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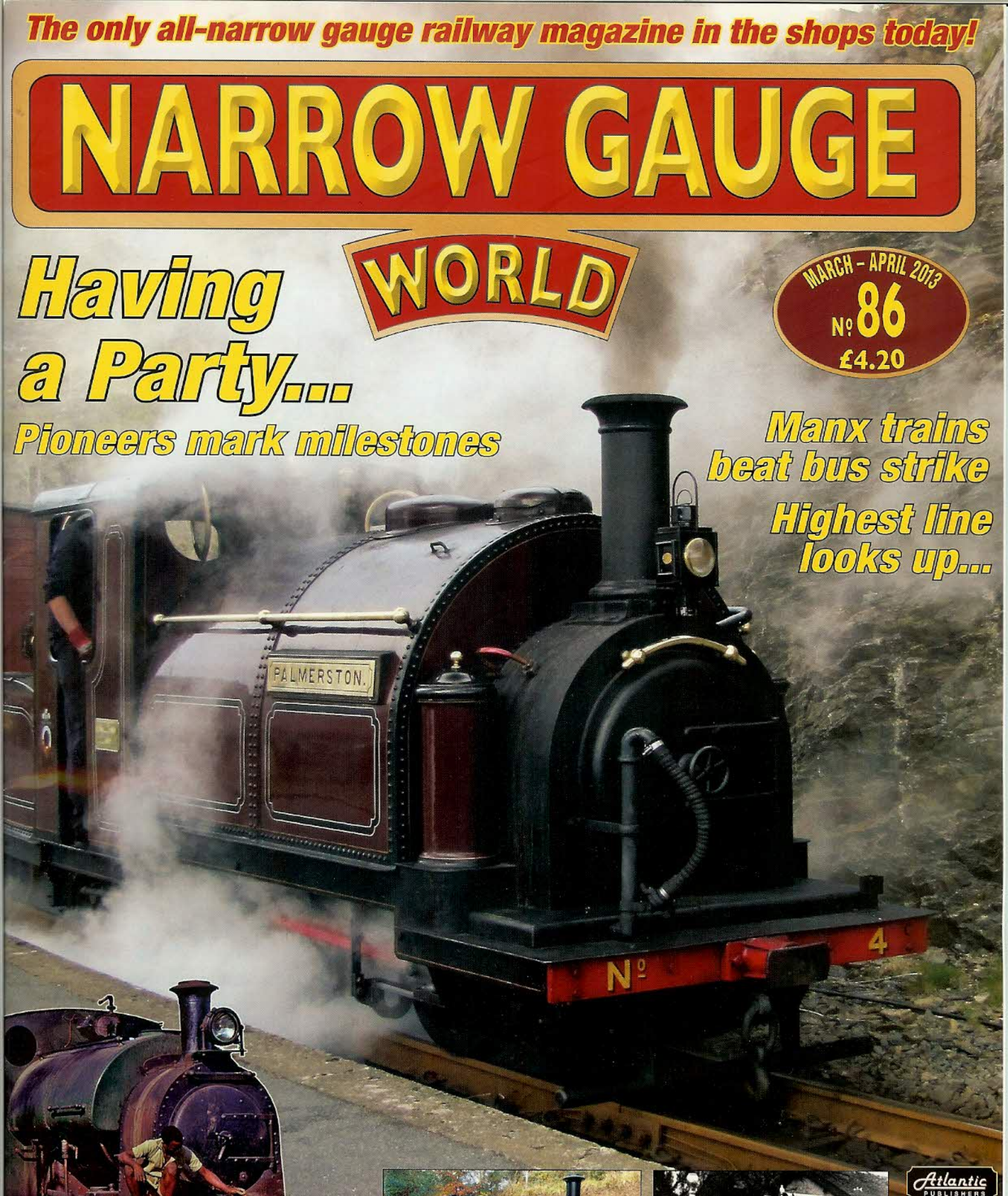

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Sugar rush in Africa
Cane trains by the Zambezi

