at Donji Vakuf.



The locomotive shed at Donji Vakuf with 97-014 and a UNRRA 0-8-0 visible. "We were suddenly shouted at from the shed and feared the worst. But the cry was 'Friends, Slivovice' (the deadly plum brandy!)"



"After enjoying the hospitality we took this shot of UNRRA 0-8-0 No. 22 arriving with a passenger train from Gornji Vakuf."



0-8-2 83-116 (Krauss/Linz 7297/1917) arriving at Donji Vakuf with a passenger train from Jajce to Lašva.

A selection of photos by Detlef Schikorr - Sarajevo

Detlef made two visits to Sarajevo - in 1969 by train and in 1970 by car. By this time the only narrow gauge line which remained open from Sarajevo was the Ostbahn as far as (Titovo) Uzice. All the photos are taken at the narrow gauge station rather than at the newer Sarajevo Novo where photography was discouraged.



© Detlef Schikorr



Two views of 0-8-2 83-067 shunting on 20.7.1969.





© Detlef Schikorr



Three views of 2-8-2 85-041 on 20.7.1969. This loco was coupled to one of the smaller tenders usually found behind a Class 83 rather than the more usual bogie one. Note the flower displays adorning each side of the smokebox.



83-073 (Krauss/Linz 6032/1909) on a local passenger train, 23-7-1970.



© Detlef Schikorr

2-8-2 85-042 with its normal tender, 23-7-1970.



© Detlef Schikorr

A line-up of 2-8-2's: 85-042, 85-025 and 85-041 Sarajevo 23.7.1970



JZ 85-024 Sarajevo 23.7.1970





© Detlef Schikorr

JZ 83-015 is busily engaged in shunting at Sarajevo 24.7.1970



© Detlef Schikorr.



© Detlef Schikorr



© Detlef Schikorr

2-8-2 85-041, 24-7-1970



Some details for the modeller: passenger carriage B 3488, 24-7-1970.



Detlef's party had a permit to visit the locomotive depot in Sarajevo. Here we see 83-015 on the turntable, 24-7-1970. This building still survives today as a garage.



© Detlef Schikorr

Rack locomotive JZ 97-020 (Floridsdorf 1804/1908) was undergoing repair, 24-7-1970.



On the following day 85-024 was in the passenger station yard.



© Detlef Schikorr

85-041 is ready to depart on a passenger train to Titovo Uzice, 25-7-1970.

A selection of photos by Detlef Schikorr



Bistrik to Ustipraca.

85-041 between Sarajevo and Bistrik, 25-7-1970



© Detlef Schikorr

Another view of a Class 85 2-8-2 between Sarajevo and Bistrik.



© Detlef Schikorr



Two photos of 83-015 arriving and departing from Bistrik station on a train from Ustipraca to Sarajevo, 26-7-1970.



This is a view of the typical countryside traversed by the Ostbahn: deep limestone gorges and fast flowing rivers.





**Ustipraca, 103 Km's from Sarajevo, was the junction for the line to Foca and Miljevina which opened in 1939.
Class 83 0-8-2's 83-013, 83-090 and 83-103 are awaiting their next turns of duty, 26-7-1970.**



83-013 moves through the station at Ustipraca, a class 802 DMU can be seen in the background, 26-7-1970.



© Detlef Schikorr

Another view of 83-013

Trains at Ustipraca



© Detlef Schikorr

85-031 and 83-090 at Ustipraca, 26-7-1970.



85-031 is seen again on its freight train.



Shunting moves are underway with 85-031 and 83-090 at Ustipraca.



© Detlef Schikorr

83-010 is seen arriving at Ustipraca from Foca hauling an ancient looking passenger train, 26-7-1970.



Some detail of the passenger vehicles.



© Detlef Schikorr

The freight train is ready to depart double headed by 85-031 and 83-090, 83-010 is on the right.

