

the rail enthusiast

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The Rail Enthusiasts' Society Quarterly

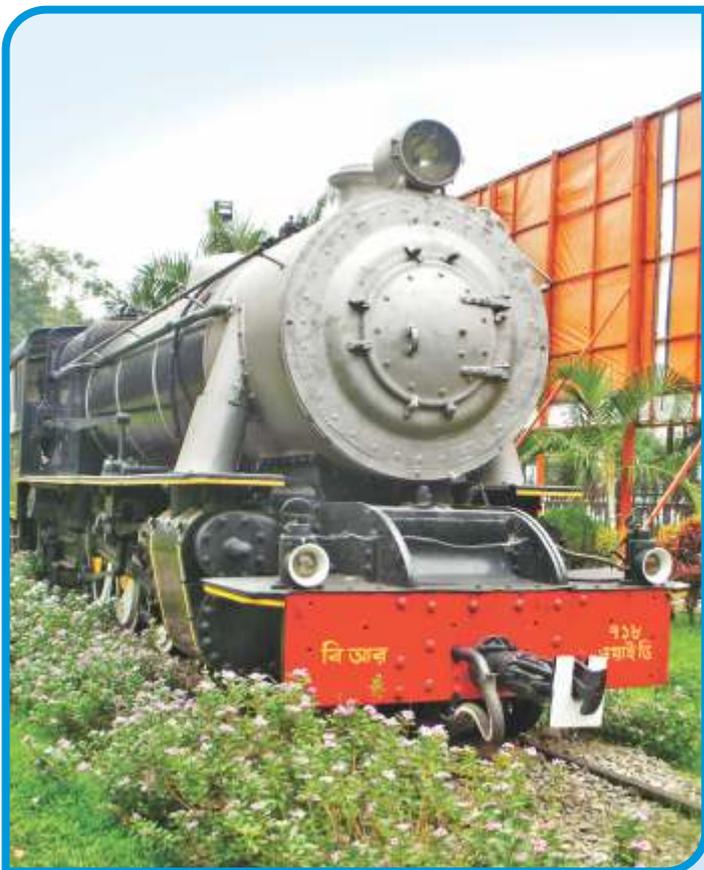


HISTORY RE-INSTALLED

The Jubilee Bridge

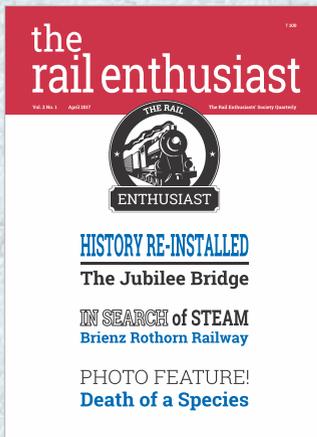
IN SEARCH of STEAM **Brienz Rothorn Railway**

PHOTO FEATURE! **Death of a Species**



On a recent visit to Bangladesh, the **Rail Enthusiasts' Society** photographed YD class meter gauge Locomotive No. 718. This was one of 25 Japanese (Builder Nippon) 2-8-2 locomotives that had been supplied to what was then East Pakistan in 1952. It later became part of the Bangladesh Railway and worked till 1983, when it was withdrawn from service. It is now on display in front of 'Rail Bhabhan', the Head Quarters of Bangladesh Railway. There are no working steam locomotives in the country.





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

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Musings of the Editor...

The 2011 Indian census estimated that around 28 crore (280 million) of our population was between the ages of 8 and 18 years (both years included). Thus, this 11-year segment not only accounts for almost a quarter of our population, it is also at a stage where it is the most impressionable and in a state of transition between carefree childhood and a challenging adult world. When we had talked about a "Children's section" in our last issue, it was this segment of our children that we had in mind. We trust that **The Rail Enthusiast** will be able to convey to them that there is far more to the railways than overcrowded trains and busy stations and also inculcate in them an enduring interest in the fascinating world of rail enthusiasm.

With this issue, therefore, we introduce a section for our generation next by reproducing a story by the evergreen Ruskin Bond, who has done as much, if not more, for children centred literature in India than any other person. **The Tunnel** is a simple and short, engaging and captivating narrative of a boy and his innocent love of trains and tunnels. We also commence a series in which we will tell our budding rail enthusiasts about what it takes to run a train. We hope that other rail enthusiasts, including the veterans, will find this series not only of interest but will be able to enhance their knowledge as well.

Inhabitants of the Eastern metropolis of Kolkata would be aware that one of the historical structures of the Indian Railways, the iconic 130-year old Jubilee Bridge between Bandel Junction and Naihati stations, was consigned to history in April last year. It had been decided to dismantle the bridge and dispose it off as scrap. It pleases us to inform you that, owing largely to the efforts of members of our society, the Indian Railways has agreed that one or two girders of the bridge will be saved and displayed in a museum near the present location of the bridge in a "bridge museum" to be set up. To the best of our knowledge, this will be the first such museum in the country. Read about this bridge and the new architecturally elegant replacement



In conversation with Ruskin Bond



The Sampreeti Setu

span, the **Sampreeti Setu**, in an article by Sanjoy Mookerjee, who was one of the main architects in pushing the idea of saving parts of the old bridge. Reference to this bridge is also made by Bibek Debroy, Member Niti Ayog and an ardent rail enthusiast, in an article that had first appeared in the Business Standard. With his permission, we are reproducing that article in this issue. **The Rail Enthusiast** met Bibek Debroy recently and interviewed him as one who has developed a deep interest in the history and heritage of the railways.

In spite of its history going back to the middle of the 19th century, leading to a rich and varied heritage, there are few



On the Brien Rothorn Railway, Switzerland

heritage trains or lines in our country. The situation is far different in Europe, particularly the UK. Rail enthusiasts from India, therefore, do not miss the opportunity to travel on the heritage lines there. In this issue, we are carrying accounts of trips on two of these railroads, one in the UK and the other in Switzerland. Sachin Sharma writes of his visit to the Ffestiniog and Welsch Highland Railway in Wales while Vikas Singh describes the Brien Rothorn Railway in the Swiss Alps.

Our **History** section carries an interesting article on Indian railway men who have been awarded the coveted Victoria

Cross. This also goes to show that in the early days of introduction of railways in the country, a number of senior positions were occupied by ex-army men. In the **Then and Now** section, we cover the old Kanpur station, which is now a training institute. A variety of other articles cover areas that range from handling pythons in the North East of the country to life in railway colonies in the middle of the last century.

Last but not the least, we have pleasure in informing you that we have successfully organised an Enthusiasts' Trip on the oldest Narrow Gauge rail line in the country – from Dabhoi to Miyagam on the erstwhile Gaekwar Railway. Read about this trip in our **News and Events** Section.

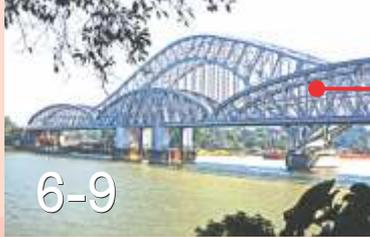
We have attempted to cover as wide an area of rail enthusiasm as is possible in the three issues of the magazine till now. It will be our endeavour to continue this so that enthusiasts of all hues will find something to interest them.

All the best for the 164th birth anniversary on the 16th of April 2017 of commercial rail travel in our country.

Happy reading & happier rail-fanning,

(JL Singh)
Editor

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Life of the 130-year old Jubilee bridge in Kolkata has finally come to an end. **Sanjoy Mookerjee** tells us the history of this iconic bridge, the building of a new one, and the efforts of the Rail Enthusiasts' Society to save parts of the old bridge



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Reproduction of an article by **Bibek Debroy** that first appeared in Business Standard



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Steam locos are virtually extinct but remembered and mourned over. Not so the silent death of the WDS4 class diesel hydraulic locomotive in India. **Ajay Singh** brings the death throes of this locomotive to life through a series of graphic true to life pictures



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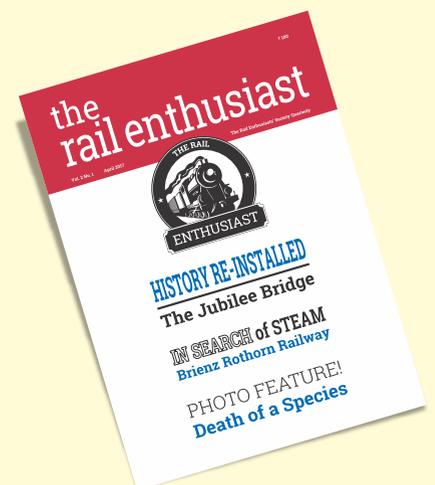
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Ruskin Bond needs no introduction. His love for trains shows through many of his writings. His short story, *The Tunnel*, is reproduced on these pages, with an introduction by **Vikas Singh**

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For the Budding Enthusiast

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We start a series where we tell our budding enthusiasts of what goes into the running of a train. We start with the rail track as this is what makes a railway a railway

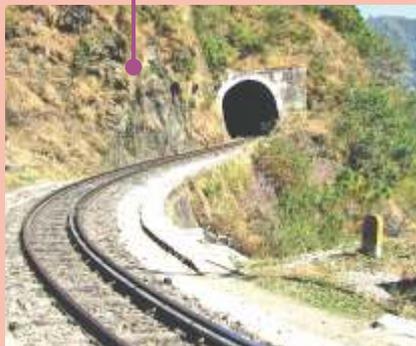
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Feedback

Dear Editor,

I wanted to congratulate you on the 2nd edition of the magazine but I didn't have your e-mail. Now that I have I can tell you that it was a very well produced magazine with interesting material. I am not just saying that because I appeared in it !!!! But you did a good job of the interview.

Best wishes,

Mark Tully (through email)

02.02.17

Dear Editor,

Just received the second issue of the magazine. Glad that I had joined the Society as I found this issue even more interesting than the first one. I particularly liked the articles on rail modelling. Please convey to Modeller Ranjeev Dubey that I am looking forward to the second part of his article on how he created the scenery for his models. I found the background and foliage to be the best part of the models.

I was also impressed by the excellent photographs of the locomotive at Riga. In this day and age, to find Black and White pictures that can not only match but even surpass those in colour was a revelation.

All the best and keep it up,

Prem Agarwal (through email)

27.02.17

Dear Editor,

While visiting Delhi last month, I purchased a copy of issue number 1 of **The Rail Enthusiast** at the National Rail Museum. It is a very professional and enjoyable publication, and hopefully will go forward to fill a gap in the needs of those rail enthusiasts interested in Indian Railways. I particularly enjoyed the historical items (e.g. the Sutlej bridge article).

I'm sure you will have no shortage of material for future editions, but I would like to take the liberty of submitting for your consideration an item I wrote a few years ago, on a trip around the Delhi ring railway. It did not find an outlet for publication at the time, since in Australia interest in Indian Railways is a fairly specialised field.

With best regards,

Warren Miller (through email)

New South Wales

Australia

02.04.17

Editor: We propose to print Mr. Miller's article in the next issue. It is a journey that railway men will find unusual, unorthodox and unconventional seen through the eyes of an Australian enthusiast



Dear Editor,

I've been away – doing some rail travel in delightful Switzerland including the World Heritage Rhaetian Railway – so please excuse the delay in saying a big thanks for copies of Issue No. 2.

Issue No. 1 was hard to beat – but you have managed it! The revised size and paper weight is just part of the improvement.

It was a very pleasant surprise to see the two features about Sir Mark Tully and Adrian Shooter. Sir Mark has long been our Patron, DHRS whilst Adrian is our President, DHRS. We are indeed fortunate to have two such distinguished men at the head of our Society.

Thanks for the information about overseas subscriptions.

I attach a picture of the Bernina Express in Switzerland.

Very best wishes,

Paul Whittle (through email)

03.04.17



The Bernina Express

Jubilee Bridge History Re-installed

Sanjoy Mookerjee



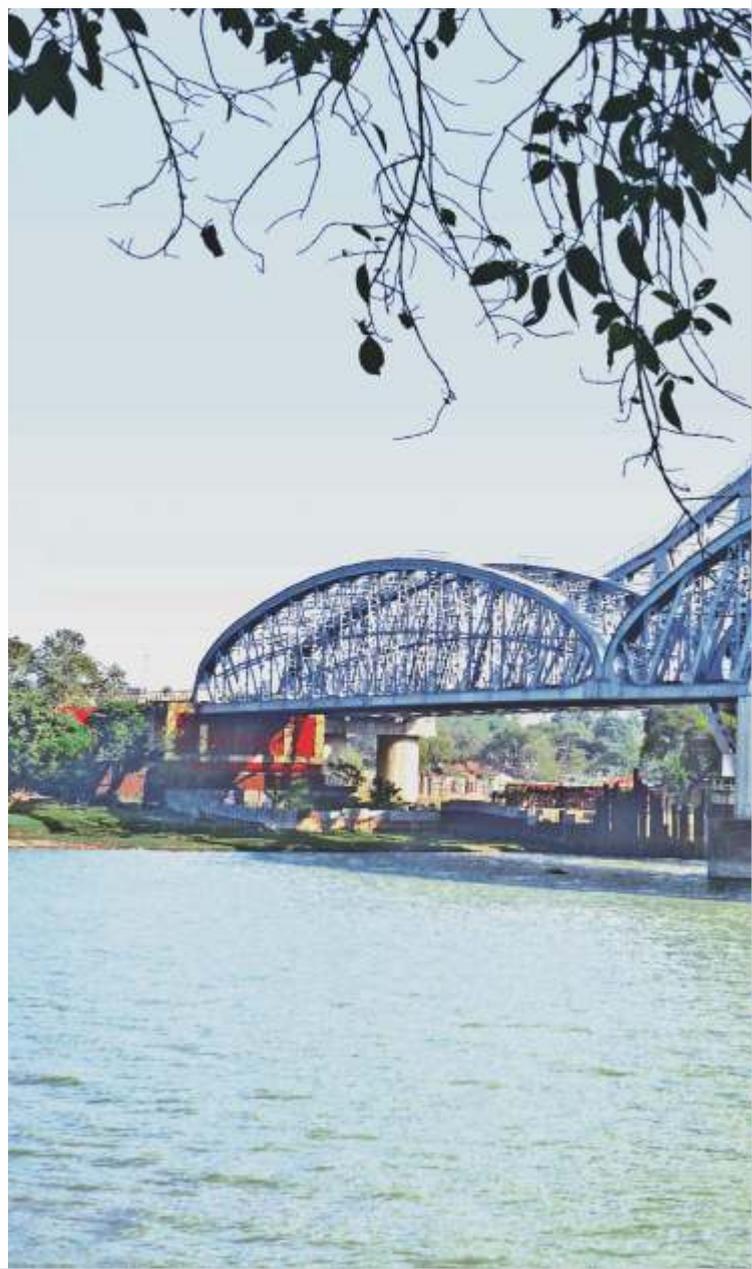
A historical picture of the Jubilee Bridge

Within a kilometre of the oldest Portuguese Church of Eastern India, built in 1599 AD, and only two hundred metres from the classic Imambara at Hooghly, stands the “Jubilee” Railway Bridge, opened by Lord Dufferin, Viceroy and Governor General of India, in 1887, during the Golden Jubilee year of the reign of Queen Victoria, then the Empress of India. Alas, though lakhs of tourists and pilgrims visit the town of Bandel every year, just thirty five kilometres North of Kolkata, very few pause to notice the engineering splendour of this iconic railway bridge, the first over the River Hooghly, between Bandel Jn. on the West to Naihati Station on the East bank. Commissioning of this bridge made it possible to connect North and West India to Bengal, Assam and the North East of the subcontinent by rail transport for the first time in history.

It has always been a wonder as to why the railway pioneers of the 19th century chose this particularly difficult site to ford the river, since at this location, the mighty Hooghly boasts of a perennial water flow of 27 metres depth. Being near the Bay of Bengal, the bridge substructure regularly suffers from the stresses emanating from repeated tidal movement. There is a belief that the railway engineers of

ore wanted to present their beloved Monarch a gift of unparalleled engineering accomplishment in the Golden Jubilee year of her reign as a befitting salute from her loyal subjects.

