

THE RAIL enthusiast

vol. 1 no. 1 August 2016

The Rail Enthusiats' Society Quarterly



HISTORY

The Sutlej Bridge

TRIP REPORT

PAST PATALPANI WATERFALLS

PHOTO FEATURE!

Shindawane Ghat



TALGO train trial run on July 16, 2016 on the Mathura - Pawal section

Photographs - courtesy Rajit Kumar



A Magazine
of the Rail Enthusiast,
by the Rail Enthusiast &
for the Rail Enthusiast

Editor:
J. L. Singh

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Musings of the Editor...

Joydeep Dutta is the quintessential rail enthusiast. I met him in 2014 when I was compiling and editing the coffee table book, "**Indian Railways – More Miles...More Smiles**". It was this meeting that converted me from a run-of-



The book that inspired the launching of this magazine

the-mill retired railwayman to an active and ardent aficionado of the railway. When not pursuing his career of teaching young minds the intricacies of mathematical economics and operations research at the Indian Institute of Technology at Kanpur, Joydeep thinks, breathes and talks railways. His passion and fervour for the railways are so infectious, so

contagious, that the first brief interaction with him was sufficient to put me firmly on the road leading to the satisfying destination of rail enthusiasm.

Joydeep is not only a rail enthusiast himself but also champions the concept and would like it to grow into something relevant and not be relegated to exist only among a few rail die-hards. In the coffee table book, "**Indian Railways – More Miles...More Smiles**", released by the Honourable Minister for Railways, Shri Suresh Prabhu, in December 2014, he has penned his thoughts on the subject and made an impassioned plea for giving recognition to this strange tribe of rail lovers and bringing railways back to the minds of today's youngsters. An extract from his article, "**The Hidden Face of the Rail Enthusiast**", is reproduced below:

In spite of this love for the railways in India, the words "RAIL ENTHUSIAST" seeped into the broader railway culture quite late in India. Though the enthusiasts existed for many years and silently went about their passion, their existence was neither noted nor recognised. An important step in this direction was the formation of the "Friends of the National Railway Museum" which later became the "Indian Steam Railway Society". However, a bigger railway enthusiast movement came through the formation of the IRFCA (Indian Railway Fan Club). Though started in USA by a few Indian students, it caught on like fire in India and now boasts a website with the URL: "www.irfca.org". This website is filled with thousands of photographs of the Indian Railways and a huge amount of technical information and a large number of articles. This is a true treasure trove for the Indian rail enthusiast and even many railway officers take a look at the site. Now there is a tacit acceptance of this strange breed of men and women coming from

very different walks of life with one common interest—their passion for the Indian Railways...

Although the hardcore enthusiast is now known and accepted, it pains me that the current generation is brought up on a heavy dose of automobiles. Magazines about cars and even models of cars are found in every city but, unfortunately, there is little about the railways. The Indian Railways do publish some nice books but one can never find them in normal bookshops and even in e-bookshops. There is no railway magazine in India that can compete with auto magazines. This situation needs to be corrected or else railways would be completely absent from the mind of young Indians who would view it as a transport system which rolls out slow and dirty trains. There are thousands of railway enthusiasts in this country but gradually, if no corrective measures are taken, their number will dwindle. I sincerely hope that the railways, along with the enthusiasts, would jointly do something to bring back railways to the minds of our people.

It was the second paragraph that set me and a group of likeminded persons thinking: what can we do to promote the idea of the railways in the general, particularly the automobile-raised, population and give the iron road its place in the minds of our people? One of the answers we came up with is the bringing out of this magazine that you are now holding in your hands. We hope that through this magazine, we will be able to give a common platform to the rail lover to indulge in his passion and in the process instil an interest, if not love, for the railways in the hearts of the general public.

This is our first issue. Your comments, ideas, feedback are not only expected but will be highly appreciated and welcomed. While we expect this magazine to cater to the interest in the railways a professional railwayman or woman has, we are keener to bring into its fold, all those who not only use the railways for travelling but simply love the sound of a train thundering past or any of the other myriad past and present sights and idiosyncrasies of the railway.

The first action we took was the formation of a Society, aptly named “Rail Enthusiasts’ Society”. While bringing out this magazine every quarter is our primary task, our broader vision is to act as a catalyst for all rail buffs, train lovers, hobbyists and fans to get together and actively promote the concept of rail enthusiasm in all of its many hues. With your help, participation and co-operation, we are confident that we will succeed.

To know more about the aims and objectives of the Society and its activities, please visit our website www.railenthusiastindia.org.in that we are launching along with the magazine.

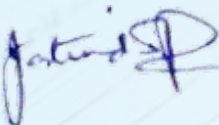
No endeavour is the outcome of the inputs of one person only. Many have gone out of the way with their help, suggestions, ideas and active participation. While I can certainly not thank each of them in this short write-up, I would like to particularly thank Vinoo Mathur, a retired railwayman like me, but today a rail researcher and historian; Joydeep Dutta, a mathematician and rail enthusiast; Vikas Singh, another rail fan and with the media; Abhimanyu Shaunik, in business for making a living but at heart a rail lover and rail modeller; Apurva Bahadur, a technical writer, whose hobby is photographing trains against picturesque backgrounds; Ajay Singh and Mayank Tewari, working railwaymen (I would like to mention that few working railwaymen or women are rail enthusiasts; Ajay and Mayank are the exceptions that prove the rule); and Mathai Samuel, the designer and printer of this magazine. I would also like to place on record, my thanks to all the contributors of articles and write-ups, of photographs and pictures, ideas and suggestions. Among them, special mention must be made of Vikas Chander, Lalam Mandavkar and Ashish Kuvelkar.

I would also like to thank rail enthusiasts who have already enrolled as members of The Rail Enthusiasts’ Society and others for whom this magazine has been created.

Last but not the least: I would like to thank the advertisers without whom it would be difficult to make ends meet.

This is a hard copy of the magazine. We shall be downloading the magazine on our website also. However, for future issues, we intend bringing out an e-Copy separately.

Happy reading!



J L Singh
Editor



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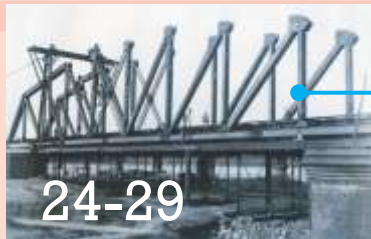


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A young American, **Alexander Karnes**, delivered the Keynote address at the National Steam Congress 2015. His passion for live steam pours out of each word of his address

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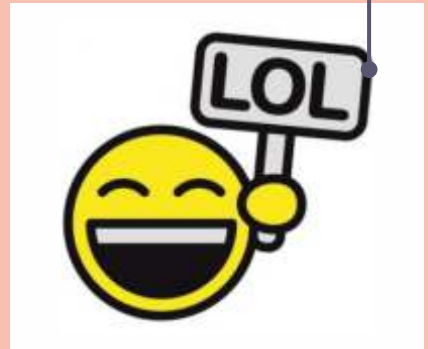
You are familiar with "Humour in Uniform". Humour on Rails is no less entertaining

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TRAIN TO PATALPANI

Vikas Chander

Is it possible to combine rail modeling, photography, historiography, aesthetics with a successful business? The answer

“No” is likely to come to your mind.

But, Vikas Chander proves you wrong.

Combining business acumen with his love for the railways, Vikas is perhaps the country's leading rail modeller.

Added to that, he has an excellent sense of history and presenting it in a film.

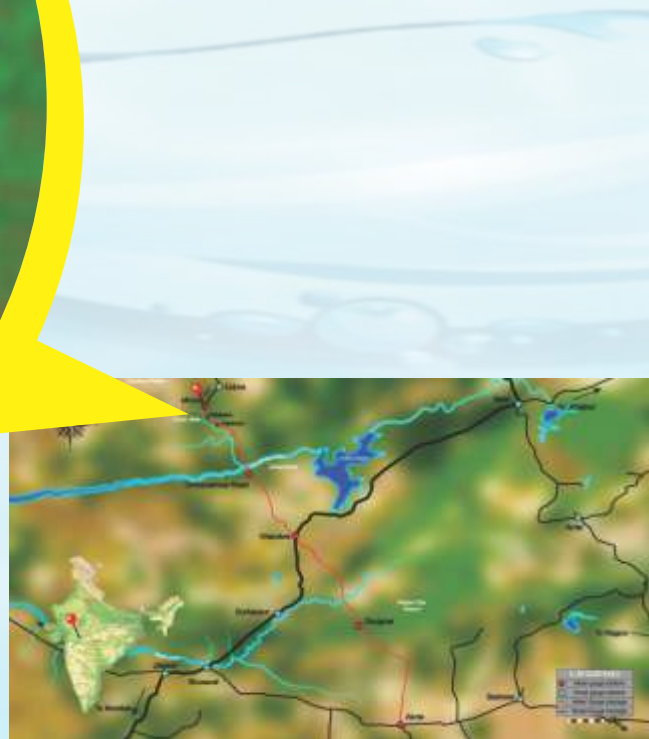
His account of a rail fan trip to the Patalpani line is sure to be an inspiration to all budding rail fans...

The waterfalls at Patalpani (literally “Water of Hell” in the Hindi language) have fascinated and intrigued many over the years. Be that as it may, that is not what took us there but the fact that running right past and within touching distance of the falls is one of the few remaining though fast disappearing Meter Gauge (MG) lines of India. Patalpani falls on the Mhow-Akola rail line in Central India, once part of an extensive MG network but today looking ahead to an early demise in the not too distant future.

In 1870, His Highness the Maharajah of Indore, Sawai Tukoji Rao Holkar the Second, offered a loan of £10 million sterling for the construction of a railway line to his capital city of Indore. A quick survey was made and Khandwa on the Great Indian Peninsula Railway main line was chosen as the junction point. The alignment was to pass through Sanawad and Kheree Ghat on the Narmada and then by way of the Choral Valley up the slopes of the Vindhya to Indore.

145 years later, in September 2015, Shashank, Rajit and myself spent a week on the line between Mhow and Dhulghat on the Mhow-Akola section. As the map alongside shows, this section is





now an isolated MG line surrounded by an abundance of Broad Gauge (BG).

Mhow stands for Military Headquarters Of War, an acronym that survives from the days of the British Raj. This is an ideal place to start our explorations of the line as it is the northern terminus of the MG

route from Mhow to Akola. Mhow was once a busy station along the MG route from Ajmer to Akola via Khandwa and its three platforms catered to the many trains serving the line. Today, a single platform caters to the remaining traffic whilst the other platforms are undergoing re-construction, waiting for the imminent arrival of the BG trains from Indore. Till the decision for uni-gauge was taken in the early 1990s, the entire line from Ajmer to Khandwa as well as the Delhi to Ahmedabad line via Ajmer were MG.

To the south of the station is an extensive carriage yard as well as a diesel loco shed which is home to 18 YDM4 locomotives. Since this is an isolated MG line, the shed is expected to carry out running repairs as well as periodic overhauls on the locomotives. In its heydays, the shed had an allocation of over 100 steam locomotives before steam services were withdrawn in 1998. Three rusting YP locomotives can still be seen lying abandoned in the shed, a standing testimony to the glorious days of steam.

The next station on the line after Mhow is Patalpani,



▲ The single surviving platform at Mhow

Photos courtesy: Vikas Chander Shashanka Nanda, Rajit Kumar & Roni Kapell

Mhow in the earlier days when three platforms were in use ▶





▲ Gangman inspecting track inside a tunnel

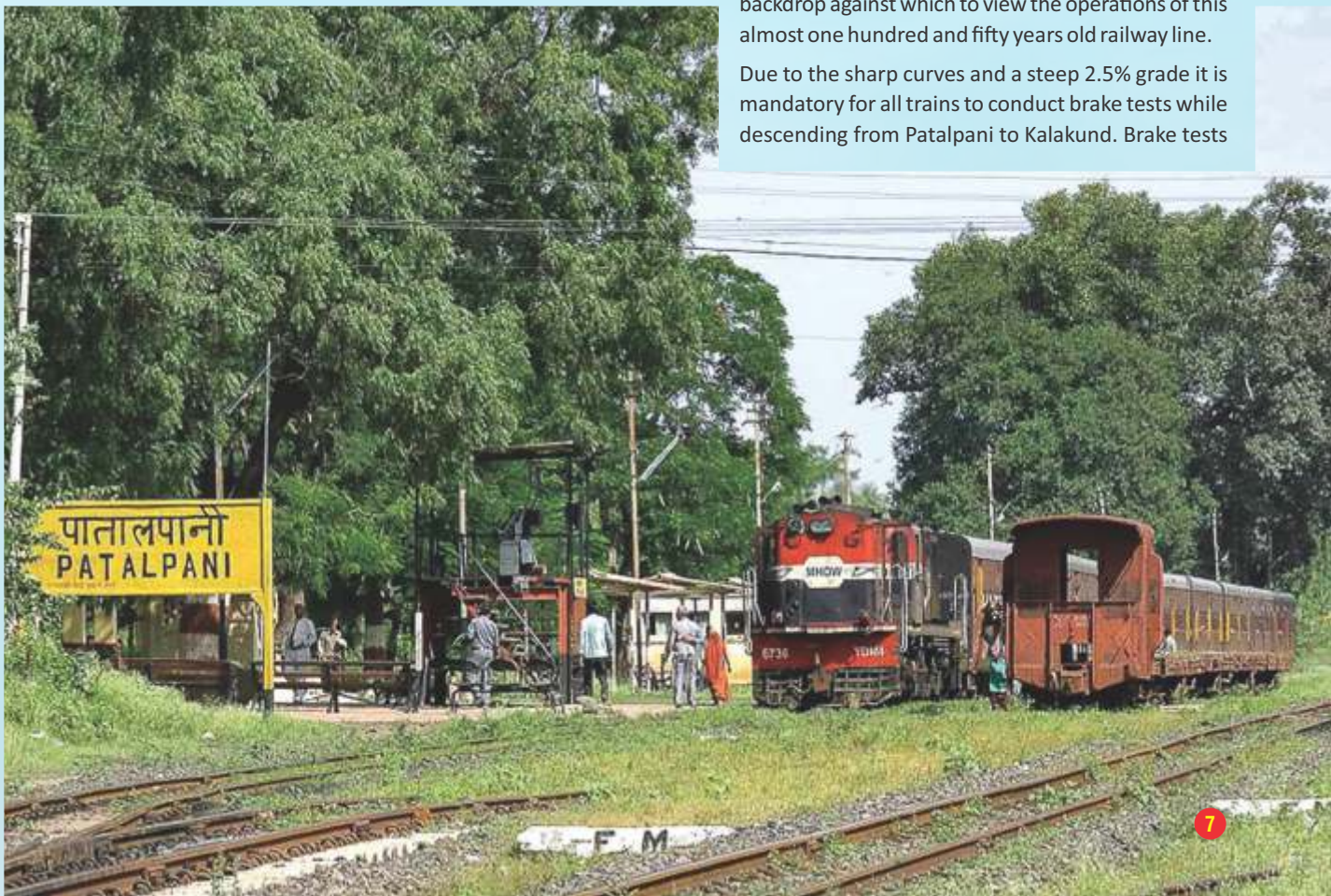
significant in its importance as it is the start of the descent through the Choral valley. Tourists visiting the nearby Patalpani waterfalls also disembark here as the falls are only a short walk from the station. Even though we see some flat cars and tankers stabled here, barring some departmental trains, freight no longer runs on the line and the only traffic

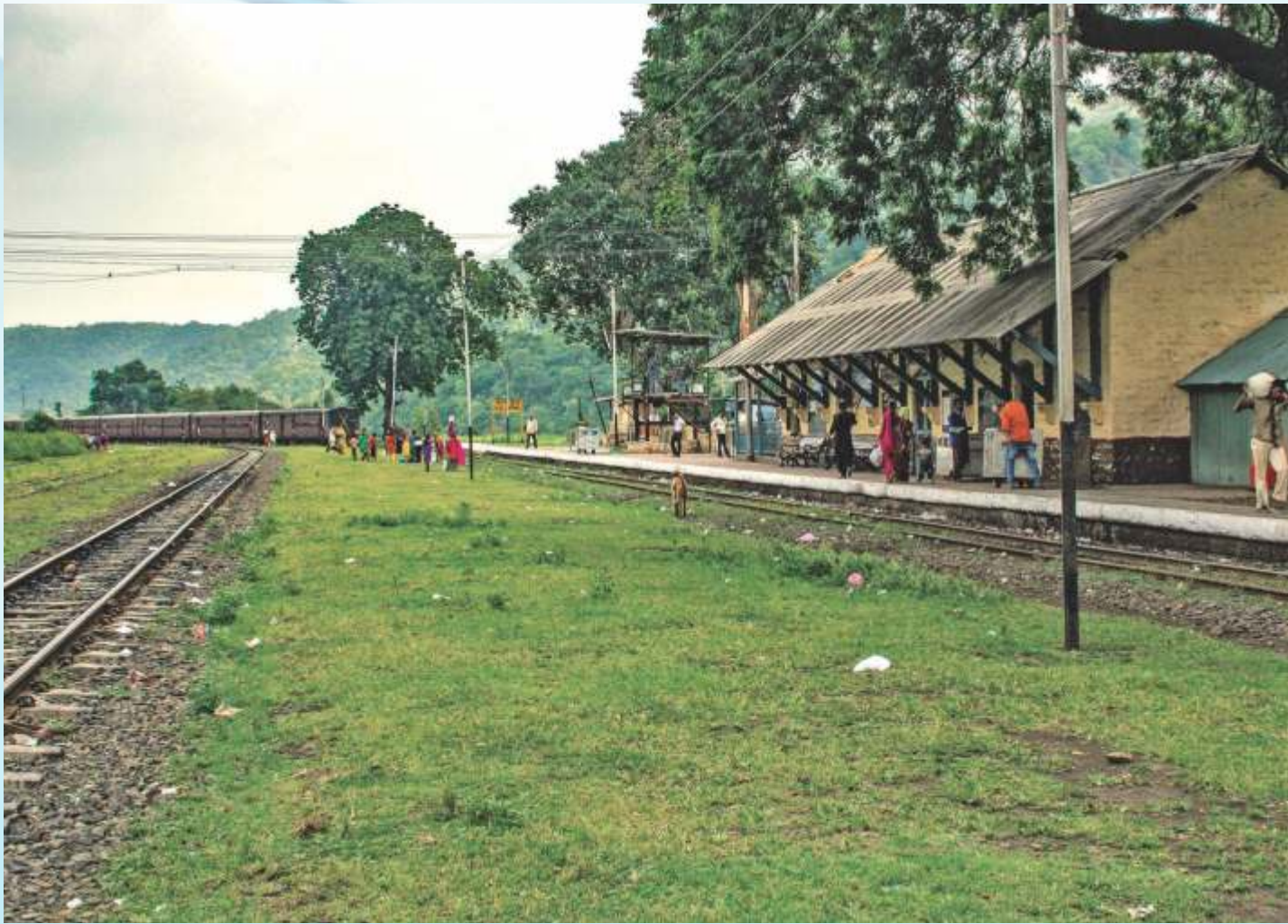
the route sees are the six passenger trains in each direction. The rail fan can also see the age-old but tried and tested system of mechanical inter-locking between points and signals. Safety is important on the line and this arrangement of mechanical interlocks ensures this.

The section between Patalpani and Kalakund, running along the Choral river with its numerous bridges, viaducts and tunnels, forms a fascinating backdrop against which to view the operations of this almost one hundred and fifty years old railway line.

Due to the sharp curves and a steep 2.5% grade it is mandatory for all trains to conduct brake tests while descending from Patalpani to Kalakund. Brake tests

▼ Train 52975 awaits a crossing with train 52992 at Patalpani



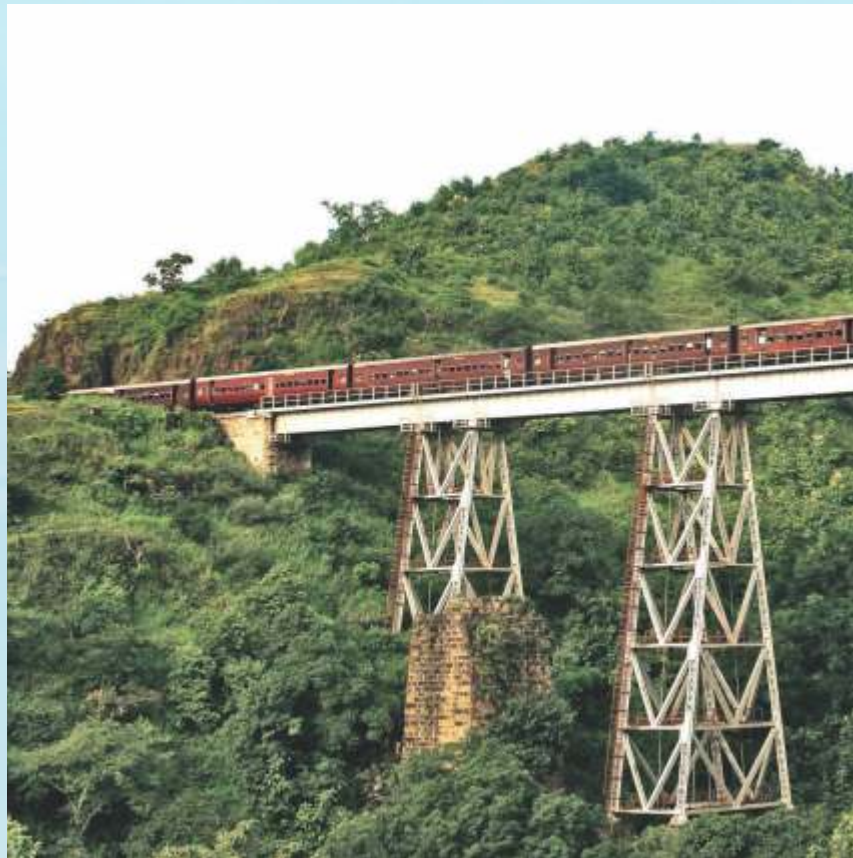


▲ *The idyllic station of Kalakund*

are conducted at 4 designated locations along the line. It is a simple procedure which involves bringing the train to a complete halt and checking the brake pressure before proceeding again. A red and white board along with a "T. P." – Test Point – sign marks the spot where the brake tests are conducted.

One of the features that one must see on this section is Ravine Viaducts No. 1 and 2. The latter is 120 meters long and rises about 50 meters from the valley floor making it the highest bridge on the line. It was built in 1876 as a viaduct with 2 stone pillars, the demolished remains of which can still be seen. In 1974, the alignment was changed and in its place stands today a five span steel structure .

On the other hand, the 100 meter long Ravine Viaduct No. 1, also built in 1876, still stands on its original stone pillars, a testimony to the skill and durability of the railway builders of their time. Trains are not double-headed in this section but often a





▲ Pedestrians using the line as a roadway

second locomotive is also seen. The other locomotive is actually a banker attached behind the lead loco. The banker is shunted out at Kalakund and later helps other trains uphill from Kalakund to Patalpani.

The route does not see the heavy passenger loads as on most of the other sections of Indian Railways but is sufficient enough to require the six pairs of daily trains. The railway runs through the densely forested areas of the Choral valley and in the absence of any roads the line serves as a roadway of sorts for the locals.

Constant maintenance of the line is required to keep it running smoothly and a sizable workforce is employed by the railways for its upkeep. A burning



▲ A gangman inspects the line on Ravine viaduct No. 1



▲ Train No. 52988 crosses Choral bridge No. 2

◀ The alignment of Ravine viaduct No. 2 was changed in 1974

incense is mandatory for the workers on the line to invoke the blessings of the Gods and guarantee that work flows smoothly and safely. Gangmen patrol the line constantly and ensure that it is in good condition and safe. The permanent way inspector conducts routine inspections on his trolley and makes sure that there are no unauthorized or unsavory characters about the line.