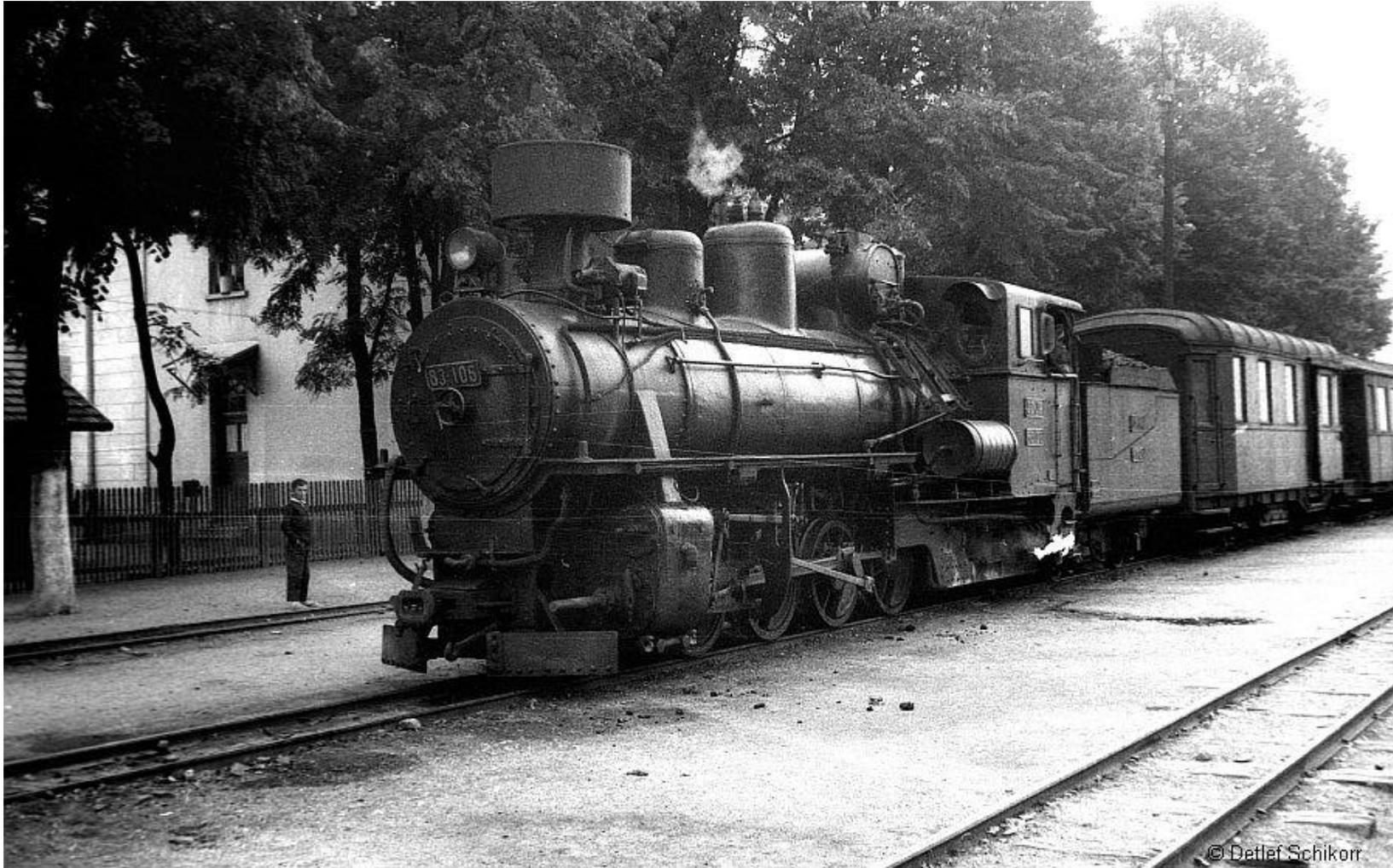


The double headed freight is seen leaving Ustipraca.



85-031 on a passenger train near Ustipraca, 20-7-1969. The day that men first landed on the moon!

Priboj, Medjedja, Visegrad



Priboj Na Limu was the terminus of a 54 Km branchline from Medjedja. This is 83-106 about to leave Priboj on train 1733 - the 06.33 to Medjedja. 21-7-1969.



85-039 is seen arriving at Medjedja on a passenger train from Titovo Uzice, 21-7-1969.



Another view of 85-039 at Medjedja.



© Detlef Schikorr

0-8-2 83-106 arrives at Medjedja on a goods train, 21-7-1969.



© Detlef Schikorr



83-106 at Medjedja, 21-7-1969



85-042 on a Sarajevo bound express at Most Na Drini, junction of the lines to Priboj and Titovo Uzice. 26-7-1970.



© Detlef Schikorr



Visegrad was the site of a large locoshed. Two views of 85-014 in steam on 26-7-1970.



© Detlef Schikorr



© Detlef Schikorr



85-017 was also present on the shed.

Visegrad, Titovo Uzice and Cacak.



83-076 at Visegrad, 26-7-1970. This loco now operates on the Zillertalbahn in Austria.



© Detlef Schikorr

83-163 at Visegrad with ash wagons alongside, 26-7-1970.



© Detlef Schikorr



© Detlef Schikorr

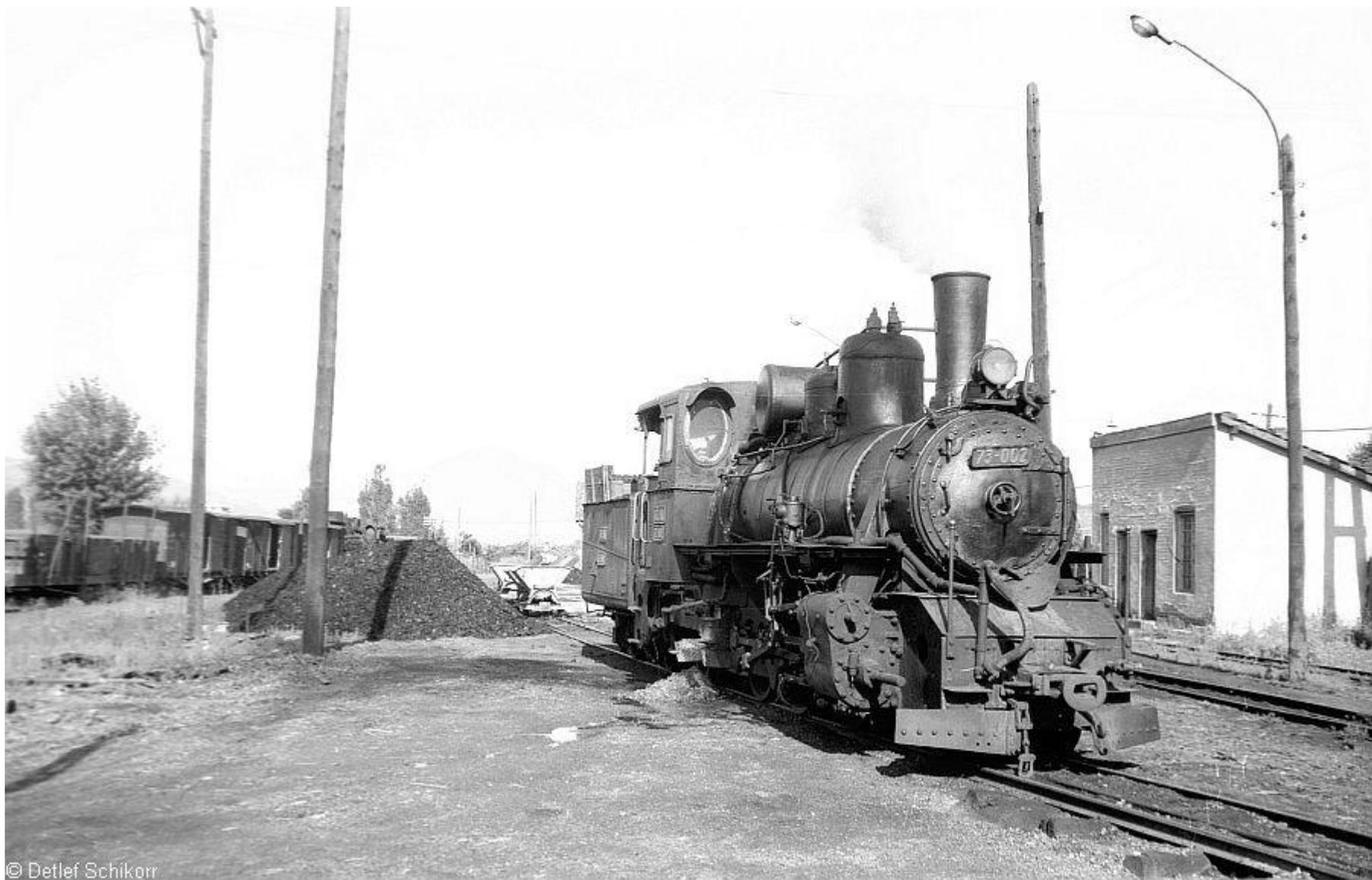
The shed building at Visegrad with 83-106 on view, 26-7-1970.