The original Jubilee Bridge has a cantilever truss structure, constructed exclusively by riveting. It is designed for the



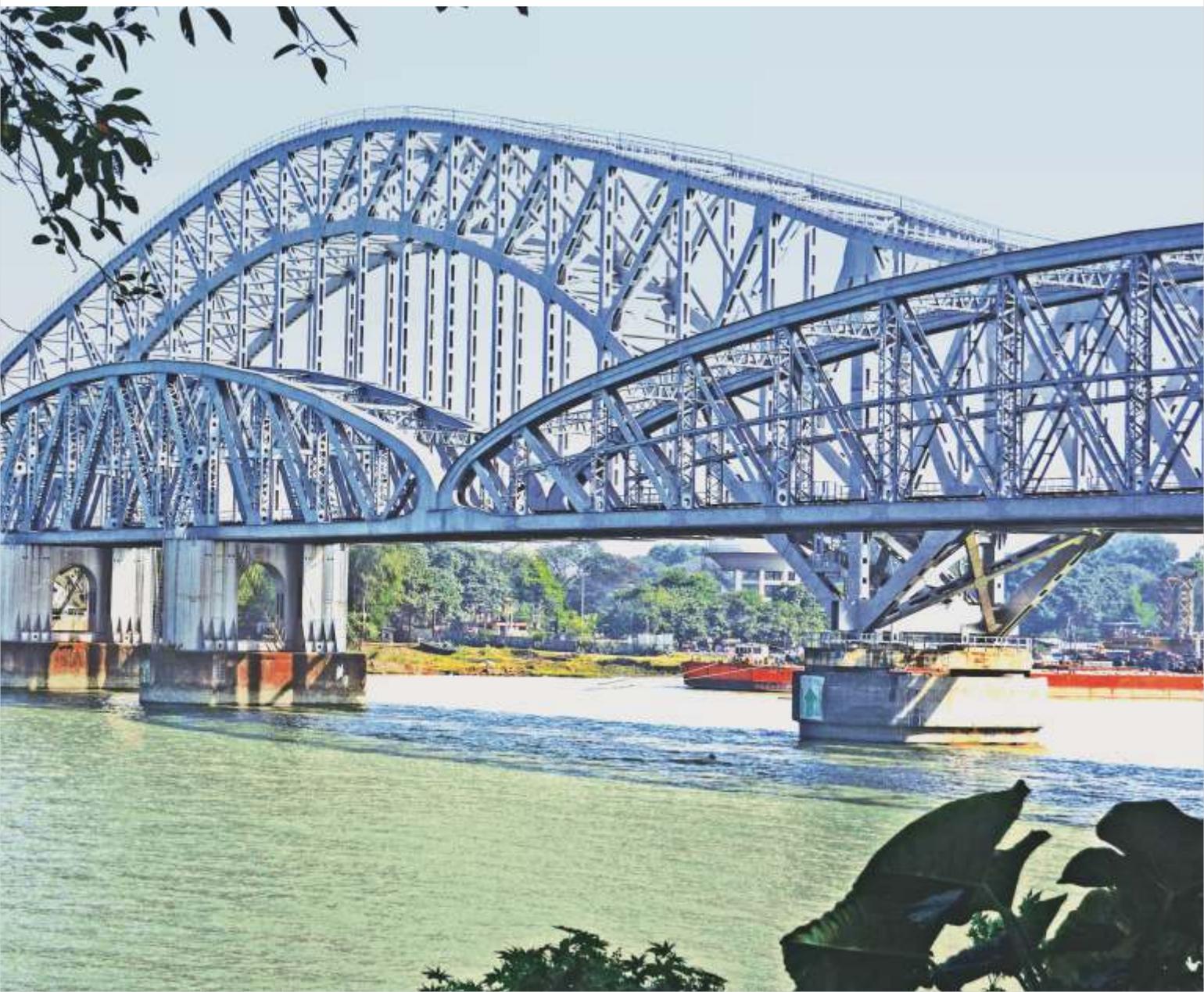
end girders to rest on overhangs of the central girder. Its unique construction also includes pendulum bearings, which perhaps are not seen in any other bridge in the country. The bridge abutments are made of brick masonry whereas the piers are partly of steel.

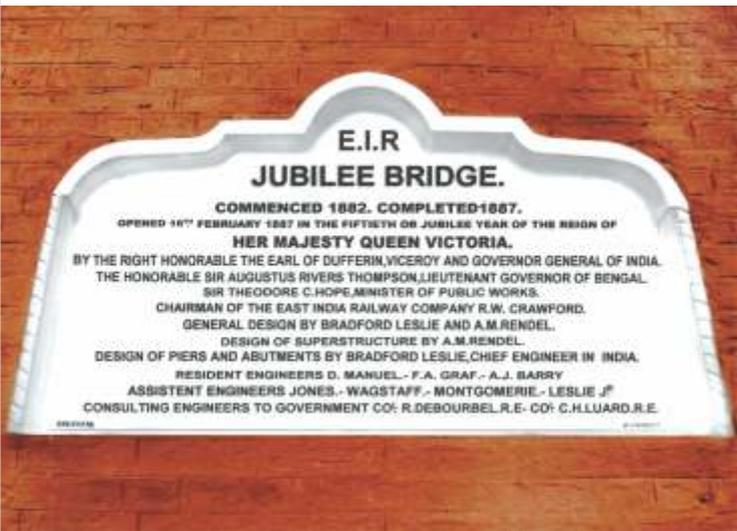
Opened to traffic on 16th February 1887, the bridge was designed by Bradford Leslie and A. M. Rendel. Fabrication and erection was completed within a record period of five years. The bridge has a central span of 360 feet length and two side spans of 420 feet each. In 1910, gauntleted track was laid on the bridge to allow wider rolling stock. The East Indian Railway engineers of the 19th century had the vision and foresight to build the substructure for this and other bridges in the region for double line. The bridge thus continued to serve the needs of the railway for more than a century in spite of the enormous increase in traffic and axle loads.

In 1999, after 112 years, the need for replacement of the Jubilee Bridge was acutely felt by the Indian Railways. Therefore, during 1999-2000, a new double line bridge was sanctioned to be built. Named *Sampreeti Setu*, this bridge is located by the side of the old bridge. With a Double-D well foundation, it comprises of two end spans of 132.5 metres each and a central span of 150 metres.

Inspired by the world renowned Sydney Harbour Bridge in Australia, *Sampreeti Setu* has been designed with a continuous steel bow-string superstructure, with open web girder of 417 metres length and height of 45 metres. A span arrangement of such dimensions has not been successfully accomplished in the Indian Railways or elsewhere in India before. Another landmark achievement of the new bridge is of the use, for the first time in the Indian Railways, of spherical bearings. This has been done keeping in mind the vagaries of this location.

The old Jubilee Bridge seen in front of the new bridge





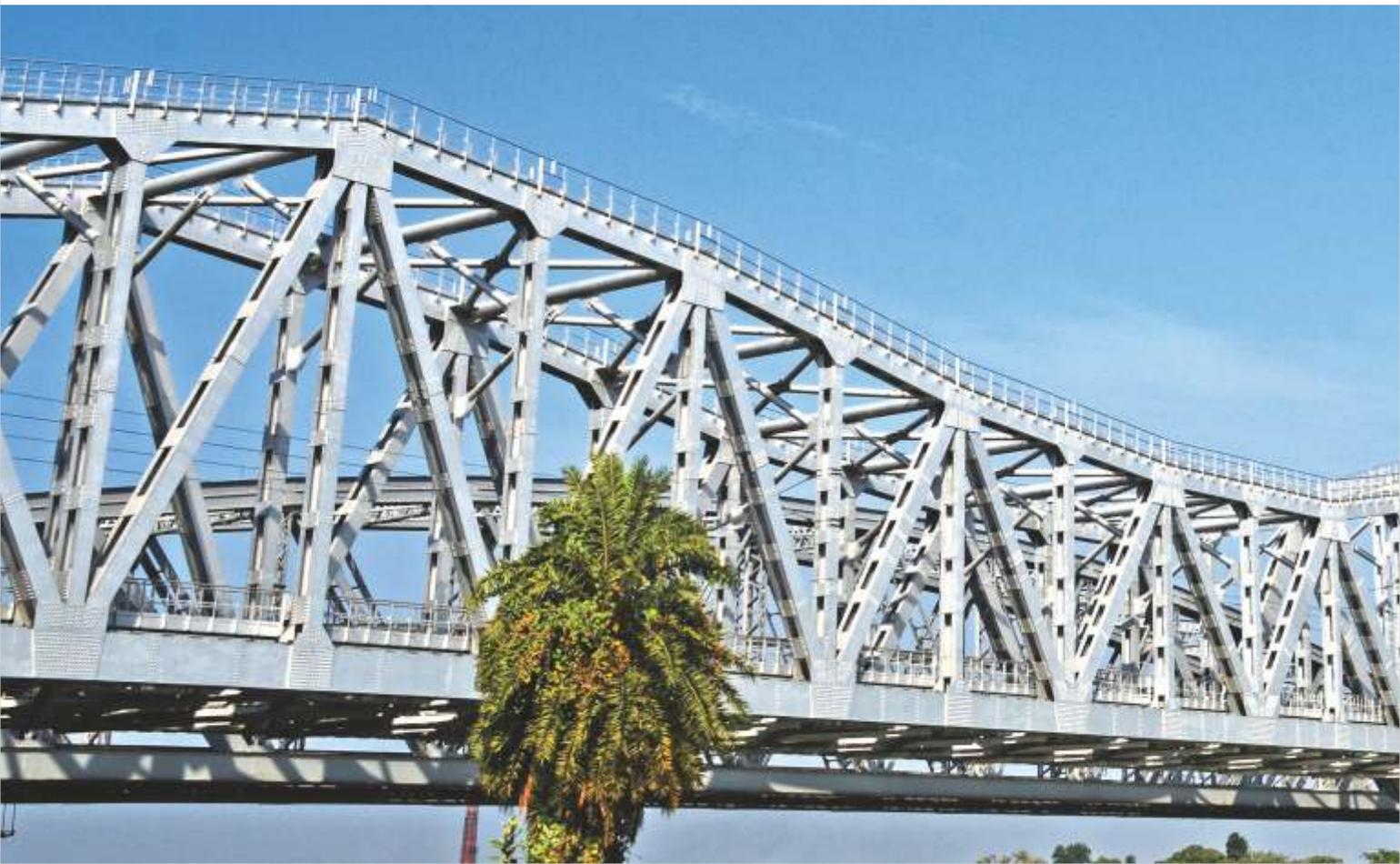
As the sun was on its way down on 17th April 2016, 13141 Up Teesta-Torsa Express became the last passenger carrying train to cross the Hooghly over the historic Jubilee Bridge at 15.10 hours. With this, the curtain came down upon this great saga of railway engineering. The same afternoon, one of the most aesthetic bridges of modern India, the *Sampreeti Setu*, was put into operation simultaneously with the passing of the Bandel-Naihati Down EMU at 14.00 hours, the first passenger train to pass over it.

But, the ballad of the Jubilee Bridge has not yet ended. While it had been committed that the old bridge will need to be dismantled to facilitate free flow of river traffic, yet, as a result of requests from **Rail Enthusiasts' Society** and *The Sampreeti Setu*

other rail enthusiasts, the Indian Railway Board has taken a historic decision to ***“develop an open air bridge museum for relocation and preservation of at least one span/girder of the iconic bridge and other unique items like the bridge plates, pendulum bearings, etc. for public display of this engineering marvel as well as for educating engineering students in India”***. Such a railway bridge museum shall be the first of its kind in the country. The museum will be located on the banks of the Hooghly very close to the present site of the bridge.

Indeed, we look forward to this promise in the near future!

Photos: Courtesy the author





Between the old and the new



Interview

DR. BIBEK DEBROY

62 year old Bibek Debroy is well known as a Member of Niti Aayog, the think tank of the Government of India. Railway men came in contact with him when he was appointed head of a panel for the restructuring of the Indian Railways. Be that as it may, *The Rail Enthusiast* did not meet him in either of these capacities; it was the interest he has taken in the history and heritage of the railways that lead to a brief but wide-ranging conversation with him in March this year.

Some excerpts from the conversation...



The Rail Enthusiast (RE): How and when did you become a rail enthusiast?

Bibek Debroy (BD): You see, everyone is a potential rail enthusiast at heart as the railway is something with which every Indian, especially of our generation, identifies. I grew up in the North East and have fond memories of travelling by rail. In those days, rail travel meant sticking your head out of the window, feeling the breeze and getting coal dust in your eyes and hair. Anyone who grew up at that time is very nostalgic about steam locos and the long train journeys that we undertook.

In 2014, I got dragged into a committee for the restructuring of the Indian Railways. During the deliberations of this committee, I came across a lot of information about the railways including history and interesting anecdotes. This got me interested in the heritage and history of the railways. That is perhaps when I turned into a serious rail enthusiast.

RE: It is a fact that we in India are not very conscious of

history or the heritage that we have inherited. While this is true for most areas, it is particularly true of the railways. How can we go about correcting this situation?

BD: Your magazine is one good means. For instance, in future magazines, you could have a section on rail preservation. And, I don't only mean rolling stock. There is a lot of intangible heritage that also needs preservation.

I have found the first two issues of the magazine very good. Almost anyone I have met who has seen the magazines has only good words for them. I am sure you will preserve all the issues and at some later date, these preserved magazines would be very good for anyone interested in writing books or for research.

RE: Any suggestions for improving the magazine, particularly the content?

BD: Yes, you could start a section for future rail enthusiasts, i.e. youngsters. Try and give them something that enthralls them and gets them interested in the railways. You could

start a book section where you could give excerpts from books on the railway, such as books by Aklekar or Mark Tully. To get people interested in the railway, one idea I have had is to have a rally of a collection of locomotives – steam, electric, diesel – along with vintage coaches and run them on the circular railway in Delhi. This is bound to attract public attention. If the rally is arranged over a weekend, traffic on the circular railway is not high and it should not be difficult to organise. This railway week is too near but it can be organised during some other event.

RE: Thank you for the suggestions. We have already implemented the first one, i.e. in the next issue of our magazine, we have introduced a section for children. You have recently authored a book, *The Weaving of a National Tapestry*, that covers a wide range of subjects and areas regarding the railways in India. Tell us something about it?

BD: First, the book was not authored by me exclusively, but I am the co-author along with Sanjay Chadha and Vidya Krishnamurthi. As I have already mentioned, I had contact with a large cross-section of railway men while I was on the rail restructuring committee. During conversations, we came across a number of stories and anecdotes. This got me interested in the history of the railways. Most of the

books on railway history that I had seen earlier were of two kinds – the coffee table books and the academic ones – there was nothing in between. So, we decided to retell the history of the railways through anecdotes. In the process, we were able to pick up some anecdotal nuggets that do not appear in any other book. The result was this book.

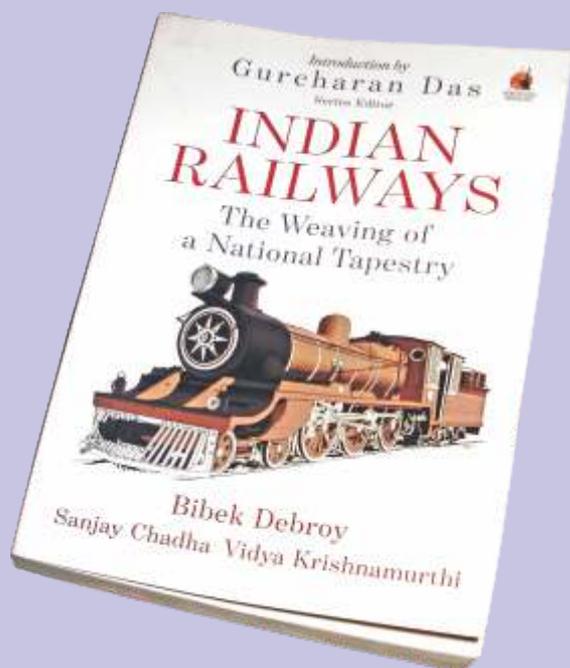
RE: You have also written an article on rail bridges that appeared in the *Business Standard* in February this year.

BD: It is unfortunate that the railways themselves are not aware of or ignore their own heritage. Fortunately, the present incumbent looking after heritage in the Ministry of Railways is in the process of making an inventory of all these heritage assets. However, of the more than 6000 bridges that are more than 140 years old, the inventory lists only 21. This is because of the way heritage is defined in the Indian Railways. It is not necessarily a function of age but is based on the perceptions of the zonal railway. I hope this changes and all heritage items are covered in the inventory.