Two bridges span the Choral River, aptly named Choral bridge No.1 and Choral bridge No.2. The latter is numbered 666, the devil's number, but the bridge has thankfully not witnessed any untoward incident!

The sleepy station of Kalakund lies at the bottom of the gradient of the Choral valley. But, it is an important station on the line due to the fact that bankers are attached here to all uphill trains heading for Patalpani and Mhow. Bankers are mandatory for all uphill trains and protect the trains from rolling back downhill in case of a coupler failure. One of the pointsman, Laxmi Narayan, who has been working



▲ From the window of a train on the Omkareshwar bridge

on the line for 20 years, mentioned that normally, the 220-tonne load of the train could be handled by one locomotive but for the safety of the passengers, bankers are mandatory.

Back in the days of steam, an uphill train to Mhow, banked by another steam locomotive, must have been a treat for the senses!

At a maximum permissible speed of 25 kmph, a train conquers the 1 in 40 grade from Kalakund to Patalpani in 30 minutes, a distance of 10 kms. between the two stations. Bankers are sometimes attached to downhill trains as well. This is done to save time if another Mhow-bound train is already at Kalakund. If one would have waited to release the banker after a train had left Patalpani, it would have resulted in a delay for the train already waiting at Kalakund, for the banker could only proceed from Patalpani once the single block between Patalpani



▲ Passenger train crossing the Dhulghat spiral

and Kalakund was cleared.

Today the diesel loco drivers have it easy and let technology do the hard work. In the steam days it was back breaking work, especially for the firemen.

About 1 km. downhill of Patalpani is a catch siding known by the locals as Tantia mama. Tantia mama was the local Robin Hood who took on the might of the British in the 1880s. A shrine is built here in his remembrance and tradition requires that downhill trains passing by seek his blessings for a safe passage.

After Kalakund, you head South East towards the Narmada and the holy town of Omkareshwar. Omkareshwar is home to one of the 12 jyotirling shrines holy to the Hindus. But that is not what draws us here. It is the 850-meter long railway bridge spanning the Narmada at Omkareshwar. This bridge has also been around since the last 140 years.

Driving further South by road, we head towards Dhulghat. Dhulghat lies in the Melghat Tiger Reserve in Amravati District of Maharashtra. About 2 kms. South East of the station lies a spiral which the locals refer to as *Char ka Aankda*, or the figure of 4. This is because the track plan of the spiral roughly represents the figure of 4 when written in Hindi or the Devnagri script. The station itself lies in an isolated part of the forest and sees only 3 trains during daylight hours.

However, the spiral will interest any rail fan. It consists of a 16-span, 193 meter long steel viaduct which spans a shallow valley. Trains coming from



▲ Train 52988 on the Omkareshwar bridge

Akola cross the viaduct and after completing a near 270 degree turn in about four minutes pass below the first span of the viaduct before going on to Dhulghat.

With Broad Gauge conversion around the corner one is resigned to the fact that the *Char ka Aankda* spiral will soon be abandoned altogether, becoming just another chapter in a history book. The ghat section between Patalpani and Kalakund with its

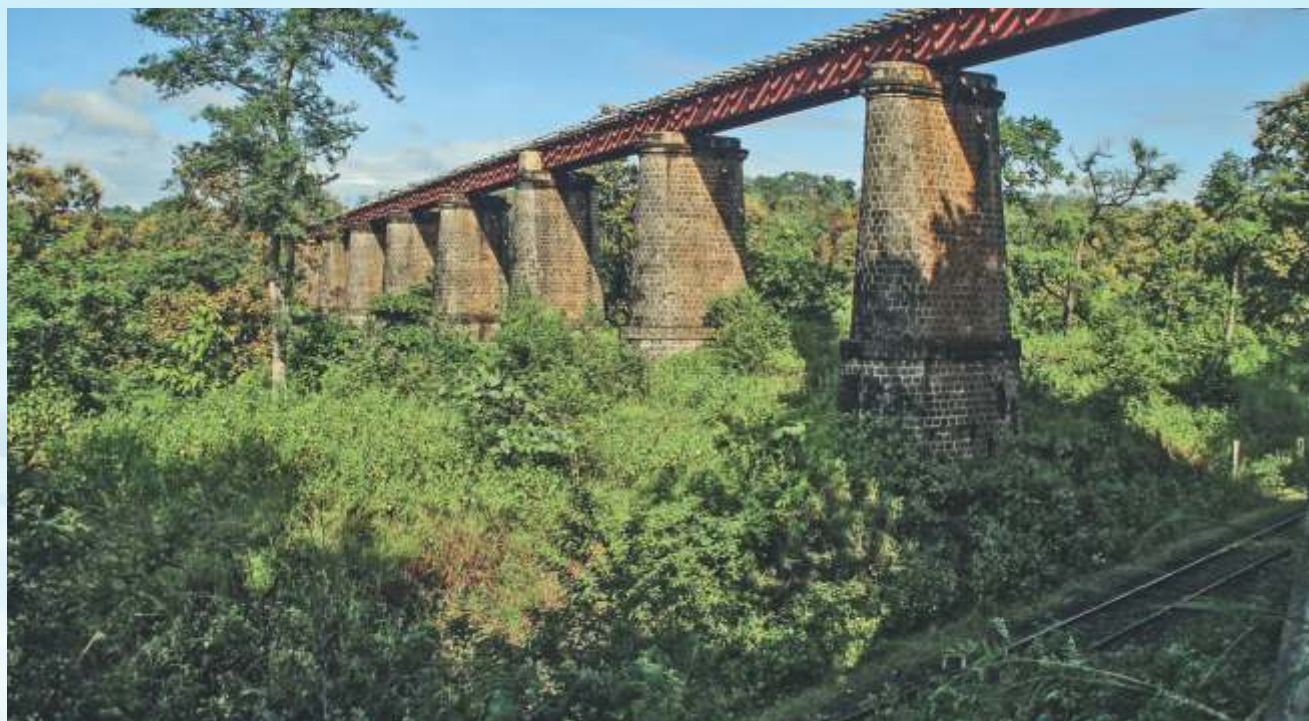
one and a half century old history would also form a prominent part of that chapter.

The spiral brought to an end a most memorable rail fan trip for Shashanka, Rajit and myself and we hope other rail fans would visit the line before its imminent demise...

.....
A video of this trip can be seen at:

<https://www.youtube.com/watch?v=Qt-VqYX3rSM>

▼ The Dhulghat spiral viaduct viewed from below



Ashwani Lohani

India is a country that tends to neglect its heritage and allows it to decline, deteriorate and even disappear. This applies to our rich and diverse rail heritage as much as to any other area. It is the effort of a few enlightened energetic persons that the heritage around us is recognised, maintained and presented to the general public. One such person, particularly with regard to rail heritage, is Ashwani Lohani, the current Chairman and Managing Director of Air India. Few are aware that he is essentially a railwayman, having joined the railways as a Special Class Railway Apprentice of the 1975 batch. During his successful career, he has held diverse positions on the South Central and Eastern Railway zones of the Indian Railways followed by the Diesel Locomotive Works at Varanasi. It was only in November 1993 when he was posted as the Director of the National Rail Museum in New Delhi that he was able to delve into the field of rail heritage and make contributions that had not been made earlier and are not likely to be matched easily. After his stint at the National Rail Museum, he was posted as Director in the Ministry of Tourism in August 1999 from where he was appointed as the Chairman of ITDC in December 2002. Having made his mark in the field of tourism, he moved to Bhopal as Head of Madhya Pradesh Tourism in June 2006. It was only in 2009 that he came back to the railways as the Divisional Rail Manager of Delhi Division. In this position, he was instrumental in reviving the Steam Locomotive Shed at Rewari, a project that he had proposed as Director of the National Rail Museum but it never really took off till he pushed it once again. Next, he was elevated as Chief Mechanical Engineer of the Northern Railway zone. After another short spell as Head of Madhya Pradesh Tourism, he was selected as the Chairman and Managing Director of Air India on the 21st of September 2015.

The Rail Enthusiast (RE) met him in his well-appointed office last month and interviewed him not as a railway man or as the CMD of Air India, but as a rail enthusiast. In spite of the myriads of issues that must have been on his mind during the interview, he was relaxed and unhurried during the hour that RE was with him. Excerpts from the interview...



RE: You have perhaps done more for rail heritage and rail enthusiasm than anyone else in the country. Were you always a rail enthusiast or did this interest develop later in life?

Ashwani Lohani (AL): I did not have any special interest in rail heritage till I was posted as the Director of the National Rail Museum. During this posting, I visited the Rail Museum at York in the UK in June 1995 and found that they were running a locomotive of 1868 vintage. This loco then held the world record of the oldest working locomotive. This set me thinking that our locomotive, the Fairy Queen, was of an earlier vintage (1855) but was standing on a pedestal. In fact, it had been on various pedestals since 1909. On my return to

India, I set about trying to revive it and I am happy to say that I succeeded.

RE: What were the main challenges that you faced in this regard?

AL: My main challenge was the bureaucracy. Technically, I had no problem and the Perambur Locomotive Workshop gave me all the support I needed. They were able to manufacture, repair or procure all the spare parts and components required and Fairy Queen was ready to be steamed again. We were able to overcome the normal bureaucratic requirements by getting a special empowered committee of three persons nominated by the Ministry of Railways. We did all that was required ourselves - catering, buying coal, modifying stations, erecting water tanks for the watering of the locomotive, etc.

We organised the first run of the Fairy Queen on the 1st of February 1997 from Delhi to Alwar and back after visiting

Sariska. Unfortunately, the ticket had been priced by the Ministry of Railways at ₹ 25,000 and we were able to sell only 4 tickets. Owing to this, the Ministry cancelled the trip and the locomotive came back from Delhi Cantt. much to the disappointment of Ms. B. Ozikutu of the German Embassy who had purchased the first ticket. I was not deterred by this and launched 5 more trips in the same year in October, November and December followed by January and February of the next year. Again, only 4 tickets were sold and once again, the Ministry cancelled the trip. Fortunately for me, the Chairman of the Railway Board(CRB) was Mr. Ravindran. I happened to meet him at a dinner in October 1997 and he asked me what was wrong with the running of the Fairy Queen. I requested for a meeting and asked him to request the Financial Commissioner of the Railways (FC), Mr. Shivkumaran, to be present also.

▼ EIR 22 - the "Fairy Queen"

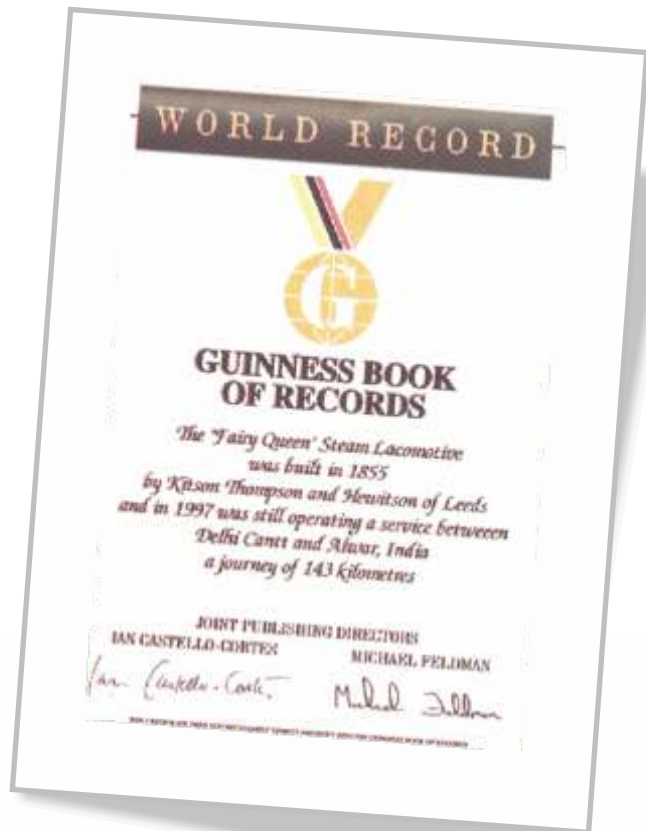


▼ The Fairy Queen in steam



The CRB agreed and we met the next morning. I explained that the price of the ticket was too high and we should do marginal costing. The FC agreed and the marginal cost was worked out to be ₹ 4600. This was rounded off to ₹ 6000. I then explained that the date of the next trip was 4 days off. It was not possible to do any marketing or sale of tickets in this short period. I, therefore, request for 46 complimentary tickets (the coach behind the Fairy Queen had a capacity of 50). This was agreed to and this trip became a good marketing exercise. We could invite all key persons to travel on the train resulting in the trip in November having 21 ticket holders. We sold 34 tickets for the December trip and 41 for the January one. For the February trip we had a wait list and there was no looking back after that.

Another publicity trip that we had organised was in August 1997 to Garhi Harsaru & back when we had invited 15 ambassadors as well as the Prime Minister, Mr. I K Gujral. The PM did not make it but the trip to Garhi Harsaru was a great success.



▼ WP 7161 at Rewari steam shed





▲ A vintage telephone instrument at Rewari

As a result of these trips, the Guinness Book of Records certified the Fairy Queen as the world's oldest working locomotive on the 13th of January, 1998.

RE: What other initiatives did you take as Director of the NRM?

AL: I had hoped that the resurrection of the Fairy Queen would act as a trigger for reviving steam heritage in India but that did not happen. However, during this period, I was nominated as a member of UNESCO's ICOMOS sub-committee for Rail Heritage. The meeting was at York. During the deliberations of the sub-committee it was felt that the Darjeeling Himalayan Railway and Victoria Terminus station (now CST) should be proposed for World Heritage status by UNESCO. In June 1998, the proposal for both was filed and in December 1999, world heritage status was accorded to the Darjeeling Himalayan Railway. Later, VT was also accorded the status. When the latter got the status, I was in the Ministry of Tourism and the Indian Express ran a front page article on my contribution to the world heritage status for the two rail items.



▲ One of the 3 YG class locomotives homed at Rawari

I would like to add that it was not just the railways, but I was also successful in getting world heritage status for the Mahabodhi Vihar at Bodh Gaya while I was with the ITDC.

RE: We understand that you had started the Friends of National Rail Museum during your time at the museum.

AL: That's right. I started this group in 1998. Later, this group evolved into the Indian Steam Railway Society in August 1999. I was the Founder of the Society with Mr. R C Sethi as the Founder President. We had our first National Steam Congress in December 2002 and since then, this congress is being held every year. We are having our 14th Congress later this year.

RE: You certainly had a very active and successful stint as the Director of the Museum. Anything else you would like to tell us?

AL: I feel that I was able to give international spotlight to the museum. The museum was recognised and we became members of the International Association of Transport Museums. Apart from that, another specific proposal that I



▲ An area for visitors to rest at the Rewari steam shed

शेड में उपलब्ध इंजन			
S.N	ENGINE N ^o		NAME
1	2151	YP	REWARI KING
2	3415	YG	SAHIB
3	3438	YG	SULTAN
4	4252	YG	SINDH
5	3634	XE	ANGADH
6	7161	WP	AKBAR
7	7200	WP	AZAD
8	15005	WL	SHER-E-PUNJAB
9	22907	AWE	VIRAT
10	EIR22		FAIRY QUEEN

▲ A list of locomotives displayed at Rewari

made was the setting up of the Rewari Steam Shed. As Director NRM, I proposed that we should home 5 BG and 5 MG steam locos at Rewari. The proposal was approved and we had a grand opening in August 2002, when the then Minister for Railways, Nitish Kumar, inaugurated the revived shed. But that was all that happened. When I returned to the railways as DRM of Delhi Division and visited the shed, I found that it had gone to seed and was in a terrible state. Fortunately, I had an enthusiastic and active Sr. DME, Vikas Arya. I put him on the job and gave him all the support I could. From Delhi Division I moved to the Northern Railway Headquarters as CME and was able to continue to support the efforts of the Division. The results were there to see. The shed today homes 6 BG locos including the Fairy Queen and is the main location visited by steam buffs from all over the world. I hear that it is again a

little inactive but the basic infrastructure is there and it can be in good condition without too much effort.

While I was with Madhya Pradesh Tourism, I set up the world's first BG rail coach restaurant. The main restaurant was a stabled BG coach, something like the dining cars that the Indian Railways used to run. The coach was set up in a fully rail environment with a railway station, rail fencing, rail book stall, a level crossing, etc. A semaphore signal outside the coach indicated if the restaurant was open or closed. This was in 2007.

RE: Thank you very much, Sir.

Photos courtesy: The Rail Enthusiast Society



▲ The dome of Victoria Terminus building. The building was proposed for world heritage status by Ashwani Lohani

***The question on why the steam locomotive should be preserved is often asked.
Here is the answer in the words of Ashwani Lohani.***

Why Steam?

Well, the presence of raw fire that fires raw power in the belly of steam locomotives is the draw. The unique sound, the rocking gait, the shrill whistle, the throbbing body and an open design bordering on nudity are features that impart an irresistible charm to these black beauties. The die-hard steam enthusiast believes in the individual and unique personality of each steam locomotive, a personality so individual that it warranted a crew of three, a driver and two firemen, by name, to man her.

The charm apart, the steam locomotive is one of the most revered items that constitute the heritage of mankind, a heritage that propelled the industrial revolution in the world. Should we let that heritage die in our country, whereas the

western world that is miles and miles ahead of us in development, is still carefully nurturing and preserving it?

And lastly, for the cause of promoting steam heritage tourism, a niche and fast growing tourism segment in the world. We arrived in this sector with a bang, a bang that only the Fairy Queen, the oldest working steam locomotive in the world, could have provided, and yet, we have not moved forward as much as we should have done.

The arguments in favour of limited and careful preservation of steam locomotives are unbeatable and Rewari has once again provided the push and shown the path. We now have no way to go but forward.

(This note was recorded in 2013)

Trans-Siberian Rail Routes

- Trans-Siberian
- Trans-Manchurian
- Trans-Mongolian
- Baikal-Amur Mainline
- AYaM
- Time zone border

MT = Moscow Time (GMT+4) Route map number

0 250 500 750 1000km
0 200 400 600miles

Siberia's Secret Railway

by Paul Whittle

Photo Credit - Trans Siberian Handbook (Bryn Thomas)



▲ Map of the Tran-Siberian rail routes plus enlarged detail of the route covered. Not shown on the map is the section between Khabarovsk and Komsomol.



Russia! The world's largest country at over 6.6m square miles. Of that vast land mass no less than 5m square miles is Siberia - a part of Russia since the 16th century, with about 7 million Russians moving eastwards from Europe between 1801 and 1914. Today, some 40 million people live there, mainly in the kinder climate of the southerly regions and along the all-important 5-foot gauge rail routes.

Easily the best known of Russia's railways is the Trans-Siberian (TSR) between Moscow and Vladivostok. Much less well-known is the Baikal Amur Mainline (BAM) and it was on that line that I travelled in early October 2014.

The BAM was built as a strategic alternative to the TSR which runs fairly close to hitherto sometimes vulnerable borders. Conceived in the 1930s, construction work was interrupted by World War 2, changing political priorities and finance, and it was only in 1990 that it opened along its full length of 2,700 miles.

My journey started from Moscow with an 8-hour flight to Russia's far-eastern city of Vladivostok ('Ruler of the East'). The main eastern base of the Russian



▲ *Vladivostok - The City and Main Harbour*

navy since 1872 and a 'closed city' until the end of the Cold War, today it is an attractive city with fine buildings and several universities, including one with over 10,000 students. At the railway station is the plaque commemorating the visit of Crown Prince Nicholas (later the last Tsar of Russia) in 1891 to inaugurate the building of the first section of the TSR.

Leaving Vladivostok, the first leg of our long journey took us on an overnight trip north to Khabarovsk; at one point extensive forest fires near the line-side

reduced our speed to walking pace and the heat was noticeable even inside the compartment. At several points later in the journey we were to see fire emergency trains ready to deal with such problems. Khabarovsk is an attractive city of 600,000 on the mighty Amur River. In summer, it's like a popular holiday resort, whilst in winter the local people punch holes to fish in the frozen river.

Khabarovsk is where the TSR heads west, but our own route took us further north to join the BAM at Komsomolsk-

▼ *Vladivostok: Still an important base for the Russian Navy*



▼ *Vladivostok Railway Station*





▲ *Severobaikalsk. The extensive loco depot.*

na-Amure (see map). Built in 1932 as a secret and deliberately remote military city, it was constructed by fervent young Komsomol (Young Communist League) pioneers. In the 1930s, it was the 'Gulag' capital of the Russian East and 900,000 prisoners tramped through its camps, thousands dying and being buried in mass graves. It has always been an important centre of military and aerospace manufacture, and we had a chance to visit the Yuri Gagarin Aircraft Factory, its name commemorating a visit there by Russia's first astronaut.

Now heading west on the BAM itself we settled back to watch the unending scenery of millions of trees. On its eastern section the BAM is un-electrified and single track; passenger

traffic is understandably sparse, but thanks to an efficient train control system we were delayed only briefly in passing loops whilst waiting for freight traffic.

Our next major stop was Tynda, a railway crossroads, former headquarters of the BAM and still regarded as its 'Capital'. Tynda first got a rail link (built by slave labour) southwards to the TSR in 1937, but only

▼ *Tynda. The BAM Worker's Statue*



Tynda. The distinctive 'onion domes' of the town's Russian Orthodox Cathedral ▲



▲ Tynda. Plinthed YeA Class 2-10-0 Freight Loco. Imported from the USA in 1914



▲ Tynda. The Station

A chilly minus 20°C as our train awaits ▶
departure from Novi Uoyan

5 years later the track was ripped up to be sent westwards to create new military rail links in the desperate fighting around Stalingrad. It was to be 30 years before the tracks were re-laid. Plinthed outside the station is freight loco YeA-3246 commemorating the 30th anniversary of the BAM line opening; there is also a giant 'worker statue' and an excellent railway museum describing every aspect of the BAM's construction—some by forced labour, some by specially trained Russian railway troops.

By now the daytime temperature was down to a chilly minus 20° C, whilst small ice floes on the rivers were a sign of the bitter winter weather to follow only a few weeks later.

Another day of travel brought us to the northern end of Lake Baikal at Severobaikalsk, a very utilitarian 1970s town. The stark multi-storeyed



Rear view. Not from a comfortable ▶
observation carriage but simply through
a small window in the last vestibule!

▼ Lake Baikal



Severobaikalsk. Plinthed P36 Class 4-8-4. 251 were built between
1950-1956, the last express passenger loco type built for Soviet Railways



apartment blocks have special foundations to cope with the permafrost and the constant seismic activity of the Baikal region. It's an important stop and loco depot on the BAM and an unrivalled base for outdoor activities, although much less visited than the southern end of the lake.

Lake Baikal is a truly astonishing expanse of water, over 400 miles long, supremely transparent and holding 20% of the world's fresh water reserves. With 336 tributaries it is also the world's deepest lake – over one mile in depth. In winter it freezes over with ice so thick that a network of signed vehicle routes are used.

Continuing westwards the BAM is much busier—double tracked, electrified and with a constant succession of long freight trains hauling all manner of cargo, but especially coal and forest products.

Eventually joining the TSR, we then headed south west to the major city of Irkutsk, founded in 1661 as the centre for Russian exploration of Siberia. The TSR arrived here in 1886; the large and attractive station has been nicely preserved and a nearby statue of Tsar Alexander III commemorates his visionary drive to build such a long and impressive rail route.