This view of a goods train double headed by two Class 83 0-8-2's was taken near Prosijek, 26-7-1970



JZ 85-045 at Titovo Uzice 21.7.1969



© Detlef Schikorr



Two views of Class 73 2-6-2 No. 73-002 at Cacak Depot, 27-7-1970. By this date the section from Titovo Uzice to Cacak had closed to passenger trains and a bus service was in operation.



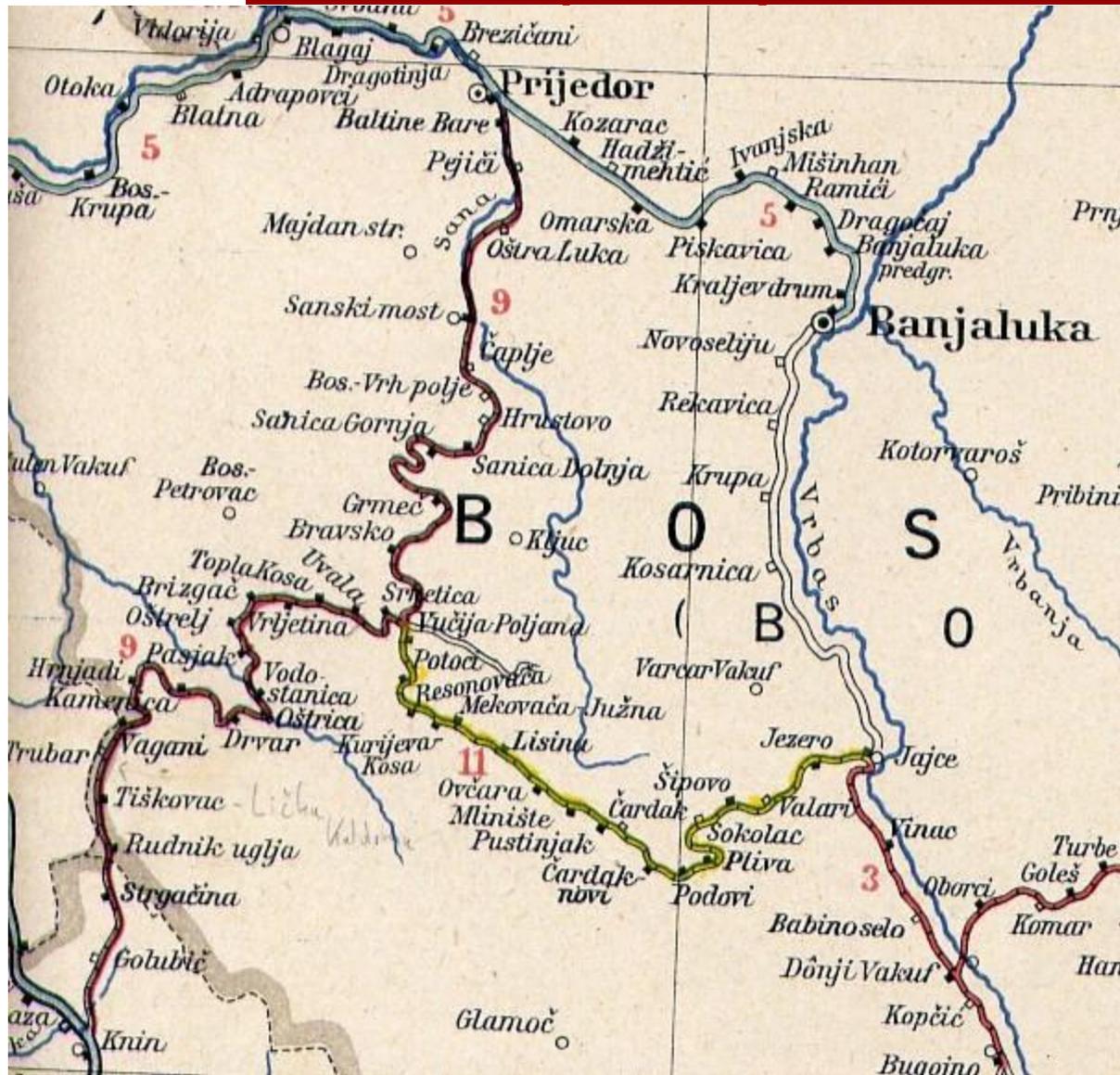
© Detlef Schikorr

85-005 at Cacak, 27-7-1970.



A general view of the locoshed and facilities at Cacak, 27-7-1970.

A selection of photos by Detlef Schikorr - The Steinbeis Railway



Detlef made two visits to the Steinbeis line in July and August 1970. These photos are a record of that trip starting at the northern end of the line at Prijedor. Prijedor had an extensive narrow gauge yard and was the main interchange point with the standard gauge line from Zabreb and Belgrade to Sarajevo. Other locations which feature are Ostrelj, Drvar and Jajce. The map above is from 1926 and does not show the later standard gauge lines.