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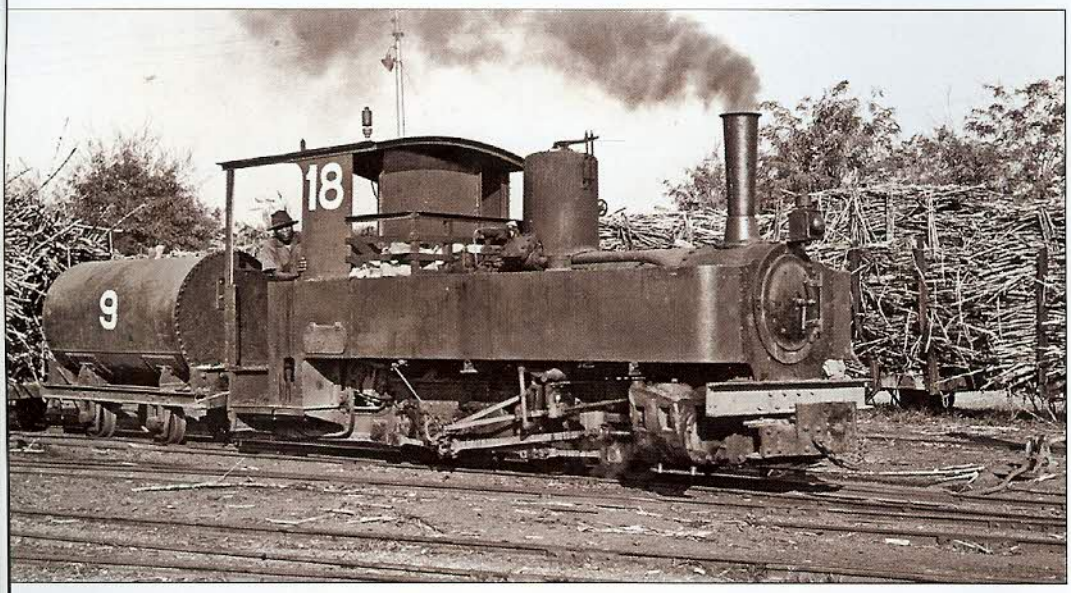
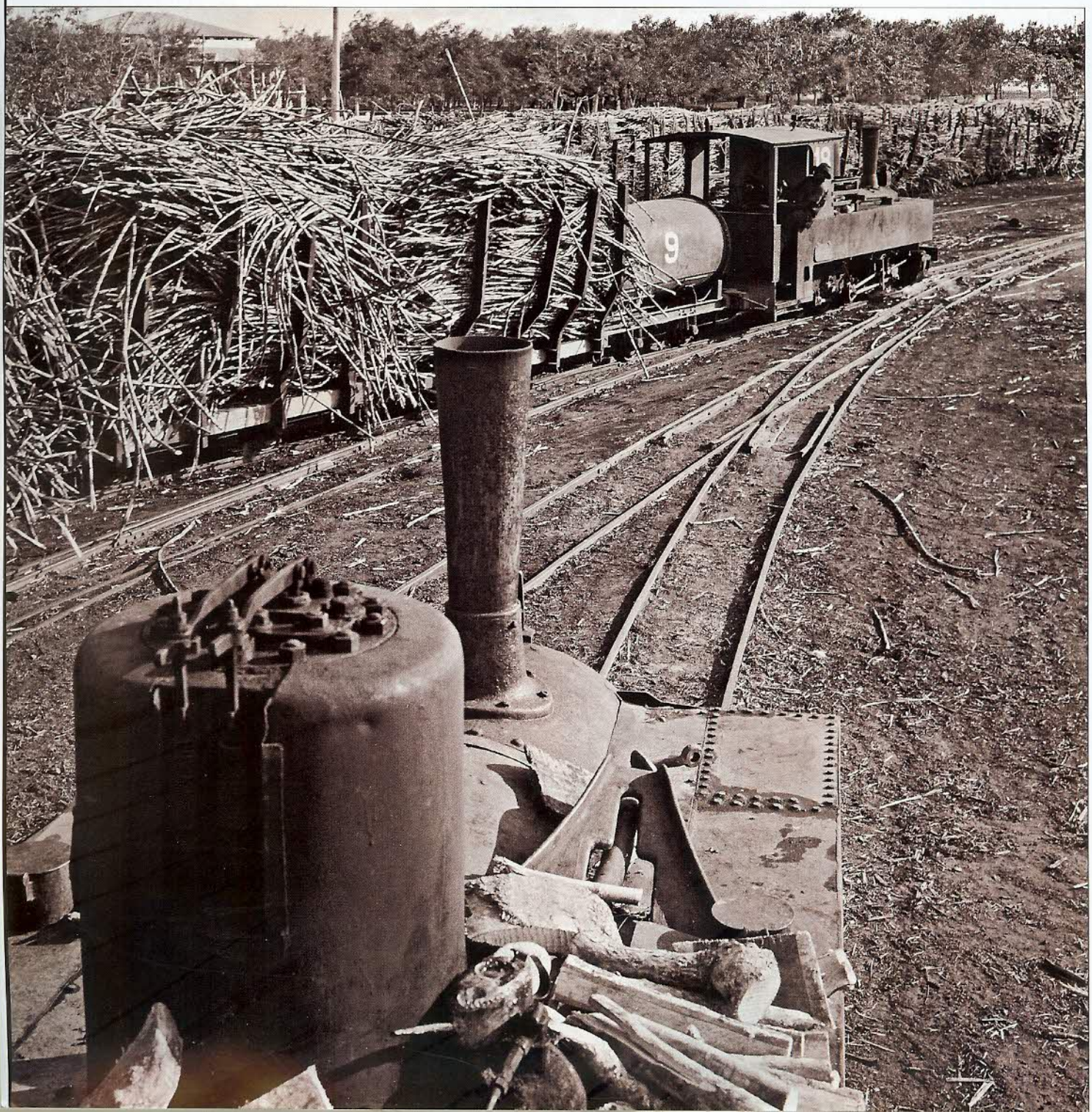