RE: You made a reference to the Jubilee Bridge in this article. Do we have your permission to reproduce the article?

BD: Yes, of course, you may do so.

(Editor: The article – Bridges too Old, but without Heritage Status – is reproduced immediately after this interview)



On the 29th of March 2017, the book, **Indian Railways – The Weaving of a National Tapestry**, co-authored by Bibek Debroy, Sanjay Chadda and Vidya Krishnamurthi, was released by the Minister for Railways at a brief function at the National Rail Museum. A significant number of rail enthusiasts were present at the release. The book could well have been titled "Anecdotal History of the Indian Railways". A must read for any person interested in the story of this 164-year old transport enterprise from its birth in the 19th century to India's independence in 1947. Gurcharan Das's introduction adds value to the well-documented contents.

Bridges too Old, but without Heritage Status

Bibek Debroy

This article first appeared in the Business Standard on 24 February 2017

It can't stay where it is. It will impede river traffic along the Hooghly. Therefore, it would have to be dismantled and auctioned. In the process, a valuable piece of history and heritage would have been lost. This is precisely what happened with most of our steam locomotives. As far as I can make out, some bits of Jubilee Bridge will now be

This is old too, constructed between 1863 and 1866. Its companion bridge, the Yamuna Bridge in Naini that opened in 1865, figures in the IR list of heritage bridges. I suspect non-inclusion is because of the way "heritage" is defined within IR. It isn't necessarily a function of age. A "heritage" site is determined by the railway zone concerned. In Delhi, a



A goods train passing over Sampreeti Setu

saved from the auctioneer's hammer and lodged somewhere. There are other old bridges too. Heritage Directorate of the Indian Railways (IR) now has an inventory of such heritage bridges; there are 21 on the list. You will find Jubilee Bridge listed at number 8, as the bridge between Hooghly Ghat and Garifa stations. I am not sure why the old Yamuna Bridge in Delhi, popularly known as *Lohe ka Pul*, is not included in this list of heritage bridges.

new Yamuna Bridge is being built for trains. But unlike Jubilee Bridge, the old Yamuna Bridge won't be demolished and auctioned. It will be used for road traffic.

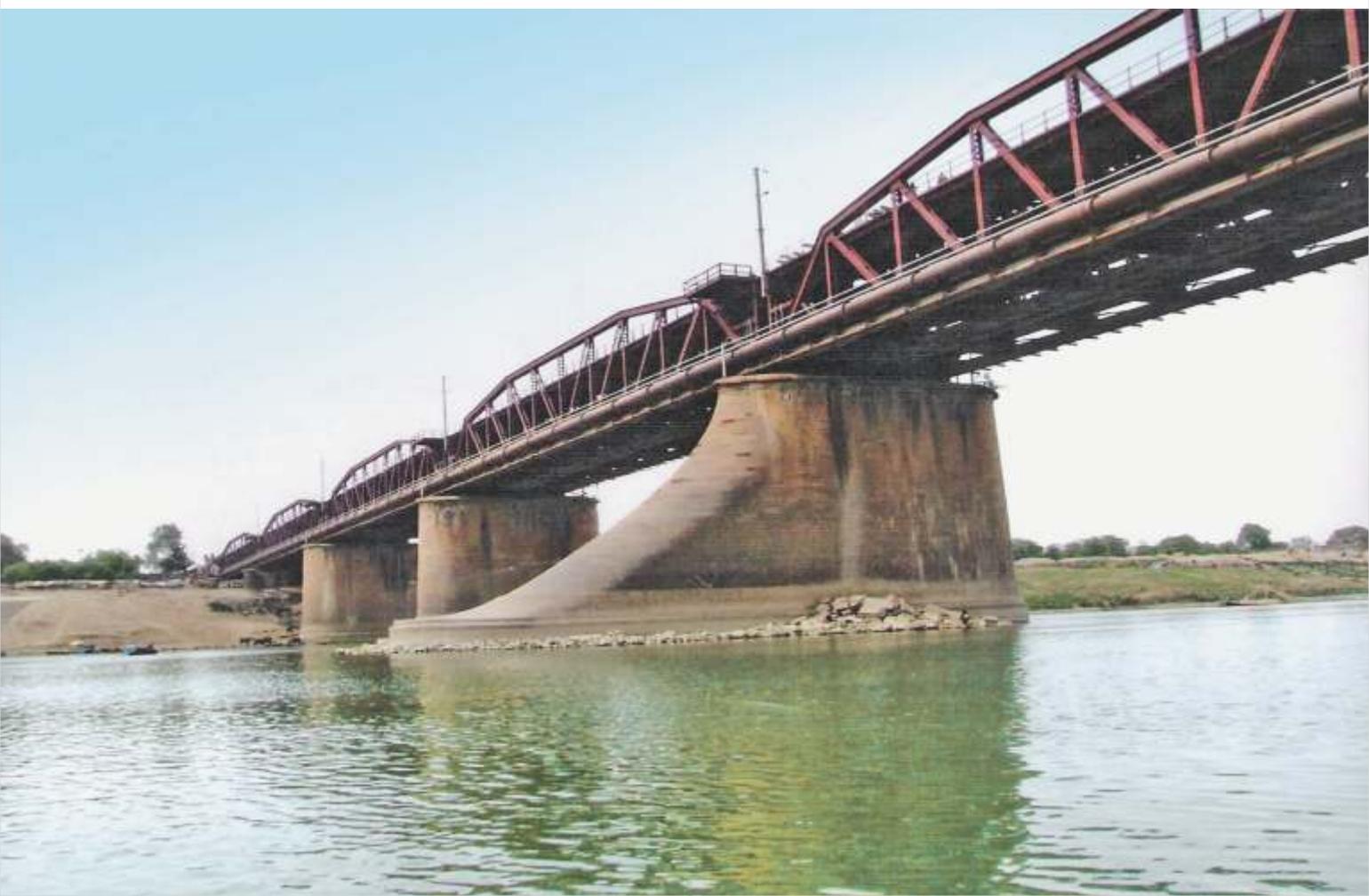
Rather oddly, directly through IR, it is not easy to get the number of old bridges, though the figure must exist in the system. The best source is the Comptroller and Auditor General (CAG), the latest being Audit Report No. 24 of 2015 (for Railways). This tells us there are 136,728 bridges. Of

these, 36,470 are more than 100 years old and 6,680 more than 140 years old. "Bridges constructed prior to 1905 were of early steel and stated to contain higher proportion of sulphur, making them prone to brittleness. These bridges were referred to as 'technically obsolete bridges'. The Corporate Safety Plan (CSP) envisaged that all early steel/cast iron pile bridges would be phased out of the system by the end of the Corporate Safety Plan (CSP), viz. by 2013, duly prioritising these bridges during rehabilitation/reconstruction. Audit, however, observed that no specific time frame was fixed by the Railway Board (RB) to phase out the obsolete bridges." Perhaps I have been a bit hasty in saying figures must exist in the system. An earlier (No. 9 of 2003) CAG report also mentioned bridges. That one had a better "Census" of bridges. However, it also said: "Railway administrations are not having complete and proper records pertaining to the railway bridges. For monitoring of bridge works, it is imperative that proper records of construction of bridges are maintained. It was observed that in respect of 5,883 bridges, (1,850 in Central and 4,033 in North Eastern Railways), year of construction was not available with the railway administrations. Further, there were discrepancies in the records."

Yamuna Bridge at Naini, near Allahabad

Both CAG reports highlight delays in rehabilitation of old bridges. The CSP of August 2003 promised by 2013 rehabilitation/rebuilding of 2,700 bridges over the next four years; annual rehabilitation of 600 distressed bridges; and rehabilitation of 19,000 bridges that are technically obsolete over the next 10 years. IR hasn't been able to adhere to those timelines. What is the oldest railway bridge? Given lack of information, I am not sure there is a clear answer. The Dapoorie Viaduct, built in 1858, by Great Indian Peninsular Railway (GIPR) must be one of the earlier ones. But there is a way to cheat and deflect the question. The bridge across the Kabini (Nanjangud) was constructed in 1735 and is a heritage structure. This was originally used for road traffic. When a metre gauge line was built, railways also started using this bridge, probably from 1889. With broad gauge conversion, trains use a different bridge now. However, the Kabini bridge still stands and 1735 is close to what is officially recognised as the oldest surviving railway bridge in the world. This is Causey Arch in England, built in 1725-26 to transport coal from collieries.

*Photograph on previous page: Courtesy Sanjoy Mookerjee
Photograph on this page: From the archives of The Rail Enthusiasts' Society*



Death of a Species

Ajay Singh

The steam behemoths – the whole species has become extinct. Barring a few that operate on the mountain railways and a miniscule number seen during heritage runs, most died and their last rites were performed in some yard, cutting them and selling them off as scrap. Another handful is left on pedestals, mere skeletons with no life and no soul. However, steam retains its own glamour and following; its death is mourned by many. On the other hand, there is a silent wiping out of another species which is happening quietly in the backyards of the Indian Railways – the death of the Diesel-Hydraulic locomotive, class WDS4 – quietly, without tears, unsung.

The last rites of a locomotive are quite matter of fact and mechanical – gas cut to pieces and loaded off to some scrap yard. But, as an engineer, I could not but feel sentimental when realising that in some way this is reincarnation. The locomotive is cut, the heavier sections are segregated and along with the wheels, etc. sent for melting and recycling. The lighter sheets are also recycled, but separately. Assemblies with copper and brass content are segregated for further processing and separate recycling. Reincarnation! As in our ancient texts!

cont'd on page 27...

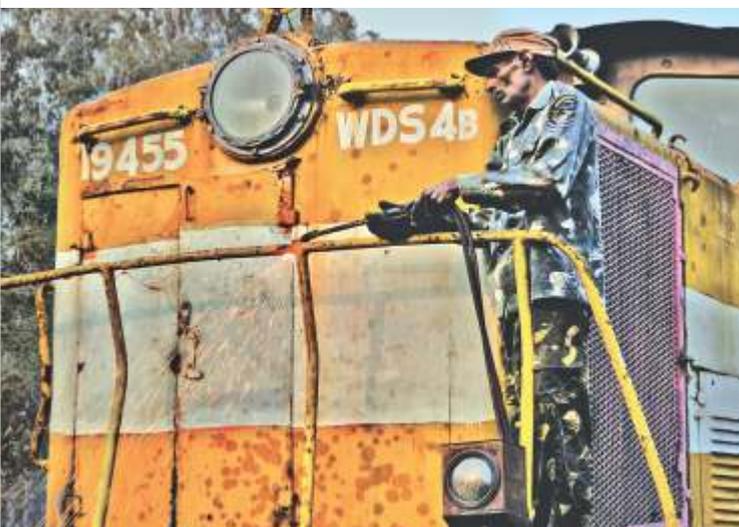
























Photo Captions

- Pages 14 & 15* *WDS4 19455 & 19593 line up in the background as remains of two previous locomotives are being finished off*
- Page 14* *The first blood*
- Pages 16 & 17* *The cab of 19593 is taken off with the help of a road crane*
- Pages 18 & 19* *Both locos are stripped of cabs and other superstructure*
- Pages 20 & 21* *Accidents do happen – this flare up was quickly brought under control – there is still some fire left!*
- Page 22 (top)* *Gas torches, cranes and the sledge hammer, all tools of the trade*
- Page 23 (top)* *The top is bare; time to attack the chassis*
- Pages 22 & 23* *(bottom) - The engine of 19455 uprooted*
- Page 24 (top)* *High-precision engineering of the gear box meets its destiny with low-tech gas cutting*
- Pages 24 & 25 (bottom)*
This is the final destiny
- Page 26 (top)* *The high-tech hydraulic transmission is down*
- Pages 26 (bottom) & 27 (centre)*
Loaded and off for melting and a new life
- Page 27 (bottom)* *A lot of remaining WDS4 locos awaiting their final destiny*
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... cont'd from page 14

Finally, after getting shredded, locomotives 19455 and 19593 get ready to get dissolved into *Panch Tatva*. Culmination of one life and readiness for rebirth in some foundry, mill or steel plant somewhere, becoming parts of a sleek car, a humble spanner, a sturdy golf club or any of the myriads of steel items that we use.

The cycle of life, even of steel, goes on...

Text and Pictures by Ajay Singh



Indian Railway Men & the Victoria Cross

B M S Bisht

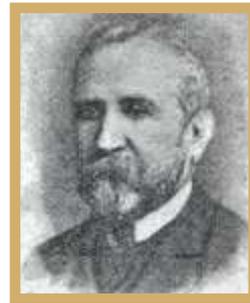
The Victoria Cross (VC) is reputed to be the highest possible award for heroism and valour "in the face of enemy". It can be awarded to a member of the British as well as Commonwealth forces. Such is the glory of this award that the bestowal of a VC is considered an honour not only to the winner but to his country, his unit, school/college, native village, town or city. Constituted by Queen Victoria of Great Britain in 1856, in the 160 years since its inception, the VC has been awarded only 1358 times.

Coming to the story of railway men in India, two names exist, viz. Lieutenant Colonel Arthur Martin-Leake and Colonel William Spottiswoode Trevor, both British, who also served with the railways in India and were awarded the coveted VC.

Born on 4 April 1874, Arthur Martin-Leake qualified as a medical doctor in 1898 but joined the army as a Trooper in 1899 as he could not find a job in his own profession. He was subsequently transferred to Baden Powell's Police and was commissioned in 1901 as a Surgeon Captain in the South African Constabulary, then Royal Army Medical Corps of the British Army.

It was during the Boer War (1899-1902) in South Africa, during a battle on 8th February 1902 at Vlakfontein, that Martin-Leake as Surgeon Captain went out into the firing line and attended a badly wounded soldier. There was very heavy fire from about 40 Boers. As a result, Martin-Leake was shot three times: he was wounded on the right arm and thigh but did not give in till he rolled over thoroughly exhausted. Nearby, eight wounded soldiers lay and when Martin-Leake was offered water, he flatly refused till these men were first served. For this conspicuous bravery in the face of heavy enemy action, he was given the VC, the award being gazetted on 13th May 1902.

Not content with one act of valour, Martin-Leake won his second VC as Surgeon Major – an extremely rare feat as till today only three have done this. This was in the period from 29th October to 8th November 1914 during the Great War (First World War). The climax of his bravery was reached at



William S. Trevor



Arthur Martin Leake

Zonnebeke in Belgium when he rescued a large number of wounded soldiers who were lying close to enemy trenches. This award was gazetted on 18th February 1915.

But where is his railway connection? After being demobbed from the Army, he came to India and joined the Bengal Nagpur Company Ltd. (BNR) at Calcutta (now Kolkata) as its Chief Medical Officer (CMO). Unfortunately, because of our indifference to railway heritage, we do not have any material of Martin-Leake's work as a medical railwayman. However, a 27-page pamphlet, dated 17th August 1917, published by BNR entitled "War Record of Officers & Men", *inter alia*, proudly details the citation for award of Bar to VC to the then Surgeon-Major A. M. Leake. The only other reference to him that one can find is in an article in the July 1947 issue of BNR's in-house magazine.

Martin-Leake had two brothers, also employed by BNR. They were Sammy Leake, Superintending Engineer, and Dicky Leake, District Engineer. These brother engineers had supervised one of the most difficult and interesting bridges over the Roop Narain River at Kolaghat about 52 kms from Calcutta.

Let us now move to the next railway VC winner. Born in India on 9th October 1831, Colonel William Spottiswoode Trevor was commissioned as Second Lieutenant in the Royal Bengal Engineers in 1849. After several army postings and distinguishing himself in active service including the 2nd Burma War in 1852, he came to the then Public Works Department of the Government of India as an engineer, where he rose to the post of Chief Engineer. From there, he



more than 2 feet wide between the top of the wall and roof of the blockhouse. It was because of Major Trevor's extraordinary personal example and leadership that the Sikh troops followed him with greatest alacrity. Earlier, the General's exhortation in Hindustani to the same body of soldiers to do that had had no effect. Trevor was wounded in the battle.

For this bravery in the Bhutan War (1864-66), Trevor was awarded the prestigious VC on 23rd March 1868 by Maj. Gen. Fordyce, commanding the Presidency Division, at the *Maidan* in Calcutta.

became in charge of the State Railways as its top officer then designated as the Director General of Railways.