Prijedor



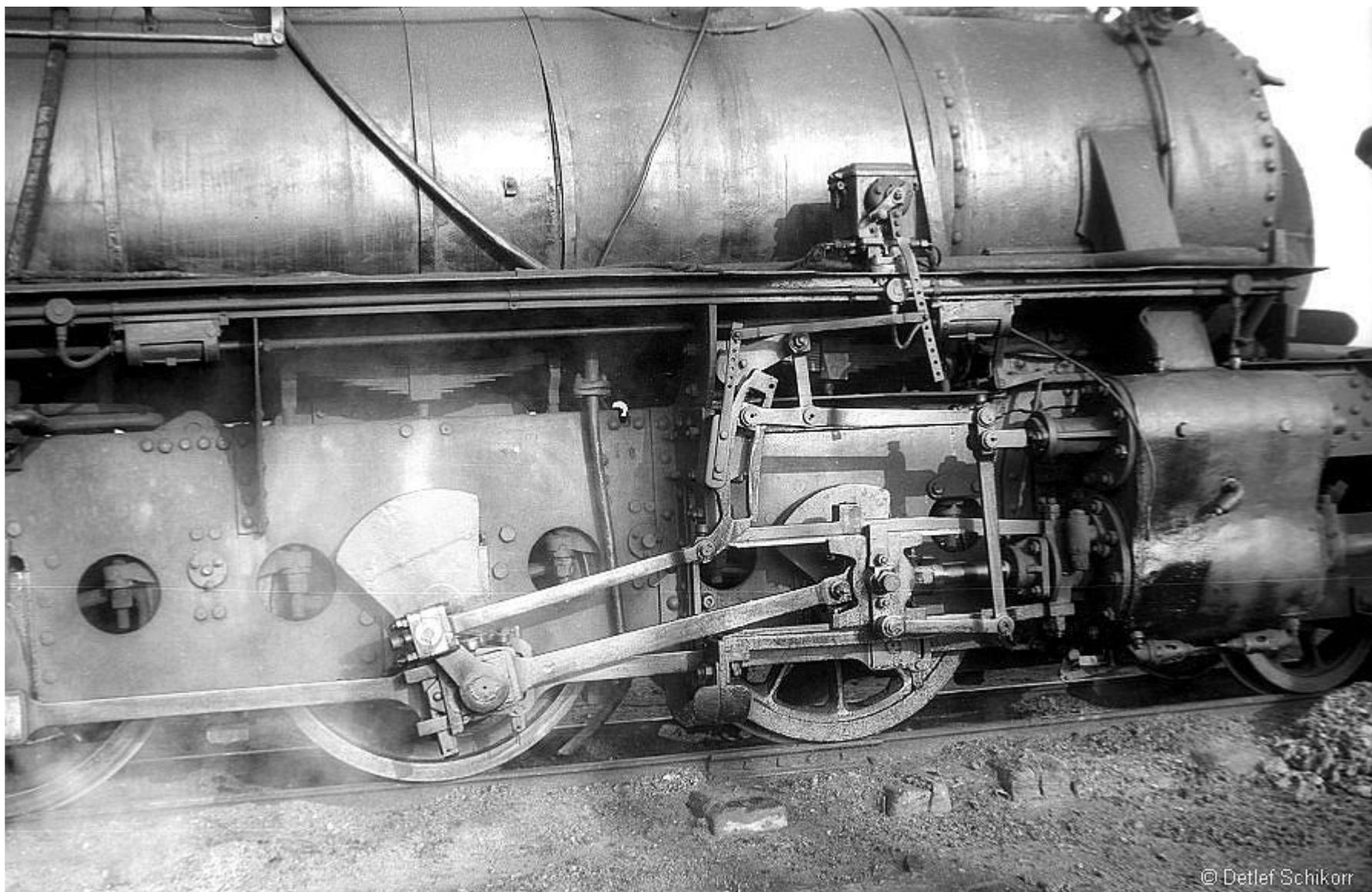
© Detlef Schikorr



© Detlef Schikorr



© Detlef Schikorr



The handsome Class 73 2-6-2 locos were extensively used on the northern part of the line. Above are four views of JZ 73-019 (Budapest 3287/1913) at Prijedor.



© Detlef Schikorr



Two views of 73-008 (Krauss/Linz 5967/1908) at Prijedor



73-021 (Budapest 3289/1913) leaving Prijedor with a long goods train.



UNRRA 0-8-0 18 (H.K.Porter 8065/1945) leaving Prijedor on a mixed train. The entire class of 34 of these locos were allocated to Steinbeis workings.