▲ One of the innumerable timber sidings. Forest products form a big part of the freight traffic, specially on the Eastern side of BAM



▲ Now nearing the BAM's western junction with the Trans Siberian Railway our train passes an eastbound coal train

▼ Irkutsk. On the River Angara, this was the first capital city of Siberia



About the author:

Paul Whittle is Vice Chairman of the Darjeeling Himalayan Railway Society (DHRS). He is a well-known travel lecturer both in the UK and on cruise ships. His web site is at www.travellertales.net. The DHRS is an International group, based in the UK, dedicated to promoting awareness of, interest in, and support for, the Darjeeling Himalayan Railway, India. It has a membership of over 800 in 24 countries.



▲ 'Home Sweet Home'. My shared 4 berth compartment



▲ Steam Lives On—But only for the coal-fired heating boiler in each carriage!

Photos courtesy: The author

▼ Each carriage has a Provodnitsa (Stewardess) responsible for security and cleaning



The Sutlej Bridge at Phillaur

Vinoo N. Mathur

The Sutlej is an important river of Northern India. It was known to the Greeks as the 'Zaradros' and was called the 'Shatadru' in Sanskrit. It is the easternmost of the five tributaries of the Indus from which 'Punjab' derives its name. It is also the longest of these five rivers. Rising in south-western Tibet, it flows through Himachal Pradesh and across the Punjab in a west south-west direction, and is joined by the Beas River near Makhu. It forms over 100 Kms. of the boundary between India and Pakistan and in Pakistan joins

the Chenab following which the combined Panjnad River meets the Indus. Historically, it has been significant: for example, after the Treaty of Amritsar in 1809 between Maharaja Ranjit Singh and the East India Company, it formed the Eastern and Southern boundaries of the Sikh Empire. After the death of Maharaja Ranjit Singh in 1839 some famous battles were fought on its south bank at Sobraon and Aliwal in 1846 which resulted in the British expanding their rule and sphere of influence in Punjab. Post Independence, the Bhakra-Nangal dams were built on the River in Himachal as one the largest Multipurpose River Valley Projects.



▲ *The old bridge over the Sutlej*

With the advent of the railway in India in 1853, there was an effort to link far flung corners of the country through the rail network. The highest priority was given to building a line from Calcutta (now Kolkata) via the valley of the Ganges to the Punjab. The rationale was that it would give the Government, "the power of massing, with ease and speed, by an interior line of the best class of communication known, a large military force on any point of the long northern frontier of the Empire of India that may be threatened by invasion. It will pass through every important military station from Calcutta to the Indus"¹. Whereas the East Indian Railway was to build the line from

Calcutta to Delhi via Patna, Allahabad and Kanpur, the Scinde & Punjab Railway was assigned the construction of the Lahore to Delhi section. The Scinde & Punjab Railway built the connection from Karachi to Amritsar in three different components, viz. the Scinde Railway from Karachi to Kotri (on the right bank of the Indus opposite Hyderabad), a riverine link by the Indus Steam Flotilla from Kotri to Multan and the Punjab Railway from Multan to Amritsar. Tenders for the construction of the Amritsar to Delhi section by Messrs. Brassey, Wythes and Henfrey, who had agreed to complete the line in five years, were finalised in 1864.

The line was opened out from both Amritsar and Delhi (Ghaziabad) ends towards the Sutlej River. There were three important bridges built on the section over the Beas, Yamuna and Sutlej rivers. The construction and completion of the Sutlej Bridge was described as a 'work of great magnitude' and caused an extra year to be added to the terms of the contract and delayed an

earlier completion of the line. The line from Ambala to Ludhiana was opened in October 1869 whereas the section on the other side towards Amritsar had been opened earlier. The Sutlej Bridge itself was the last link to be opened in 1870 to provide a through railway connection between Calcutta and Lahore. A grand ceremony was held on its inauguration on 15th October 1870. Apparently, the Viceroy and Governor General as well as the Lieut. Governor of Punjab were unable to attend. Therefore, the Scinde, Punjab & Delhi Railway invited the Maharaja of Patiala to be the Chief Guest. There were speeches at the bridge site and a breakfast reception thereafter. The events after the speeches on that day have been described² thus: "The Agent then, having performed the usual ceremony of presenting 'atter' and 'paw'n', led His Highness by the hand to his carriage, in which he drove off to his house for half an hour to change his dress and shed his jewels. The *Durbarees* retired to tents, where sweetmeats and fruit and sherbets had





▲ *Work of constructing the piers of the new double line bridge. The old bridge can be seen in the background*

been provided for them. The train being ready to start, a deputation was again sent to meet His Highness, who appeared in the given time, still handsomely but less splendidly attired. On arrival at Phillaur, he was conducted by the Agent to the engine shed, a room some 200 by 50 feet, which had been superbly decorated with flags, fountains, and “trophies” of railway implements, and two decorated engines standing sentry at the end. Tables were laid for breakfast for 300 guests, which number or even more, must have sat down to refreshment which was most welcome after the fatigues of the morning. His Highness would, of course, not partake of refreshment, but entered freely into conversation with the Agent and Mrs. Abbott, who was seated on his right, and with his officers standing behind the chair.

The bridge was 4224 ft. long and consisted of 38 spans of 111½ ft. each, the clear waterway was about 99 ft. in each span, each pier rested on a single well with a 12½ ft. external and 6½ ft. internal diameter sunk to a depth, in most cases, of 40 ft. or more below the low

water mark and founded in a bed of clay that ran across the channel. The height from low water level to the underside of girders was about 21 ft. The total cost of the bridge was ₹ 3,360,076, a considerable sum in those days. On both banks, wing walls were built on wells and precautionary measures were taken to direct the channel and prevent its deepening. However, despite the precautions in its early years, the bridge suffered considerable damage from floods. In 1871 and 1872 there was severe damage, necessitating interruption to through communication for some time. In August 1876 two piers of the bridge were carried away and through communication not re-established till the middle of December. The Administrative Report for the Railways in India 1882-83 recorded that “the original design being defective (owing to the short spans and numerous piers and the depth of the foundations of the latter being insufficient), they have been a source of much anxiety and heavy expense, though it is believed that from the more systematic measures pursued during the last few years they are much less liable to danger than formerly”.

In 1907, a survey was sanctioned for doubling of the section between Amritsar and Saharanpur. Initially it was intended to exclude the Beas, Sutlej and Yamuna bridges from the doubling scheme; however, it was later decided to rebuild these bridges as the original construction was only for a single line. One line of the new bridge was operational in 1910, while double line working started in 1914. The bridge consists of 11 spans of 61 metres each and has open web through triangulated girders. The girders of the up and down lines whose members were erected in 1908 & 1914 respectively are still in use. Fortunately, photographs of the construction of piers and erection of girders are still available with us. In 2001-02 minor modifications of the top lateral and portal bracings of the girders became necessary for providing vertical clearance to facilitate the electrification of the line. The plates on the girder seen in the photograph of the entry to the bridge on the next page are those of the original makers and are dated 1908. Another plate relates to

modifications made in 2002, by Jalandhar Bridge Workshop, in connection with the electrification of the route.

The second bridge has also completed its life, as prescribed in the codes of the Indian Railways of a hundred years. Therefore, in 2006-07, the Research Design & Standards Organisation of the Indian Railways carried out tests to assess the residual life of the girders erected over a century ago. The objective of the tests was to estimate fatigue because of stresses and strains undergone by various members of the girders which may have suffered permanent structural change over time and growing volume of traffic passing over the bridge. Various steel members of the girders such as stringers, diagonals, verticals, top chord, etc. were instrumented and measurements taken under traffic conditions. The conclusion was that the bridge still had a residual life of another 89 years with the then prevailing level of traffic. It was estimated to be capable of handling



▲ A recent view showing an electric hauled express train passing over the bridge

another 1.85 million train movements. It is, therefore, expected that this hundred year old bridge will still be carrying traffic in the second half of the 21st Century.

In the meanwhile, the first Sutlej Bridge, now 145 years old, with its beautiful cylindrical piers and iron girders still stands a mute spectator to the changing times, the dwindling flow in the river below and the rising traffic moving over the younger rail bridge nearby.

On the next page, you can see extracts of the speech² delivered on the occasion of the opening of the Sutlej Bridge on 15th October 1870 by the Maharaja of Patiala in reply to the welcome address by the Agent, Maj. Gen. Saunders Abbot, of the Scinde Punjab & Delhi Railways. The Maharaja of Patiala was the Chief Guest: his speech was in Urdu.

▼ Entry to the double line bridge at Phillaur



“Major General Abbot – Surely, it is a matter of great joy and honour to me that I have come here on this happy occasion to open the railway communication between Lahore and the seaports of Calcutta and Bombay, in fact to connect the well-known three great railway lines in India, a work which His Excellency, the Viceroy and Governor General of India himself intended to perform. Undoubtedly, this is the first time that a native chief has been engaged in so great a work in India in such an honourable way; and for this I am greatly thankful to His Honour, the Lieutenant-Governor of the Punjab, and to

His Excellency, the Viceroy and Governor General of India. As the high functionaries of the Government of India have always conducted the administration of this country in such excellent ways as are in conformity to the kind wishes which our Most Gracious Sovereign Her Majesty the Queen at all times entertains regarding the honour and prosperity of the Indian chiefs and people, I heartily pray that God Almighty may keep the shadow of Her most august rule and protection over us. There is no doubt that even in these times of enlightenment, most of the people of this country do not fully understand the real intentions of Government, but it is hoped that, by means of the ceremony which is being performed this day, they will know that, as the English officers and gentlemen are considered by Her Majesty's Government to be the pillars of State, in the same way the native chiefs and people, without regard to the difference of creed and colour, are the objects of its kind regard, and I believe that this their conviction will be a cause of their being attached to the British Government in a greater degree than heretofore. I have been, indeed, extremely glad that this railway line has been established without any force and oppression, and from the very commencement of this work the people of this country had begun to derive immense benefits. Great praise is due to all the Punjab railway officers for their exertions in the performance of their duties; and, surely, as you say, great credit is due to Messrs. Brassey, Wythes and Henfrey, the contractors, and to the engineers of the company, who superintended the work, for finishing so rapidly the different portions of this line, and particularly the great bridge over the Sutlej, and I trust that their names will always be remembered in the history of the railways of this country. I thank you for the good wishes you have expressed regarding the welfare of my state; may God Almighty grant them. I congratulate you and your company, all the English ladies and gentlemen, and all native nobles and gentlemen, who are here present, that from this day the Sutlej Rail Bridge is opened; and thus, by God's help, the work upon which the completion of the Punjab Railway depended has been done”.



1. Edward Davidson, Captain R.E., *The Railways of India*, E. & F.N. Spon, London, 1868
2. *Speech and events as narrated in the 'Scinde, Punjab & Delhi Railway - Completion of the Delhi Railway' published in 1870*

Photos courtesy: Archives of the author

Curtains Down: The Toy Train's Final Act

by Ravindra Bhalerao



Narrow Gauge (NG) Railways in India conjure up images of vintage B-class locomotives against a backdrop of the Kenchununga on the Darjeeling Himalayan Railway; of diesel hauled trains chugging over multi-tiered arch bridges on the Kalka-Shimla route; or, of a toy train meandering up the hill from Neral on the plains to Matheran (literally, "forest on the top") at an altitude of 800 meters and 20 kilometres distant. In other words, railways in the hills.

Yet, the most extensive NG rail networks were not in the hills, not ribbons of hope leading to salubrious climes and tourist destinations. The two biggest NG hubs were around the cities of Nagpur and Vadodara (earlier Baroda) respectively. At the time of independence in 1947, these two networks covered 1,650 kms. of the total 5,198 kms. of NG track that existed in the country. Uni-gauge has spelt the death knell of both these networks as a result of which the erstwhile major NG lines on the plains are now Broad Gauge. The NG hill railways are the only ones likely to continue.*

We bring you two articles, one on the NG lines around Nagpur and the other on the lines around Vadodara. Both writers lament the day the decision to convert these lines to Broad Gauge was taken and feel that there was no real need to do so. Whether the Indian Railways feel emotional about the conversion or not is a matter of conjecture: the rail enthusiast is certainly saddened by it.

The first of these articles on the Satpura Railway by Ravindra Bhalerao appears on this page followed by the second by Vikas Singh on India's first Narrow Gauge lines around Vadodara.

I met Kapil Sahare at Nagpur's Narrow Gauge rail platform. Tall, lean and clean shaven, he was seated on a bench alongside an old lady.

"That is my mother," Kapil tells me, as we begin a conversation. I glance at the lady but she is in a world of her own, apparently oblivious of our presence and our conversation. And she's a bit sleepy too.

"She was not well," Kapil explains, while his mother dozes. "She is now 85

and I had to get her here for an operation," he explains.

Like hundreds of other folk from nearby villages, Kapil travels to Nagpur by the Chhindwara Passenger regularly. Lodhikhera, where he stays, is but a sleepy village along the line. And there are other station names he reels off when you ask him: Ramakona, Devi, Sausar, Umranalla...

This is only a sampling of tiny stations among more than a hundred that were connected by narrow gauge way back

in 1913, making the Satpura Lines the largest narrow gauge railway network in the country. These narrow gauge lines were introduced in the adjoining Chhatisgarh and Maharashtra areas mainly with a view to transport agricultural produce and famine relief, but the train soon proved to be a boon for the villagers. With its arrival, both Nagpur and Jabalpur were connected with the district of Chhindwara, with additional links going all the way to Nagbhir and Chanda Fort.



Train services on the Satpura Lines have been progressively phased out, with the railways keen on introducing broad gauge throughout. Among the last to be struck off the roll was the Nagpur - Chhindwara Passenger which saw its very last service on 30 November last year (2015). The only service yet in operation is between Nagpur and Nagbhir, a tiny remnant of a complex rail network that was powered entirely by steam in its heydays.

With narrow gauge now practically off the rail map, how will it affect the simple folk who travelled on the line?

Reactions to this question vary. Two college youth I met on the platform were nonchalant. "We'll travel by bus," they said easily, toying all the while with a Micromax mobile phone.

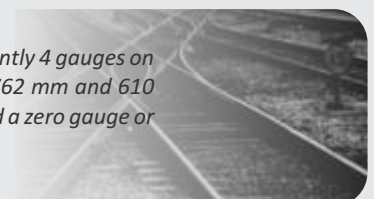
Kapil Sahare is not pleased, however.

"There are hundreds of tiny villages, some on the line, others in the interior, and people there rely entirely on this train," he tells me. Shopkeepers and merchants from these villages made

weekly trips to Nagpur to re-order their stocks, so it can well be imagined that the railway was much more than a mode of transport – it was the lifeline of these people. "There are school children from my village who travel to



** For those not familiar with the multiplicity of gauges on the Indian Railways, there are currently 4 gauges on the system: Broad Gauge (1676 mm), Meter Gauge (1000 mm), and two Narrow Gauges—762 mm and 610 mm. In the past, railways in India have had one section on a 1220 mm gauge (Naihati line) and a zero gauge or mono-rail in the State of Patiala, now part of the State of Punjab.*



Saoner by train to high school," Kapil tells me. "And a large number of men employed as labour made use of the train each week to get to Nagpur."

With just one service in operation that may shut down any time, folk like Kapil Sahare will find themselves ditched and stranded as it were. Perhaps no one put this more poignantly than Station Master Bhaje who mans the SEC Railway 'C' Cabin, which controls



The arrival of the GT Express does not stir or impress them; these, the ultimate and final children of the soil, wait at the platform, wait for a train taking them to Naghir...

The SEC Rly "C" Cabin is manned by Mr. Bhaje and others of his rank. You will also find pointsmen here, and levermen too, and these men get busy as soon as an NG train arrives. Leverman Mr. Veer is amongst the most cheerful pointsmen I have come across. He loves to talk about his railway. Narrow Gauge trains here belong to the South East Central (SEC) Zone of the Indian Railways, but all the operating staff are from the Central Railway. SEC Railway only looks after the maintenance of locos, carriages and signals. Even the land here on which the railway is built belongs to Central Railway. Veer is not much worried about his future. Once NG shuts down, he will be deployed elsewhere, he tells me. At the C cabin, his duty hours stretch to even 12 hours at a time.

What more will you find of heritage



narrow gauge trains leaving Nagpur: "This train was mostly for poor people," he tells me. "These folk will now be seen waiting on the highway looking for a bus. And a journey which cost them 15-20 rupees, will now cost them ₹40-50 by a bus that is already full when it halts at the village bus stop..."

It was a simple train for simple people.





value on the Narrow Gauge? A good deal, but I haven't explored the line much. A good deal can be found in the NG Museum of Nagpur.

On the railway itself, there are primarily two heritage attractions. One is the pretty C cabin we have seen before. Secondly, as trains leave Nagpur, some 5 kms. away you have Itwari, the main business district of the city. Both NG and BG tracks converge here. Itwari station itself, with its gabled roof, is a heritage attraction.



As I see the Dakshin express leaving Nagpur, the simple folk who had arrived from Nagbhir by the toy train gather their luggage, preparing to leave the station. Where the road leads from here, only time will tell.... Wherever the road may lead, of one thing everyone is sure. For the simple village folk living close to the line, there will be no respite until the broad gauge track to Chhindwara and other towns is in place. Till such time as the full-sized railway arrives, these passengers will find themselves on their own; abandoned to fate as it were, like puppy dogs abandoned by their mother for a while...



Photos courtesy: The author



GAEKWAR'S BARODA STATE RAILWAY

Vikas Singh



Crest of Gaekwar's Baroda State Railway

It all started in the early 1850s when Khanderao, the Maharaja of Baroda (now Vadodara) built a line between Miyagam Karjan and Dabhoi. It was on 2'6" gauge with rails weighing 13 lbs. to a yard. The line was designed and constructed by A.W.Forde. Initially, a pair of oxen used to haul trains composed of 4-6 vehicles. In 1863, Khanderao purchased 3 steam locomotives built by Neilson and Co., Glasgow. These 0-4-0 ST locomotives proved to be too heavy for the rails and there was no option other than replacing the rails with heavier ones. This was undertaken during the reign of Malharrao in 1871, when the old rails were removed and new 30 lbs. to a yard rails laid. The 32.3 kms. Miyagam-Dabhoi line, which had been closed, was then reopened for



Maharaja Khanderao who first established the Miyagam-Dabhoi line

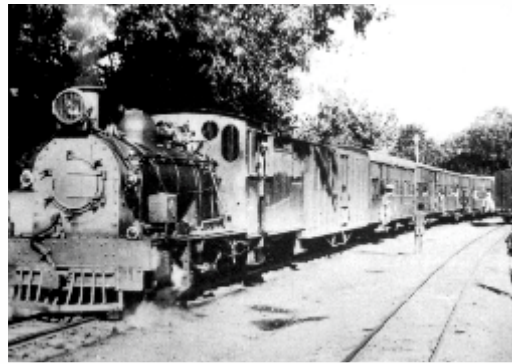
traffic on the 8th of April, 1873. Today, the part of the line from Miyagam to Choranda is the oldest NG line in the world still in use for commercial traffic without any break in daily services.

A number of Narrow Gauge (NG) lines were added to this original route so that when I visited the area in October 2003, five lines branched out from Dabhoi. All these lines had been absorbed by the Vadodara Division of the Western Railway zone of the Indian Railways. In the North, the line branched to Timba road, in the Northeast to Chhuchhapura, in the Southeast to Chandod, towards the South to Pratapnagar and the Southwest to Choranda. The total NG network in the Vadodara division was 696 kms., second in extent only to the

Satpura Railway around Nagpur in the centre of the country. The 696 kms. comprised of the following sections:

Dabhoi-Chandod	17 kms - Working (W)
Dabhoi-Choranda junction	42 kms - Dabhoi-Miyagam BG; Miyagam-Choranda - W
Choranda-Malsar	29 kms - W
Choranda-Motikoral	18 kms - W
Dabhoi-Jambusar junction	80 kms - Dabhoi-Vishwamitri BG; V-J - W
Jambusar junction-Kavi	26 kms - Closed
Jambusar junction-Samni junction	24 kms - Closed
Samni junction-Dahej	40 kms - BG
Samni junction-Bharuch	24 kms - BG
Dabhoi-Chhuchhapura junction	21 kms - BG
Chhuchhapura junction-Chota Udeipur	50 kms - BG
Chhuchhapura junction-Tankhala	38 kms - Closed
Dabhoi-Timba road	105 kms - Upto Samlaya-under conversion. Rest to Timba Road - Closed
Nadiad-Bhadran	59 kms - W
Kosamba-Umarpada	61 kms - W
Ankleshwar-Rajpipla	62 kms - BG
Total	696 kms

▼ C-560 outside Pratapnagar shed on 13th January, 1983



When I revisited the area again in October, 2011, the Dabhoi-Pratap Nagar and Dabhoi-Bodeli sections had been converted to Broad gauge. Except for the Pratap Nagar-Jambusar, Dabhoi-Chandod, Dabhoi-Miyagam, Nadiad-Bhadran and Kosamba-Umarpada sections, all other sections too were closed either for gauge conversion or for reasons best known to Railways!

▲ BB&CI advertises its Christmas discount on return tickets ▲ Information panels inside the heritage park

However, the rich heritage of the once extensive Narrow Gauge network has been well documented and preserved. Under the able stewardship of A. K. Srivastava, the then Divisional Rail Manager, Vadodara division, heritage parks had been established at Dabhoi and Pratap Nagar.

history by linking it with people and places where the railways evolved and attempts to weave an interesting story. Apart from using panels displayed on bent Narrow Gauge rails, the park also displays some original documents in a well maintained room. Documents include a copy of the contract entered by the Gaekwars for construction of the railway, Agreements entered with BB&CI for operation and maintenance of the railway and some other important letters. For rail enthusiasts with interest in economics, some panels also give details regarding the financial performance of the lines. These panels show that since its inception, the Dabhoi lines were generating surpluses and how, in a very short period of time, they were able to pay interest on capital also. Old time tables are also displayed in some panels.

The Dabhoi heritage park is located next to the Dabhoi-Miyagam line. The park has 15 panels which display the majesty of the Gaekwar's, old grandeur of Dabhoi, coverage in Illustrated London News showing bullock-hauled trains, letters exchanged between the Resident and British government, along with plans and sketches related to the narrow gauge railway. The park is a pioneering effort in popularizing railway

Pratapnagar (then known as Goya Gate) was the place where



▲ Narrow gauge coach SR 699 converted into a restaurant at Pratapnagar heritage shed



▲ Token exchange with loco pilot of ZB 90 at Dabhoi station

the NG Railway first came to Vadodara way back on 1st July 1880. It was also the location for the first NG workshop established in 1919, the railway headquarters for Gaekwar's railway and a colony built on the pattern of Tergnier in France established by Compagnie du Nord. The panels at the Pratapnagar heritage shed display information about the first railway run in India, arrival of the first train in Baroda in 1861 and organisation of the NG network over the years. A narrow gauge coach SR 695 can be seen at the station modeled after the old Goya Gate station. Enthusiasts can have tea and snacks inside another NG coach converted into a dining car. The rolling stock park nearby has an old turn table built in 1874 by Ormerod Crierson & Co. Ltd., old narrow gauge rails and NG rolling stock. The NG museum nearby has also been given a facelift. Though



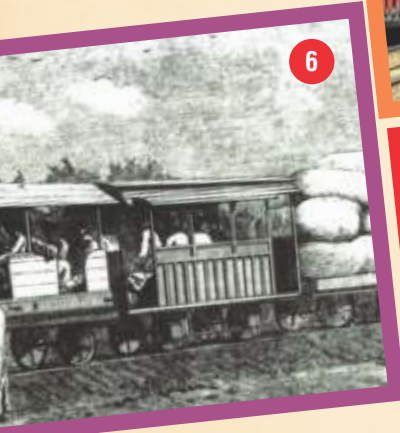
inaugurated way back in 1958, it was in a very bad shape till it was revived by A. K. Srivastava. Besides displaying old photographs of the NG line and its locomotives, the museum also has information panels on Bollywood films and the railways, famous books with a railway theme and famous cartoon characters with a railway connection.