The designation, Director General of Railways, through successive administrative reforms, became Secretary to the Government of India, Public Works Department; President; President of the Railway Board; Chief Commissioner of the Railway Board; and finally, the Chairman Railway Board! The Railway Board came into existence in March 1905. The Administration Report of Railways for 1880-81 dispatched in 1882 to their Head Office in England includes the name: Colonel W.S. Trevor, VC, R.E., DIRECTOR GENERAL OF RAILWAYS.

In 1864, civil war broke out in Bhutan. To protect their interests, the British sent a peace mission to restore order. The mission's attempts to broker peace were rejected; so Britain declared war on Bhutan in November 1864. Bhutan, armed with rudimentary weapons was no match to the well-equipped British and Indian force and was defeated in five months. However, on 30th April 1865 at Deewan Giri, about 200 enemy fighters had barricaded themselves in the blockhouse which they continued to defend after their main body was in retreat. The blockhouse was the key of the enemy's position. Seeing no officer of the storming party near him and being anxious that the place be taken immediately as any protracted resistance might have caused the main body of the Bhutanese to rally, the General in command ordered the two officers present, including Major Trevor, to show the way into the blockhouse. The British force had been fighting in a boiling summer sun on very steep and difficult ground for over three hours. Major Trevor had to climb the wall which was fourteen feet high and then to enter a house, occupied by some 200 desperate enemies. He did it head foremost through an opening not

Thus, revelations of unprecedented bravery in wars by Railway Officers end – a CMO and a Director General! The latter post was similar to what the Chairman Railway Board (CRB) is today. Could we then say that we had a CRB who had received a VC?

Photos: From the Internet

Historical tidbits:

East Indian Railway's Time Table of 1943 pertained to Second World War days. The British Government, therefore, thought it wise to warn and guide passengers. So, the Time Table had some interesting slogans!

Here's a sampling:

- TRAVEL WHEN YOU MUST
- DON'T DISCUSS MILITARY SUBJECTS WHEN YOU TRAVEL
- PREVENTION OF WASTE IS A NATIONAL NEED
- LIMIT RAILWAY TRAVEL TO ESSENTIAL REQUIREMENTS ONLY
- BUY NATIONAL CERTIFICATES FOR VICTORY
- EVERY MINUTE LOST OR WASTED IS A GIFT TO HITLER AND HIROHITO
- THE MOST EFFECTIVE ANTIDOTE TO RUMOUR IS SILENCE

(from the archives of B.M.S. Bisht)

OUR DAYS IN THE SUN

Monabina Dasgupta

Memories of growing up in railway colonies in various small towns, in the 1940s to the early 1970s, are evocative of a well-ordered life. Our lives were sheltered, peaceful and impervious to the chaos, cacophony and the political tumult outside in various parts of India. We ran according to a unique timetable of UP trains and DN trains, Junctions and branch lines, freight and passenger trains, both mail and express trains. Our oxygen was mixed with coal dust and grease. If the main arena of railway life lay on the tracks, the life of those who toiled here lay in the railway colonies.

These colonies were built around the focal point of the railway station and the railway workshop referred to as the “works”. Everything was meticulously planned and laid down in detail, including all facilities for railway staff that lived there. The colonial style bungalows for the officials were set in acres of land with trees, lawns edged with flower-beds, lily pools and vegetable gardens at the back, which were safe from the intrusion of the outside world.

There were churches of different denominations and local schools that were run by Anglo-Indians or Eurasian ladies.

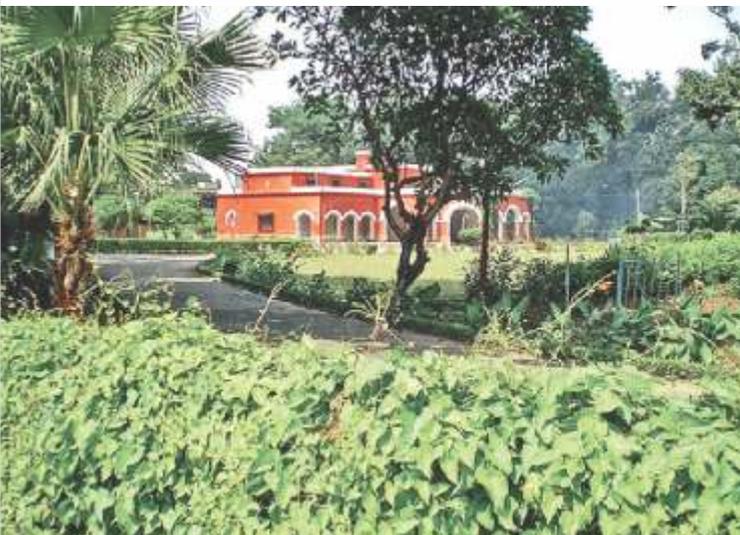


View of the Senior Institute at Gorakhpur

These ladies were the backbone of most English style schools all over India then. They were highly regarded for their English language skills as well as their commitment to discipline. As music and sports teachers, they were dedicated, unmatched and proficient.

The railway hospital or dispensaries offered prompt service for all railwaymen and their families. Here too, Anglo-Indian nursing staff was very valuable. The “Matron” was a figure of awe and reverence, deferential only to ‘The Doctor’.

It would be remiss of me if I was not to mention the Railway Institute and Club, where weekends were spent in games and other social activities. They were colonial to the core. In a hierarchal fashion common to the British, there were the Senior Institutes and the Officers' Clubs, well separated from the Junior Institutes for the blue collared staff. The ubiquitous billiards room would often have wood-panelled walls, where the sound of the cue hitting the red ball would accentuate the silence. The less staid Junior Institutes were livelier and more raucous. Friday evenings would be movie nights, parties were arranged and well-attended. The latest songs from the English hit parades, the latest dances and the latest sartorial styles were the talk of the evenings. Not surprisingly, many from the Senior Institute would abandon their games of bridge and tennis, to cross over to the unabashed fun at the Junior Institute. “Yeah men! This is



Bungalow the author lived in at Gorakhpur



Gandhiji collecting funds for Harijans

where the life is, bloody good!" was the common refrain.

I particularly loved the game of "Housie" or "Bingo". Mother had enormous winning luck in Housie, at the card table or in the Lucky Dip stalls at the fêtes. Once, at a fête, at the "Ring the Duck" stall, she aimed well, and like a lasso, put a well-aimed ring around a frightened duck's neck. It was not easy, as it was difficult to single out any one duck from among 20 scared ducks swimming all together in a frenzied manner inside the little wood and bamboo stockade built for them. We were very excited at her winning but our faces fell when the man in charge of the game picked up the petrified duck and held it out to us to take home. Our reluctance set off much mirth as onlookers kept telling us not to 'chicken out' and not to 'duck the matter' or else someone else might grab the duck and carry it away to have duck curry or vindaloo the next day. Our bungalow peon came to our rescue and brought it home.

We never ate the duck, and it joined Mother's menagerie of dogs, hens, guinea pigs, rabbits, cows and even a rhesus

monkey. Many domestic animals supported our life style in the mofussils in the form of food, such as the hen's gift of eggs or meat or of the cow's gift of milk; or the dogs providing security and companionship.

Exotic pets like the monkey were, of course, somewhat unusual in our or any household. Our monkey was a discovery. One day, our maid, Hema, dusting and cleaning the guest bedroom, was startled to see this monkey sitting on the dressing table, looking at itself in the mirror and engaged in interesting antics. It was not frightened of Hema though it was not the same case with Hema. The monkey's ease with humans suggested that it was well acquainted with them; and with the initial excitement abating, it was decided that the monkey should stay on as a pet of the household. Hema named the monkey Rukmini after a legendary beauty of the scriptures, so beautiful that even Lord Krishna was smitten by her charms. It had been a long journey for the poor little monkey who had been abandoned by her owner, the monkey dance man of the nearby railway station. Such an unusual addition to the





The author with her mother and brother on a railway 'saloon'

menageries of the Sahibs was taken in their stride by almost everybody. The staff associated with most of the houses was quite at peace not just with monkeys and gibbons, but also with a variety of snakes and large cats.

The employees of the railways often carried interesting designations, relating to their supposed duties. A trolley man was one who supposedly operated inspection trolleys. The more generic peons handled messages and paperwork and seldom did much. The *Khansamas* were lords of the kitchen, who did the cooking while presiding over a host of menials. The ancillary staff of the *dhobi* or washer man, the *malis* or gardeners, the watchman: all rounded off the community that cared for the official's home.

Times change and so do the positions of the officials. One day my father was promoted to the head office. This meant moving to a major metropolitan area. Overnight, our life in the mofussils ended. We parted from our pets and the lifestyle of rural officialdom. We did not realize that we were parting not just with our experience of the official world of the railways but also the legacy of British Raj. Soon, to go away forever, would be the carefree childhoods, the egalitarian playfulness of the children of the Sahib's bungalow and the children of the compound. Change would sweep in: all would go to school, the little child brides would be older when they married. While inside the colonies life went on peacefully, outside the political upheaval of the times grew and was soon to impact our lives. India became free and the demography of the country changed – she lost her innocence and simplicity. Not long

after, the era of steam engines would come to an end – as steam locos headed to scrap iron yards. The brave new diesel engines would replace them with power and magnificence and brutal efficiency.

One of our Eurasian friends, Avril and her family, left for a grim post-war Britain. In her father's conversations, he had always spoken of the "Home country". His family was fiercely loyal to the Imperial rule and a "mother country" they had never experienced. In India, they were sandwiched between the "ruling class" of the pukka sahibs and those whom they ruled over – the natives. After a year in England, she wrote with a touch of disillusionment that life was not easy: "The grass may look greener on the other side of the fence but it's just as hard to cut". She would cherish in her memory, her friends and "Her Days in the Sun".

The poignancy cannot be belied – I never heard from her again.

I had never thought that the timeless railway spirit would end this way. It is the way of the world, the transient quality of our lives. "Each a glimpse, and gone forever!"

Photos: Courtesy the author

Monabina Dasgupta, née Gupta, is the daughter of the late Ajit Kumar Gupta. She lived in various places with her father, whose first posting was as Assistant Traffic Superintendent of the erstwhile South Indian Railway at Egmore, Madras (now Chennai). Mr. Gupta retired as General Manager of the Western Railway zone of the Indian Railways in 1974. Today, the life that Mrs. Dasgupta describes is not possible to get even in the most mofussil of locations on the Indian Railways.

Rail Station Trivia

Ib in Odisha is the shortest name of a railway station in India.

The longest is in Andhra Pradesh, named **Venkatanarasimharajupariipeta**.

Navapur railway station lies in 2 states – half of it is in Maharashtra and the rest in Gujarat.

The Aam Aadmi Party has a station named after it: this is **Ambiarapur** station with station code AAP in Uttar Pradesh.

In Search of Steam

Brienz Rothorn Railway, Switzerland

Vikas Singh



The BRB rake with two passenger coaches

After Jungfrau, Gornergrat and Bernina Railway, Brienz Rothorn Railway is the highest railway in Switzerland and is the only railway amongst these with daily steam runs from 1st June to 20th October each year.

Brienz is located in the middle of charming and picturesque mountains at the eastern end of the turquoise-coloured Lake Brienz. Known as the woodcarving village, Brienz has an old tree population, a long tradition in woodcarving and is home to a woodcarving school and a violin-making school. Arguably the most romantic street in Brienz is the famous Brunnngasse, which was once awarded the title of

the most beautiful street in Europe. Most of the houses date back to the 18th century and are embellished with woodcarvings. Brienz is also home to the famous Lotscher cuckoo wall clocks. Founded in 1920, Robert Lotscher Ltd. is the only genuine Swiss brand of cuckoo clocks in existence today. All of the initial steps involved in building the clocks are completed in the woodcarving facility in Brienz. The finished clock bodies are then shipped to the final assembly plant in Fällanden, not far from Zurich.

The completion of the Rigi mountain railway in 1871 proved that even the Alps could be conquered by the might of

steam power. The Bernese Oberland, wanting to be part of this touristic phenomenon, formed a committee in 1889 under the leadership of a German engineer from Lucerne, A. Lindner. He was fascinated by the idea of building a Rothorn railway, the world's highest mountain railway! Mr Lindner was a highly qualified railway expert experienced from working on the construction of the Gotthard railway. In 1890, he wrote a memorandum concerning the project of a railway to the Rothorn. After necessary financial arrangements were made, T. Bertschinger, a master builder from Lenzburg, was put in charge of the construction work. He had previous experience of having built the Seetal railway and was, therefore, qualified to accept the risk of undertaking the contract. The contract included supply of the rolling stock and the rail track, training staff and operations for the first year at a price of 2 million Swiss Francs. In 1889, the Swiss Federal Assembly granted a license for the construction of the railway and in the summer of the same year work commenced. The largest number of workers employed at one time was 640, mostly Italians who were accommodated in new barracks and old



Plaque commemorating 100 years of the BRB railway at Rothorn Kulm Station

Leaving behind the beautiful landscaped gardens and back lanes of equally beautiful houses of Brienz, the train enters the dense forests above the lakeside





At the Planalp station

alpine herdsman's cabins to suit their simple yet practical way of life. On 31st October 1891, a works locomotive reached 'Kulm', the summit station. The entire railway, climbing over 5500 feet with 6 tunnels, was built in a 16-month period including a harsh winter.

We took the 0704 hrs. IR 2209 train from Interlaken West reaching Brienz eighteen minutes later. The Brienz Rothorn Railway timetable provides an hourly service to Rothorn Kulm, a journey of 58 minutes over the 7.6 kms distance. The reason for this longish time becomes very obvious as the train pushes off from Brienz (all trains are pushed on the BRB). The journey commenced from Brienz station built in 1892, situated at a height of 1857 feet. It has been built with traditional gable posts enhanced with the romanticised onion-form. In 1935, the East side was extended with a covered goods shed and the main entrance was extended West. The station was completely renovated in 1992 during the centenary celebrations.

Once the train started, we soon noticed that it was ascending in a very serious manner. Chalet rooftops appeared and the Brienz Lake dropped below. The line ascends 1700 m to the peak, and has a ruling gradient of 1 in 4, which, as any railwayman will confirm, is a feat that only a rack can achieve. The BRB therefore utilizes Abt dual rack and pinion system on the entire stretch. The same system is installed and works on the Nilgiri Mountain Railway in India.



A Brass plaque at Rothorn Kulm Station remembers the pioneers of BRB railway - A. Lindner and T. Bertschinger

Leaving behind the beautiful landscaped gardens and back lanes of equally beautiful houses of Brienz, the train entered the dense forests above the lakeside. This section brought us to the first passing loop at Geldreid where a descending train may pass. Soon thereafter, the first tunnel was entered and we were deafened by the locomotive exhaust beat as it bit into the winding route through the rock face. The first set of tunnels are in fact a series of four,



Steam loco No-16. It was built by SLM Winterthur in 1992 (Works No. 5457)

with short windows through which the alert passenger is able to capture a glimpse of the turquoise lake far below. Following the tunnel section, the forest thinned out giving way to the meadows of the alpine pastureland. Twenty five minutes after leaving Brienz, the first stop in Planalp was reached. This pause is necessary: the loco had already used 900 litres of water climbing the first 800 meters and required an additional 1000 litres to reach the summit, another 900 meters higher.

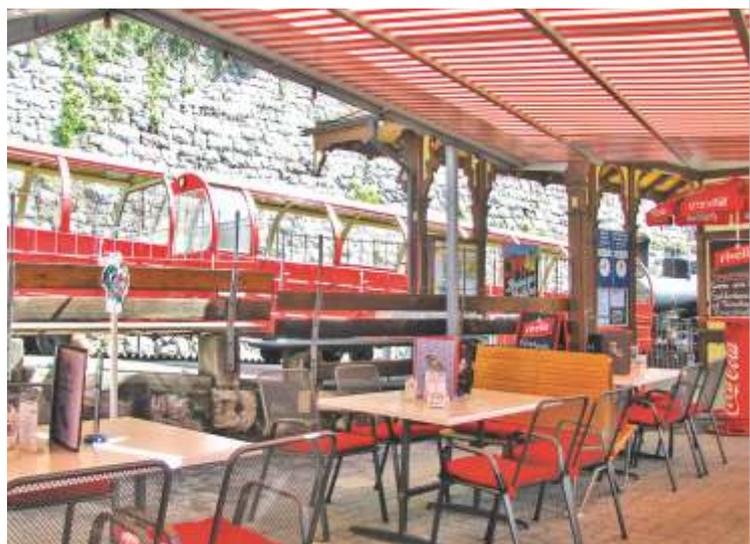
Planalp station is at 4416 feet and at distance of 3.6 kms from Brienz. Initially named Hausstadt, it was renamed Planalp in 1913. In the 1930s, the original building was

destroyed by an avalanche. Again in 1999, the chalet style station from the 1930s was destroyed by another avalanche. The building today is a temporary construction. Planalp is primarily a passing loop and, most importantly, a watering point for locomotives.