Ostrelj

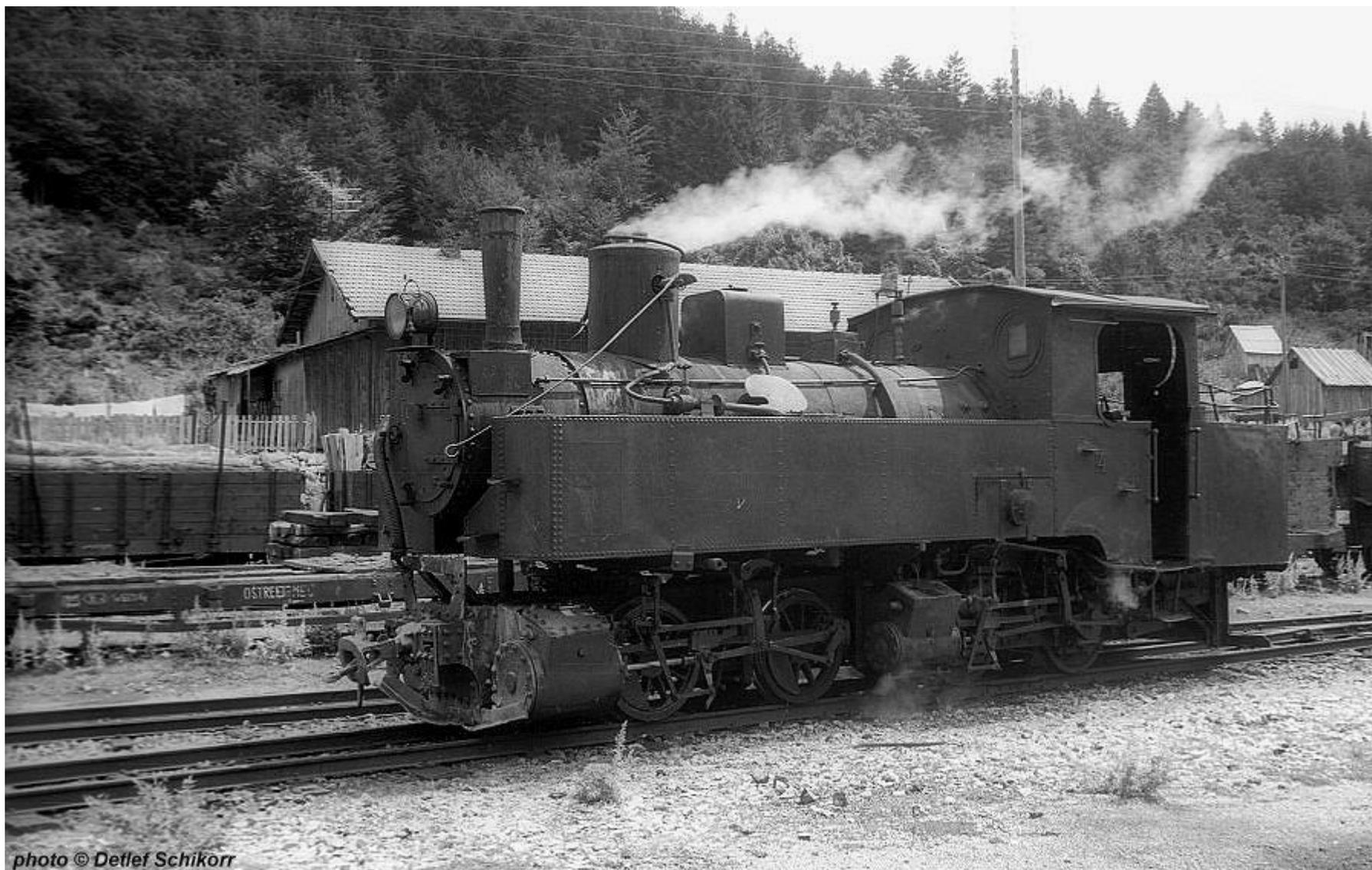


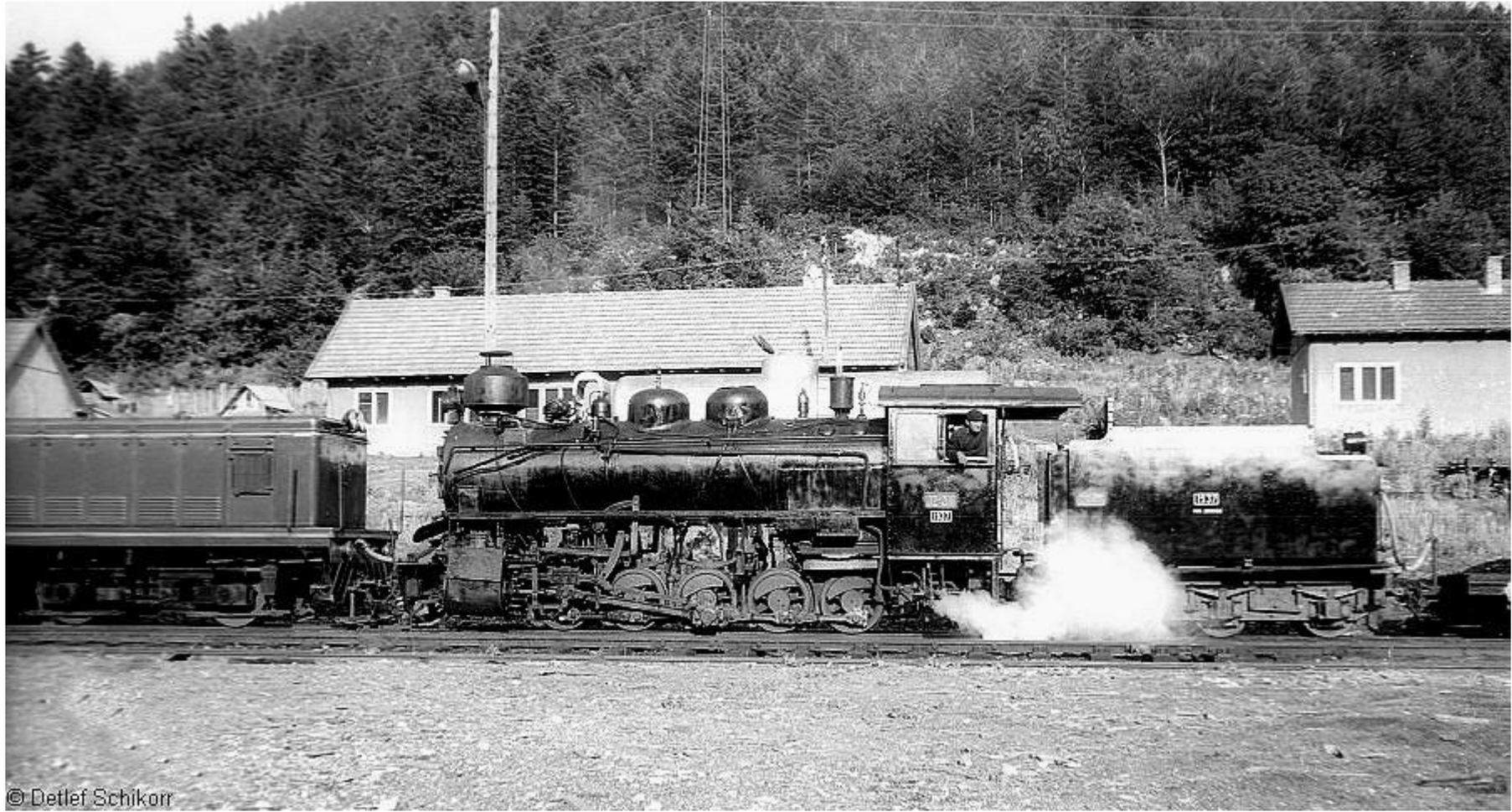
photo © Detlef Schikorr



Waldbahnlok (forestry railway loco) 0-4-4-0 No. 4 (Maffei 2316/1903) is seen at Ostrelj, 12-8-1870.



Waldbahnlok (forestry railway loco) 0-8-0 tank No. 5 (Jung 11934/1953) at Ostrelj, 12-8-1970.



© Dettlef Schikorr



0-10-0 No.1937 and 740-001 double head a freight at Ostrelj, 12-8-1970.



UNRRA No. 19 at Ostrelj, 12-8-1970.