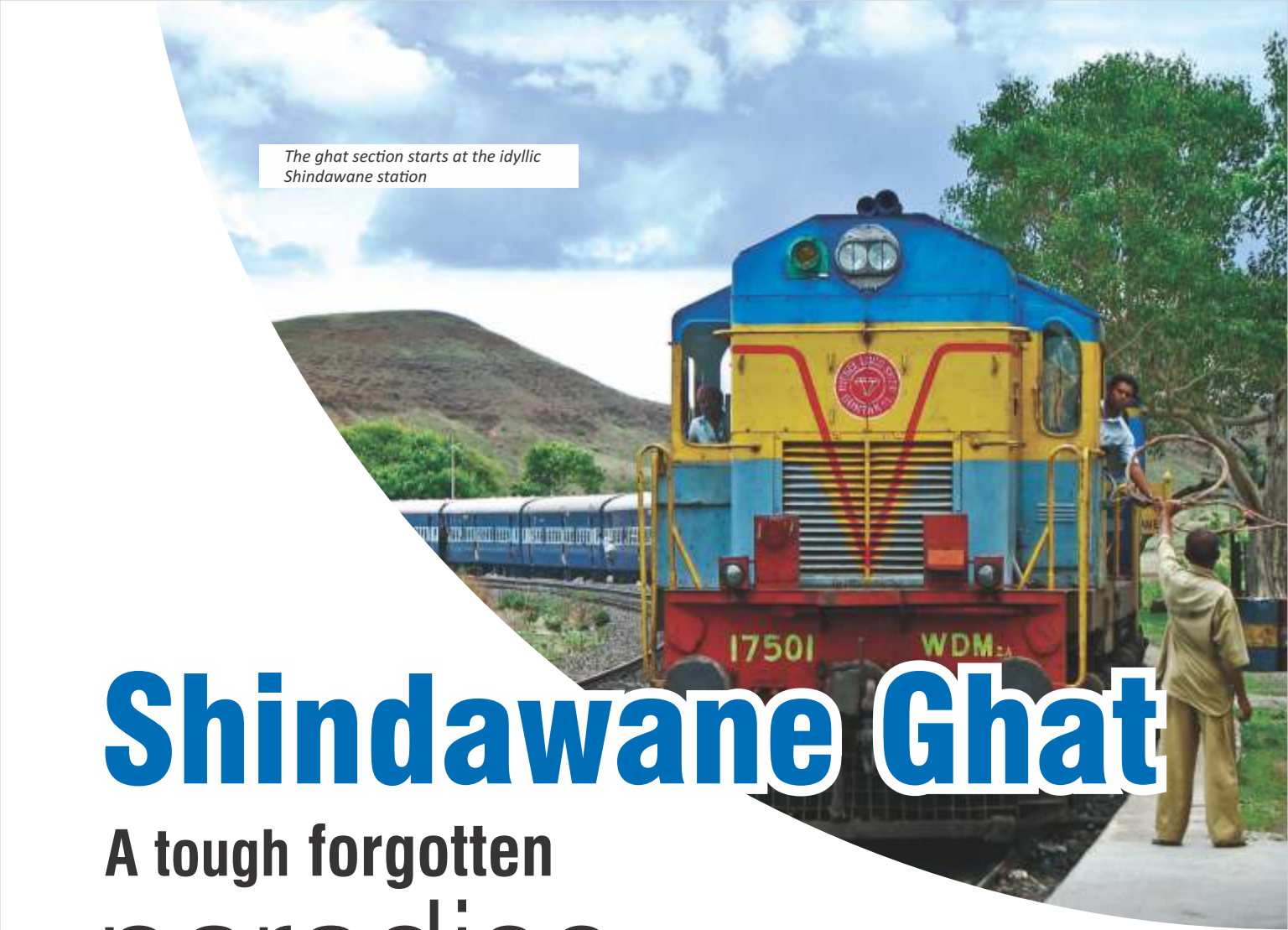
While the advantages of the uni-gauge policy of the Indian Railways are understood, the erstwhile Narrow Gauge lines, with their heritage value and the fact that they were the lifeline of the innumerable small towns and villages that they served, should have been left unchanged.

The lines may have closed down but the memories remain!

Photos courtesy: The author

- 1 ZB-64 at Kelanpur station between Dabhoi & Pratapnagar on 13th January 1988
- 2 Panel in narrow gauge museum depicting the railway connection behind some famous cartoon characters
- 3 Pratapnagar heritage shed with Goya gate station modelled after the original station with the same name
- 4 Rolling stock park at Pratapnagar heritage shed
- 5 Narrow gauge rail manufactured by Barrow Steel in 1878
- 6 Initially a pair of oxen used to haul trains composed of 4-6 vehicles on the Miyagam-Dabhoi line
- 7 P 606 at Dabhoi shed on 13th January 1988
- 8 Turntable built in 1874 by Ormerod Crieron & Co. Ltd.
- 9 Panel at Dabhoi heritage shed depicting early history of the line





The ghat section starts at the idyllic Shindawane station

Shindawane Ghat

A tough forgotten paradise

One hears of the ghat section between Mumbai and Pune. One acknowledges the ghat section between Mumbai and Nashik. The one ghat one does not hear of and tends to forget is the Shindawane Ghat. This relatively obscure ghat is known only to the Indian rail fan and rail enthusiast.

Starting about 32 kilometers from Pune on the single, non-electrified line to Miraj, the section is around 10 kilometers long and climbs approximately 80 meters into the Bhuleshwar range of the Sahyadri mountains. At the bottom of the ghat, the track moves out of Shindawane station in the easterly direction to climb along the flank and go around the majestic Shri Dhawaleshwar mountain. After about 8 kms., the

track turns south to reach the top of the gradient at Ambale station.

In the ghat section, the track crosses deep gullies on eight tall viaducts. The track also goes through protruding hills using three short tunnels. The raw, stark beauty and the uncontained desolation makes this an amazing place for any serious railfan to visit.

In this photo-feature, **Apurva Bahadur** takes the reader on a virtual tour of the section, starting from the bottom and ending at the top.

The journey begins...

What is a “Ghat”?

“Ghat” is a word in the Hindi language referring to a wide set of steps descending to a river, especially a river used for bathing. You will find such “ghats” at most of the sacred rivers of India, such as the Ganga, where devotees are able to climb down to the river for a holy dip.

The word is also used for a mountain pass or a steep incline on the face of a mountain or hillside. In Indian Railway parlance, a “Ghat” section is a line climbing up a hill or escarpment, where the ruling gradient is far higher than the usual norm. The first two ghat sections built in India were both out of Bombay (now Mumbai) going into the hinterland. The rail line going in the North East direction towards Nashik is called the Thull Ghat, while the one to the South East, towards Pune, is the Bhore Ghat. Another well known Ghat is the Braganza Ghat climbing up the Western Ghats on the Goa-Karnataka border.



The 1 in 100 gradient starts as soon as the Shindwane station yard ends

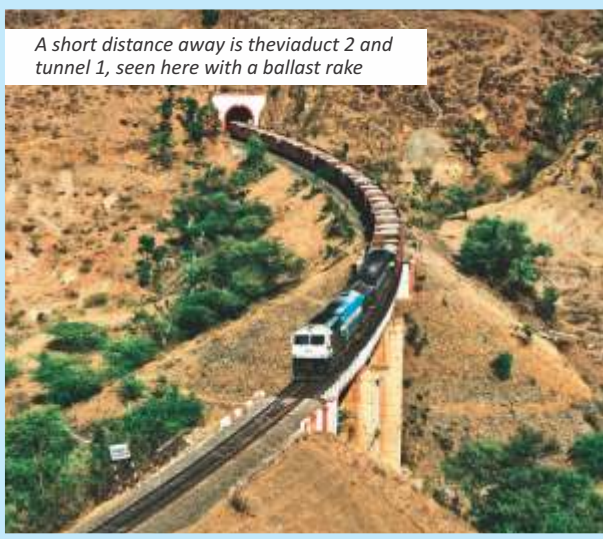
Shindawane station nestles amongst the mountains



Post sunset, Vasco bound
Goa Express powers out of Shindawane



A short distance away is the viaduct 2 and
tunnel 1, seen here with a ballast rake



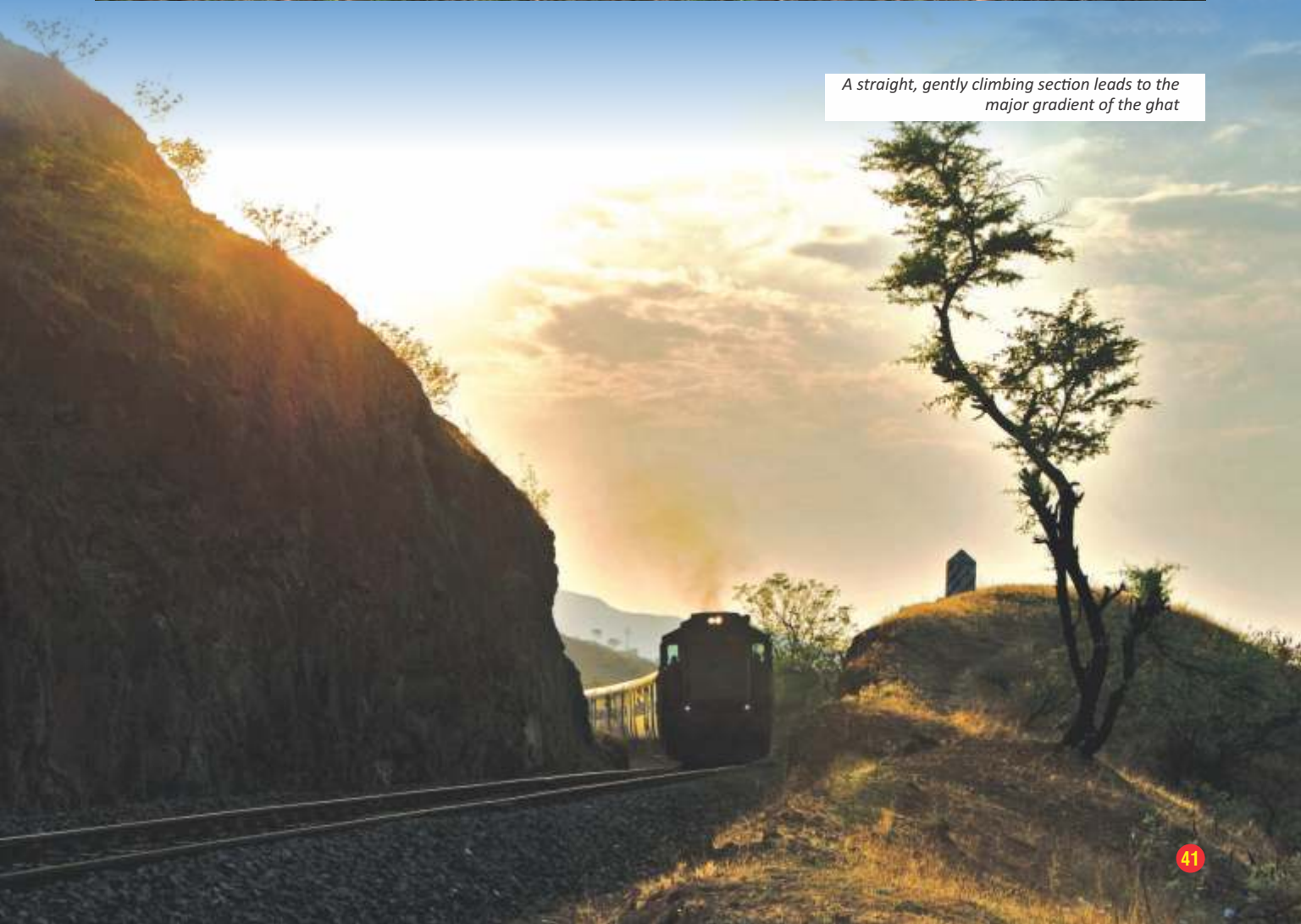
Shri Dhawaleshwar mountain lords over the
Shindawane ghat



Some more distance to reach the portal of tunnel 2



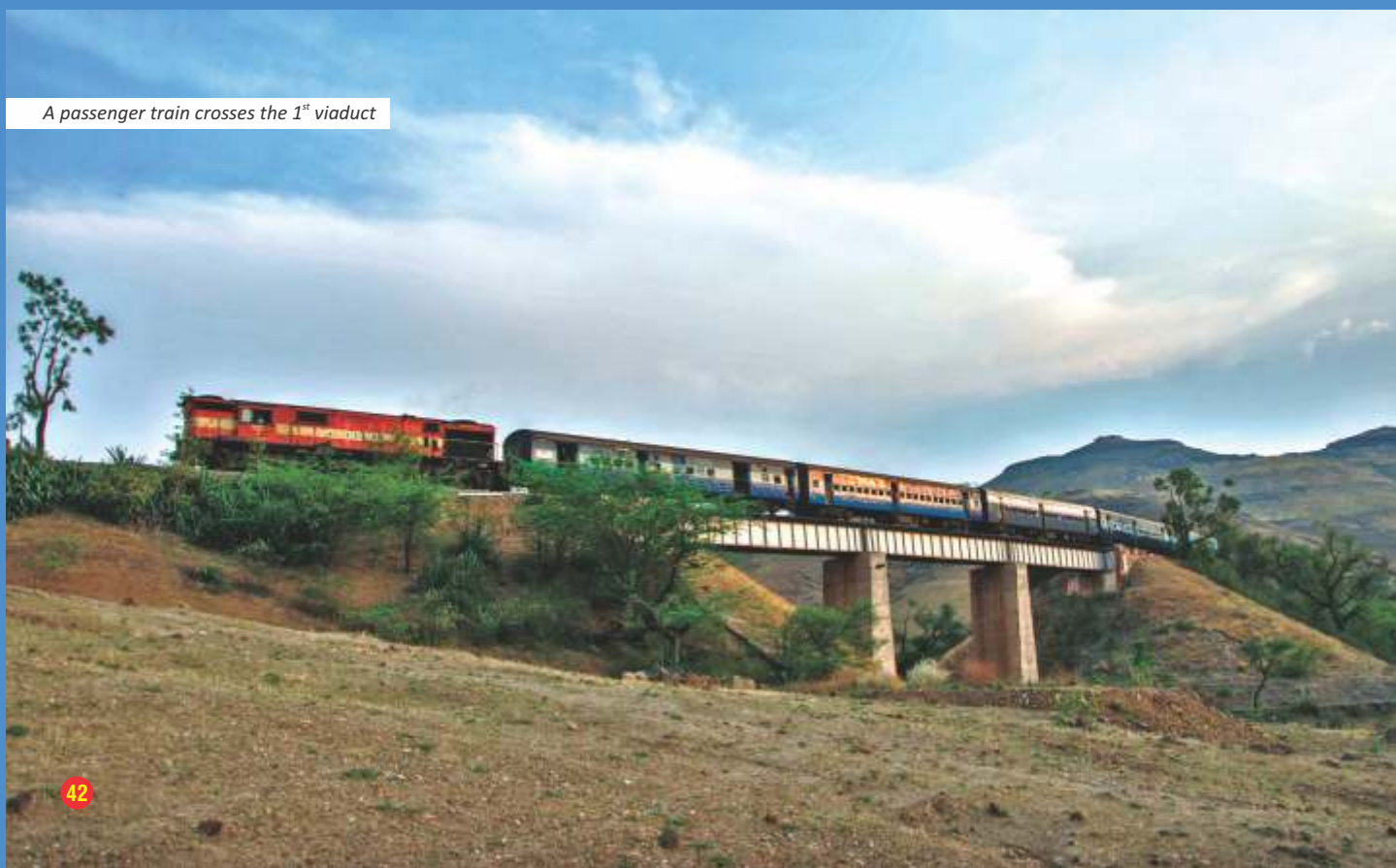
A straight, gently climbing section leads to the major gradient of the ghat



And up next, the grandest structure of them all - viaduct 4

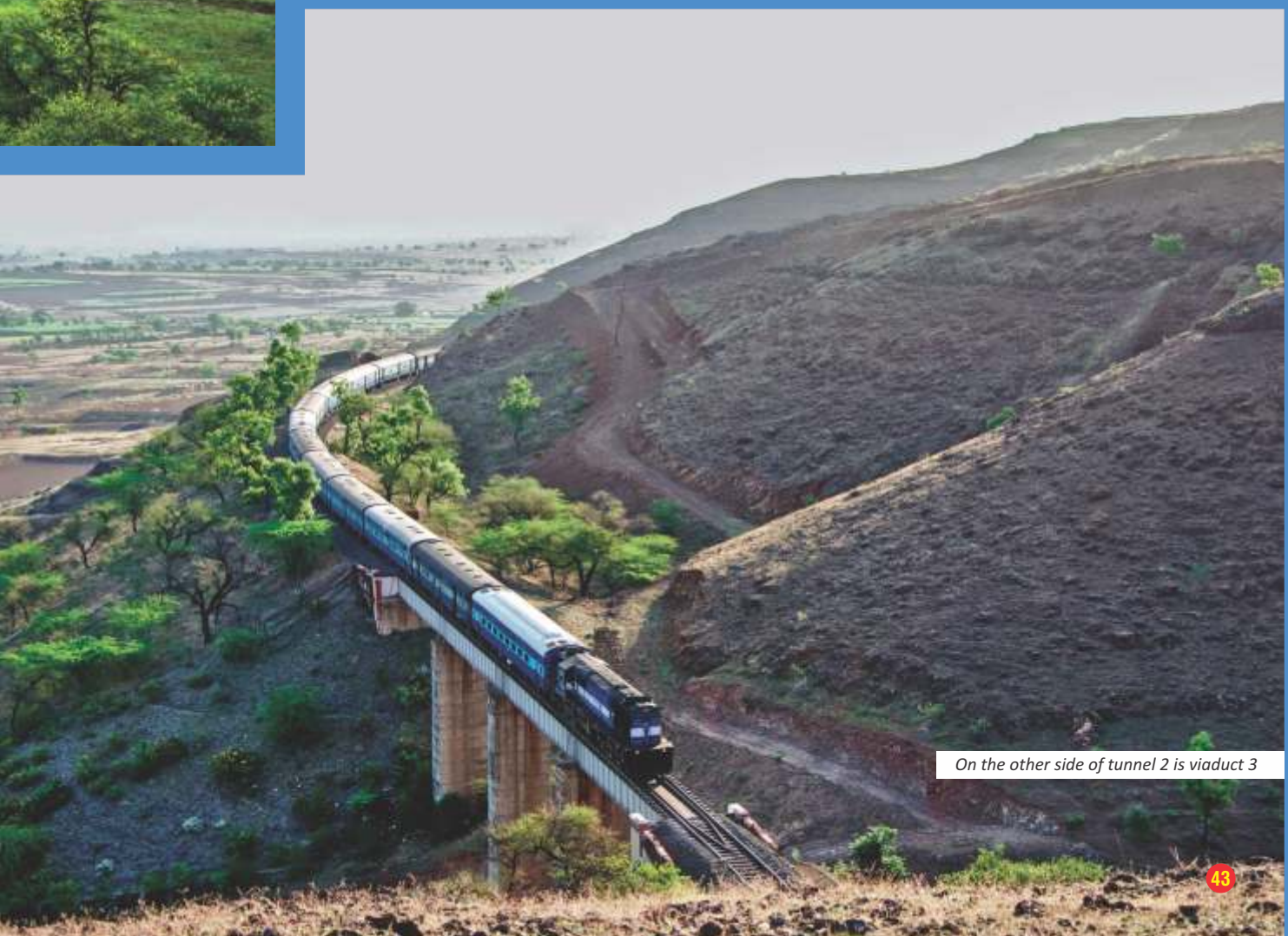


A passenger train crosses the 1st viaduct





A freight train approaches the 80-meter long tunnel 1



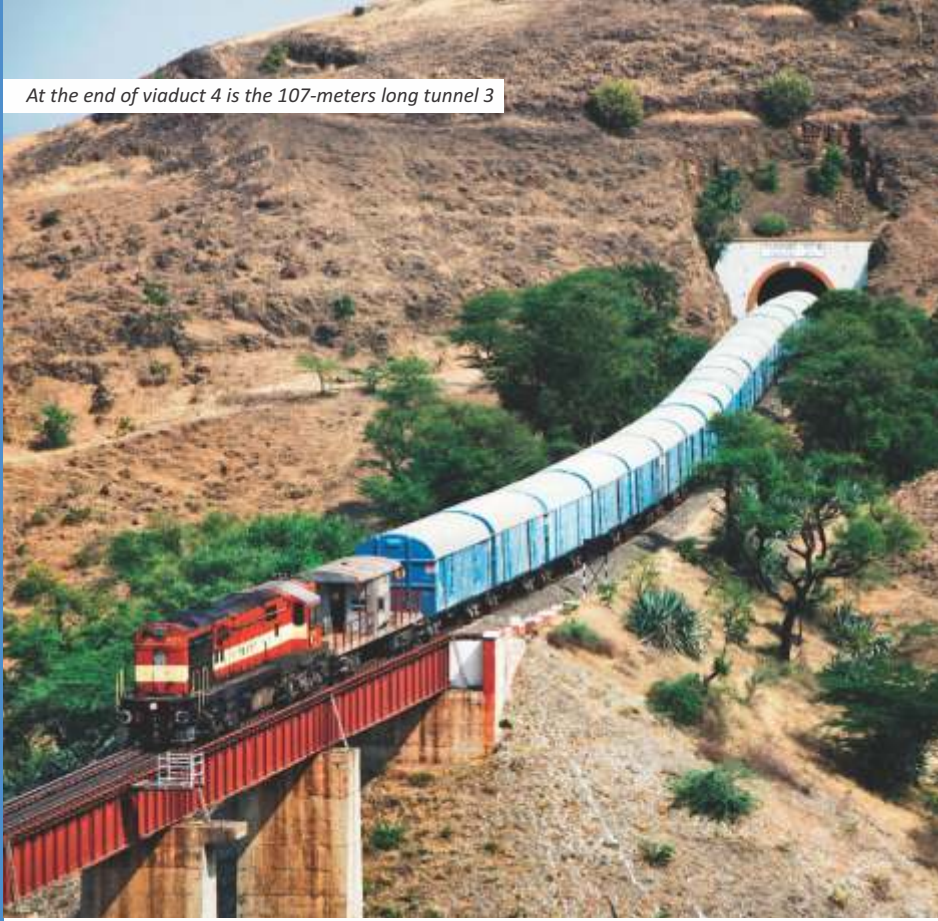
On the other side of tunnel 2 is viaduct 3

Viaduct 4 from the lofty Shri Dhawaleshwar mountain





At the end of viaduct 4 is the 107-meters long tunnel 3



Next up in the ghat show, a series of deep cuttings



A passenger train climbs the ghat, rolling over the viaduct 7



Tunnel 2



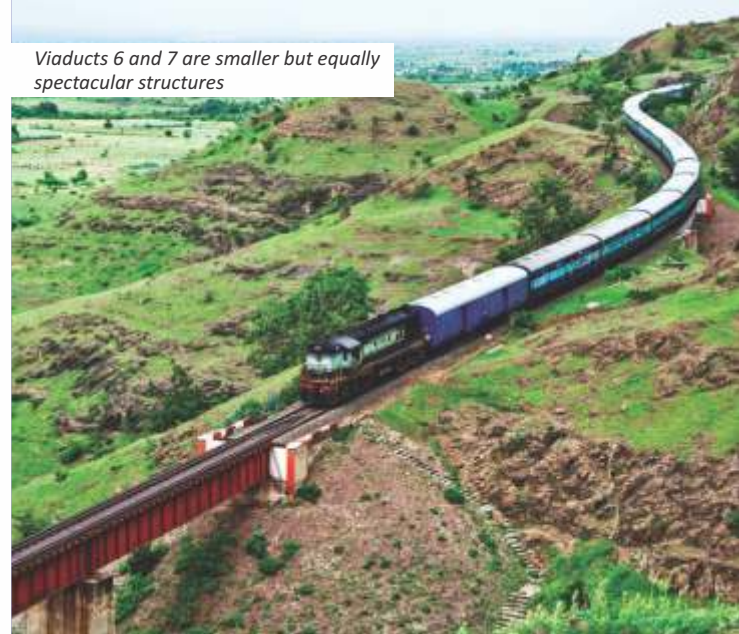
At the end of the cuttings is the second longest viaduct, No. 8, of the section



Some deep cuttings...