Following the mandatory oiling and mechanical check, departure was brisk up into the upper reaches of the meadows. The ascent to the next passing loop, Oberstaffel, took us into the rocky open alpine reaches. Snow in winter, (November – April) reaches up to 15 meters in depth here resulting in the vegetation being correspondingly tough and limited, although this is the section with the best to



The Brienz Chapel



Inside the railway restaurant at Brienz station

offer in Alpine flora and fauna. Leaving Oberstaffel, the temperature started to drop, even in high summer. This meant very serious and tough work for both, the steam locomotive and fireman, who now had the job of firing at over 6000 feet above sea level! Traversing the upper ravine, the train was now well into the last change of terrain. A fresh nip in the air reminded us that we were now approaching 7000 feet above sea level and the valley was a breathtaking vertical mile below us.

Enroute, we passed two stations which serve as emergency halts, where the train does not stop – one situated at 3359 feet, and the second at 5997 feet.



As the train chugs uphill, Brienz lake can be seen in the background

We finally arrived at Rothorn Kulm Station situated at 7362 feet. Until 1991, the station had no permanent structure to speak of. It was then that the building as it exists today was constructed. This construction necessitated a boundary change between the cantons of Bern and Luzern which, together with Obwalden, meet at the summit of the Rothorn. The building can provide shelter to 100 people. There is also a cableway for material transport to the Hotel Rothorn Kulm.

On arrival at the Rothorn Kulm Station, one can take a short walk up to the Railway's Mountain Restaurant and Hotel, where the terrace presents a stunning panorama across the range of the Bernese Alps. A few hundred meters further, one reaches the marker indicating the highest point of the Rothorn and the vantage from which the entire chain of the Swiss Alps with the Eiger North Face and Jungfrauoch may be admired.



Rothorn Kulm Station



Lotscher cuckoo clocks on display at Kirchofer's

All steam locomotives on this railway are Class H2/3, indicating that 2 axles of the 3 are driven, giving a wheel arrangement (Whyte System) of 0-4-2. The older locomotives are with a side tank "kneeling cow" design, a standard SLM product. The modern steam locomotives use efficient "light oil" fired steam technology and were built by SLM (Schweizerische Lokomotiven und Maschinen Fabrik) of Winterthur.

Occasionally, diesel locomotives, constructed by Ferdinand Steck Maschinenfabrik, with (Whyte System) 0-4-0 wheel arrangement and "kneeling cow" design, also work on the line.

After spending some time at the summit, we took the train back. Returning to Brienz, we spent time exploring the streets and buying some wood carvings and the original Swiss cuckoo clock by Lotscher.



Coach B12. It was built in 1892 with eight wheels (2x2 axle bogies) and seats 48



Inside passenger coach on BRB Railway



BRB utilizes Abt dual rack and pinion system on the entire stretch



Brunngasse Street, which was once awarded the title of 'The most beautiful street in Europe'

Later, we took the train to Meiringen immortalised by Conan Doyle in *The Adventure of the Final Problem* (1893) when Sherlock Holmes and Professor Moriarty grappled before falling together into the 'boiling pit' of Reichenbachfall falls. The Sherlock Holmes Museum is located in a small chapel, a short walk away, virtually at the end of the Meiringen rail station. A funicular railway takes visitors from Meiringen station to the top of Reichenbachfall falls. We will revisit this exciting rail journey in a later issue of the magazine.

Photos: Courtesy the author

The Ffestiniog & Welsch Highland Railway

S M Sharma

The Ffestiniog and Welsch Highland Railway (FW&HR) stretches for about 40 miles across the Snowdonia National Park through a picturesque landscape, with smoke from the steam engine taking one back more than a hundred years. The Ffestiniog Railway is a 1 ft. 11½ in. (597 mm) narrow gauge heritage railway, located mainly within the Snowdonia National Park. The railway is roughly 13½ miles (21.7 km) long and runs from the harbour at Porthmadog to the slate mining town of Blaenau Ffestiniog. The Festiniog Railway Company which owns the railway is the oldest surviving railway company in the world. It also owns the Welsh Highland Railway which was re-opened fully in 2011. The two railways share the same track gauge and meet at Porthmadog station; some trains work the entire 40-mile route from Blaenau Ffestiniog to Caernarfon. The line was constructed between 1833 and 1836 to transport slate from the quarries around the inland town of Blaenau Ffestiniog to the port of Porthmadog, where it was loaded onto ships. The railway was graded so that loaded wagons could be run by gravity downhill all the way from Blaenau Ffestiniog to the port. The empty wagons were hauled back by horses.

Minffordd today is predominantly a heritage passenger system which offers different packages to suit the needs of tourists. The wonderful carriages and the courteous onboard staff (mostly volunteers) make the experience exquisite. If there were a heaven on earth, it would be this.

I reached rail enthusiasts station at about 19.00 hours travelling by a Diesel Multiple Unit belonging to the Arriva train operator from Birmingham. The final stretch of the journey was all along the sea on the edge of the hill – one of the finest journeys as one moved from Britain to Wales. The train was manned by a two-man crew who would double up as fitters and cleaners as well. No wonder the private railways do well with this level of multi-tasking. There was not a soul at the station and as I walked up its ramp I was greeted by Paul Levin, the General Manager of the railway. His involvement with this railway dates back to the time he joined as a volunteer a couple of decades back. He is also a Director of the Heritage Railway Association and a Member of the Welsh Government's Tourism Sector Panel.



Crossing Minffordd Station

It was really a treat and a privilege to see the Boston Lodge Engineering Works, which is one of the few units in the World which is still manufacturing steam locomotives. It is unique because it has manufactured steam locos in the 19th, 20th and 21st centuries. The carriage works have manufactured DHR carriages for the Beeches Light Railway in Oxfordshire, UK. During the visit, the Fairlie locomotive was being manufactured.



The coaches of the F&WHR are beautifully designed with seats ergonomically and aesthetically manufactured giving a regal look. The woodwork of the coaches is especially crafted and the big size windows provide a wonderful view of the passing scenery. The pantry car in the train is well equipped and the narrow gauge coaches are connected by vestibules. The "Spooners" café-cum-bar at Portmadog is like an ancient pub which serves mouth-watering cuisine.

No wonder the railway earns a lot from its non-fare revenue stream too. Most of the persons managing it are volunteers and always have a smile on their faces. It is accessible to non-passengers as well and is usually full.

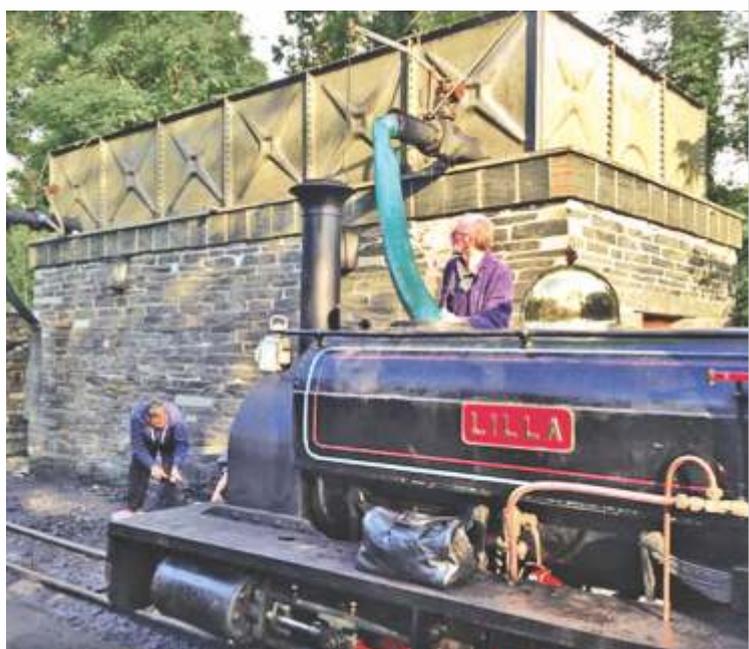
The railway is very professional in its approach as could be seen from the quality of discussions in the meeting at the Infrastructure office. Paul briefed the employees about the new values and behaviour booklet and the vision of the



Small stopover for watering the locomotive – time to click photos

company. The guiding principles of the strong base are safety, collective responsibility, leadership, professionalism, communication and heritage awareness with a focus on valuing people, the community and supporters. The infra discussions were centred around the permanent way and signals & telecommunications store, ranging from storage of hazardous material to housekeeping and new equipment requirements. Risk assessment and mitigation measures were discussed and targets jointly agreed. The needs of the staff and volunteers were also discussed.

The railway survives because of the strong base of volunteers who are steam and heritage lovers. There were a few people who were cancer survivors and had found their purpose in life by working for the railway and serving the people. They may also be enjoying a holiday in Wales, serving on an off day from their 'normal jobs' or using their retirement to come and help the railway. Many volunteers are members of the Ffestiniog Railway Society or the Welsh



Coal loading and watering

Highland Railway Society. Friendships made whilst volunteering on the railway are long-lasting and many railway romances have later led to marriage. Some 'railway' families are now bringing along the third generation of volunteers, who remember stories from their childhood which their Grandpa and Grandma had narrated. Indian

Railways could learn from this experience as such a sense of ownership and service from the heart is what may help us in restoring many heritage systems back home.

The train journey from Rhyd Dhu for Caernarfon was just out of the world. The train conductor was well equipped with hand held devices and the smart waiters (volunteers) were very polite. The passengers were tourists and rail fans and it was fun sharing experiences. It felt so nice being part of the mighty Indian Railways – thanks to the BBC documentaries on the *Samjhauta* and *Maitree* Expresses as well as the Darjeeling Himalayan Railway.

At Caernarfon it was a sublime and delightful experience to see the professionalism in the meeting with the Harbour Trust, local council and the architects regarding development of the station. This was followed by the safety meeting in which the most minute details, like a passenger slipping from the door steps while boarding, were discussed. The agenda had colour codes with different priorities for items and it was in this light that targets were reviewed. Shadowing the General Manager for a day was quite a



View of Lilla from the guard van



The Boston Lodge Works – the author (on the left) seen on the Fairlie



The Spooners Café overlooking the Portmadog station



Things to do in the GM's room – very meticulous



Coal loading using a bull dozer

learning experience and gave an insight into the working of the railway and the reasons for its success.

The best things come last. I rode in the guard's van, the train being hauled by "Lilla" steam locomotive. I am at a loss of words to describe how exciting and glorious this journey was. It was fun to carry out the duties of a travelling gateman, closing and opening the level crossing gates en route. Driving the locomotive was an opportunity of a lifetime and the warmth from the boiler was most welcome as the temperature outside was a bit chilly. This was the first



The final inspection before the train departs

time I literally worked as a fireman and a coal loading porter, loading the coal on to the loco at wayside stations from the stacks lying on the ground. Hand shunting a flat wagon along with Peter and Paul and placing the same in the shed at Blaenau Ffestiniog was not only exhilarating but also enjoyable. It was nice to see an ALCO manufactured steam loco in the shed waiting for its turn to be restored.

After all the hard manual work, we had literally earned our dinner which turned out to be a lovely English picnic in the brake van. The journey back was equally enjoyable and



Switching and shunting operations



The author with 'Lilla'



On our way...



View of the slate route on the F&WH Railway

gratifying as we stopped at various places to see the sharp curves and picturesque landscape. All the stories I heard about slate wagons unravelled the rich past of the railway system and gave me a sense of the heritage that was being preserved by Paul and his team for future generations to see and experience.

Fond memories of this experience did make me fall in love again – this time, with the Railways.

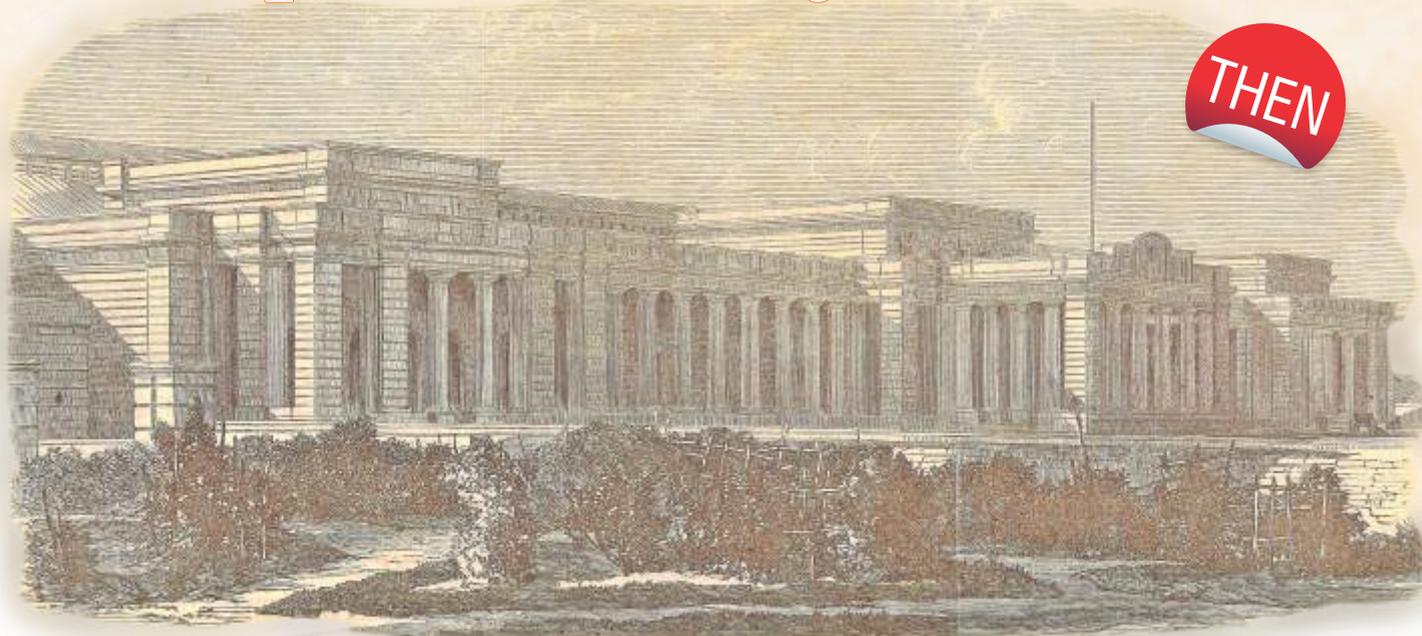
Photos: Courtesy the author



Smartly dressed loco pilot looks ahead

Then & Now

Kanpur Railway Station



The original Kanpur station building engraved in 'The Illustrated London News'

Kanpur was an important station on the main line built by the East Indian Railway (EIR). Construction on this route had advanced well beyond Allahabad by June 1857 when the First War for Independence broke out. As a result of the emergency, the remaining section to Kanpur was quickly opened during the same year, to exclusively facilitate troop and material movement. The line was opened for public traffic only in 1862. Both, at Allahabad and Kanpur, extensive station works were carried out along with the construction of barracks and other structures to accommodate engine-drivers and workers as well as sheds for locomotives.

Kanpur was an important trade, industrial and administrative centre. After 1857, it also became an important cantonment because of its strategic location. With the heavy loss of life suffered by the British in the 1857 skirmishes, it was only appropriate that the British create monumental public buildings to reassert their authority. The EIR, therefore, built a most magnificent station building which was opened in 1867. At the time it was, perhaps, the largest and most impressive station building in the country. It was built in the Classical Style of architecture with the use of the impressive tall Doric capital. The only other station built in the Classical Style was the Royapuram Station at Chennai built earlier in 1856.

The station building was large with a row of offices, waiting rooms, a refreshment room and other passenger amenities, along a broad platform. The Platform Shed conformed to the standard EIR design of a barrel roof structure with one end resting on the main station building and the other on an arcade of rounded arches with large ventilator openings on top. As at all stations on the route, the shed only covered a single platform line. Apart from the distinctive Doric capital, other notable features are the rusticated wall and corner block design, the use of fanlights above the doors and windows and a large 'Porte Cochere'. An engraving of the station building was featured in **The Illustrated London News** at the time.