© Detlef Schikorr

No. 19 leaving Ostrelj en route to Drvar



and between Ostrelj and Ostrica

Jajce



© Detlef Schikorr



Two views of JZ 83-014 at Jajce 22.7.1970



JZ UNRRA 25 (H.P.Porter 8071/1946) leaving Jajce on 12.8.1970

Drvar

The famous town of Drvar, is situated at the bottom of a deep glaciated valley drained by the Unac stream. Trains from Srnetica had to zig-zag down a cliff to a reversing station before descending to the valley floor.



**JZ UNRRA 24 at Drvar
12.8.1970**

© Detlef Schikorr



© Detlef Schikorr

JZ UNRRA 24 and UNRRA 19 at Drvar 12.8.1970



0-10-0 No.1937 and new diesel 740-001 double heading a freight, 12-8-1970.



© Detlef Schikorr

Five of these large 0-10-0's Nos.1932 to 1937 were built by Skoda in 1946. The staple traffic of the Steinbeis was timber as seen on the well loaded wagon on the right.



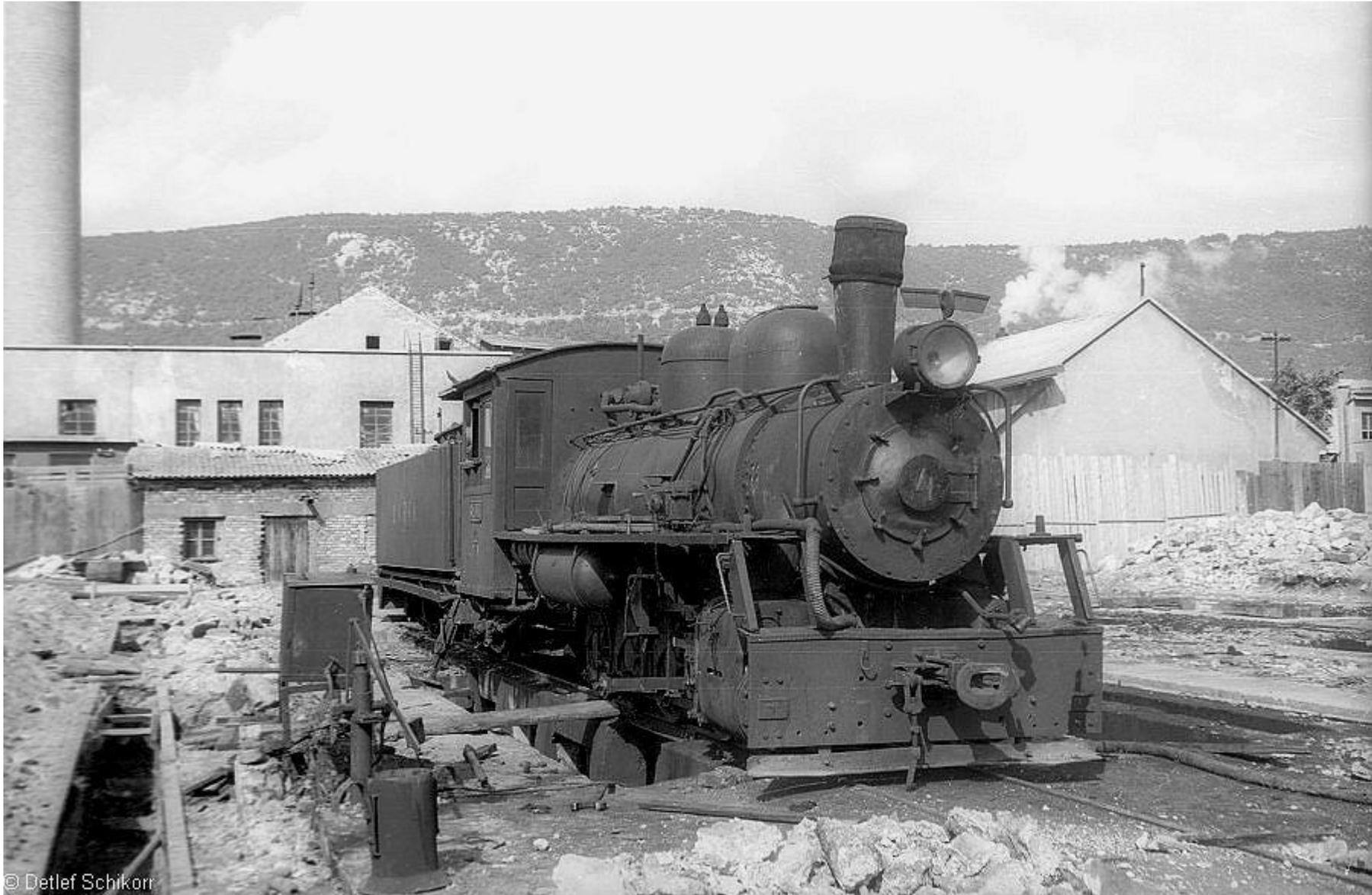
**JZ 32, a superheated 0-10-0 built in 1924 on shed at Drvar 12.8.1970.
No. 32 was one of a series of four, Nos. 29 to 32, built by Orenstein & Koppel.**



An unidentified member of the same class stored on Drvar shed 12.8.1970



JZ UNRRA 1 (H.K.Porter 8047/1945) on shed, 12.8.1970



UNRRA No. 4 (H.K.Porter 8050/1945) in store.



© Detlef Schikorr



Two views of JZ 1933 (Skoda 1933/1945) stored at Drvar shed, 12-8-1970.

FROM 'A GRAND TOUR OF EUROPE IN 1963'

Monday 16 September 1963 - Train Dubrovnik to Sarajevo by Robin I. Morgan



A train typical of the period that Robin travelled headed by a Class 85 2-8-2 at Sarajevo.

The 2 foot 6 inch gauge Dubrovnik - Sarajevo line was built by the Austrians after they occupied Bosnia-Hercegovina in July 1878. It closed in 1975 although most of the line had been replaced by a new standard gauge line in 1966.