Viaducts 6 and 7 are smaller but equally spectacular structures



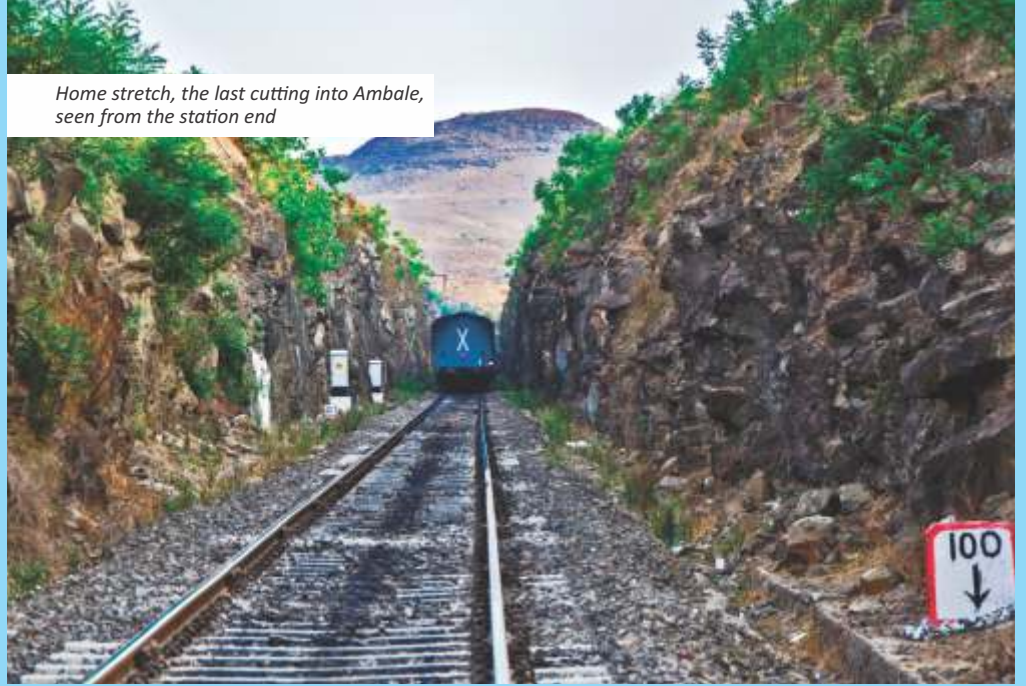


*End of the penultimate cutting opens
into a curved section, approaching the crest of the ghat*





Home stretch, the last cutting into Ambale, seen from the station end



End of the gradient, only a cutting away from Ambale



Parting thoughts

Shindawane ghat is about a zillion times more beautiful and detailed than depicted in this feature, a true undiscovered and undocumented treasure in our backyard. The remoteness will make it difficult for your body to reach the locations but your heart will make it even more difficult to leave...

Exuding the charm of a rural halt station is Ambale, at the top of the Shindawane ghat



THE 'XG' CLASS HUMP YARD SHUNTING LOCOMOTIVE



XG class locomotive in 1929



For more than a century after the railways came to India, locomotives powered by steam hauled virtually all trains. All the same, for about half this period, there were no standards for their design, leading to different designs being used by each Railway Company. Accentuating the reason for this diversity was the building of their own railways by a number of Princely States and the development of four different gauges by the end of the 19th century.

The first effort at standardisation took place in 1903 when the British Engineering Standards Committee set up a subcommittee for this purpose. They came out with their recommendations for designs for various categories of locomotives, viz. Standard Passenger, Standard Goods, Heavy Passenger, Heavy Goods, etc. These design guidelines standardised wheel arrangements, weight, grate area and various other characteristics. They came to be known as the British Engineering Standards Association or 'BESA' designs and locomotives built to these standards were still in use in the 1960s and 1970s.

	Class Code	Wheel Arrangement	Grate Area Sq.ft.	AxleLoad Tons	No.Built
Branch Passenger	XA	4-6-2	32	14	113
Light Passenger	XB	4-6-2	45	17	99
Heavy Passenger	XC	4-6-2	51	19.8	72
Light Goods	XD	2-8-2	45	17	194
Heavy Goods	XE	2-8-2	60	22.5	93
Light Shunter	XF	0-8-0	30.25	17	6
Hump Yard Shunter	XG	0-8-0	41	22.5	3
Light Shuttle	XT	0-4-2	14	14	77

After the First World War a need was felt for building more powerful locomotives suited to Indian conditions and capable of handling steam coal from Indian collieries. As a result, a Locomotive Standards Committee was constituted that, in consultation with locomotive manufacturers, came up with a new set of design recommendations in the mid-1920s. These were known as the Indian Railway Standard or 'IRS' designs. Their recommendations covered a wide range of locomotive categories as shown in the Table 1 catering to the different types of services run on the system. These locomotives were bigger and heavier than the BESA models, had larger grate areas and incorporated

newer technology. Similar standards were recommended for Metre Gauge and Narrow Gauge. All Broad Gauge Classes were given the prefix 'X', Metre Gauge 'Y' and Narrow Gauge 'Z'.

▲ Table 1: The Broad Gauge 'IRS' Class Locomotives with some of their characteristics



In this write-up, we look at the 'XG' class of locomotives (see diagram above) of which only three were manufactured. These were procured by and worked on the North Western Railway (NWR) and after 1947 first on the East Punjab Railway and subsequently on Northern Railway. The locomotives were built by Beyer Peacock & Co., Manchester, in 1928. They were originally built with the 0-8-0 wheel arrangement.



▲ XG class locomotive with 2-8-2 wheel arrangement

However, owing to their very heavy axle load, which had begun to damage the track, they had to be modified to a 2-8-2 wheel arrangement at the NWR's Mughalpura Shops at Lahore in 1943. Modification required the frame to be extended and a pair of pony and trailing wheels to be provided in order to reduce the axle load to 19 tonnes. Some other characteristics of the locomotive are given in Table 2.

Valve Gear	Walschaert's
Cylinders (Diameter X Stroke) in inches	Outside: 23½" X 28"
Super Heater	MLS Type
Boiler Barrel	16' ½" X 6' 8¾" (Diameter)
Total Heating Surface	3058 sq. ft.
Boiler Pressure (lbs. per sq. in.)	150
Tractive Force at 85% Boiler Pressure	38,658 lbs.

▲ Table 2: Some features of the XG/M Class Locomotive



We are fortunate to have an early photograph of one of the locomotives soon after it was inducted on the North Western Railway prior to its modification. These locomotives were the mainstay of shunting operations in the Delhi Junction yard for several years.



Of the original three locomotives, only one survives and is preserved at the National Rail Museum in New Delhi. Leaving the Indoor Gallery of the museum and moving to the right of the musical fountains, you will see XG/M locomotive No. 911 among the locomotives and other exhibits displayed in that area. The original Locomotive Maker's Number of the surviving locomotive was 650; the Railway number was initially allocated was 911, subsequently changed to 973 and later to 368206.



Photos courtesy: The Rail Enthusiasts Society

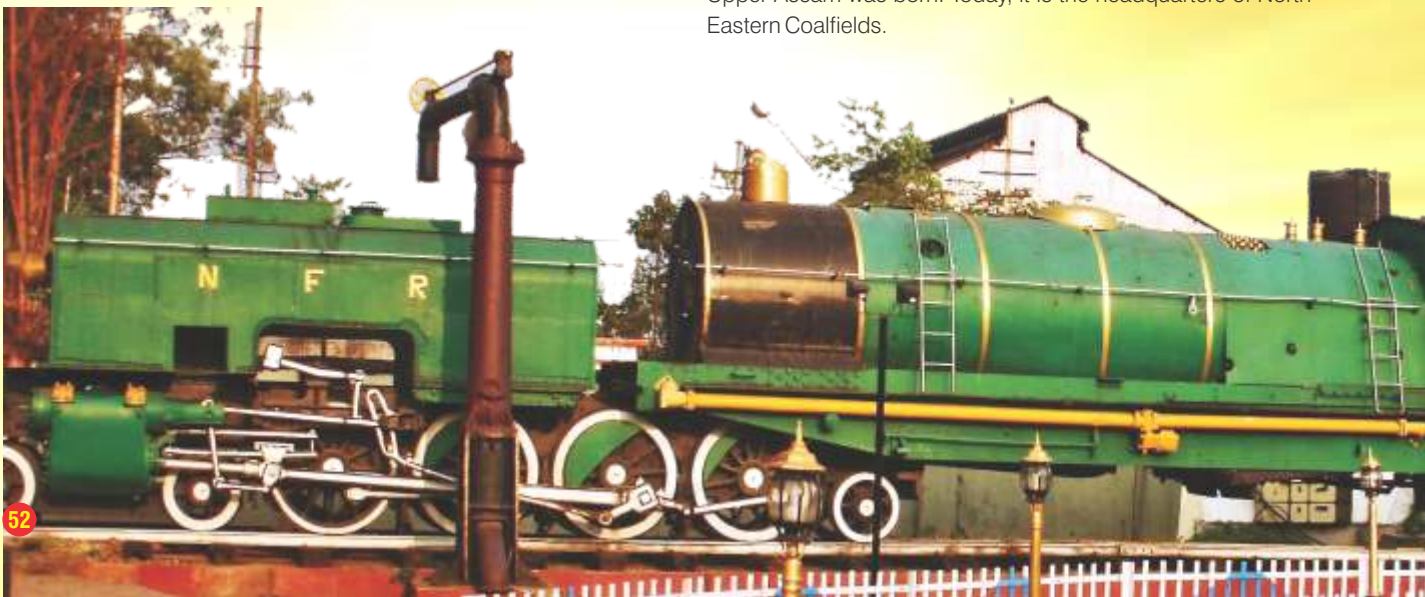
THE LAND OF THE Rising sun

by J L Singh

The only Margherita that I was aware of was the “Margherita” pizza that I had seen printed on the menus of many of the well-known pizza restaurants. Perhaps I had consumed this pizza as well but I do not recall having done so at the time of penning this write-up. Be that as it may, here I was, standing in front of the Coal Heritage Park and Museum of the North Eastern Coalfields of Coal India Ltd. in the town of Margherita in the easternmost corner of Upper Assam. What could be common between a culinary delight and an out-of-the-way coal town, I wondered? I got my answer when I entered the museum. Both, the town and the pizza, were named in honour of the then Queen of Italy, Margherita Maria Teresa Giovanna. Thus, Sonia Gandhi was not the first Italian lady to have an influence in our country; she was preceded by more than a century by her country's 19th millennium Queen.

The year, 1884; the date, February 18th. On this day, the official opening of the coalfield took place and the township was named Margherita as a tribute to the Italian Chief Engineer, Chevalier Roberto Paganini. It was this Chief Engineer who built not only the first wooden bridge across the nearby Dehing river but also the rail line on both banks of the river. In addition, he founded the settlement around the bridge, that grew to the present town. Thus, it was at Margherita that the coal industry in Upper Assam was born. Today, it is the headquarters of North Eastern Coalfields.

▼ Pictured below is the MWGX class Meter Gauge Garratt locomotive. Strategically placed is a water column, common in the days of the steam locomotive but not seen today



While the whole of Assam lies in the east of our country beyond Bangladesh, the district of Tinsukhia, in which Margherita lies, is in the farthest eastern corner of the state. The only part of India that lies even further east is a sliver of Arunachal Pradesh that juts between Myanmar (the erstwhile Burma) and Assam. It is here that while we are still in deep slumber in far off New Delhi, the national capital, the rays of the rising sun first hit our country. It takes another 70 to 80 minutes before the solar orb peeps over the horizon in Delhi and even longer for it to cover the entire nation. Surely, for India, the title - Land of the Rising Sun - would be appropriate for the hills and glades, tea estates and collieries, oil wells and refineries, in this part of our geographically spread out nation.

I had occasion to travel to Margherita and the surrounding areas last year (2015) in February. What you see there is amazing; what you experience and the museums you are able to visit are more impressive than you can imagine. And, I am only referring to the prerequisite wishes of the rail enthusiast and not to those of a wild-life lover or birdwatcher, who would be as amazed and impressed as the former.

The most impressive, by far, was the Meter Gauge Garratt locomotive that I came across in the small well-laid and well maintained rail museum at Tinsukhia. Set up by one of its erstwhile DRMs, S. Mookerjee, in 2010, the museum has been named "Rail Heritage Park" and is a must visit for not only the steam enthusiast but any rail lover. The Garratt on display is the only Meter Gauge Garratt locomotive known to exist in India. Over 27 meters long, this MWGX class locomotive weighed an impressive 104.24 tonnes when loaded. On its 4-8-2+2-8-4 wheel arrangement, it could reach speeds of 50 kmph and haul a load of 300 tonnes. Built in 1945 by M/s Beyer Peacock Company Ltd. of Manchester, UK, for use during the Second World War in Myanmar by the British War Department, at the end of the war it was transferred to the Assam Bengal Railway which later became the North East Frontier Railway. The loco hauled trains on the Badarpur-Lumbding Section of the railway before it was retired in December 1975. It was re-numbered a few times and at the time of its condemnation, it bore the number 32086 MWGX.

Another prominently displayed locomotive at the park is the B-class No. 781. This is one of the oldest locomotives of the Darjeeling Himalayan Railway and had been sold to the North Eastern Coal Fields in 1969. By the beginning of this century, it



▲ B-class loco, atop MG bridge pillars

had become unserviceable. Thus, when NF Railway set up this heritage park, it was gifted back to the railway on the latter's request.

There are other B class locos on display at various locations. For example, there is one in the National Rail Museum and another outside Rail Bhawan in New Delhi. The uniqueness of this loco is its presentation. It has been placed atop a bridge pillar in the middle of a well-manicured lawn. The pillar itself is part of NF Railway heritage as it was one of the pillars of Meter Gauge railway bridge No. 556 between Naharkatia and Namrup stations. This bridge had been built around 1898 and just missed a century of life when the line was converted to Broad Gauge in 1997. The designers of the Rail Heritage Park were able to salvage this pillar and use it to display Loco No. B 781.

A third steam loco is on display in the Park. This is loco No. YP 2618, kept in a separate shed along with diesel loco 6114 YDM4. The YP loco, of 1957 vintage, had been built by Tata



▼ YG 3213 out side Mariani station



Engineering and Locomotive Company Ltd. (TELCO). In its heydays, it worked all the important trains of the NF Railway including the Kamrup Express, Assam Mail and Tinsukhia Mail. The conversion of major sections of the railway to Broad Gauge and the ongoing diesellisation and electrification spelt its death knell and it was retired from service in January 1997 after working its last train, 252 DN ex Ledo to Tinsukhia. With a 4-6-2 wheel arrangement, the YPs were the counterpart of the WPs of Broad Gauge.

If the sun was a steam enthusiast, it would be most pleased to be greeted by the sight of an array of steam locos as it peeped over the horizon in the land of the rising sun. Apart from the three locomotives at the Rail Heritage Park, there are other steam locos in the area to greet the rising sun. Next stop for the steams – the Coal Heritage Park and Museum at Margherita.

As you enter the Museum located right in front of the Margherita railway station, you see a string of three steam locomotives on your left. Painted in various hues of green, yellow, blue and pink, they certainly do not appear to have their original colours but are definitely very pleasing to see now. They are neatly displayed and even have mannequins posing as drivers. Named Hassang, John and Shelley, they had been built by WG Bagnall



▲ View of the museum at Margherita

Ltd. of Stafford, England in 1897, 1924 and 1930 respectively. All three have saddle-top water tanks and a 0-2-0 wheel arrangement to run on a 2-foot gauge.

During a visit to the Tepong coal field, not far from Margherita, I found a fourth example of the same WG Bagnall-built locos. This one has been named David and is again well-kept and preserved. In the same shed was also a B class loco, No. 796. One of the staff of the colliery who was present at the shed claimed that both these locos were in working condition. David was too well painted and clean to have worked recently, although it could well be in working condition. The B class loco, although not as spic and span as the Bagnall, did give the impression that it could work. However, I am giving the benefit of doubt to the colliery and assuming that the locos are in working order. There was one SAN diesel as well and in all likelihood bulk of the work is done by it and these locos used occasionally as and when required.

▼ An aerial view of the Bhogibheel bridge at the stage when piers were under construction



These are not the only steam locos one gets to see in the land of the rising sun. There is one more on display outside Mariani station. This is a YG 3213. Built by TELCO in 1960, it worked extensively on the Lumbding and Tinsukhia Divisions of NF Railway before it was retired in February 1997. YG locos were the counterparts of the YPs for working goods trains. As a result they had a 2-8-2 wheel arrangement with smaller diameter driving wheels than the YP, which had a 4-6-2 wheel arrangement. Till diesels and conversion to BG swept the steams before them, the YG was the main goods loco of the MG system of the Indian Railways. Smaller and lighter locos were used only where the track or the bridges could not sustain the size and weight of the YG.

Even after this impressive display of vintage steam locos, the land of the rising sun has more surprises up its sleeve. One of the surprises that came my way was at the Digboi Centenary Museum at Digboi. This is a museum of India's pioneering oil company and its main exhibit is the first oil well of the country. The well has been kept in its original state. However, in one of the disused alleys at the rear of the museum, I noticed what looked

▼ B-class locomotive at Tepong



like a steam locomotive and closer examination showed that it was indeed a steam locomotive. It looked like one of the WG Bagnall locos that were on display at the Margherita museum but this one had no markings of any kind although I looked at it from every possible direction. It was the same size as the Bagnalls with the same wheel arrangement and saddle-top water tank. The length of the chimney and some of the other fittings also corresponded. There was a diesel also lying just behind it, but fortunately this one had its manufacturer's plate intact announcing that it had been built by Robert Hudson of Leeds, England. The staff at the museum could not give me any details of either the steam or the diesel loco. There was an open wagon and some coaches also on this 2-foot gauge disused line. The only information that I was able to extract was that the steam loco used to carry trains of crude oil to the Margherita refinery between 1891 and 1901. The Margherita refinery was closed in the latter year. For the record, there are four refineries working in Assam now, located at Guwahati, Digboi, Bongaigaon and Numaligarh.

While moving around the land of the rising sun, the river Brahmaputra is the one item which is always not too far away. It effectively divides the state into two parts – North and South of the river. When a train line was first laid in this part of the country, there was no rail bridge and there was a ferry service that took passengers from the trains to Guwahati from the Northern bank. The railways ran this ferry service. There are now two road cum rail bridges across the Brahmaputra, one at Guwahati and the second at Jogighopa, obviating the need for any kind of ferrying. There is a third bridge, albeit a road bridge only, near Tezpur.

A fourth bridge across the Brahmaputra is now under construction

at Bhogibheel near Dibrugarh. When completed, its 4.94 kms. length will make it the longest road cum rail bridge in the country and the longest bridge of any kind over the Brahmaputra. The bridge is likely to be ready by 2018. A feature of this bridge is that the superstructure is all welded with no use of rivets or fasteners of any kind. This is going to be the first bridge of this kind on the Indian Railways. Constructed by Gammon, the 142 piers that make up the bridge are now ready. The superstructure is being constructed by a consortium of the Hindustan Construction Company, DSD Brouckenbau GmbH, Germany and VNR Infrastructures. In February, the first few piers had been covered. Accompanying this article is an aerial view of the bridge when the piers were under construction, and another photograph taken in February last year showing the steel work in progress. In the former, you can just about see the piers but the river training works are easily discernible and appear complete.

I strongly recommend that all rail enthusiasts visit the Land of the Rising Sun to not only see the rail heritage that has been preserved but also its tea gardens, animal and bird life, oil and coal fields, etc. This is also the area where you will find relics of the 2nd World War, such as the cemetery near Jairampur in Arunachal Pradesh. You may also be able to see remnants of the famous Stilwell road from Ledo across the present Myanmar into China. Last but not the least, there is the powerful and massive Brahmaputra, certainly India's mightiest river, that will make our other rivers appear to be drains at worse and streams at best. I assure you that your journey will not be in vain.

Aerial view of Bhogibeel bridge: Archives of Vinoo Mathur
Other photos courtesy: The author

▼ The Bhogibeel bridge pictured in February 2015, when girdering was in progress. The bridge is likely to be opened in 2018





TRAINS IN THE MONSOON

By Sridhar Joshi


I had been searching for an English word that means “better-than-picture-postcard-perfect”. It had been a futile search and it was certainly not on my mind when I embarked on a rail-fanning trip on the Mumbai–Madgaon stretch of the Konkan Railway during the monsoon. The monsoon in India is unique; its advent converts a dry parched brown landscape into one that is green, lively and animated. Cascading streams, temporary waterfalls, dark water-laden clouds prancing across the sky: these are a few of its visible manifestations.

The weather and the season are irrelevant when you leave Mumbai's concrete jungle. But a short hour into the journey, as you cross Panvel, the landscape changes dramatically. Greener-than-verdant-green mountain sides, gushing torrents at the bottom of valleys, the wet rocks and the winding train, all play out an entrancing sight for the eyes and a melodious symphony for the ears. The Konkan Railway's innovation of

nets spread across large tracts of mountain side to prevent rocks falling on the track instills confidence at a time when landslides can be quite common.

Tall mountains, deep valleys, all green, and paddy fields with saplings ready for transplantation are the enjoyable sights one sees during a trip at this time of the year. The train is slower, thanks to the precautionary monsoon schedule. The normal rail traveler may not like this but it is a godsend for the rail enthusiast as this lets him soak in as much of the scenery as he can. As it is, the introduction of lesser halts, high speeds and air-conditioning make it very difficult for the enthusiast to be able to see and note all that he would like to.

A short while after Roha, the Jagpudi and Vasishti rivers make an appearance. Reduced to narrow rivulets in the dry season, the monsoon has converted them into swift water-courses. Now here, now not here, as the train rumbles along the tracks, the rivers along with the green fields and the mountainside,



play hide and seek till Chiplun. The sight of the rivers is interrupted only by numerous tunnels that dot the route. The rivers never meet but disappear out of view after Chiplun.

The Chiplun–Ratnagiri stretch is pockmarked with winding tunnels alternating with deep ravines traversed over viaducts. The train glides and snakes through the tunnels – some very well lit and long, some short and dark – and waltzes across the viaducts, with waters gushing below. Entry into every tunnel is with a liberal shower of rain water gushing down the roof. The same is repeated at the exits as well. The wonder called Karbude tunnel – for a long time the longest tunnel in India (until the Pir Panjal in Kashmir







overtook it) at 6.5 kms. – is on this stretch. It took a whole 10 minutes to cross. Huge exhaust fans compete with the diesel exhaust – the former to keep the air fresh and circulating with the latter working hard to make this as difficult as possible. A heady concoction for anyone, let alone a rail fan.

Just two stations before Ratnagiri is a *Kushi* (Happiness) called Ukshi.