Over the next few decades, as the rail network in India grew, several rail lines belonging to different companies converged on Kanpur. These included the Oudh & Rohilkhand (BG) Railway from Lucknow (1867/1875), the BB&Cl (MG) line from Mathura via Kasganj and Kannauj (1880-84), the O&RR/Bengal & North West Railway (MG) line from Aishbagh/Burhwal and the Indian Midland Railway/GIPR (BG) (1886-88) line from Jhansi. Each one of them had their own stations and

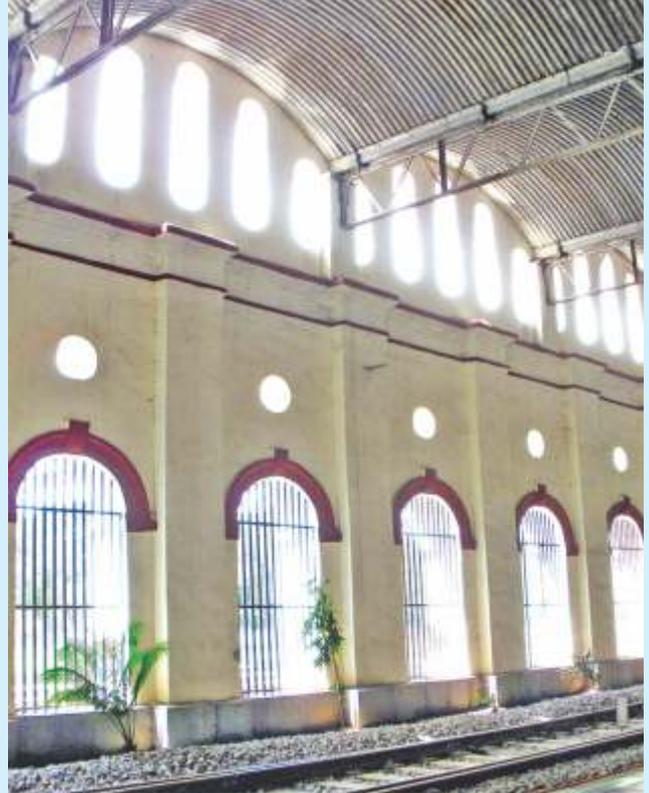


Inside the original Kanpur station today



Kanpur Central Station

yards. As traffic volumes grew, the interchange of traffic and operations progressively became more complex and expensive. As a result, in 1925-26 a Special Officer was appointed to study the situation and develop a plan to improve coordination and secure a more 'expeditious and economical' system of working. Based on his recommendations, a new scheme of remodelling and integrating the system of working was sanctioned in 1926 at a cost of ₹ 7,700,000. One outcome of the remodelling scheme was the construction, at a new location, of a brand new Passenger Station Building - the Kanpur Central Station.



Another view inside the original Kanpur station

The new station building was built in the 'Indo-Saracenic' style with prominent ribbed domes with beautiful finials on top, a row of charming pavilions, balustrades, balconies and grilles with delicate decorative filigree work, arcades of pointed arches at three levels. On the rail side of the building, the main platform was exceptionally wide with an impressive covered shed design. The new building was inaugurated in 1929-30 by the Governor of the United Provinces. The building is still in use and has completed 87 years.

The old EIR 'Cawnpore' Station building, after the remodelling, did not fall on the main trunk route alignment and is today a Civil Engineering Training Academy (CETA) of the North Central and Northern Railway zones of the Indian Railways. The building, still in good shape, completes a century and a half this year.

Photos: Archives of the Rail Enthusiasts' Society



The original Kanpur station 'Now'



'Kanpur' as spelt 'Then'

Handling a Python

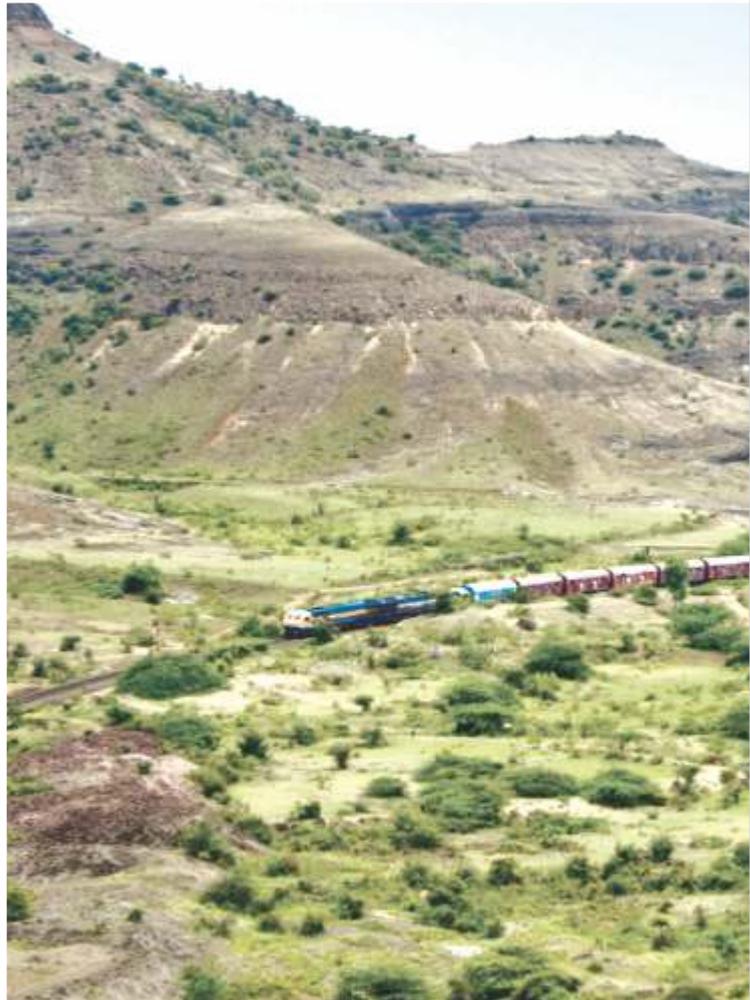
J L Singh

Handling a python is not everyone's cup of tea. Handling the very first makes it the rarest of such cups.

It was the month of April 1979; I forget the exact date. The 1033 Railway Engineers, a Railway Territorial Army Unit, headquartered in Ajmer and comprising of staff of the Western Railway zone of the Indian Railways, had been embodied* and deployed on the North East Frontier Railway zone. The latter had been having a large number of wildcat strikes and staff unrest leading to a stage where train operations were badly affected. One of the steps that the Ministry of Railways then took was to use Territorial Army (TA) units to assist in alleviating the effects of the non-cooperation of the staff.

On that fateful April evening almost four decades back, I was with the Commanding Officer of the unit, Lt. Col. P S Chaudhury, a railwayman, but then donning army greens and leading the TA unit. P S Chaudhury was the Chief Motive Power Engineer of the Western Railway in normal railway life. I was posted as Senior Mechanical Engineer (Construction) at Sabarmati (also on Western Railway) and was the member of the TA Battalion as a Lieutenant.

****To assist the armed forces in case of war or the civilian administration during normal times, the Indian Railways maintains Territorial Army Units. These comprise of railway men who work normally like other railway men for 11 months in a year and for the remaining month, attend an army camp, where they are taught military craft like using a rifle, marching, drill, etc. In case the need arises, they are "embodied" for duty. This means that they give up their normal railway work and proceed in army uniform to assist the war effort or the civil administration as the need may be. Today, the Railway Territorial Army maintains a strength of about 5000 railway men ready to don army greens as and when required.***



With a small contingent of TA railwaymen-turned-soldiers, we were at New Bongaigaon yard of the North East Frontier (NF) Railway. In those days, the Broad Gauge (BG) network ended at New Bongaigaon and further movement of trains towards Guwahati was on the Meter Gauge. As a result, there was a large marshalling yard at New Bongaigaon where all BG trains coming down the single line track from New Jalpaiguri terminated. The traffic pattern was such that most of these trains were loaded while those leaving the yard towards New Jalpaiguri comprised of empty wagons.

As the sun set over the Western horizon, we found that the yard was in a jam. There were two incoming freight trains

but no line available in the yard to receive them. There were a number of rakes of empty wagons but only one locomotive, a WDM2 class diesel, available. Thus, one line could be cleared but there would be no line for the second train. Of course, we could clear one line and bring in one train and then use its locomotive to move another train out. This would mean that a line could be cleared only when one train arrived and in the interim, you simply waited and

such a path if we left New Bongaigaon around 10 p.m. There were no passenger trains that would come in the way at that time and we could have a clear run to New Jalpaiguri. An immediate plan was then drawn up such that the train locomotive of this double train would be manned by a TA crew while an NF Railway regular would be the guard of the train. Shunting movements were immediately taken up and the long double train formed. The TA driver and the driver's



twiddled your thumbs. To make matters worse, almost all wayside stations had stabled loads so that it wasn't possible to terminate the incoming trains at any one of them.

Our Commanding Officer came up with a solution. Since all the wagons to be moved out were empty, the train load would be very low. He suggested that we couple two empty rakes together and move them out with the one locomotive available. This would immediately empty two lines. The only requirement would be that we would need a clear run with no stoppage for a crossing till the next yard, New Jalpaiguri, 251 kilometers away.

The Yard Master informed us that there was possibility of

assistant got onto the locomotive and only the guard of the train was yet to arrive for the train to be ready to depart.

"What name do we give this train?" the Yard Master asked. "It is not a normal train."

"Call it a Python," P S Chaudhury suggested. "It can be called Python 1."

And, thus it was that this two-rakes-coupled-as-one train came to be called a Python.

It was only a few minutes to 10 p.m. and the NF Railway guard had still not turned up. The Yard Master was desperate.

"If we don't start this train in a few minutes," he said, "We will lose the path and not be able to run."



P S Chaudhury had a solution for everything.

"J L Singh," he looked at me. "You are the driver of this train." He followed by telling the regular TA driver that he should run to the rear of the train and do the guard's duties.

This is how I found myself manning the controls of the locomotive of the first python freight train of the Indian Railways. To the best of my knowledge, this was the first train to be named a python although such coupling of two rakes may have been done earlier. If any reader is aware of an earlier train on the Indian Railways that was named a python, please correct me.

I did a quick check of the locomotive. All parameters were in order. In particular, the vacuum gauge reading of the train brake pipe was adequate (those were the days of vacuum-braked trains). The starter signal for the train turned green and I pressed the button of the loco whistle to alert the guard that we were about to start. We looked back to get an all-clear hand signal from the guard but in the darkness and the haze could not see it. With the train now more than a kilometer in length, it would be difficult to see the signal in any case. After whistling a few times more, and to ensure that we did not miss our path, I eased the locomotive

throttle to notch 1, then notch 2, and so on, till the train began to move and pick up speed as we left the yard. On the locomotive were the Driver, i.e. me, the Assistant driver of the TA and Lt. Col. P S Chaudhury.

Our run was smooth and easy. In spite of its length, the python handled very well. The python being longer than the loop lengths at the stations, we were getting a run through at each station. Just when we were approaching New Cooch Behar station and looking forward to an early arrival at New Jalpaiguri, the Assistant Driver yelled that the Distant signal was yellow. This meant that the home signal could be red.

I applied the train brakes. As it should, the vacuum reading in the train pipe gauge fell. I knew that on a freight train, there is no perceptible reduction in speed immediately, but I found that even after a considerable length of time, the train speed was not reducing. By this time, the home signal was also visible, it was red and approaching fast. I applied emergency brakes, dropping the vacuum to zero. The speed began reducing, but not fast enough. We had already crossed the distant signal and the home was coming nearer and nearer. It was obvious that we would go past the signal.

“Switch off your headlight,” P S Chaudhury advised. “The station master will not know if you have crossed signals.”

With my heart in my mouth, I did so mechanically. Fortunately, the train had slowed considerably by this time and we were sure it would stop short of the facing points but would go beyond the home signal. This being 4-aspect upper quadrant semaphore signaling territory, the home was 120 meters from the facing points, so that we would not be going directly into the station yard immediately after the signal, as is the case with 2-aspect signaling.

The locomotive came to a halt about 25-30 meters beyond the home. We heaved a collective sigh of relief that nothing untoward had happened.

While we were waiting, the guard, or should I say, the original driver, came up to the locomotive totally out of

breath as he had come running from the guard's van at the rear of the train a kilometer away.

“Sir,” he said, “The vacuum in my van is nil.”

An investigation showed that when the two rakes had been joined to form one train, the coupling had been correctly done, but the staff member had forgotten to couple the vacuum brake pipe. In effect, the brake power on the train was only 50%.

Anyway, all's well that ends well. And, it did! We arrived safely at New Jalpaiguri early the next morning. And, that is how it was that I handled a python for the first and last time in my life.

Photos: Courtesy Lalam Mandavkar



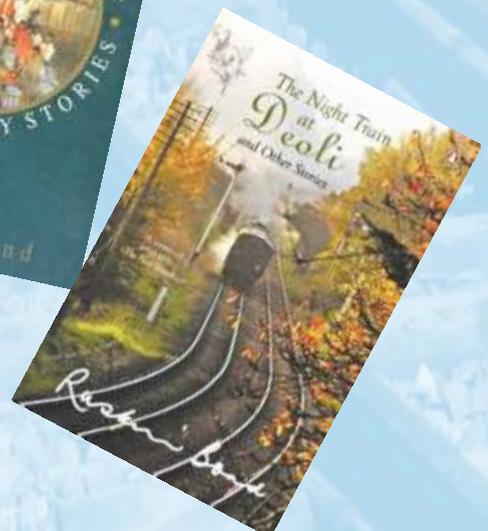
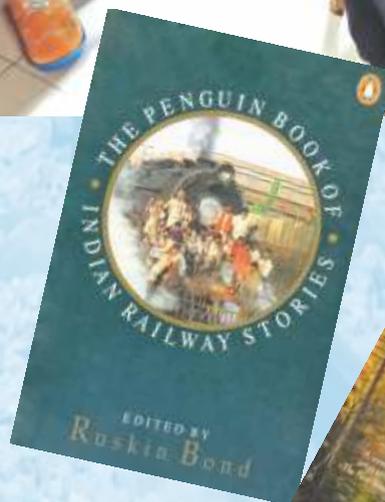
For the Budding Enthusiast

Trains and Ruskin Bond

Many of you would have read stories written by Ruskin Bond. An Indian author of British descent, he now lives in Landour, Mussoorie. He has been honoured by various awards like the Padma Shri and the Padma Bhushan as well as the Sahitya Academy Award for his contribution to children's, i.e. the budding enthusiast's, literature. One of the Rail Enthusiasts' Society's founder members, Vikas Singh, has been an avid reader and collector of Ruskin Bond's work, and has had occasion to visit the author at his Mussoorie retreat and elsewhere. In the words of Vikas Singh...



Trains feature in a number of Ruskin Bond stories. Some of the more popular ones are **Night Train at Deoli**, **The Woman on Platform 8**, **The Eyes Have It** and **The Tunnel**. A prolific writer, journeys on steam hauled trains feature in many of his stories. Although he spent his early years in Dehradun, Ruskin Bond did his schooling from Bishop Cotton School, Shimla. In those days, before the advent of SUVs and luxury buses, the Kalka-Shimla Railway was the popular mode of transport. Although there are many tunnels on the Haridwar-Dehradun train route, in conversation, Ruskin revealed that the tunnels on the Kalka-Shimla Railway inspired him to write **The Tunnel**. With his kind permission, we reproduce below his story: **The Tunnel**.



THE TUNNEL

Ruskin Bond

It was almost noon, and the jungle was very still, very silent. Heat waves shimmered along the railway embankment where it cut a path through the tall evergreen trees. The railway lines were two straight black serpents disappearing into the tunnel in the hillside.

Suraj stood near the cutting, waiting for the midday train. It wasn't a station, and he wasn't catching a train. He was waiting so that he could watch the steam engine come roaring out of the tunnel.

He had cycled out of Dehra and taken the jungle path until he had come to a small village. He had left the cycle there, and walked over a low scrub-covered hill and down to the tunnel exit.