Sweet Steam by the Zambezi

Inspired by some evocative photos, *David Joy* delves into an African venture that had few equals.



Which railway system was utterly inaccessible, yet had a remarkable collection of British-built locomotives and was one of the few places in the world where three different narrow gauges once met? The answer is Sena Sugar Estates in Mozambique, which has become better known since its demise than it ever was when a working entity. By a fascinating chain of events it has provided locomotives for many preservation enterprises.

Its origins date back to 1884 when Mozambique became a Portuguese colony. Huge areas of potentially agricultural land were rented out to overseas companies to establish plantations for growing cash crops. Sena Estates was a British enterprise and came to control a vast acreage alongside the lower reaches of the Zambezi River, harvesting sugar cane.

This was no tropical paradise. Still within living memory was the era when the main export was slaves and navigation of the river had defeated even the famous explorer David Livingstone. A region infested by crocodiles and poisonous snakes, it was prone to regular flooding and constant outbreaks of malaria. It was also remote from any form of easy contact with the outside world.

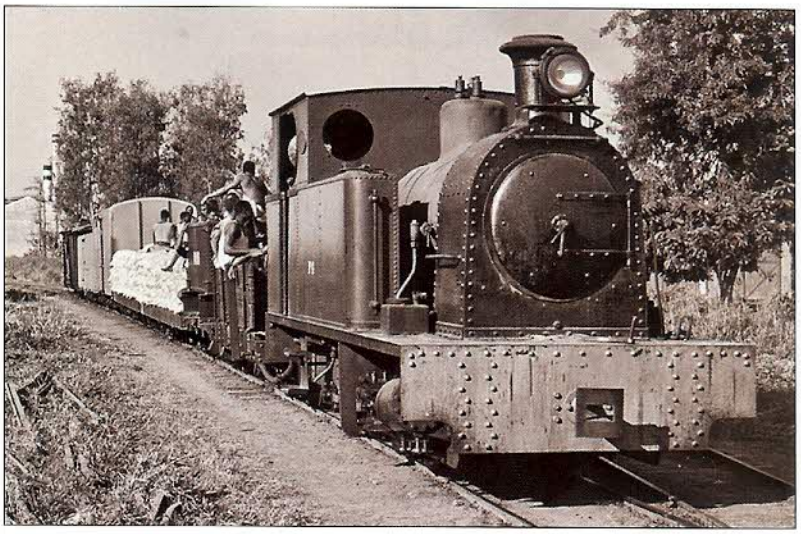
Yet by 1898 a sugar mill had been established at Mopeia, on the north bank of the Zambezi 70 miles upriver from its mouth. It was served by the first railway in Mozambique, built to an unusually narrow 50cm gauge and bringing in cane from surrounding plantations. All went sufficiently well for a second mill to be built at Caia on the opposite side of the river by 1907. It too went for a surprising gauge in the shape of 3ft 0in, more closely associated with the USA and Ireland than with Africa. It has been speculated that its engineer may have come from Colorado or Donegal!