Let me explain. You see a tunnel, a small viaduct and the track amid tall mountains. As the train switches from one line to another, the single line doubling and then trebling, you enter the Ukshi station yard. Tall mountains are a perfect canopy for the heavy rain – you feel only a drizzle though heavy rain pounds the station. Between the mountains, the only things visible on either side are the signals for the three lines – both towards Mumbai and Ratnagiri, the rock cuttings and the platform surface. You will wonder at the futility of having a station here and of the misfortune some people have in working here in the absence of a *pucca* building and other basic facilities. Imagine the surprise as you see the station building in another rock cutting complete with toilet, SMs room, panel, relays for signaling and interlocking equipment,



fully electrified. It nestles amid the rocks and the mountains, and there was this ethereal look to the entire landscape – man can try but nature always wins. It was a wonderful sight. It doesn't need a camera – it stays etched in your mind forever. Ukshi ... *Kya Kushi* (What Happiness)!

The last of the season's Alphonso mangoes are still inviting – no matter it is already mid-July. Ratnagiri is the headquarters of the Alphonso mango growing area and the continued sight of these world famous mangos only enhances the already exhilarating experience.

The route beyond Ratnagiri to Madgaon is no different. Shiny, rain-drenched dark roads snaking through tunnels and prancing over viaducts are constant companions along the train route as are lovely sights of terraced farming on the sides of the escarpments. The bridge on the Zuari is

another treat to behold just before you reach Madgaon.

Monsoon or not, if you are a fan of good food along with rail fanning, make both the outward and return journeys by the Mandovi Express, a late morning departure at both ends, and a late evening arrival in Mumbai for the 550-km trip. The range of food is simply amazing – the specialties being the chicken lollipops, methi kababs, sabudana vada, etc. These are items not normally found on trains. What better way to spend the time than to savour these delicacies with the rain pounding on the roof of the train and not a care in the world!

As I came back to Mumbai, the answer struck me: I had found a phrase that equaled “better-than-picture-postcard-perfect”. It was the Konkan Railway during the monsoon!

Photos courtesy: Lalam Mandavkar & Apurva Bahadur





The Time Table Nostalgia!...& other tidbits!!

from the archives of BMS Bisht

The following are extracts from the East Indian Railway (EIR) Time Table (in force from 20th December, 1943 until further advice) published by the EIR Press, 1943, Calcutta. The price of this tome was the then princely price of 2 annas (About ₹ 0.12 in today's currency). Comments of BMS Bisht are in parenthesis.

The only Indian officer in the EIR Headquarters in 1943 was the Chief Operating Superintendent, Mr. N.C. Ghose, OBE, M.INST.

'UPPER' AND 'LOWER' CLASS OF TRAIN SERVICES

Train services containing two classes of accommodation only, viz. (1) 'Upper' class and (2) 'Lower' class run over the following Branch lines or Sections of Branch lines of East Indian Railway in entire substitution of the ordinary train services carrying first, second, inter and third class passengers on these Branch lines or Sections of Branch lines.

1. Ikrah-Gaurangdi Section of the Oundal-Gaurangdi Branch (Oundal loop)
2. Dhanbad-Garh-Phularit and Chandpura Section
3. Dhanbad-Lodna-Pathardihi Branch
4. Dildarnagar-Tari Ghat Branch
5. Balamau-Sitapur Branch
6. Shahjahanpur-Sitapur Branch
7. Najibabad-Kotdwara Branch
8. Raiwala-Rishikesh Section of the Hardwar-Rishikesh Branch

(I used to find 'Upper' and 'lower classes in bus travel in my native district of Garhwal (Uttarakhand) from 1950s to late 70s but never had heard of it on the railways! – BMSB)

RESTAURANT CAR SERVICES

Train No	Stations between
1 Up and 2 Down	Howrah - Delhi
3 Up and 4 Down	Howrah - Bombay
5 Up and 6 Down	Howrah - Moradabad

(Today, there are no restaurant cars (also referred to as dining cars) on any train; some trains have pantry cars only. The last remaining dining car on the Deccan Queen was withdrawn in December 2014. There was one on the Narrow Gauge (NG) for DRM's inspection tours, etc. on the NG sections in Nagpur Division of SE Railway. There is one on the Darjeeling Himalayan Railway but it is not part of any regular train. This NG diner has been romantically christened TENZING NORWAY. It can be hired to run by itself as a train (it has a guard's brake van too in the dining car itself) or be part of a specially chartered train. Most memorably this diner features prominently in the well-known Hindi movie, PARINEETA, where the hero, Saif Ali, and the heroine, Vidya Balan, are seen romancing in it!)

RETIRING ROOM AVAILIBLTY

Following stations are mentioned ; Howrah, Jamalpur, Asansol, Cawnpore (now Kanpur), Najibabad and Hardwar (now Haridwar) along with types of retiring rooms as well as the rates for adults and kids and the method of booking them. Detailed rules are said to be exhibited in the rooms.

Other very useful, interesting and customer-friendly indicators were:

Explanation of the symbols, abbreviations and indices in the Time Table:

- * Tea and coffee
- + Hindu refreshment room

- # Mahomedan refreshment room
- / Hindu tea stall
- Mahomedan tea stall
- ^ Refreshment room
- = Retiring rooms
- a Afternoon tea
- b Breakfast in refreshment room
- d Dinner in refreshment room
- e Early tea
- u Lunch in refreshment room
- ** Dinner in Restaurant Car
- B Timings of light trains are liable to alternation at short notice

(Note: What's a 'light train' I am not sure!)

L Lower class only

UL Upper and Lower class only

QS Carriage will be placed in a quiet siding on arrival or before departure to enable passengers to entrain at convenient hours or at day break"

(Note: These indicators unfortunately don't exist in today's time tables! Why? How I wish Indian Railways today could 'adopt' its passengers like this wherever necessary !)

Touch Screen Technology & Indian Railways

Indian Railways and Palas have always been pioneers. Way back in 1999, Train enquiry information kiosks were launched by us using the then unheard of touchscreen technology. We remember standing at VT station in Bombay, watching people queue up to use this innovative system, with many waiting just to try the touchscreen without any real interest in the information ! Over the years many more applications have been developed by the Railways, of which some are:

- Passenger Operated Enquiry terminal
- PNR Status
- Automatic Ticket Vending Machines
- Crew Management System for rail lobbies
- Workshop management

Most of these use 170LCUM or 170PCUM Touchscreen Monitors by Palas, which are widely used because of high reliability.



CMS Kiosks with breathalyzers



Ticket Vending Machines are very popular

PALAS Touch Systems

Palas Touch Monitors and Touch Computers, based on 3M Capacitive touch technology, offer fast, accurate and up to 40 finger simultaneous touch. Unique metal frame PCs for use in harsh environments. Rugged design. Easy mounting through VESA mounts. Smooth, easy-glide surface coating. Anti-reflective.

Designed & Made in India with less than 50% import content

Touchscreen kiosks & tables



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Palas manufactures in India:

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The background of the page features a faded, sepia-toned image of a steam locomotive pulling a train. The locomotive is on the right side, emitting a plume of white smoke. The train is moving towards the left. The overall aesthetic is that of a historical document or a vintage poster. The title 'Vintage Gold Passes' is prominently displayed in the upper half of the page. 'Vintage' is written in a large, dark red, gothic-style font. 'Gold Passes' is written below it in a smaller, orange-gold, gothic-style font. The background also has a subtle, repeating pattern of ornate, light-colored floral or scrollwork designs.

Vintage Gold Passes

It is not too well known outside railway circles that on the Indian Railways, staff at the managerial and administrative levels, or what we call Gazetted Officers in bureaucratic parlance, are issued token metal passes for travel on duty. These metal passes look like coins and are indeed minted at the Government of India mint at Kolkata. At junior levels, the metal pass is made of bronze. As you go up the ladder and reach administrative levels, your metal pass becomes silver and at the General Manager and higher levels, the pass is golden. Thus, there are 3 levels of metal passes: bronze, silver and gold. These are issued to you only when you are in the chair and as and when you are transferred or leave the chair for any reason, the pass is withdrawn.

There is an apocryphal story of the then General Manager of the Western Railway zone, H P Mittal, having completed his train journey to Mumbai (then Bombay), leaving the Bombay Central station. As he walked out of the exit, the Ticket Collector at the gate stopped him and asked for his ticket. Even before the General Manager could respond, his personal assistant, security person, the station master and others who had come to receive him, pounced on the hapless Ticket Collector and pointed out with the greatest vigour that this was the General Manager and

how dare he stop him and ask for his ticket. However, our Ticket Collector stood his grounds and was adamant; he insisted on seeing the ticket or the gold pass.

Fortunately, the General Manager had his pass with him and showed it to the Ticket Collector. On seeing the pass, the latter was immediately at attention and giving a smart salute to the General Manager, said, "My apologies, Sir, but I wanted to see what a gold pass looked like."

You see, the General Manager being the top guy in his zone, he is readily recognised or has enough hangers-on accompanying him so that there is never any need to check his gold pass or any other authority to travel that he may have. Thus, it is quite rare that a mere Ticket Collector would get a chance to actually see a gold pass.

If a ticket collector does not get to see a gold pass, then the chances of a rail enthusiast seeing one are even rarer unless a General Manager is his friend or he is the incumbent's secretary or personal assistant. Be that as it may, we present to you in this write-up three vintage gold passes that were used by the erstwhile company railways in the days of the British Raj before India gained independence. These passes are in the

possession of an erstwhile railwayman, Arjun Israni, who also happens to be a coin collector and has a penchant for old Indian coins. Arjun joined the railways as a Special Class Railway Apprentice of the 1961 batch and after being inducted into what is now called the Indian Railways Service of Mechanical Engineers, did not stay long with the railways. He migrated to the USA and plunged into semi-conductor technology. All the same, he did not forget his railway roots and added these gold passes to his extensive store of coins by bidding for them in an electronic auction organised by the Classical Numismatic Group Inc.



very big and the design allows the holder to carry it in his or her key chain. Overall, a simple metal token with a simple design. For the record, the silver and bronze passes look very similar.

The gold passes of yesteryear were far more ornate and attractive. Since there was no single railway in the country, each railway could have its own design. Here is the first of the 3 passes in the possession of Arjun Israni.

This pass, pictured above, was issued by the Sind, Punjab and Delhi Railway Company, Circa 1870. Arjun had to compete against 4 bidders and finally was able to get this, the oldest and the rarest of the 3 passes he purchased. Weighing 7.54 gms. of solid gold, it measures 21 mm x 31 mm. An artistically designed pass, it comprises of an oval ring with open granular work having an overlay of an anchor. The shank of the anchor forms the head of the suspension ring, which is also included. The anchor was perhaps incorporated owing to the fact that the Sind Punjab and Delhi



But wait! Before we examine these vintage passes, let us first look at what a gold pass looks like today. It is issued to the Chairman and other members of the Indian Railway Board, the Chief Commissioner of Railway Safety, General Managers of the various zones of the Indian Railways as well as any other official who is at the same level of seniority as a General Manager. Although called a gold pass, it is not solid gold but only gold plated.

You can see a gold pass pictured above. It has the National emblem with its three lions on one side and the Ashoka Chakra on the other. The side with the emblem has the words "Indian Railways" and "Free Pass" written on it in Hindi while the other side has the same words in English. This side also has a number which is simply a serial number. With a diameter of 27 mm & a thickness of 1.6 mm, the gold pass is not



Railway Company grew out of the expansion of the Indus Flotilla, a steamship company established in 1859. The Indus Flotilla merged with the Scinde and Punjab Railway, which was later christened as the Sind Punjab and Delhi Railway. In 1870, in more or less the year this coin was minted, the Sind Punjab and Delhi Railway completed the Amritsar-Saharanpur



Ghaziabad line, thus linking the Punjab Railway with the East Indian Railway and providing a connection between Multan in what is now Pakistan and Delhi.

The second pass which you can see on the previous page, was issued to the Chief Commissioner of the North Western, the Oudh & Rohilkhand and East Bengal Railways, Circa 1909 or later. These were all State Railways. This is another beautiful coin worthy of being issued to a Chief Commissioner. Tipping the scales at 8.41 gms., its diameter measured 23 mm. One side has "PASS FIRST CLASS" inscribed on an ornamented background, all within an angled quadrilobe. There is additional stellar ornamentation around the legend. The reverse side shows an 8-pointed star within which the number 30 is engraved on a large radiate sphere. It is not clear what the number 30 meant; perhaps a serial number.

The third pass (pictured above) is not only equally beautiful but interesting owing to the map of India that is engraved on it. Heaviest of the 3 coins, it weighs 10.92 gms. and measures 28 mm across. Manufactured Circa 1909 or later, the map on the coin is of an era when Calcutta (now Kolkata) was the

capital of the country. Other major cities that the railway served are also shown. Among them are Lahore, Delhi, Bombay (now Mumbai), Madras (now Chennai), Calcutta and Rangoon (now Yangon). The last named is in Burma but is shown since Burma was separated from British India only in 1937. The map is inscribed within a pellet and dash border.

The reverse side to the map has a 5-rayed star in the centre within a radiate circular border. This is more or less circumvented by the legend "INDIAN RAILWAYS" and the number 11 stamped at the bottom. This number is obviously a serial number and is stamped unlike the number 30 on the 2nd coin. The legend and number are within a double pellet and dash border.

Last but not the least, these old passes are made of solid gold. Today's gold pass is roughly the same size but is only gold-plated. Unlike the old company railways, perhaps the Indian Railways cannot afford to mint the passes in solid gold.

Photos courtesy: Arjun Israni

... Rejuvenating a Haggard Soul

Jyotsna Prasad

It was only after a few train rides on the Nilgiri Mountain Railway that I discovered the magical power of train journeys – the power to rejuvenate a haggard soul, the power to revive interests that stay frozen in the routine of life. Believe me, train rides in the Nilgiris are a goldmine for a creative mind and a universal wellspring for a thoughtful one.

The uphill journey from Mettupalayam to Ooty (short for Udagamandalam, earlier Ootacamund) begins at the break of dawn. A train of four indigo coaches is propelled by a steam loco in the rear. The track is designed specifically for mountainous regions. The passengers watch the vintage steam beauty in rapt attention. It paints a surreal picture which fires the imagination, literally, at the outset. When the loco gives a full-



Jyotsna Prasad is a railway wife. While her husband was the Divisional Rail Manager of Salem Division of the Indian Railways, the Division that includes the Nilgiri Mountain Railway, she used her time to travel up and down the Nilgiris by train, soak in the mountain atmosphere and ambience, and most importantly, freeze her feelings in writings, jottings and paintings. On these pages, you can read into her exuberance and see her enthusiasm in her paintings.



throated clarion call in its ear-splitting but soothing voice, it marks the beginning of an extraordinary journey. The passengers rush to occupy window seats that would unfold the most awaited panorama.

This journey is special as one gets transposed into the bygone days of steam. The chugging of the train at a slow pace adds romance to the experience, lacking in today's jet age. An exquisitely beautiful backdrop is set by the most gifted sculptor and painter – Nature. The entire journey of almost three hours rolls out picturesque locales one after the other like a series of picture postcards.

It begins with a stretch of moist grass gleaming yellow in the sunshine that suffuses the atmosphere with a flash of energy and enthusiasm. It slowly makes way for richer vegetation, taller and stronger trees and more imposing rocks – all indicative of the grandeur and dominance of nature. The thrill increases as the train glides past some



There are many tunnels that the train passes through. These are special attractions for the travelers who see the light fading into darkness and darkness giving way to light in just a few minutes. The train just about to pass through the tunnel looks steely in its determination while the train emerging out of it looks victorious. There are several overhanging rocks that are tourist attractions. There is one that forms a half arch across the track. It gets maximum camera clicks as it looks like a gateway to a paradise on earth.

The waterfalls on this route are a treat to the eyes. The

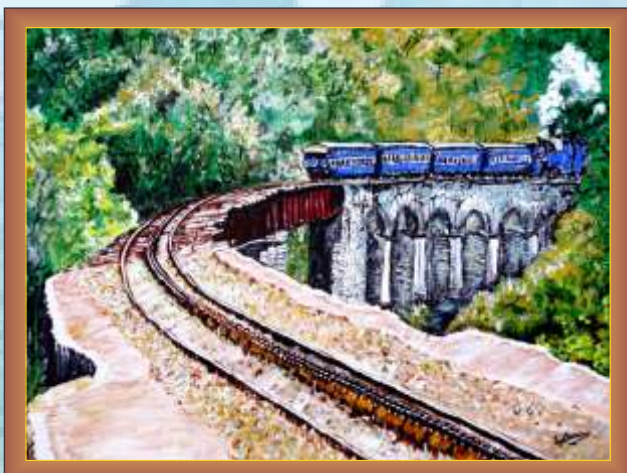
iconic structures. The passengers peep out of the windows and stretch out their hands to shoot those spectacular views. The train journey on this route left me with some priceless memories and magical experiences. It has enriched my artistic temperament. I have carefully preserved in my mind the wealth of images that find expressions in my writings and paintings. If words fall short, I make the brushes do the talking for me. **(You can see some of the paintings on these pages – Editor)**

The train looks most fascinating and captivating along the curved bridges. Like a trapeze artist, it appears to balance itself over the deep valleys with an unparalleled grace and charm. Several cameras spring out of the windows to capture the beauty of the train in such circuitous stretches. Suddenly, all attention gets diverted on hearing a gentle murmur of a rippling rivulet flowing underneath. The sudden narrowing of the path with a dramatic drop adds an element of thrill and adventure. For a moment, the train looks suspended in midair.



gush of cascading water breaks the rhythmic rattling of the moving train that predominates the whole journey. When the train halts at stations, passengers get down to sip a cup of coffee, munch some snacks or simply gaze at the expansive landscape. There are some points that give vantage positions to get a birds-eye view of the train snaking through luxuriant vegetation. A guard waving a flag seems to be fanning the passions of rail enthusiasts.

The hanging plants and trees sometimes make natural canopies for decorating the wilderness. Some dilapidated houses on the way tell the story of the terror of wild elephants that might have forced their evacuation. There is a plaque that glorifies a gang-man crushed by elephants while on duty. The train winds its way through the areas covered with thick tall trees. The words of Robert Frost, 'The woods are lovely, dark and deep, but I have promises to keep, and miles to go before I sleep' remind us to be on track always, taking occasional short pauses for unwinding.



The verdant patches of tea gardens bring about an unexpected change in the rocky region. The gardens are interspersed between multi-layered terraced farms that tell their story of the toil behind making ends meet. A few houses peppered here and there stand out in sharp contrast to the lush green background. These grow denser as the train moves ahead. It suggests the arrival of a bustling city: the journey's end. With journey ended, so does the enthusiasm. As in life, it's always the journey that teaches more lessons than the destination.

Note: All paintings with this article are the creation of Jyotsna Prasad. The photograph is courtesy VM Govind Krishnan, a rail enthusiast and lover of the Nilgiri Mountain Railway.



Rail Fans

A fan following of celebrities is well known to us. But, fans of the Indian Railways? Unthinkable! Difficult to figure out!! One has to see to believe almost a hysterical fan following that the railways command: a following of non-railwaymen. These are fans for whom trains rule their hearts, soothe their souls, run in their veins and keep their minds one-tracked to think of nothing but trains.

I got a firsthand experience of the superlative enthusiasm of these besotted fans, from different walks of life, gathered in Ooty for the annual IRFCA (Indian Railways Fan Club) convention. The air was resonating with their undying love for trains. The effusive spirit of bonhomie among them added zeal and fanfare to the meet. They all had their I-cards slung around their necks looking like railway tickets. The effort was to highlight the character of the Indian Railways in every possible way. This happened to be the 9th Convention of the IRFCA at Ooty to commemorate the 25th year of the existence of the organization in February 2014.

The excitement was indeed infectious. I felt a sudden quest in me to excavate the rich history of the railways. Be it in the meeting or during lunch, the topic of conversation was only Railways.

We jostled through the cheering crowd to catch a glimpse of the steam loco, the black beauty, that hauled the train. A magnificent steam loco standing tall was a sight to behold: a creation of yore, yet reaffirming its supremacy, simply refusing to fade away in the sands of time. Blowing a loud whistle, puffing smoke, it lurched forward, majestically, producing a musical ensemble of pace, rhythm and beats. The entire crowd of enthusiasts gravitated in its direction, as the 'Nilgiri Queen' started chugging along, to capture every movement on camera.

While admiring the panorama through a window and nearing our destination, I felt pangs of wanderlust in me. There are so many routes to be explored, destinations to be reached, and what better way to do so than on a train!

NATIONAL STEAM CONGRESS

Keynote address

by Alexander Karnes

Alexander Karnes. *Biological age – all of 22 years; Steam enthusiast age – chronologically perhaps less than the biological, but in terms of passion and application, definitely more than a golden jubilee.*

In spite of his youthful looks and teenaged appearance, Alexander Karnes held all the steam veterans in the audience spell-bound and mesmerised by his obvious dedication and devotion, feelings and fervour, excitement and enthusiasm, not to mention affection and attachment, towards live steam in general and steam locomotives in particular, when he was the keynote speaker at the National Steam Congress conducted by the Indian Steam Railway Society on the 21st of November 2015.

His keynote address at the Congress is reproduced on these pages...



▲ Alexander Karnes

Greetings you all, I am so happy to see you and so honored to be here.

You may all be wondering what is some strange 22 year old kid from the United States doing up here talking to you at the Indian National Steam Congress, and in fact I am wondering the exact same thing. I am just as stumped as you

are, so I will be doing my best to relate how it happened, among other things.

I grew up among sailing ships on the Connecticut Seaboard in a not very noteworthy family and I had no sort of background to speak of, no family name, no inheritance or legacy or any of that sort of thing, and as such I had very few resources.

What I did have, however, almost from the embryonic stage, was a passion for the steam engine. I was as helpless to explain it as anybody else was, my family had no ties to railways or any sort of proper or historical engineering background involving steam engines of any kind. My father held a dismal union job for a while at General Dynamics as an

engineer slaving away for the ridiculous organization that is the US Navy, but none of that seemed to have any bearing on where my passion came from.

Luckily, I had the sort of parents who wanted their child to be as literary and world-educated as possible, something I am incredibly thankful for. Rather than sitting me in front of screens to have those sterile little videos teach me to read, they brought me home books and technical literature and let me struggle through it from a very young age. The thing was that I instantly gravitated toward was photographs in these books of steam locomotives and other complex machines with what I have been told was an insatiable thirst. As such, I began to demand very quickly, books of railways, locomotives and the mechanical to the exclusion of almost all else.

I do have some memories of those early days, quite vivid memories that I somehow retained over time, and I remember the childlike wonder and hunger I felt at that time when examining the unfathomably complex spider-web of deliciously visible moving parts that hung between the wheels of a steam locomotive and myself. An experience that profoundly moved me was when, at an age below five, I had the very rare opportunity, at least in my country, to see my first working steam locomotive, hot and alive and breathing. This was before I could speak or otherwise convey useful information, and it was a chance visit by my parents to the railway on which it ran. It was in fact just after my brain had begun to comprehend what a steam locomotive was and it was to make the context for the very way I saw the world.

But I remember that day like a crisply shot film; my parents told me that I sat there – transfixed. And I was transfixed by this immense presence, this ugly, beautiful, warm, symmetrical thing. It stood naked to the world, bearing its mechanical principles obviously for all to see. It wafted white breath everywhere and it was almost silent, it had a dynamic aesthetic arrangement which seemed to hit every pleasure center of my thinking and feeling brain.

I was calmed by this living object profoundly – until the safety valve went off. I had many problems at that time including very sensitive hearing and I remember the searing pain I felt and how terrified I was suddenly. But as the shock wore off after I had screamed to be taken away, I did not find my love or enchantment with this strange, horrible, wonderful new thing deterred in any way; in fact, it was stronger, something had touched the deepest part of the thing that was me and there was a connection now which could



▲ Touched by the sun

not be and has never been severed. When came the first time I was able to look into an open firebox door, I felt like I had been touched by the sun.

I wanted to commune with this music and this motion.