Up early, paid our bill and said goodbye to our landlady. We walked north from the town past President Tito's palatial yacht in the harbour, to the railway station, a narrow gauge affair like that at Llanfair Caereinion: lots of tracks in muddy and messy condition, old railway buildings and bits and pieces of old rolling stock, some of it in working order. Like our train. We had allowed ourselves half an hour to buy our tickets for the morning train to Sarajevo. We went into the booking hall to be faced with a long queue of locals and country folk in traditional costumes trying to buy tickets from the one open window. It was not moving: the purchase of railway tickets was, as so often, a complicated affair. About the time the train was due to depart we were ushered to the front of the queue and bought our (Edmondson) tickets for Sarajevo. Clearly buying railway tickets was no big deal for us, but we weren't seeking the best discount for our families and furry ones. Still, the tickets were very cheap.

We went onto the platform where the train simmered. At the head was a squat rectangular class 85 2-8-2 steam engine of great age with a large spark arrester. It had lots of brass work, outside pipework, and complicated bits of gadgetry. It was pulling a rake of equally antiquated wooden open saloon coaches with drop windows, wooden seats and open gangways with verandas straight out of any Western you care to name. In the middle was a restaurant car. The train was at least civilised, and I didn't notice many passengers carrying livestock. They carried lots of other things. It was crowded but we found some seats and put our rucksacks onto the racks.

The train started more or less on time, so I can only assume that many people in the queue didn't make it. Making real railway sounds and heavily polluting the atmosphere we clattered out of the station through the back end of the town and then started climbing. We must have climbed eastwards up the side of a coastal inlet, then turned north and inland as we went through a wide green valley. Part of the valley was flooded with the grass disappearing into the water. We wound round green but treeless valleys taking miles to go short distances. At times it would have been quicker to walk a direct line.

The railway went north east parallel to the coast but inland as far as the valley of the Neretva, where it turned north away from the coast and climbed towards Mostar. The scenery was stunningly beautiful. As we approached Mostar the countryside became drier and flatter. We passed young girls in traditional Turkish dress (baggy trousers tied at the ankles) and I thought how well people lived together nowadays. I knew of the famous arched bridge of Mostar but we couldn't see it from the train. Mostar station was large and open and we saw other steam engines at work there.

From time to time we walked up the train, or stood on the veranda watching the scenery and the sparsely populated countryside go by until we got too many smuts in our eyes, when we returned to our seats. Our companions kindly offered us food, which we gratefully accepted. After a time most fell asleep. We also had a snack in the restaurant car, but were somewhat wary of what was on offer, not being able to understand the menu.

At one stage climbing up a narrow part of the Neretva we could see the works of the standard gauge line being built to the coast. The days of one of the world's great narrow gauge lines were drawing to a close.

After hours climbing up and up we came to a halt at a high mountain station in the middle of nowhere. It was dry and deserted. There were no platforms, and the decrepit station buildings were set back from the tracks. Some way in front was a tunnel mouth with a single track running into it. People piled off the train to stretch their legs and to stick their heads and mouths under a standpipe. Eventually we did the same. An old woman was selling hot pasta-like substances from an unsanitary-looking mobile heating unit (on the oil drum cooker principle), and doing good business. As nobody seemed to suffer immediate ill effects we, being hungry, partook. (Throughout the tour we suffered no gastric problems even though we took no special precautions, apart from not eating). After a while the down train thundered out of the tunnel belching smoke and steam. People were still at the standpipe when our train pulled out - it was moving as I clambered on. I am surprised we didn't all asphyxiate in the tunnel!

The other side the landscape became more cultivated with small farms dotted here and there. The valley widened and flattened for the final run into Sarajevo, which we reached in the dark. We walked from the darkly

lit narrow-gauge platforms into the main station, and to one side found a booking office. It appeared there was a train leaving shortly for Zagreb.

Photos by Ron Fisher taken in May 1966

Ron travelled in a party organised by the Locomotive Club of Great Britain in May 1966. After touring Hungary and some of the standard gauge Yugoslav lines, the party travelled from Sarajevo to Dubrovnik on the narrow gauge. The party returned by ship via Split.



Photo © Ron Fisher

Ron Fisher took this photo of 85-023 in Belgrade on 23 May 1966.



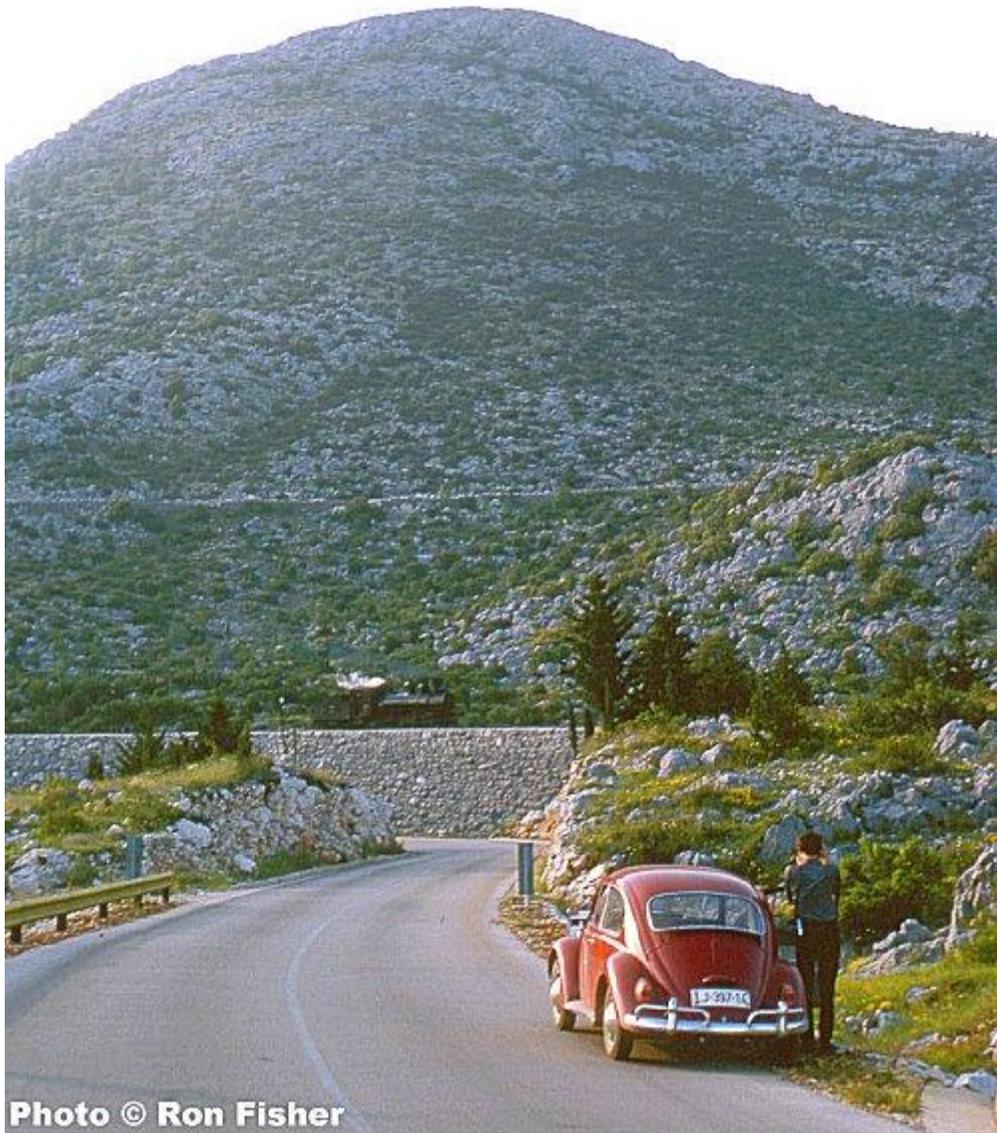
85-020 is ready to leave Dubrovnik on an express to Sarajevo, 26th May 1966. This was the last year of through trains beyond Capljina.