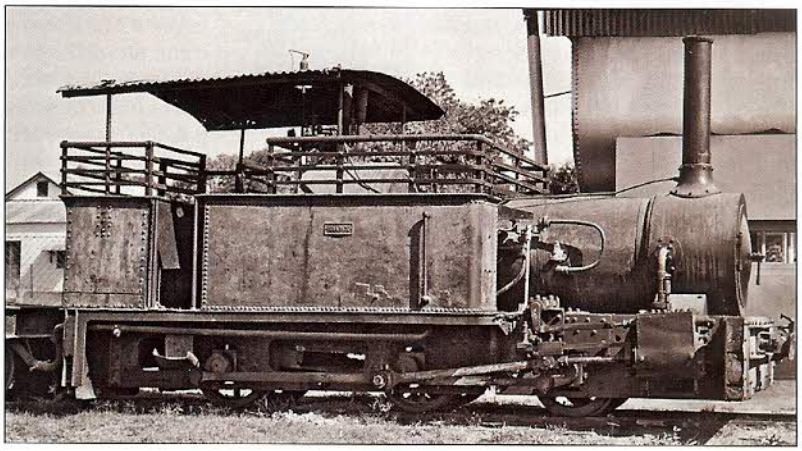
Three gauges

The next development soon followed 60 miles downriver on the same south bank at Marromeu, where 60cm gauge lines out into the cane fields provided a third variant in track width. The navigable river remained the sole link with the wider world until the 'Cape gauge' (3ft 6in) Trans-Zambezi Railway reached Caia in 1922. Logic would have suggested a branch from this line to Marromeu, which was by now the main centre of production, but instead the existing 3ft gauge tracks at Caia mill were extended southwards. Transshipment for the sake of a mere six inches must have caused minds to ponder down the years, but it was not until 1970 that a branch finally gave Marromeu its direct connection with the Mozambique railway system.

The earlier link with Caia was retained a little longer for local needs and the mill became a meeting point for three different narrow gauges – 60cm, 3ft and 3ft 6in. There was also a further isolated and extensive system at Luabo mill on the north side of the river, extracting cane on 60cm gauge lines and shipping its output across the Zambezi to Marromeu by paddle steamer.

In terms of motive power, Sena Estates grew quickly and seized opportunities such as acquiring 14 ex-German Army 'Feldbahn' 0-8-0Ts that were readily available after World War I. Yet as a British firm it had already turned to the home country and the highly distinctive products of John Fowler of Leeds, beginning with 50cm gauge locomotives for Mopeia mill. Fowler was dubbed the 'Rolls Royce' of the narrow gauge market, but as with the cars the number of potential buyers with sufficient funds was small. It had to be an enterprise prepared to take a long-term view and pay a higher price for engines built like battleships and having a better life expectancy than those of cheaper competitors. »





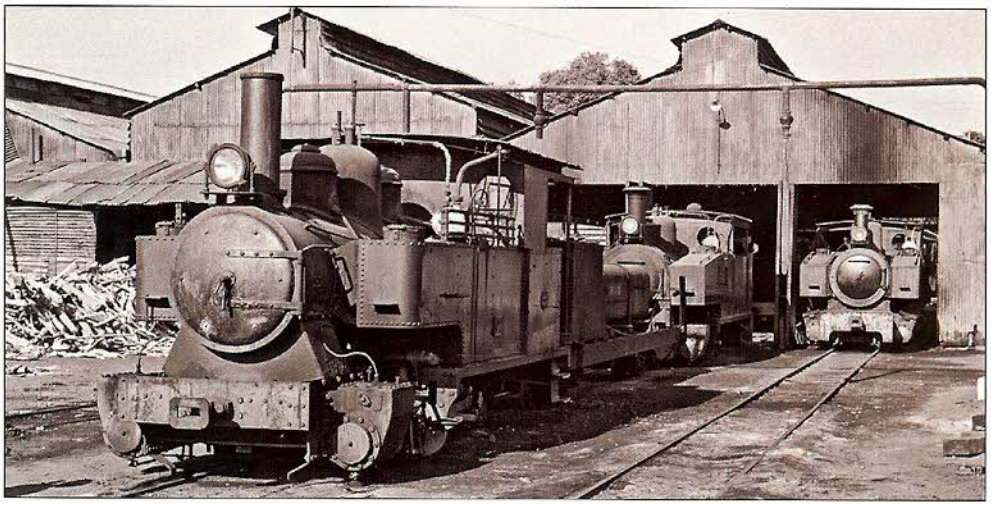
Top left: No 18, built by Hartmann in 1917, prepares to haul a load of stalk cane up to the crushers.