It was then I discovered the unpleasantness of the people surrounding it. Being an enthusiastic young man around preserved steam locomotives in the US is something very difficult because you quickly discover that, with a few exceptions, almost the entire body of people responsible for these machines is composed of angry and paranoid old men. My curiosity earned me such remarks as “Get away from there” and “Keep your hands off that, you stupid boy” even when I had asked very politely about this or that. I got to thinking from a very young age, “Wow! Isn't this a fantastic way to get the younger generation involved and educated with maintaining and working these machines?” Especially since I then so often heard the same men complain fatalistically about how steam would surely die with them, as there was no young blood.



▲ Alexander in action

I began to notice something which we must all be aware of here and now; when steam engines vanish as a widely used form of power in a society, the further back in history they become, the more unrealistic the ideas that form around them. Where I am from there is a sort of mental barrier that working on the footplate of a steam engine is a task reserved for some Olympian god rather than a normal person, and that any locomotive in steam is an imminent destructive force that must be buried under heaps of liability insurance.

And this, I do not believe is a pragmatic viewpoint. Despite this, I still wanted to commune.

Luckily, my thirst for knowledge was broader than just steam locomotives. My father often took me to General Dynamics where I learned what things like “tensile strength” and “coefficient of friction” and “thermal flux” meant. I had the fortune of receiving, completely informally and on my own terms, an education in modern engineering terms and practices; my powers of observation of the analytical were honed while my love and interests kept me grounded in the reality and better practices of the old empirical engineering.

I got a chance to drive my first steam engine when I was five, a beautiful if not poorly maintained traction engine at the Chester Fair, and then the same locomotive that I had first seen in my infancy some years after that, although that was under supervision and on a short length of track in a yard on a quiet day. When I discovered there was such a thing as working miniatures, called in my country “Live Steamers”, I was instantly obsessed with the idea of having one. Each new thing I learned built upon my dynamic understanding of the steam engine, and every time I learned about something like

▼ With a “Live Steamer”



compounding or independently controlled valve events it was like an epiphany. Fortunately, I had a very graphic and trigonometry-gear-ed mind that could take apart concepts like this and I would later put this to use at making artwork.

Since that time, I have managed to befriend quite a lot of the right sort of people and through their generosity have been given the opportunity to fire, drive and engineer many different steam engines of all sizes. The wonderful thing about this sort of learning is that each new machine has a totally different personality, configuration and set of characteristics and it keeps one's brain fresh and adaptable to new machines presented to him.

Yet, my appetite for it was never satisfied. Due to the general lack of steam engines present in my country, the incapable state of my family to travel, and the incredible geographical distance of them from my location, I never had enough access to really

practice and become familiar with processes such as regular running of any one engine or long-term overhauls.

When I obtained my Pacific, which my friends and I dubbed “Lionheart” due to a very fiery personality and a trait of being free-steaming, I could not be parted from it. Upon taking it to the track up north, I had it in steam as soon as I arrived there in the morning. Through several flue-cleaning sessions,



▲ On a steam roller

we kept it in steam all through that day and the following night. When the crude lighting system I had rigged failed, I insisted in continuing to run by glances at the gauges by moonlight and by judging the water level and pressure by the sound of the exhaust up the chimney.

We went lap after lap until the riding car, which was woefully inadequate, quite literally snapped its truck kingpins underneath us and we could no longer travel behind the engine. Even then, I kept it in steam overnight and into the next morning and borrowed another riding car, and off we went again. I was quite useless that afternoon, having had no sleep, but I was quite happy.

This intense interest in steam also



▲ Alexander and Phil Christopher



▲ With Phil

and most of its credibility. I had always loved documentaries in the first place but this one struck me particularly in that not only was Linda Hunt probably the best narrator ever used in any such film, but I saw for the first time, truly, what happens when you take a completely utilitarian technology like a steam locomotive and give it to the diverse spirituality and cultures of a place like India. What I witnessed was a transformation and a description of this technology that shook my perception of it; it returned me to

brought to me my dearest and most cherished friend, Phil Christopher. Phil and I met via a shared spiritual passion for steam engines and actually discovered each other via the other's artwork on the subject. He and I have since shared many experiences with these engines as well, and what I was principally amazed with was that even with practically no access to steam engines at all until recent years of his life, he took to the controls and the fires of both the full size and the miniature instantly. He has a predisposition for it. During the winter, it is quite often now that he and I man the controls of an Oreinstein & Koppel built 0-4-0 Well tank, two feet in gauge, and switch off regularly between firing and driving as we ferry passengers between two ski lifts.

And so the story continued on and still does, with railway, traction, marine and stationary engines of whatever type I could find. I had also decided quite early on that I not only wanted to run these engines but repair them and, eventually, build them. An experienced model engineering machinist by the name of Todd Cahill took me on as his apprentice, where I learned many things, and where I learned that I needed to learn so much more. Steam engines had always been very crude in the United States by a general rule. I had fallen in love with the Steam of the

World from many of the books my parents had brought home. Among my favorites were the *World Encyclopedia of Locomotives* by Colin Garratt, which to me was quite truly like a window to another world and the reason I failed quite a lot of school classes.

I found the steam of Spain immense and regal; I found the steam of France precise and scholarly; I found the steam of Early England mysterious and deep; I found the steam of Asia as colorful and enchanting as its people. The strangeness of the Garratts and Kitson-Meyers in Africa and Bolivia and Algeria instilled in me a love for the atypical; the ABT rack mallet locomotives of Floridsdorf made me love the versatile; and the three, four and six cylinder compounds of France made me love the experimental. I loved the bright colors and sharp smoke deflectors of Czech locomotives, and I developed a particular fascination with the strangely shaped smoke box doors used in Austria and Hungary.

Now, the reason I am here in India started when Phil showed me a documentary which I am sure many of you are familiar with, a documentary called the "Great Indian Railway" made by National Geographic, before National Geographic lost its marbles



▲ Love of live steam

where I had been touched by that first locomotive so long ago.

The language used in the film by the narrator and more importantly the many Indian people to talk about these engines -the reverence and the love and the connection- described to me what I could never describe to myself.

People had asked me why I loved the steam engine before this and I had never known how to answer, but this documentary answered it for me. I would only ever find such descriptions

in one other place, and that was the ending passages of David Wardale's book on "Red Devil".

When I saw the black beauty contests and the reason and purpose behind them, I felt that I had come alive on the inside, and I felt like I was seeing what I had always wished to express with and through these locomotives being done by other people in a place a world away. When I heard a driver was assigned one engine for life, I found myself profoundly wanting to live that experience. I fell in love with the black beauties of India in a way I had never felt about steam anywhere else. As I watched further into the film, I witnessed the death of steam in India. And it was not put in in a mysterious way behind curtains. I saw how the engines were cut apart and destroyed, and I saw the pain of Mister Aurora and his railway family. I saw the connection breaking in people I dearly wished I could have met. It broke my heart, it brought me to tears and still does almost every time I watch it, and as ridiculous as this may sound especially to my Western culture, it caused a profound emotional crisis in me.

I wondered how and why this happened, and more importantly how I could correct it. I also felt very inadequate in that for everything I had done, I had never even been presented with the opportunity to remove or reinstall a single super-heater element or a new set of flue tubes. The fact that this essential sort of maintenance was such a rare and seldom-practiced skill in today's world frustrated me.

I spent a long period of time scouring the Internet, namely Mr. Dickinsons' International Steam Pages, for ANY information I could find on steam in India, and when I found out about anything, however small, I latched onto it. I read about the Garratt at Kharagpur, how it was so lovingly

restored and how it then seemed to disappear after two runs. I read about WP 7015 and how it was run to celebrate the 150th year of IR, and then how it also mysteriously disappeared. I read about the boiler failure of the Lion of Punjab, I read about the struggles of steam on the Darjeeling and the Matheran, and the highly atypical oil firing conversions at Nilgiri. I scraped up anything I could find.

It was in 2009 that I found an incredible and heartening report on the International Steam Pages mentioning a place called Rewari shed. I had read about it some time ago but I did not think much about at the time because it seemed to have had a very short renaissance in the early 2000's and then went totally silent. But when I read the plans, the truly grandiose plans that I had a lot of trouble believing would actually come to fruition, and then saw them being put into place, I felt as if a great deal of my hopes had been answered.

I immediately decided I had to get in contact with those responsible for the effort. Luckily the reports were dense and inclusive and easy to follow, from photographs to detailed descriptions and even a website. Two names stuck out to me, Ashwani Lohani and Vikas Arya. In fact I heard Mr. Arya's name so much that I decided to get in touch with him any way I could. The first thing I did, without success, was leave a comment in the signature book of the new Rewari website. I then traced the videos being uploaded to the site to a YouTube channel called "Steam man of Rewari" which Mr. Arya was running, and sent a message there. Again no success, as I expected.

Despite devoting much of my energy into establishing contact, I actually very much expected to never hear back because of how busy he most assuredly was and the fact that in my upbringing I had become used to the fact that sending a message to someone in a position such as Mr. Arya's was the equivalent of sending a message into empty space.

I figured at best I would let him know my profound thanks for the magic he, Mr. Lohani and their crew of 25 were doing at the shed.

I was amazed, then, when Mr. Arya responded with a thoughtful and sincere message. It was in fact one of the kindest gestures anyone had ever made to me. I then made up my mind to try any way I could to actually get to India to somehow be a part of this renaissance at Rewari. I also had the privilege of Mr. Arya becoming a fast friend of mine although we never met face to face, and I was always humbled at the time he took out of his busy day to respond to my questions.

Sadly, being in university takes up all of your time, and in the United States it



▲ On an Oreinstein & Koppel

will financially bleed you dry as attending any sort of capable university over there is quite literally financially impossible. As such, my savings were

extraordinarily meager and every year I tried to arrange a trip to India I found it logistically and financially impossible, and it did not help that my family actively worked to prevent such a trip out of undue worry.

This year, however, unfolded a bit



▲ WP 7161 at Gurgaon station on the way to Rewari on 22nd November 2015 with Alexander on board

differently. Mr. Arya again surprised me positively and completely caught me off guard when he informed me I had been made the keynote speaker of this congress. I was dumbfounded and did not know what to say, and furthermore I was absolutely terrified because I am, if it is not evident to you already, unused to public speaking. Truth be told I came over here to work with the engines at the shed, I had no intention of speaking in any way, shape or form, but as I am often told life rarely ever goes as planned, and I am very grateful for this.

To stay on focus, however, I am told of a mainline steam trip to Rewari tomorrow, and I would like to participate in it any way I can. I hope to travel on the footplate with Phil and try my hand at whatever needs doing on the locomotive. And when we get to the shed, I want to work.

I love Rewari shed and the dream that surrounds it very dearly. It is our common vision of a paradise for

preserved steam power. I have, however, been informed that the Shed is ailing as of recent times. Mr. Arya and Mr. Lohani are truly visionaries and I fear their moving away from the influence of Rewari shed has affected it. I am told there have been no steamings of Meter Gauge locomotives at all for at

least a year. Mr. Lohani is now out improving Air India, and from what I have read thus far he is doing a very good job.

One thing is quite clear to me and that is you cannot keep even a single steam locomotive running without resources. In this they are just like human beings.

Rewari blossomed in

a way that I have almost never seen in steam preservation when Mr. Arya and Mr. Lohani procured resources for it. From what I have been told by those via internet correspondence and by Mr. Arya himself, it is starving for those same resources now. The Rewari website is completely gone now.

The first thing I would ask of the Indian Railways itself is to establish a department specifically for the preservation and restoration of heritage. It also seems to me that the steam specials and other steam activities are not advertised nearly as much. The next thing I would ask of all of you is to keep working steam power realistically. Try to avoid loading the steam locomotives up with copious amounts of unnecessary modern equipment, and keep a pragmatic attitude to their maintenance and care. There comes a point at which there can be too many formalities, which can inhibit the operation of the engines.

I have ideas on how Rewari shed's

infrastructure and maintenance practices might be improved using very little resources. The first suggestion I had stems from the truthful statement that a clean locomotive is a functional locomotive. The suggestion here is the steam-lance, a very simple system of routing a small pipe off of the main steam turret of the boiler running to the smokebox with a cock at its end, placed along the side and outside of the smokebox. Here can be fitted a flexible steam-hose when usage is required and steam supplied to it readily with this valve. At the end of the hose there should be a long and narrow pipe with a selection of changeable nozzles on its end, the pipe should be long and narrow enough to fit down the length of the inside of a boiler tube. Cleaning the flue tubes, firebox and smokebox with a jet of the locomotive's own steam not only does a good job of dislodging caked on tar and refuse, but is also cleaning the boiler with a working fluid that is at its own

Mr. Karnes and his friend, Mr. Phil Christopher, extend their enthusiasm for steam locomotives to sketching and drawing these black beauties. The calendar produced by the Indian Steam Railway Society for 2016 is a collection of sketches done by them even before they had ever set foot on Indian soil. All the sketches were done from photographs. A page of the calendar and two of the sketches can be seen alongside

temperature and does not thermally shock the metal, a risk when using water or compressed air to clean a hot boiler.

My other suggestion regards the Meter Gauge track configuration. I am aware that since the Meter Gauge's cutoff to the shed there is practically no room to run or handle the meter gauge locomotives there, and as such they have been neglected. I believe that the two isolated straight sections of Meter Gauge track should be extended to the turn-table, upon which the track could be "dual-gauged", this will allow transfer of locos between the two Meter Gauge stall lines as well as their turning. I also suggest that eventually the entire line from the turntable into the Broad Gauge stall, and the outer Broad Gauge track should be dual-gauged to possess both broad and meter gauges to further extend the workable area of Meter Gauge stock. I have many more suggestions of this

nature but those I will not waste your time with on this presentation!

My last and perhaps most important suggestions are not for those in India, but rather my colleagues and fellow steam enthusiasts around the world. In order to keep India's steam alive, those in the government need to see that it is timeless and appeals to the whole world. I call on everyone I speak to, and everyone my words will reach far away from here. When you come to India to see her beauty, buy and book tickets on the steam express trains. Request that special trains used to tour across the country be pulled by a steam engine, express special interest in it. Contribute financially in any way you can if you can be sure the money will be used to upkeep the steam locomotives, again I ask you to buy tickets. If they are not available, ask that more steam specials be instituted, and I urge anyone who can bring knowledge and strong hands to come and voluntarily assist the

upkeep and care of these beautiful machines and their maintenance infrastructure in the sheds. Once I finish university in 2017, I wish to come back here for an extended period of time and work at Rewari to continue the practice of routine maintenance and Sunday steamings, but this will be practically useless unless we have the visitors both foreign and local to show the locomotives to, and the raw materials such as flue tube material, staybolt metal, boiler plate and new bearing metal and the tools to install them.

I wish to express my profound thanks to Mr. Arya and the entire ISRS for helping me see this beautiful and splendid country and for helping me reach the steam locos and railway culture of a place I thought unreachable. This really is like a pilgrimage for me.

Photos courtesy: Archives of the author
Photo WP Loco - The Rail Enthusiast



Field Hockey at the Olympics

by Indra Sharma



▲ Kishen Lal, second from right, with Shri C. Rajgopalachari and others after captaining the winning 1948 Olympics team

The day is still firmly etched in my memory. It was the 23rd day of November in 1964 and those being the days when there was no television in India, my ears were glued to the radio. India, who lost the Field Hockey Olympic crown for the first time in the 1960 Rome Olympics, were playing their arch rivals – Pakistan – in the finals

of the event in the 15th Olympic Games at Tokyo, the first time these games were being held on Asian soil. It was thus appropriate that the two Asian giants were vying for the coveted gold medal. Any competition between India and Pakistan is always fiercely fought; hockey, in particular, was like World War III.

The game was played at a furious pace

with neither team giving any leeway to the other. It was then, in the 41st minute of the game, that time stopped, not only for me but for every Indian who had an interest in the game of hockey. The umpire had just pointed to the penalty stroke spot awarding a penalty to India. As India's right half back, Mohinder Lal, walked slowly towards the Pakistani goal to take the penalty, thoughts of the 0-1 loss to Pakistan in the last Olympics and the even bigger 0-2 defeat in the Asian Games in 1962 raced through my mind and, I presume, through Mohinder Lal's mind as well. All eyes in the stadium and all ears in India were on him as India was desperately craving to get the gold back.

The ever-dependable Mohinder Lal kept his cool. Calm and composed, he took position and pushed the ball. It flew passed the hapless Pakistani goalkeeper into the top of the net. India went ahead 1-0 and maintained that lead till the end to regain the gold.

Mohinder Lal was a member of the Indian Railways and part of a great railway heritage in Indian hockey, particularly at the Olympics. The penalty stroke that he converted was set up by another railway man, Prithipal Singh, the penalty corner expert of the team, whose stinging shot



▲ Mohinder Lal seen behind the podium at Tokyo in 1964

had been stopped by a Pakistani defender with his leg. In fact, of the 22 goals scored by India in those Olympics, 11 had been scored by Prithipal, the leading goal-getter in the tournament. The 1964 team included three more railway men, Harbinder Singh, Rajinder Singh and Joginder Singh. Among them, the mercurial centre forward, Harbinder, in particular, had a great tournament.

Mohinder Lal was not the first right half back from the Indian Railways to don the national colours at the Olympics. His immediate predecessor was none other than the legendary Leslie Walter Cladius. Well-known for his exploits on the hockey field, few are aware that Leslie started his hockey career with the Railways. Although he later left the railways and worked with customs, his hockey initiation and grooming was certainly with the railways. Leslie was the first hockey player to represent the country in 4 Olympics and win as many medals. It was a fortuitous incident that led to his

taking up hockey at the highest levels.

That was in 1946. Leslie, then a raw lad of 19, was representing the Bengal Nagpur Railway (BNR) in football. During a Beighton Cup hockey match in Calcutta (now Kolkata), he was watching BNR play, when one of the players in the hockey team was injured. Fortunately for Leslie and for the country, no immediate replacement was on hand and the Captain, Dickie Carr, another Indian Railway Olympian and one who knew Leslie and his sporting prowess well, thrust a hockey stick towards him and asked him to play.

The rest is history. As a permanent right half back, Leslie Cladius went on to represent India at the 1948, 1952, 1956 and 1960 Olympics, winning 4 medals, including 3 golds. His only regret: the last medal at Rome in 1960 was a silver under his captaincy. All the same, his name has figured in the Guinness Book of Records as the winner of the maximum Olympic hockey medals.

▼ The gold medal winning 1952 Olympics team with the then Prime Minister. Leslie Cladius is sitting first from left



These were not the only railway men who have excelled in the game. The first Indian team to win the gold after independence, at the London Olympics in 1948, was captained by Kishan Lal, also from the Railways. He is often considered the greatest right winger the game has ever produced and after his active playing days helped the Indian Railways develop into the leading hockey playing team in the country. Another right winger of note was Balbir Singh Jr. Always the fan favourite he was the architect of India's victory against Pakistan in the final of the 1966 Asian Games. It was a scorcher of a goal scored from almost a zero degree angle in the second half of extra time and it is rated as one of the best goals ever scored in the game. A year later, it was Balbir's goal against Spain at the Madrid qualifiers which ensured that the Indian hockey team participated in the 1968 Olympics. Once again he was magnificent in the bronze medal playoff at the Olympics where he scored both the equalizing and medal winning goals.

There can be no doubt that in the men's arena, if there is one game in which the Indian Railways have had the maximum impact, it is field hockey. Even before the railways were affiliated to the Indian Hockey Federation in 1928, six railway players represented India in the Olympics at Amsterdam in the same year. This was the first time that India was taking part in the event in the Olympics with a team that included the legendary Dhyan Chand. The Vice Captain of this team was a railway man, Eric Penniger, who, along with other erstwhile hockey greats, put India on the hockey map of the world. In the gold medal match, where India beat

Holland 3-0, Eric acted as the captain owing to the absence of the regular captain, Jaipal Singh. Other railway men in the team were R J Allen, L C Hammond, W Cullen, M Rocque and R A Norris.

In the next Olympics in 1932 at Los Angeles, USA, railway representation scaled higher peaks, contributing seven players, including Penniger, Allen and Hammond from the 1928 team. Eric was again the Vice Captain of the team. The four new faces included R J "Dickie" Carr (the same Carr who introduced Leslie Cladius to the hockey team), A C Hind, C Tapsell and M Minhas. The 24-1 win of this team over the USA during the Olympics is the biggest margin of victory in the Olympics till this day. Eric Penniger is considered the best centre half in the world before the 2nd World War. It was unfortunate for him that he was in the same team as Dhyan Chand. Had this not been the case, Eric would perhaps have had a reputation similar to that accorded to the great Dhyan Chand.

The 1936 Olympics were held at Berlin in Germany where Hitler was trying to prove the superiority of the white Aryan race. When the legendary African-American, Jessie Owens of the USA, won

4 Athletics' gold medals, the superiority theory was severely strained. The pressure on the theory was accentuated when India met Hitler's Germany in the finals of the field hockey event. India won 8-1. Although captained by the hockey wizard, Dhyan Chand, this team included five railway men in the main squad and one reserve, viz. J. Gallibardy, C. Tapsell, Dickie Carr, R J Allen, C J Michie and G P Bhalla (reserve).

There were no Olympics in 1940 and 1944 owing to the ongoing World War II. When the games were revived at London in 1948, India was back to her gold medal winning ways. As mentioned above, this team was captained by a railway man, Kishan Lal. It was only in the following Olympics in 1952 that there was a complete slump with no railway representation in the Indian team, but the railways were back in 1956 and all subsequent Olympics. Of course, the great Leslie Cladius was a member of the 1952 team but by then he had left the railways. But there is no doubt that his hockey grooming took place as a railway man.

In fact, in all international meets – the Olympics, Asian Games, World Cups, etc.

In her first appointment as skipper she fetched the country a gold medal at the 2002 Commonwealth Games beating highly rated countries like Australia, England and New Zealand. It was this win that inspired the 2007 Bollywood hit film, Chak De India. Suraj Lata continued as skipper at the 2003 Afro-Asian Games and the 2004 Hockey Asia Cup, where the country again won gold medals.

– there was no way an Indian hockey team could be formed without a number of railway players. For instance, in the inaugural Rene Frank International Hockey Tournament in 1975, the winning Indian team had 8 railway players. Similarly, the 1976 Olympics team also had 8 railway men donning the national colours.

After a gap of 16 years, India went back to gold winning ways at the Moscow Olympics in 1980. This team had only two members of the railways among its ranks but one of them, V. Bhaskaran, was the captain. Bhaskaran represented the country once again at the Sydney Olympics in 2000, but not as a player; he was coach of the team. The other railway member of the 1980 team was Rajinder Singh. Mohd. Shahid* was also a member of this team but at that time was not a member of the Indian Railways. Subsequently, he was employed by the railways as a Sports Officer at Varanasi.

Mohd. Shahid was the lone railwayman in the 1984 team that went to Los Angeles in the USA but the next games at Seoul in 1984 had as many as 6 railwaymen. Leading among them was the rock-solid defender, Pargat Singh. Others in the team were Mohd. Shahid, Ashok Kumar, Vivek Singh, Jude Felix and Balwinder Singh.

Unfortunately, after this bright spark, there has been a slump with no railwayman in the teams of 1992, 1996, 2000 (other than the coach), 2004 and 2012. The Indian team did not qualify for the 2008 Olympics. In the Rio-bound team for the 2016 Olympics, there is one rail representation - Chinglensana Singh.

While men's representation has been languishing in the last two decades, it has been more than made up for by rail women. Unfortunately, the Indian Women's team has participated in the Olympics only once: in the 1980 Moscow games. These Olympics were marred by controversy with the Western bloc not participating. India's 4th place is thus suspect. This is further illustrated by the fact that the team was invited and did not need to qualify owing to the shortage of teams. All the same, this team had 7 players from the railways, the leading player being Eliza Nelson. The coach of the team was SS Walia, also from the railways.