Now he looked up. He had heard, in the distance, the shrill whistle of the engine. He couldn't see anything, because the train was approaching from the other side of the hill;

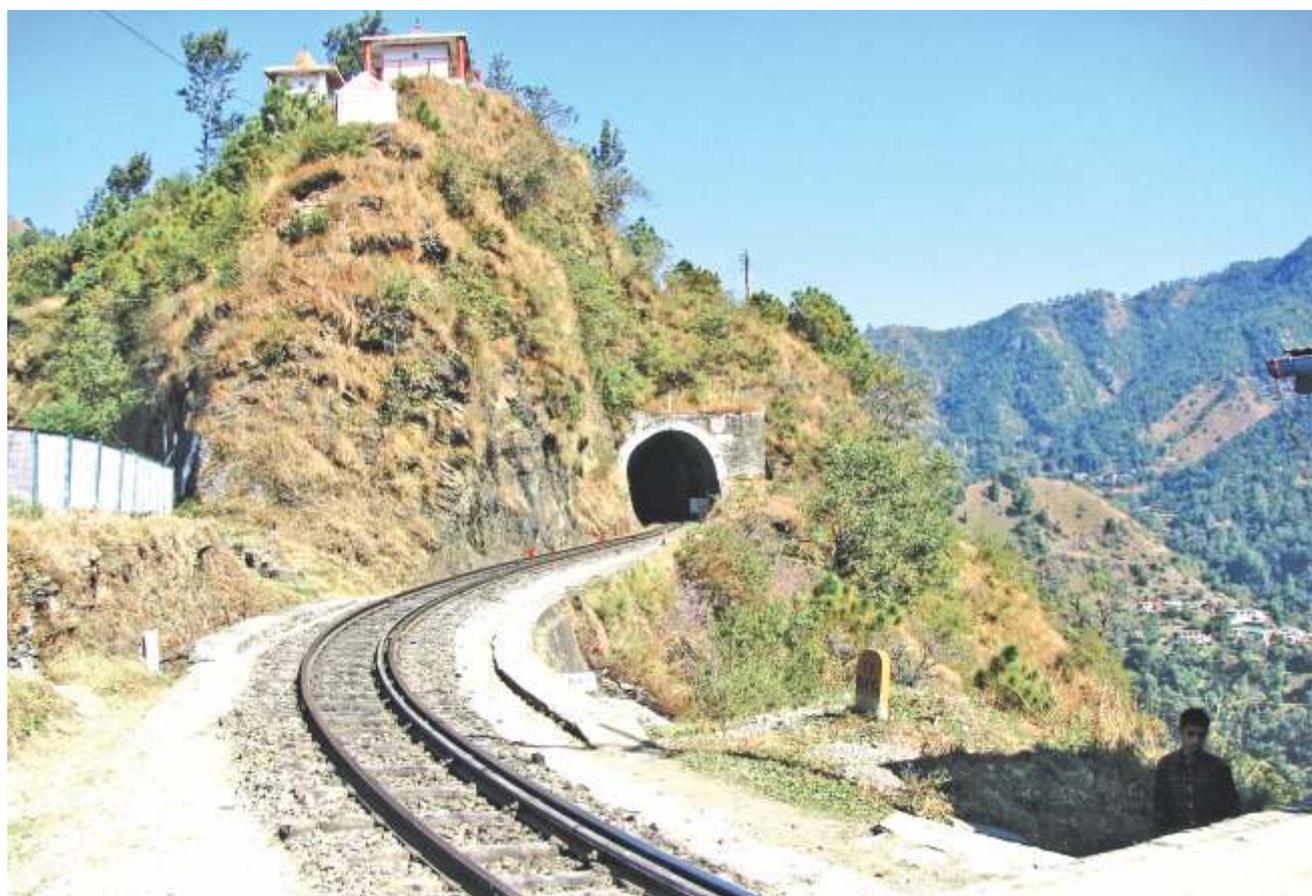
but presently sound like distant thunder issued from the tunnel, and he knew the train was coming through.

A second or two later, the steam engine shot out of the tunnel, snorting and puffing like some green, black dragon, some beautiful monster out of Suraj's dreams. Showering sparks left and right, it roared a challenge to the jungle.

Instinctively, Suraj stepped back a few paces. Waves of steam struck him in the face. Even the trees seemed to flinch from the noise and heat. And then the train had gone, leaving only a plume of smoke to drift lazily over the tall shisham trees.

The jungle was still again. No one moved.

Suraj turned from his contemplation of the drifting smoke and began walking along the embankment towards the tunnel.



The tunnel grew darker as he walked further into it. When he had gone about twenty yards it became pitch dark. Suraj had to turn and look back at the opening to reassure himself that there was still daylight outside. Ahead of him, the tunnel's other opening was just a small round circle of light.

was a porcupine on the line. But if there was any danger to the train, he'd go back up the line and wave his lamp to the approaching engine. If all was well, he'd hang his lamp on the door of his hut and go to sleep. He was just settling down on his cot for an afternoon nap



The tunnel was still full of smoke from the train, but it would be several hours before another train came through. Till then, the cutting belonged to the jungle again.

Suraj didn't stop, because there was nothing to do in the tunnel and nothing to see. He had simply wanted to walk through, so that he would know what the inside of a tunnel was really like. The walls were damp and sticky. A bat flew past. A lizard scuttled between the lines.

Coming straight from the darkness into the light, Suraj was dazzled by the sudden glare and put a hand up to shade his eyes. He looked up at the tree-covered hillside and thought he saw something moving between the trees.

It was just a flash of orange and gold, and a long swishing tail. It was there between the trees for a second or two, and then it was gone.

About fifteen meters from the entrance to the tunnel stood the watchman's hut. Marigold grew in front of the hut, and at the back there was a small vegetable patch. It was the watchman's duty to inspect the tunnel and keep it clear of obstacles. Every day, before the train came through, he would walk the length of the tunnel. If all was well, he would return to his hut and take a nap. If something was wrong, he would walk back up the line and wave a red flag and the engine driver would slow down. At night, the watchman lit an oil lamp and made a similar inspection of the tunnel. Of course, he would not stop the train if there

when he saw the boy emerge from the tunnel. He waited until Suraj was only a meter or so away and then said: 'Welcome, welcome. I don't often have visitors. Sit down for a while, and tell me why you were inspecting my tunnel?'

'Is it your tunnel?' asked Suraj.

'It is,' said the watchman. 'It is truly my tunnel, since no one else will have anything to do with it. I have only lent it to the government.'

Suraj sat down on the edge of the cot.

'I wanted to see the train come through,' he said. 'And then when it had gone, I thought I'd walk through the tunnel.'

'And what did you find in it?'

'Nothing. It was very dark. But when I came out, I thought I saw an animal up on the hill but I'm not sure, it moved very quickly.'

'It was a leopard you saw,' said the watchman. 'My leopard.'

'Do you own a leopard too?'

'I do.'

'And do you lend it to the government?'

'I do not.'

'Is it dangerous?'

'No, it's a leopard that minds its own business. It comes to this range for a few days every month.'

'Have you been here a long time?' asked Suraj.

'Many years. My name is Sunder Singh.'

'My name's Suraj.'

'There is one train during the day. And there is one during the night. Have you seen the night mail come through the tunnel?'

'No. At what time does it come?'

'About nine o'clock, if it isn't late. You could come here with me, if you like. And after it has gone, instead of going to sleep I will take you home.'

'I'll ask my parents,' said Suraj, 'Will it be safe?'

'Of course. It is safer in the jungle than in the town. Nothing happens to me out here. But last month, when I went into town, I was almost run over by a bus.'

Sunder Singh yawned and stretched himself out on the cot. 'And now I am going to take a nap, my friend. It is too hot to be up and about in the afternoon.'

'Everyone goes to sleep in the afternoon,' complained Suraj. 'My father lies down as soon as he's had his lunch.'

'Well, the animals also rest in the heat of the day. It is only the tribe of boys who cannot, or will not, rest.'

Sunder Singh placed a large banana leaf over his face to keep away the flies, and was soon snoring gently. Suraj stood up, looking up and down the railway tracks. Then he began walking back to the village.

The following evening, towards dusk, as the flying foxes swooped gently out of the trees, Suraj made his way to the watchman's hut.

It had been a long hot day, but now the earth was cooling, a light breeze was moving through the trees. It carried with it the scent of mango blossoms, the promise of rain.

Sunder Singh was waiting for Suraj. He had watered his small garden, and the flowers looked cool and fresh. A kettle was boiling on a small oil stove.

'I am making tea,' he said. 'There is nothing like a glass of hot tea while waiting for a train.'

They drank their tea, listening to the sharp notes of the bulbul and the noisy chatter of the seven sisters.

As the brief twilight faded, most of the birds fell silent. Sunder Singh lit his oil lamp and said it was time for him to inspect the tunnel. He moved off towards the tunnel, while Suraj sat on the cot sipping his tea. In the dark, the trees seemed to move closer and the nightlife of the forest was conveyed on the breeze – the talk of a barking deer, the cry of a fox, the quaint tonk-tonk of a nightjar. There were some sounds that Suraj didn't recognize – sounds that came from the trees, creakings and whisperings, as though the trees were coming to life, stretching their limbs in the dark, shifting a little, flexing their fingers.

Sunder Singh stood inside the tunnel, trimming his lamp. The night sounds were familiar to him and he did not give them much thought; but something else—a padded footfall, a rustle of dry leaves—made him stand still for a few seconds, peering into the darkness. Then, humming softly to himself, he returned to where Suraj was waiting. Ten minutes remained for the night mail to arrive.

As Sunder Singh sat down on the cot beside Suraj, a new sound reached both of them quite distinctly, a rhythmic sawing sound, as of someone cutting through the branch of a tree.

'What's that?' whispered Suraj.

'It's the leopard,' said Sunder Singh. 'I think it's in the tunnel.'

'The train will soon be here,' said Suraj.

'Yes, my friend. And if we don't drive the leopard out of the tunnel, it will be run over and killed. I can't let that happen.'

'But won't it attack us if we try to drive it out?' asked Suraj, beginning to share the watchman's concern.

Not this leopard. It knows me well. We have seen each other many times. It has a weakness for goats and stray dogs, but it will not harm us. Even so, I'll take my axe with me. You stay here, Suraj.'

'No, I'm coming with you. It will be better than sitting here alone in the dark!

"All right, but stay close behind me. And remember, there is nothing to fear.'

Raising his lamp, Sunder Singh advanced into the tunnel, shouting at the top of his voice to try and scare away the animal. Suraj followed close behind; but he found he was unable to do any shouting. His throat was quite dry.

They had gone about twenty paces into the tunnel when the light from the lamp fell upon the leopard. It was crouching between the tracks, only five meters away from them. It was not a very big leopard, but it looked little and skinny. Baring its teeth and snarling, it went down on its belly, tail twitching.

Suraj and Sunder Singh both shouted together. Their voices rang through the tunnel. And the leopard, uncertain as to how many terrifying humans were there in the tunnel with him, turned swiftly and disappeared into the darkness.

To make sure that it had gone, Sunder Singh and Suraj walked the length of the tunnel. When they returned to the entrance, the rails were beginning to hum. They knew the train was coming.

Suraj put his hand to one of the rails and felt its tremor. He heard the distant rumble of the train. And then the engine came round the bend, hissing at them, scattering sparks into the darkness, defying the jungle as it roared through

the steep sides of the cutting. It charged straight at the tunnel, and into it, thundering past Suraj like the beautiful dragon of his dreams.

And when it had gone, the silence returned and the forest seemed to breathe, to live again. Only the rails still trembled with the passing of the train.

They trembled again to the passing of the same train, almost a week later, when Suraj and his father were both travelling in it.

Suraj's father was scribbling in a notebook, doing his accounts. Suraj sat at an open window staring out at the darkness. His father was going to Delhi on a business trip and had decided to take the boy along. (I don't know where he gets to, most of the time, he'd complained. I think it's time he learnt something about my business!)

The night mail rushed through the forest with its hundreds of passengers. The carriage wheels beat out a steady

rhythm on the rails. Tiny flickering lights came and went, as they passed small villages on the fringe of the jungle.

Suraj heard the rumble as the train passed over a small bridge. It was too dark to see but he knew they must be approaching the tunnel. He strained his eyes looking out into the night; and then, just as the engine let out a shrill whistle, Suraj saw the lamp.

He couldn't see Sunder Singh, but he saw the lamp, and he knew that his friend was out there.

The train went into the tunnel and out again; it left the jungle behind and thundered across the endless plains.

Suraj stared out at the darkness, thinking of the lonely cutting in the forest and the watchman with his lamp, who would always remain a firefly for those travelling thousands as he lit up the darkness for steam engines and leopards.

Photos: Archives of the Rail Enthusiasts' Society

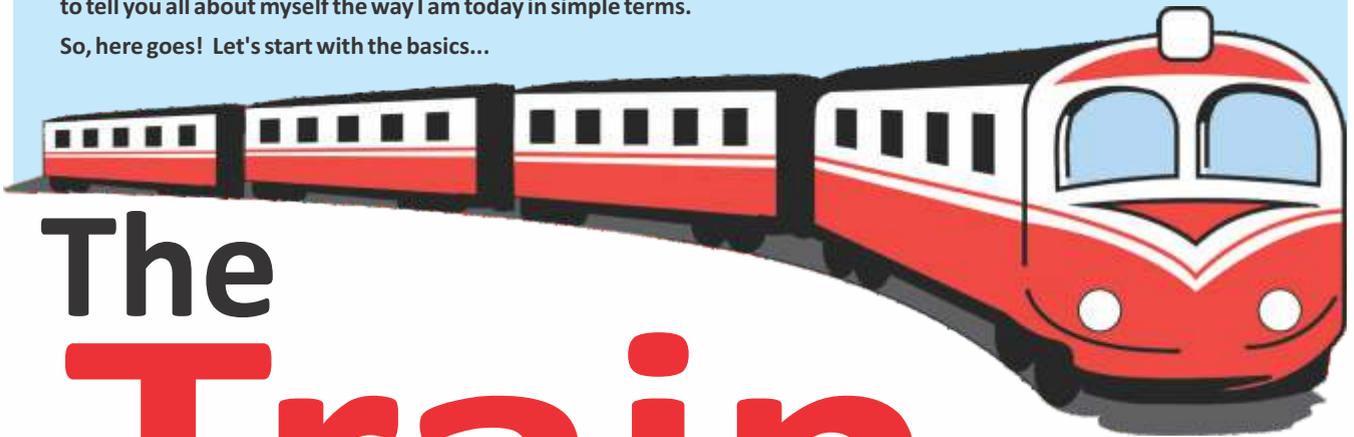


For the Budding Enthusiast

I am sure all of you know me. Whether you have used my services or not, you all know that I am a train. You travel from Place A to Place B comfortably ensconced in my lap. To do so, your parents purchase a ticket, take you to the railway station, find the platform I am on and climb into me. In due course, you reach your destination, disembark from me and make way to your final destination. Looks simple, sounds simple and straightforward, appears uninvolved and undemanding. Yes, certainly! But only to you, the traveller. Let me assure you that this simple journey that you undertook involves an enormous amount of effort and a great deal of planning and inputs of not only a large number of railwaymen or women but also many who may not be directly part of the railways.

In this series of articles, I will tell you about myself: what and who I am, what it takes to create, wield, manage and run me. I will also tell you about the myriads of inputs that I need and the enumerable systems that are required to keep me in perfect order. It is not my intention to go through the history of how I developed or go into too many technical details, but to tell you all about myself the way I am today in simple terms.

So, here goes! Let's start with the basics...



The Train

First and foremost, I must have a right of way on which I can move. If this right of way is a normal road, then I am only a road vehicle. At best, I will be a road vehicle with one or two trailers. If the right of way is a waterway, then I am a ship or a boat. To be a train, the first requirement is to have a guiding track to run on. This guiding track is referred to in rail parlance as the track or permanent way. In fact, it is the permanent way that makes a railway a railway. It is called “permanent way” for the obvious reason that it is a “way” and it is “permanent” as opposed to me, who comes and goes and moves over the permanent way.