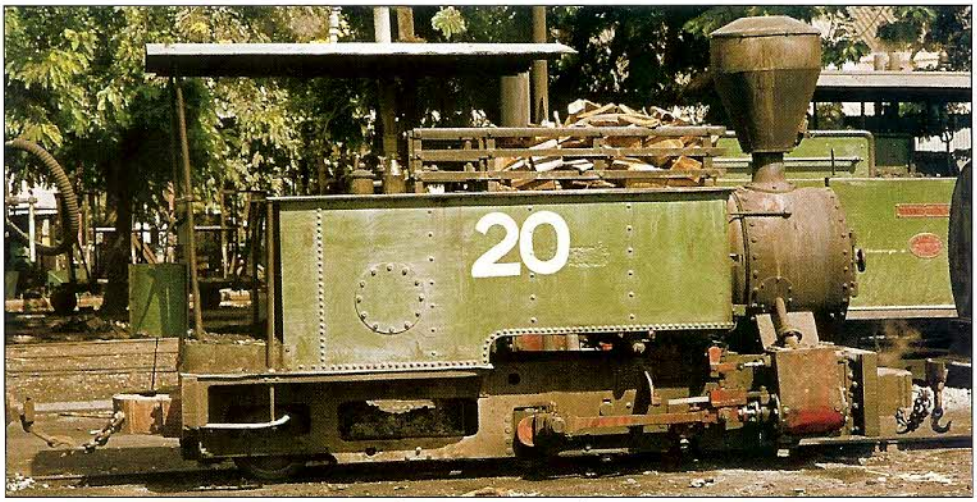
Left: Two Feldbahn 0-8-0Ts on the 60cm gauge at Marromeu. No 18 – with an extra water tank borrowed from no 9 – heads a newly arrived load of cane. To the fore are the efficient leadwood logs on the tank of no 3, now at the Statfold Barn Railway.

Top right: Peckett no 6, a 3ft gauge 0-6-0T of 1954, begins its 60-mile run from Marromeu mill to Caia in July 1969. The many riders were to transship bags of sugar onto the Trans-Zambezi Railway.

Above right: No IV, one of the 3ft gauge Fowler 0-6-0Ts of a rather primitive design supplied to the Caia mill in 1911.

Right: 3ft gauge shed at Marromeu. At left is no 2, a Fowler 0-6-2T bought in 1923 for opening of the line from Caia. Behind it is a Hudswell Clarke 2-6-4T and at right a virtually identical Henschel.
All mono photos taken by Charlie Lewis in July 1969





Fowler output was thus relatively limited, large-scale overseas concerns being favoured customers. Sena Estates fell into this category and built up a close relationship with the Leeds firm, which provided far more than just locos. Cane cars, trackwork, ploughing engines and implements, crushing machinery and even marine engines on the stern-wheel paddle steamers were all Fowler products – a monopoly destined not to last.

Back in Britain the depression of the 1930s took its toll and Fowler turned out its last steam locomotive in 1936. When much of the Sena fleet needed renewal in the late 1940s it was necessary to look elsewhere. Peckett of Bristol, which in ongoing hard times had completed only seven locomotives in 1947, was grateful to become the preferred supplier. Orders came through from Sena well into the 1950s, ending with the last two steam locos to be built by Peckett. A 0-6-0ST for the 2ft gauge system at Marromeu was delivered in 1957 and in the following year came a 0-6-0T for the 3ft gauge link with Caia.