However, railway women have shone for India at other international meets. For instance, at the last Commonwealth Games at Glasgow in 2014 the team included 9 representatives from the railways. The women's team has finally made it to the Olympics at Rio for the first

time since 1980. This team includes as many as 14 players from the railways including the captain, Sushila Chanu.

There is no doubt that had the Indian women's team made it to any of the intervening Olympics, the team would have been a virtual railway team. Most of the top players in the past few decades have been railway women. For instance, one of the most outstanding women players that the country has produced has been Suraj Lata Devi. Hailing from a sporting Manipuri family, she took up hockey and rose to captain the national team. In her first appointment as skipper she fetched the country a gold medal at the 2002 Commonwealth Games beating highly rated countries like Australia, England and New Zealand. It was this win that inspired the 2007 Bollywood hit film, Chak De India. Suraj Lata continued as skipper at the 2003 Afro-Asian Games and the 2004 Hockey Asia Cup, where the country again won gold medals.

Although cricket has captured the sporting imagination of the country in the last few decades, we should not forget that Field Hockey is our national game. It would not be an exaggeration to say that to a large extent, it is the Indian Railways that have kept the flag of the national game flying and is continuing to do so.

Photos courtesy: Archives of the author



*Meeting Mohd. Shahid

Today (July 20, 2016), Indian sports lost one of its greatest heroes, Mohd Shahid, Olympic gold medal winner, 1980 Moscow Olympics. I was fortunate to meet Mohd. Shahid in 1997, at Diesel Locomotive Works, Varanasi. I was a probationer on Indian Railways and had requested him for time. His office table had a hockey turf instead of the usual glass top. I asked him about it; he said it is a reminder of the game that he loves the most. We chatted for about an hour – spoke of the 1980 Olympics, 1984 Los Angeles disappointment, of the 1982 Asiad, of Zafar Iqbal, Hasan Sardar. Chai followed. Just when it was time to leave, I made a request – can I see the Olympic gold? His eyes lit up. He got up and walked up to the almirah in his office, opened the safe, took out the medal, closed his eyes for a second, and showed it to me. Can I touch it? I asked. He put it in my hands. So, here I was, holding an Olympic gold medal in my hand? Even now, this is the last Olympic gold that India has won in a team sport. The enormity of the occasion got to me. I hugged Shahid. I kissed the medal too. It was quite a heavy thing. Some seconds later, I handed it back to Shahid with both hands. It was one of the most electrifying moments of my life. And today, when I heard of Shahid's passing away, that day came back. One of the most cherished days of my life. Be well, Shahid and God bless you – wherever you are.

...from the blog of Deepak Sapra – Rail Enthusiast

HUMOUR ON RAILS



In the days before the advent of mobile phones and walkie-talkies, you could communicate with the railway control room through portable telephones that were carried by guards of all trains. All you needed to do was physically connect the portable telephone set to railway control lines that ran along the rail track and you could speak directly to the control room. This came in very handy at accident sites which were normally in the wilderness and far from any other means of communication.

At one such accident site in the 1960s, the portable phone had been fixed a little distance away from the actual site. In addition, there was a small ditch between the site and the phone, so that it took a little effort to go from one point to the other. This was somewhere on the Central Railway zone of the Indian Railways.

The Divisional Mechanical Engineer (DME) was in charge at the site and was supervising the clearing of the track. He received a phone call from his Headquarters from the Chief Operating Superintendent (today's COM) asking him for some details. He trudged all the way across the ditch and gave the desired information and then heaved himself back to the site. Shortly thereafter, there was a phone call from the Chief Mechanical Engineer, followed in quick succession by the Chief Safety Officer, the Chief Commercial Superintendent (the CCM today), the Chief Engineer, the Chief Signals and Telecommunications Engineer, and so on.

The DME was tired and fed up. He was unable to concentrate on the work at hand, i.e. clearing the track of the derailed wagons. He decided that he would give a piece of his mind to the next person who rang up. As he had feared, he did not have long to wait as there was a call almost immediately thereafter.

He picked up the phone and gave vent to his pent up anger with the choicest abuses he could think of.

After a little silence, the voice at the other end said, "Do you know who is speaking?"

"NO!" screamed our DME, "And I don't care!"

"This is your General Manager," the voice said.

"Oh!" said the DME. "Do you know who is speaking?"

"No," said the General Manager.

The DME quietly hung up without another word and went back to his work.



In the good old days,
the present Chief Operating Manager (COM)
was called the Chief Operating Superintendent. The latter had been
abbreviated to COPS. Anyone visiting one of the
subordinates of the COPS of Western Railway in the early 1970s, was
impressed by a placard on his table which announced:
"I like to feel wanted, but not by the cops".



The steam locomotive repair workshop was always having problems: it was filled with eccentrics and cranks.



Eccentrics and cranks of a steam locomotive

A team from RITES Ltd. on a rail project in Jamaica hired a local Jamaican maid to do the house work and cooking. The latter did not know any Indian cooking, so our all-male team taught her whatever basic Indian recipes they were able to. In fact, they managed pretty well except that they could not teach the maid how to make *chapatis* (Indian bread) and, therefore, managed without this item.

During the course of the 6-month project, there was a short visit by another consultant who insisted that he must have *chapatis*. Fortunately, he knew how to make them and the necessary ingredients were available in the local market. He painstakingly taught the maid how to make a *chapati* and then triumphantly announced to the others that *chapatis* were ready to be served. "But we make these in Jamaica," the maid announced.

"Why didn't you tell us," she was asked.

The maid replied that the word used had been *chapati* and she had no idea till then what a *chapati* was.

"What do you call it?"

"Roti," she said.

(Editor's note: Roti is a common alternate word and synonym of chapati in the Hindi language. It is used as often as the word chapati)

Officers joining the Indian Railways are allocated zonal railways (such as Northern, Southern, Central, South Eastern, etc.) based on their seniority, vacancies in the zone and the preference of the officer.

The topper among one batch of fresh officers, was asked by his boss what zone he would like to be posted to.

"NE, Sir" he replied

He was posted to Southern Railway.



Steam locomotives had always been referred to as female entities. The reason for this is that they had a petticoat. In addition, they had a tender behind.



The Indian Railways Fan Club (IRFCA) 11th Annual Convention 2016

The Indian Railways Fan Club (IRFCA) held its 11th Annual Convention 2016 at Bikaner on January 23rd and 24th earlier this year. The following are some relevant extracts from the report by Professor Dheeraj Sanghi, the founder of IRFCA.

The occasion was BKN-2016, the 11th Annual Convention of the Indian Railways Fan Club. We name our conventions after the station code of the nearest large station and the year of the convention. The organizer, Shri Giriraj Bissa (co-founder of erail.in) and his entire extended family had only a limited set of goals - at no point in time should we have any experience of hunger and we should not eat the same dish twice; at no point in time should we feel bored and there should be nothing at this convention which has happened in an earlier convention.....

The convention planning was to ensure that every delegate was involved in some activity. So we were divided into five groups to discuss one particular issue among ourselves and make a presentation to everyone at the end. The topic discussed by the group in which I was present was how to improve passenger revenues of Indian Railways while recognizing that there is a social obligation and raising fares is politically difficult.....

Even the IRFCA Quiz, the event that usually involves 100 percent of delegates and is easily the most popular event, was a very different type of quiz this time..... the quiz master, the venerable Sridhar Joshi, had advised us that it will be a very different quiz and would be based on numbers.....

One of the huge surprises was a large scale working model of trains. Mr. Virender Kumar, the Locomotive man was himself present from Decibel Scale Models to control the trains as they moved giving out exactly the same sounds as real trains would. He was also the guest for the "Coffee with Kuvelkar" with the difference that in this year's edition, everyone actually had coffee while Ashish Kuvelkar grilled Mr. Kumar.....

Presentation on Bhore Ghats by Ashish based on research done by Apurva was excellent. I wonder how many Railwaymen would know so much of its history..... Another Pune gangman, Ranjit Pendse, enthralled the audience with the Indian additions to the Microsoft Train Simulator that he has made. His simulations of Konkan Railway route, Shindawane Ghats and several other locations looked so realistic....

But it won't be unfair to rail fans, if I were to admit that the most entertaining part of the convention was actually a non-rail event. The post-dinner cultural program was out of the world.....

The convention ended with all the awards being announced - the best railway photograph, the best railway album, the best trip report, the longest journey to the convention, the winners of the quiz, the best presentation, and so on.....

And finally, the city is unbelievably clean and disciplined.....the combination of a city which had so much to offer a tourist, wonderful hospitality organized by Bissa ji, and the presence of so many railfans (many of them with families for the first time) made this unconventional convention an event one would never forget in one's life.

Central Railway celebrated Heritage Week

Central Railway celebrated Heritage Week from 2nd to 8th July 2016 to commemorate the 12th Anniversary of the Chhatrapati Shivaji Terminus & Head Office building being inscribed as a World Heritage Site by UNESCO. On the occasion Heritage Walks were organized for citizens of Mumbai and school children on the weekend. The enthusiasm was tremendous and despite the monsoon weather attendance far exceeded expectations. The first walk was conducted by Vikas Dilawari a well known Conservation Architect and subsequently by senior students of the JJ College of Art and St Xavier's College. Other events included an Exhibition of old nineteenth century drawings, pictures and maps some by the architect F.W. Stevens, a Quiz



The Heritage Walk was enjoyed by all who participated. Here a College Student explains the finer nuances of the architectural features of the CST Building to participants

Competition that was well attended, talks and discussion on a range of topics by experts like 'Mumbai and Railways' by Rafique Baghdadi, 'Architectural Splendour of CST Building' by Rajiv Mishra, Director, Directorate of Art, M.S. Mumbai and 'Films & Railways' by Sidharth Bhatia and Amrit Gangar. At the inaugural function the speakers were distinguished persons from Mumbai's world of art and culture and included President of the Asiatic

Society, Vice Chairman, INTACH, Director, State Archives, Director, The Heras Institute and Director, CSMVS (Chhatrapati Shivaji Maharaj Vastu Sangrahalaya - Mumbai Museum). The primary purpose of the Heritage Week was to build awareness and educate members of the public, particularly children, on our rich cultural and architectural heritage and the importance of conserving it for future generations.

APHTRO Annual General Meeting:

The Asia-Pacific Heritage and Tourism Rail Organisation (APHTRO) is holding its Annual General Meeting in New Delhi under the auspices of the Indian Railways on the 19th, 20th and 21st of October 2016. Although the formal meeting itself is for 3 days, there are a number of pre-and post-conference events being organised. Those interested are requested to visit the APHTRO website: www.aphtro.com for details.

APHTRO, Asia Pacific Heritage and Tourist Rail Organisation, has been set up to help the

improvement of our treasured heritage railways and museums by forming a co-operative organisation to unite the countries of the region. It will provide a forum where we can share experiences and exchange ideas, advice and information in many aspects. So far, almost all such organisations have been Europe or North America based. This is the first one that will cater to the needs of the Asia-Pacific region and break free from the Euro-centric forums that exist today.



APHTRO General Meeting at Bangkok in 2015

National Steam Congress

The Indian Steam Railway Society (ISRS) is organising the 14th National Steam Congress on the 19th and 20th of November 2016 at New Delhi. In the forthcoming congress, the theme is being changed when compared to previous events by moving away from

the focus on steam and taking in transportation as a whole.

The Congress is open to all who are interested and there is no registration fee. The venue of the Congress will be the National Rail Museum, New Delhi.

First PRS Ticket

Sanjay Mookerjee, the current Financial Commissioner of the Indian Railways, is a rail enthusiast first and a railwayman later. Among his collection was the first ticket that had been issued by the computerised Passenger Reservation System in Kolkata on 7th November 1987. On the 13th of April 2016, he

donated this prized possession to the General Manager of Eastern Railway for display at the photo gallery of the Eastern Railway Headquarters.

This first ticket with PNR No. 610040 was issued to the then Minister of State for Railways, the late Madhavrao Scindia for travel by AC First class.

CONCOR

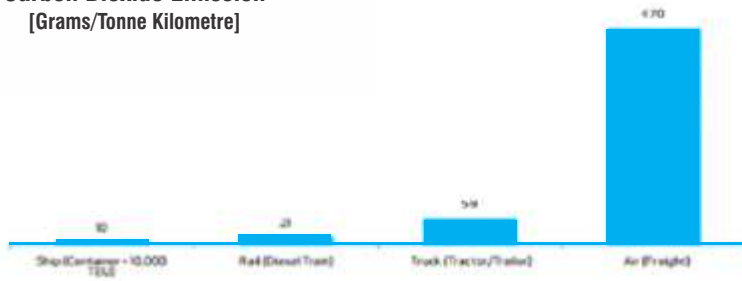
Savings in Carbon Emissions... ...Through Containerized Movement by Rail

When your Cargo is a part of CONCOR'S Logistics chain – You help it add a breath of fresh air

Container Corporation of India Ltd. (CONCOR) which commenced operations in November, 1989, is a Public Sector Undertaking (PSU) of the Ministry of Railways. The only Navratna Railway PSU, CONCOR has been growing from strength-to-strength in the last three decades. With a vast Network of 64 Terminals, spread over 21 States, CONCOR has been successfully pursuing its mission of being a leader in the logistics industry with more than 73% of the market share of containerized traffic.



Carbon Dioxide Emission
[Grams/Tonne Kilometre]



As can be seen, movement by rail results in substantial low quantum of CO₂ emissions, as compared to movement by road. It is with this interesting concept in mind that CONCOR has been focusing its business strategy as well as day to day operational plans to move bulk of its container volumes by rail.

CONCOR has thus been contributing to a large quantum of CO₂ emissions savings. The figures below speak for themselves:-

Financial Year	NTKM (Millions)	Savings in CO ₂ Emissions @ 38gms/NTKM
2015-16	33503.1	1.27 Million Tonnes
2014-15	37349.1	1.41 Million Tonnes
2013-14	36112.4	1.37 Million Tonnes
2012-13	33921.7	1.28 Million Tonnes

What this means is that there is a saving of about 1.3 Million Tonnes of CO₂ emissions a year by constantly encouraging a modal shift from road to rail.

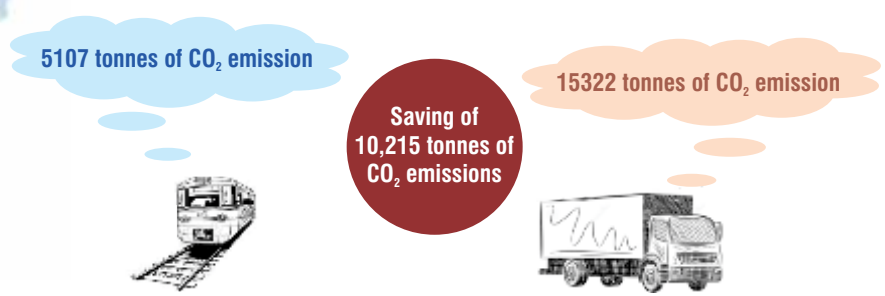
Each container accommodates cargo equivalent to approximately 3-4 truckloads. Consider an actual compilation of data for a period of 6 months for container movement from one of the Terminals of Mumbai Port to the Northern Hinterland. Movement by road results in CO₂ emissions of about 15000 Tonnes whereas movement by rail would lead to only 1/3rd, i.e. about 5000 Tonnes of CO₂ emissions.



Container Movement from Dronagiri Terminal Mumbai Port to Northern Hinterland (Sep'14 to Mar'15)

CO₂ Emissions 15322 tonnes on movement by Road.

CO₂ emissions if this movement had been carried out by Rail: 5107 tonnes.



Hence, a massive saving of about 10000 Tonnes of CO₂ emissions



The gains are undisputed. CONCOR realizes this and is aware of how it can contribute to this cause and is committed to continuously striving to pursue this goal. More than 15 state of the art facilities called Multi-Modal-Logistics Parks, each with rail connectivity, many of them along the proposed Dedicated Freight Corridors, are coming up to reiterate CONCOR's commitment not only of being a leader in the logistics field but also being in the forefront in contributing to environment building.

National Rail Museum



Located in Chanakypuri, the up-market diplomatic heart of New Delhi, the National Rail Museum (NRM) has been given a massive facelift with the renovation of its indoor gallery earlier this year. What used to be a dreary walk past dusty and unattractive exhibits is now vibrant, bright and interactive. In addition, there are three simulators to stimulate you – a diesel loco, a steam loco and a passenger coach. An indoor rail model as well as one in the open have also been added. For the casual visitor or a veteran aficionado, a visit to the museum in its new incarnation is a must.

Over and above the facelift, NRM is also an excellent place for those looking for rail memorabilia and the outlet where you can get them is in a small but well-stocked Souvenir Shop. Facing the indoor gallery, you can see the souvenir shop to its right. This was the only outlet NRM had but now there are two more, one at New Delhi station and the other at the station in Shimla.

It is not intended to list all items that can be picked up at the shop. However, suffice to say that there is something for everyone: young or old, rail buffs or book-worms, housewives or collectors, or simply those who have an interest in things around them.

The most obvious and sought after souvenirs are models of various

locomotives. You will find models of a large variety including the Fairy Queen, the world's oldest working locomotive, the Jenny Lind, the first loco seen working at Byculla in Mumbai, the locos that are working on the Darjeeling Himalayan Railway, and so forth. Books are also a large section of the shop. You will find Coffee Table books, pocket books and books for children. Although virtually all subjects are covered, the maximum number bring out the history and panorama of the more than 150-year old railways in India.

Not to be ignored, there are many items

designed for kids. For instance, you will find kids' apparel, Kinder blocks sets, paper folding models, pencil caps, etc. Framed pictures and prints on a variety of subjects are also up for sale. Among the recent additions has been the magic heat-sensitive mug. This has a black surface when at normal room temperature. As soon as anything hot like tea is poured into it, a rail related picture appears on the heated portion. Normal mugs with rail logos, station clocks, hand signal lamps, keychains, and many more such items are there for the taking.

Model of Chennai Central station seen as part of the outdoor rail model



Any organisation or individual interested in publicising or selling any rail-connected memorabilia or artefacts is welcome to use this magazine for reaching a large audience.

Please contact the Editor at railenthusiast2015@gmail.com



RAIL ENTHUSIASTS' SOCIETY

(Registration No: S-E/792/Distt. South East/2015)

It gives us immense pleasure to inform you that a new society, viz. Rail Enthusiasts' Society, has been incorporated on the 28th of December 2015. The aims and objectives of the society include, inter alia, to provide a platform for rail enthusiasts to disseminate knowledge, air their views and exchange ideas regarding the railways in India or overseas and to publish a magazine (hard and E-copy) for all rail enthusiasts, whether they are members of the society or not. The magazine will be brought out every quarter. We will be adding other activities such as guided rail trips, lectures, production and sale of rail memorabilia, photographic and other competitions, etc. in due course.

A 'Rail Enthusiast' means a person who

may or may not be a professional railway man or railway woman, but who has a deep interest in and love for the railways in all or any its aspects. The interest could be in any area pertaining to the railways in India or overseas and may include history, heritage, anecdotes, books and films, railway infrastructure like track, bridges, stations, etc., railway locomotives and rolling stock, rail operations, rail modelling, staff, sports, and so on. The subjects mentioned are only a sample and, in effect, sustained and deep interest in any area pertaining to the railways makes one a rail enthusiast.

The magazine that you are now holding in your hands is owned and published by the Rail Enthusiasts' Society. This is our first issue. To the best of our

knowledge, no such magazine exists in India today and we feel that **The Rail Enthusiast** will fill this gap among the many magazines that are available in this country. This issue has been published as a hard copy only but future issues will also be available as an E-copy.

We are simultaneously launching our website also. Please visit www.railenthusiastindia.org.in

Membership is open to individuals as well as Corporates. Becoming a Corporate member entails a onetime payment of ₹ 2,00,000/- which will entitle the Corporation membership for life. Of course, since we are a fledgling organisation and need capital to make a start, any amount higher than this as a donation would be welcome.

Membership gives you the following:

Corporate Membership

- Five copies of all magazines or supplements to the magazine that will be published.
- Concessional price for any item on sale.
- Invitation to five individuals of the organisation nominated by the corporation for any event or activity we may organise.
- Other benefits will be added in due course as and when we add more activities.

Individual Membership

For individuals, we have 3 types of membership. You get all copies of our magazine that are issued along with concessions in any other activity that we commence. Membership is of the following types:

- Associate member: This gives you membership for a year. Subscription : ₹ 500.00.
- Ordinary member: This gives you membership for 5 years. Subscription : ₹ 2,000.00.
- Life member: This gives you membership for life with a one-time payment : ₹ 10,000.00.

Payment is acceptable by cheque, demand draft or cash. You can also do a direct bank transfer. All cheques should be payable to "Rail Enthusiasts Society". For a direct bank transfer of payment to our bank, details are as follows:

- Name of Bank : State Bank of Patiala
- Branch : Personal Banking Branch, New Delhi
- Address of Bank : E-4, Defence Colony, New Delhi - 110024
- Type of Account : Current
- Account number : 65250409615
- IFSC : STBP0000634

For enrolling as a corporate or individual member, all you need to do is to send an email to the Secretary of the Society at the email id railenthusiast2015@gmail.com. Individuals can fill the form given on the reverse of this page and send a scanned copy to the email id given above or a hard copy to the address: C-494, Defence Colony, New Delhi - 110024.



RAIL ENTHUSIASTS' SOCIETY

(Registration No: S-E/792/Distt. South East/2015)
Registered Address: C-494, Defence Colony, New Delhi - 110024

APPLICATION FOR MEMBERSHIP

TO BE FILLED BY APPLICANT

FULL NAME

DATE OF BIRTH

ADDRESS
(Where you would like to receive all correspondence, magazines, etc.)

CONTACT NUMBERS MOB: TEL:

EMAIL ADDRESS

PROFESSION

ADDRESS OFFICE

YOUR AREAS OF INTEREST IN RAILWAYS (PLEASE TICK)

- STEAM LOCOS
- RAIL HISTORY & HERITAGE
- RAIL PHOTOGRAPHY
- BRIDGES
- BUILDINGS
- ROLLING STOCK
- RAIL MODELLING
- OTHERS – PLEASE ENTER BELOW

MENTION OTHER INTERESTS, IF ANY

WHAT CATEGORY OF MEMBERSHIP WOULD YOU LIKE TO JOIN?

ASSOCIATE MEMBER	<input type="checkbox"/>	ANNUAL SUB. ₹ 500
ORDINARY MEMBER	<input type="checkbox"/>	5 YEAR SUB. ₹ 2000
LIFE MEMBER	<input type="checkbox"/>	ONE TIME SUB. ₹ 10,000

HOW WOULD YOU LIKE TO PAY YOUR SUBSCRIPTION?

CHEQUE (In favour of "Rail Enthusiasts Society")
 BANK TRANSFER
(State Bank of Patiala, E-4 Defence Colony, New Delhi.
A/C No 65250409615; IFSC CODE STBP0000634)
Please confirm by email

For any queries please contact Secretary at
railenthusiast2015@gmail.com or by post/courier at
Secretary, Rail Enthusiasts Society, C-494, Defence Colony, New Delhi - 110024 (India)
Tel: +91-8130111589





“Fireless” Locomotive

An interesting exhibit at the National Rail Museum is a “Fireless Locomotive” (pictured above). It is called “fireless” as it has no fire and no boiler. Instead, there is a pressure vessel mounted on an underframe. Steam is collected in the pressure vessel from a static boiler. Such engines are used in areas where there is inflammatory material or danger of fire. This 35-Tonne Broad Gauge 0-4-0 wheel arrangement locomotive was manufactured by Henschell, Germany, in 1953. Owing to its limited capacity, the locomotive moved short distances only at a maximum speed of 18.5 kmph. With maker's number of 25360, the locomotive was used by Sindhri Fertiliser Ltd.