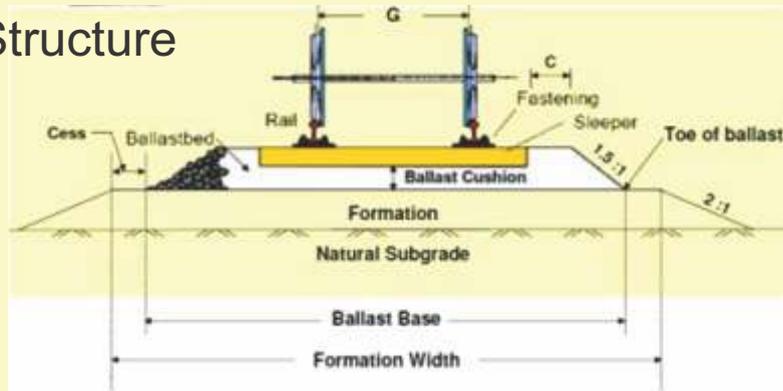
The permanent way comprises of two rails laid at a fixed distance apart. This distance at which they are kept apart is called the gauge. You will appreciate that the gauge has to be constant on one stretch of track or else, the vehicles that run on it will keep falling off. On the Indian Railways, the gauge that is most common is referred to as the Broad Gauge (or BG) and measures 1676 mm between the rails. Why this gauge was chosen is not very clear to me as in most of Europe and other countries like the USA that had established rail systems by then had what is today referred to as the Standard Gauge that measures 1435 mm. Later, some of the Princely states in India were permitted to build rail lines to the Meter Gauge (MG) which measures one

meter. This was done to save finances as a smaller gauge is much cheaper. Lastly, in the mountainous areas (and also in some Princely states to save even more money), narrower gauges were built. Two such gauges were used and still exist in the country. One is the 762 mm gauge and the other 610 mm. Thus, in India today, we have track laid to 4 different gauges – BG, MG and the two Narrow Gauges (NG). I am told that on the Delhi Metro, some of the new lines are laid to the European Standard Gauge, i.e. 1435 mm.

A rail track or permanent way



Track Structure



The diagram also shows the cross-section of the wheels of a vehicle on the track

Today, about 90% of the rail lines in our country are BG. Only 06% are MG and 04% NG. The latter gauges are being fast converted to BG. The non-BG lines that are likely to remain are those in the hills as only these lines can manage the sharp curves that are required when going up a steep slope.

The two rails are kept apart by what is called a sleeper. Today, most sleepers are made of concrete whereas in the not too distant past you had sleepers of wood, steel, even cast iron. Of course, there are steel fasteners that are used to fix the rails on the sleepers. This frame of rails and

sleepers is then laid on a bed of ballast which comprises mostly of broken stones. The sleepers are embedded in the ballast. In cities and on station platforms, you may not see any ballast at all as the rails are laid in concrete. A cross-section of the track is shown in the diagram above.

It is only after this track is laid that you have a railway. Now, on this track, I am run. When we meet again, I will tell you about what happens to the track when it has to cross a river or a deep valley. In other words, I will tell you about bridges and viaducts.



News & Events

Enthusiasts' Trip on Narrow Gauge

The primary objective of **The Rail Enthusiasts' Society** is to provide a platform for rail enthusiasts to disseminate knowledge, air their views and exchange ideas. An equally important aim is to create and spread awareness about the railways, its working and wherewithal, its heritage and history, its culture and contributions, and so on, among a public that has been exposed to an overdose of autos and aircraft. With this in mind, the Society had launched the magazine that you are now reading (this is the 3rd issue).

On the 18th and 19th of March this year, it initiated another activity by organising an "Enthusiasts' Trip". With active support of the National Academy of Indian Railways (NAIR) and Vadodara Division of the Indian Railways, this programme was spread over two days. Enthusiasts participated in a Heritage Workshop at NAIR on the first of



View of the model room at National Academy of Indian Railways

these days and on the second, the actual trip took place on the oldest Narrow Gauge (NG) rail line in the country: a part of the erstwhile Gaekwar's State Railway, from Miyagam Karjan Jn. to Dabhoi, a distance of 32 kms.

The workshop commenced with a visit to the Model Room of the Academy. The models are not the kind a rail modeller would build as these models are designed for teaching fresh railway men and women the intricacies of rail operations. You, therefore, see all types of stations and signalling systems, including those of yesteryear as some branch lines still use these otherwise obsolete methods. Some old models have been retained to convey the history of the development of signalling and other areas.



Train crew in front of the ZDM5 locomotive

This was followed by a series of lectures and presentations. The first presentation covered the rich history of Vadodara and the Palace in which NAIR is housed. This was followed by a brief look at the Gaekwar's State Railway and its development. The participants were also told of the Rail Enthusiasts' Society and its activities. With the future in mind, Vinoo Mathur, President of the Rail Enthusiasts' Society, talked about the bullet trains from Mumbai to Ahmedabad via Vadodara. The trains are expected to run by 2023.

The enthusiasts next visited the Diesel Locomotive Shed of the Vadodara Division at Pratapnagar. This shed is interesting in the sense that with the conversion of many of the NG lines to Broad Gauge (BG) and closure of some of them, except for the 30-km line to Jambusar, all other NG lines have no direct connection to the shed. Therefore, locomotives have to be sent to these sections (including the Miyagam-Dabhoi section) on BG flatcars. They come back every six months for maintenance and attention. Staff is sent by road for routine maintenance and servicing.



One of the posters on display at the Rail Heritage Park at Vadodara

This was followed by a visit to the Heritage Museum of the Division. The museum gives a very good idea of the history of the Gaekwar's State Railway. There is an indoor gallery as well as some outdoor exhibits. One gets to see a lot of memorabilia and artefacts, photographs, diagrams, letters, etc. Among the outdoor exhibits is an old turntable built by Ormerod Crieron & Co. Ltd. in 1874.

The real excitement was on the second day when a group of 32 rail enthusiasts, mostly from Vadodara itself, one from Ankaleshwar and the rest from NAIR and Vadodara Division, boarded Train No. 52041 Miyagam-Dabhoi Passenger at Miyagam at 9.40 hrs. Apart from the enthusiasts



Participating rail enthusiasts



Brass bells used at station on display in the museum

themselves, the group included 8 children. This is in line with the objectives of the Society, viz. to expose youngsters to the fascinating world of rail enthusiasm. This is one of the few lines of the extensive Narrow Gauge network of the Gaekwar's State Railway that has not yet been converted to Broad Gauge or been closed and has been working continuously since 1873. Even today, 5 trains with a composition of 5 coaches each run in each direction daily.

The Vadodara Division had organised an inspection carriage, No. RA7, to be attached to the train in addition to the normal composition of 5 coaches. While the carriages of the train had been built at Jodhpur workshop of the Indian Railways in the 1990s, RA7 is of much older vintage, having been built in 1960. The result was that although the train is cleared to run at 50 kmph and the track cleared for 35, the age of this coach permitted the train to run only at 25. Result: a leisurely ride with the pressures of everyone's hectic life in the background.

However, RA7 could not accommodate all the enthusiasts and many spread over the entire train, while some used the



Entrance to Dabhoi Railway Station. Note the design of the roof

opportunity to experience the thrill of travelling on the locomotive, a ZDM5 diesel hydraulic locomotive, based at Pratapnagar in Vadodara. The ZDM5 is a powerful locomotive delivering 450 HP and driving B-B wheels through a Voith transmission. The Chittaranjan Locomotive Works-built locos can touch a speed of 50 kmph. The Loco Pilot was Ankaleshwar-based Ajay B. Solanki and the Pilot Assistant Kumar Jitendra. The latter and the guard of the train, CP Thakur, were both Dabhoi based.

We were soon on our way. The line had been initially built to transport cotton from the area to Miyagam and thence to Mumbai (then Bombay) and the UK. Even today, cotton fields can be seen on both sides of the track, a single line. The first two stations, Kandari and Ganapatpura, are halts for passengers only and it is only the next station, Kayavarohan, at which trains can cross. The next two stations, Baripur Mandala and Nada, before reaching Dabhoi, are also passenger halts only.

Not mentioned in the time-table but a stop for our train was the station named Parikha, between Baripur Mandala and

Nada. Perhaps the railway intends to discontinue this halt as the station building has already been demolished and its debris can be seen. Interestingly, the platforms and station benches, etc. are still there.

A significant part of the participants was a group of 5 enthusiasts from Vadodara itself.

The trip ended with a visit to the Rail Heritage Park at Dabhoi and a return to Vadodara by road.

Visit to Kolkata's Metro Tunnel

On 3rd April 2017, six members of **The Rail Enthusiasts' Society** visited the tunnels being constructed under the Hooghly river, as part of the East-West Metro project between the cities of Howrah and Kolkata. Senior officers of Kolkata Metro Rail Corporation Ltd. (KMRCL) and international consultants assisting the project team accompanied the visitors to witness the working of the Tunnel Boring Machines, 30 metres below the surface. The tunnelling work has started from the Howrah city end and has reached the river bank at a distance of 1 kilometre. The Tunnel Boring Machines (TBM's), progressing at almost 7 metres per day, have successfully traversed under the iconic Howrah Station without any damage to the heritage structure. Tunnelling under the river, being done for the first time in India, is expected to begin by the middle of April this year.

After an awe-inspiring experience inside the tunnel, the rail enthusiasts also visited the fabrication yard of the project, where high precision machines are manufacturing the cylindrical liners, which support the tunnel periphery. Each member of the enthusiasts' team felt a sense of pride at observing the passion, skill and commitment displayed by the engineers and support staff of the KMRCL project team.



The abandoned steam crane now ready for display

Resurrection of Rail Heritage

A 10-Ton steam crane, that had been abandoned in Bandel yard of the Howrah Division of the Eastern Railway zone of the Indian Railways, was discovered and resurrected. Intervention of the **Rail Enthusiasts' Society** contributed to this resurrection. Manufactured by the Cowen, Sheldon and Company Ltd. of Carlisle, England, in 1923, the self-propelled crane was inducted into service on the Oudh & Rohilkhand Railway. It was later transferred to the Bandel steam shed. After working for almost 70 years and with the advent of diesel powered cranes, it was condemned in 1991 and since then lay derelict in Bandel yard. In December 2016, it was placed on a pedestal at Bandel station so that the general public could see one of the relics of the great age of steam on the railways.



One of the participants at the heritage debate

Debate on Rail Heritage

On the World Heritage Day (April 18), the **Rail Enthusiasts' Society** organised a debate through the auspices of the Eastern Railway zone on the need to preserve rail heritage. The debate was organised at the Rail Heritage Park at Howrah. The debate was well-attended. A detailed report will appear in the next issue of the magazine.

HUMOUR ON RAILS



All stories and anecdotes on this page have been reproduced from the December '89 issue of SCAAN, the magazine of the Alumni of the National Academy of Indian Railways, Vadodara. The Academy was then called the Railway Staff College

Those were the days when the Western Railway worked on the District system: the jurisdiction of the District Mechanical Engineer (DME), Gangapur, was a fairly large one and he had to remain on the foot-plate of the leading engine from Godhra right up to Delhi whenever a VIP Special was run. After one such hectic run on the President's Special, the District Mechanical Engineer, on arrival in Delhi, sent the following telegram to the Regional Mechanical Engineer:

"President's Special dead on time STOP
President's coach dead on red carpet STOP
DME dead on foot-plate* STOP"

A traffic officer was inspecting a station. He was impressed by the old and hardworking station master and asked him if he had any problems. "Yes," said the station master, "The new booking clerk posted at this station is totally useless. Sir, he does not do any work and he is arrogant. He comes dressed up in a designer shirt and walks around without doing any work. He thinks he is an officer."

*Editor - Traveling on the footplate means traveling on the locomotive

Once a station master at Mathura station received a cryptic message regarding looking after the dog and 2 puppies of a VIP passenger. The message read,
"One bitch and two sons of bitches by 5 DN. Look out."

The Deputy had just received the coveted message: he had been promoted and posted as a Divisional Rail Manager (DRM), one of the key important postings on the Indian Railways. He called his wife:

"How would you like to be the wife of a DRM?"

"It all depends," she replied, "On which DRM you have in mind."

After a week or so, the DRM's family moved in. During the first evening the family had at the local railway club, the daughter introduced herself to all and sundry as the DRM's daughter.

Overhearing this, her mother pulled her aside and admonished her that it was not the proper thing to say.

Next morning, the sycophant headmistress at the railway school cooed, "Aren't you the sweet little daughter of our new DRM?"

"I thought I was," admitted the little girl, "But my mother says that I am not."





RAIL ENTHUSIASTS' SOCIETY

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

The Rail Enthusiasts' Society, incorporated on the 28th of December 2015, aims to provide a platform for rail enthusiasts to disseminate knowledge, air their views and exchange ideas regarding the railways in India or overseas. Its first activity was to publish a magazine whose 3rd issue you have in your hands. Other activities have been added and more will be started in due course. Since the last issue of the magazine, we have organised one enthusiasts' trip on the Dabhoi-Miyagam Narrow Gauge section, a visit to the Kolkata Metro construction tunnel under the River Hooghly and a debate among school children at Kolkata on the need for preserving rail heritage.

On the next page, you will find details of how you can become a member of the society. In case you are interested only in the magazine, the subscription rates are as follows:

Single copy ₹ 100.00

Annual subscription (4 copies) ₹ 360.00

5-year subscription (20 copies) ₹ 1600.00

Note:

1. The rate for the E-copy has not been worked out yet but would be less than that for the hard copy.
2. For overseas subscribers wanting a hard copy of the magazine, the rate charged will be as follows (to cover packaging and postage):

- | | |
|-------------------------------|-------------------|
| a. Single copy | USD 8.00 |
| b. Annual subscription | USD 28.80 |
| c. 5-year subscription | USD 128.00 |

3. For countries that do not deal in the US Dollar, please email a request to the Secretary of the society and we shall give you the rate in other currencies like the Euro or GBP.
4. The subscription rates for membership of the society for those residing in India include free delivery of the magazine as well. For members residing overseas, and wanting a hard copy, please email the Secretary and special rates will be fixed in each case to cover the cost of postage. Overseas members will get an e-copy free.
5. Libraries will be given an additional 5% discount over rates for subscription to the magazine.
6. Bonafide students' rates for membership, valid as long as they remain students, will be 50% of the normal rates. Such rates would not apply to Life membership.
7. For subscription to the magazine, please mail the completed form below to: The Editor, Rail Enthusiasts' Society, C-494, Defence Colony, New Delhi-110024 (India).

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RAIL ENTHUSIASTS' SOCIETY

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

Membership of the Society

Membership of the society is open to individuals as well as Corporates. While individuals have the choice of three types of membership, for Corporates we have only membership for life.

Corporate Membership

This entails a one-time payment of ₹ 200,000/-. Membership gives the following to the Corporate:

- Five copies of all magazines or supplements to the magazine that are published
- Concessional rates for any item such as artefacts, books or memorabilia on sale
- Invitation to 5 members of the organisation nominated by the corporation for any event or activity the society may organise
- Other benefits will be added in due course as and when more activities are added

Rate for Corporate membership for foreign organisations will be US Dollars 4,000/-.

Individual Membership

For individuals, we have 3 types of membership. The member gets all copies of the magazine and its supplements, if any, as and when they are published. Concessions for other activities will be announced as and when the other activities are introduced.

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- Ordinary member : This gives you membership for five years. Subscription: ₹ 2000/-
- Life membership : This gives you membership for life with a one-time payment: ₹ 10,000/-

For foreign nationals and overseas members, rates are as follows:

- Associate member : Subscription: USD 10/-
- Ordinary member : Subscription: USD 40/-
- Life membership : One-time payment: USD 200/-

Please see the note on the opposite page for overseas members wanting hard copies of the magazine.

Mode of Payment

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

- Name of bank : State Bank of Patiala
- Branch : Personal Banking Branch, New Delhi
- Address of the bank : E-4, Defence Colony, New Delhi-110024 (India)
- Type of Account : Current
- Account Number : 65250409615
- IFS Code : STBP0000634

For enrolling as a corporate or individual member, all you need to do is send an email or a letter to the Secretary of the society. The address is: **C-494, Defence Colony, New Delhi-110024 (India)**, while the email id is **railenthusiast2015@gmail.com**.

Visit our website : www.railenthusiastindia.org.in



On land that was paddy fields in the not too distant past, now stands the Kamalapur Railway Station in the city of Dhaka, Bangladesh. Not far from the congested central business district of Motijheel, the architecture of the station building stands out for its beauty and uniqueness. Designed by American architect, Robert Boughey, the station came up in the 1960s and started operating at the end of the decade in 1969.

The Rail Enthusiasts' Society brings you some pictures of the station.