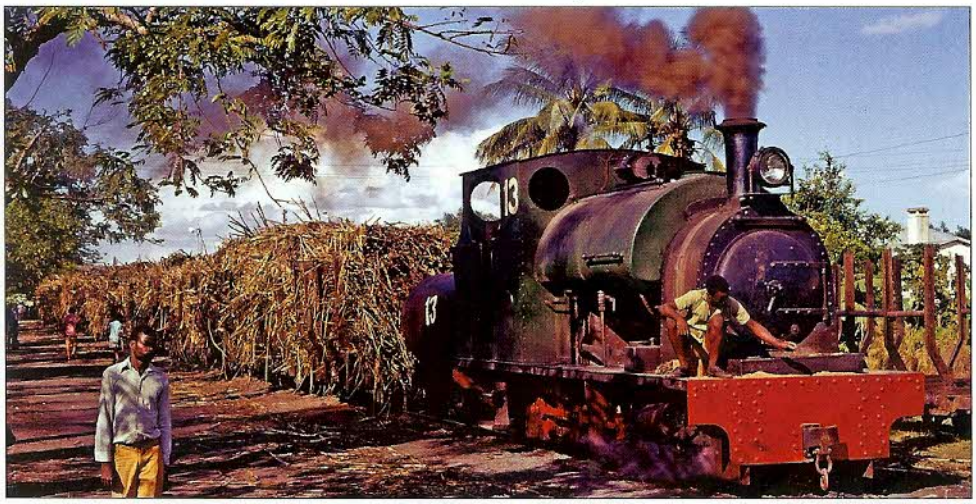
Above: Outside-framed Fowler 0-4-2T, built for the 50cm gauge Mopeia system in 1925. It was re-gauged to 60cm and went to the isolated Luabo mill before ending its life at Marromeu.

Below: Surprise at Quelimane – plinthed 50cm gauge Fowler 0-4-2T, built in 1912 for Mopeia mill. It was later repatriated, as will be detailed in part 2 of this feature.

'Magnificent system' – 1969

In the mid 1960s Sena was still the largest firm in Mozambique with a massive railway network and more than 10,000 employees. It had remained beyond the horizon for railway enthusiasts, but lucky enough to get there in July 1969 was Charlie Lewis. It was part of a 5,000-mile African journey with "hardly a day passing without some new and exciting discovery". Marromeu he describes as "still a thriving establishment with a magnificent steam-operated system". The 3ft gauge line to Caia was in its last year as the sole link with the Trans-Zambezi Railway, trains conveying a team of men to do the necessary transshipment. A separate 3ft gauge shed looked after 11 locos of five different designs, including three Fowler 0-6-2Ts, a Hudswell Clarke 2-6-4T and what looked like a 'copy cat' Henschel 2-6-4T.

The 2ft gauge system was a hive of activity and the many engines had their tanks stacked with logs of leadwood, a remarkable tree that grows profusely on the banks of the Zambezi and provided ample fuel at minimal cost. The logs were slow burning and phenomenally hot but caused no sparks or clinker and almost no ash. The practice at the mill was 'one fire when leaving and one for coming home'.



Last chance – 1975

It was a very different story six years later when Geoff Cooke visited Sena Estates in June 1975. Mozambican independence from Portuguese rule, which was soon to result in a long and bloody civil war, was imminent and it was known that the border with what was then Rhodesia would be closing in less than two weeks. It was a last-ditch chance to see the system and take what could well be the final photographs of its steam locomotives in action. It proved to be an unforgettable experience.

The overnight train from Beira to Marromeu was notable for its cockroaches, lack of bedding and lights, and toilets that would have needed a snorkel to use. A night to remember ended at walking pace as the track across the Zambezi flood plain was subsiding. Eventual arrival found cane cutting in full swing with four Fowlers, three Pecketts and nine Feldbahns in steam. The 3ft gauge line to Caia had been closed but its two Pecketts had been converted to 3ft 6in gauge to handle traffic using the direct link with the now nationalised Trans-Zambezi Railway.

Scattered everywhere were traction engines and kindred equipment left in a total time warp. It was enough to prompt braving a boat journey to truly remote Luabo mill on the opposite side of the Zambezi, reached only after avoiding sandbanks, hippo and crocodiles but again proving to be worth all the worries. Diesels were making inroads but four steam locos were clanking their way into the mill with laden cane wagons. There was feverish activity at the engine shed, although the way one boiler was being welded did not inspire confidence. It was decided not to get too close to Luabo motive power!

Completely unexpected was to be told that another Sena locomotive had been put on display in a pavilion at Quelimane, some 70 miles to the north-east. Getting there posed even greater problems, neatly summed up by the Luabo plantation manager: "You could go by boat, but our ships don't go to sea. You could go by road,

but the road is washed away. You could go by air taxi, but it doesn't fly tomorrow. You could charter a plane."