Ron writes: Having arrived at Dubrovnik, we had a free day so, first thing after breakfast, we made a bee-line to the car hire office. Lucky we did as they only had one car available and, as we drove off in it, we saw some other member of the party heading up the hill towards the car hire office! We then spent the day photographing trains in the mountains behind Dubrovnik.



83-055 on a passenger train





A light engine Class 83

Various photos and tickets



**This is 83-040, Budapest 5003/1929 at the Kharkov Pioneer Railway in Russia after the second world war.
Thanks to Sergei Dorozhkov of Pereslavl Narrow Gauge Museum for the information.**



73-018 scares the waiting horses as it crosses the Travnik to Lasva road near Vitez in August 1965. There were 23 of these Class 73 2-6-2's which were built as light passenger locomotives. This loco is one of three preserved and can be seen at Jablanica. Note the used shell cases filled with flowers above the cylinders.



85-004 about to leave Sarajevo on a train to Visegrad in May 1969.



Skoda built 0-10-0 1934 is seen here preserved in Prijedor.



83-146 on a local passenger train at Capljina in 1968



Narrow-gauge railcar at Capljina in 1968. Tom Burnham remembers: passengers for Dubrovnik had left the standard-gauge train on the opposite side of the platform and were attempting to find space on this train. The seat reservation system had broken down completely!



Klose system 185-033 out of use at Dubrovnik shed in 1968.



A class 83 on Dubrovnik shed in 1968.

The Dubrovnik tramway



Two views by Chris Green of the 76cm trams in Dubrovnik in May 1969. The small network ran from the City Gates to the railway station plus a branch to Lapad. The final tram ran on 21 March 1970.



These four views of the Dubrovnik Tramway were sent to me by email. I don't know who to credit them to but I have included them here because of their rarity value. They were all taken at the terminus in Dubrovnik, probably in the early 1960's.











Tom Burnham writes: a small system of 760mm gauge, with a Y-shaped layout - this is at the junction (see point lever in front of the tram). There were two versions of the 4-wheeled trams, one with a slightly more modern styling, running in motor-trailer sets. The afternoons tended to see power cuts, and the trams would regularly come to a dead stop along the Put Marsala Tita.

Narrow Gauge Tickets



The tickets above are normal singles while the one below is for a Class 802 DMU plus a compulsory reservation charge of 2 Dinars.

Jugoslovenske železnice

Br. 2123

Blagajna

VOZNA KARTA

za putovanje u jednom pravcu

Suvi žig

Putnički voz

Od
do
via

Stacija **MEBADA**
Titovo ližicu
Vinograd

Povlastica %

Broj putnika (slovima)

Din

RVC

jeolov

860

Km
4

Razred
2

Važi dana
od *21.02* 19 *69*

Dodatna
cena za

voz

Svega

860

Osnov povlastice:

Kontrolne marke

od br.	do br.	komada

Stanični žig sa datumom



K-2a

K-2a - 6046-968 - 9.000 bl. Odobreno Pravilnikom 161

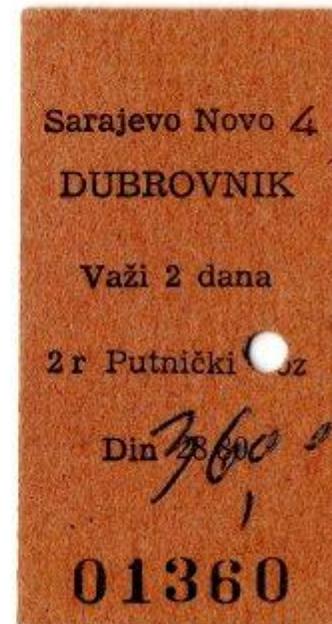
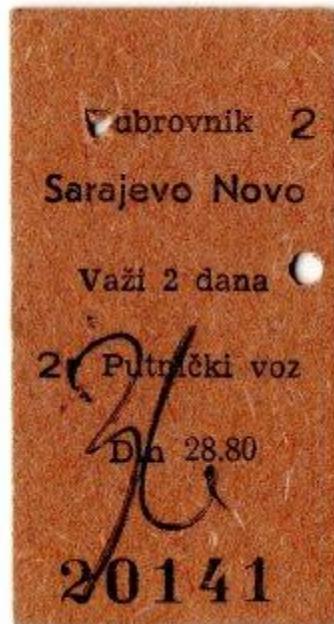
- Izdaje i štampa: Izd.-štam. pred. JŽ u Subotici - **PREŠTAMPAVANJE ZABRANJENO!**

Jugoslovenske železnice

List br.

6583

The selection above was kindly provided by Detlef Schikorr



Thanks to Richard Clements for these reminders of a journey he made in September 1971.