Amazingly this latter option proved possible for just 28 South African Rand (about £2!) and the small plane eventually took off with the pilot carefully placing his hand over a row of red warning lights. Quelimane was reached without disaster and scaling a wall gave access to the pavilion, where there was indeed an exhibit seemingly unknown to the enthusiast fraternity. It was a 50cm gauge Fowler 0-4-2T, supplied to Mopeia mill in 1912 and working until about 1965.

Taking photos represented a great sense of achievement but whether these would ever see civilisation was another matter. The township suddenly turned threatening with a rally of the entire population being addressed by Samora Machel, about to be Marxist president of independent Mozambique in what became a reign of terror. The 'Cape gauge' terminus was utterly deserted, although it contained of all things a 1930s Michelin railcar with pneumatic tyres and four Haine St Pierre wood-burning locomotives.

Anxious hours

With no prospect of trains moving, there followed several hours of acute anxiety until it was possible to return to Luabo by plane. Unable to go anywhere else immediately, there was then an amazing nighttime trip by paddle steamer to see the company's steam-powered sawmill on the Zambezi delta. This no doubt once played a key role in Sena's totally self-sustained enterprise and provided leadwood logs for the locos.

Here scarcely credible instructions were received: "When you get back to Luabo, you get off the ship and walk to the road. There you will find a Land Rover with keys in the ignition. You take the Land Rover and drive for 12 kilometres up the road beside the river. There you stop and walk to the river, where you will be met by a man in a dugout canoe. You will cross the river and walk to the road on the far bank. There you will find another Land Rover with keys in the ignition. Drive this Land Rover up the road until you reach Marromeu station."

In few other parts of the world could this have been contemplated. The chances of ever getting back to Rhodesia seemed to be receding, and it was a wonderful moment to finally cross the border just days before it closed. It did not immediately seem of prime importance, but some precious photographs of steam by the Zambezi had been safely secured against all odds.

Thoughts that the June 1975 visit might have been a last opportunity were soon confirmed when all Portuguese in Mozambique were given just 24 hours to leave the country. The consequences were only too apparent in places like Luabo mill, with locomotives being abandoned where they stood. It looked as if the workforce had gone for a break and would come back at any moment, but in reality they were packing their bags and would never return. The situation gradually worsened during the ensuing civil war and by the mid-1980s destruction by insurgents brought Sena operations to an abrupt halt. The 3ft 6in gauge line out of Marromeu was abandoned, leaving a complete train hopelessly marooned and soon overgrown with sugar cane.

By the time peace was restored in 1992 an estimated one million Mozambicans had perished and it seemed that full recovery and significant international trading lay a long way ahead. Yet time can heal and new Mauritian owners were able to reopen Marromeu mill, with an inevitable switch being made to tractors and trailers. Left decaying in the rampant undergrowth was one of the world's most remarkable graveyards of steam. Rescue from inaccessible sites had already been achieved elsewhere, but adding a totally different dimension in Mozambique was the very real danger of instant death from land mines.

Previous page below: A load is brought into Marromeu during the 1975 cutting season by Peckett 0-6-0ST no 13, supplied in 1953. It remains at the mill, trapped behind a pile of scrap metal.

Above: Henschel Feldbahn no 3 looking battered but still active at Luabo mill. This was an extensive 60cm gauge system, even though the only way of getting out the sugar was on a paddle steamer!

Below: Still in service at Marromeu in 1975 was Fowler 0-4-2T no 5, dating from 1911 and probably delivered for the mill's opening. *All colour photos by Geoff Cooke in June 1975*

Had there been just locomotives they might well have been left to rot, but the monopoly once achieved by Fowler had left a unique legacy in the shape of steam ploughing engines. Their survival provided the catalyst for recovery operations that would embrace narrow gauge motive power on a scale hitherto unknown. Challenging in the extreme, they provided the final chapter in an amazing enterprise that had lived and died in extraordinary isolation.

■ The continuing saga of Sena locomotives will be covered in the second part of this feature.

This first part could not have been completed without two key contributions. Firstly from Charlie Lewis, who in turn received help from Allan Baker. Secondly from Geoff Cooke, whose 1975 visit is described in more detail in his book *Luxury or Lunacy: Owning a train in Africa*. He now runs Geoff's Trains, steam charter tours in southern Africa one of its specialities. Details of both the book and the tours are on: www.geoffs-trains.com NGW