

The Southern Cross Railway

Gold from the Stormberg Reef

by Nick Trudgian | Gloucestershire, England Photos by the author

The Royal Air Force unwittingly began construction of my railway in the dark days of World War II. The fields that surround our house were once an airfield where Spitfires and Hurricanes roared into action in the Battle of Britain. There are few reminders of the part this rural backwater played during that critical period in history, but a large overgrown mound in the garden of our new home was, in fact, the remains of an air-raid shelter. It was rather an eyesore, but I realized its potential right away. Here was a ready-made mountain for the mining railway I had long dreamed of, and it proved to be the catalyst that converted me from indoor modeling in small scale to the bigger stuff in the great outdoors.

I took the plunge into large scale by purchasing a length of track and a Bachmann boxcar. Setting them on the grassy mound, I stood back and looked. From an overcast sky, an unexpected shaft of sunlight illuminated the scene, like something from a Monty Python sketch used for comic effect to represent divine intervention. This immediately convinced me of the magic of garden railways. Nothing I had seen in indoor modeling looked so atmospheric and evocative as that back-lit piece of inexpensive, plastic rolling stock.



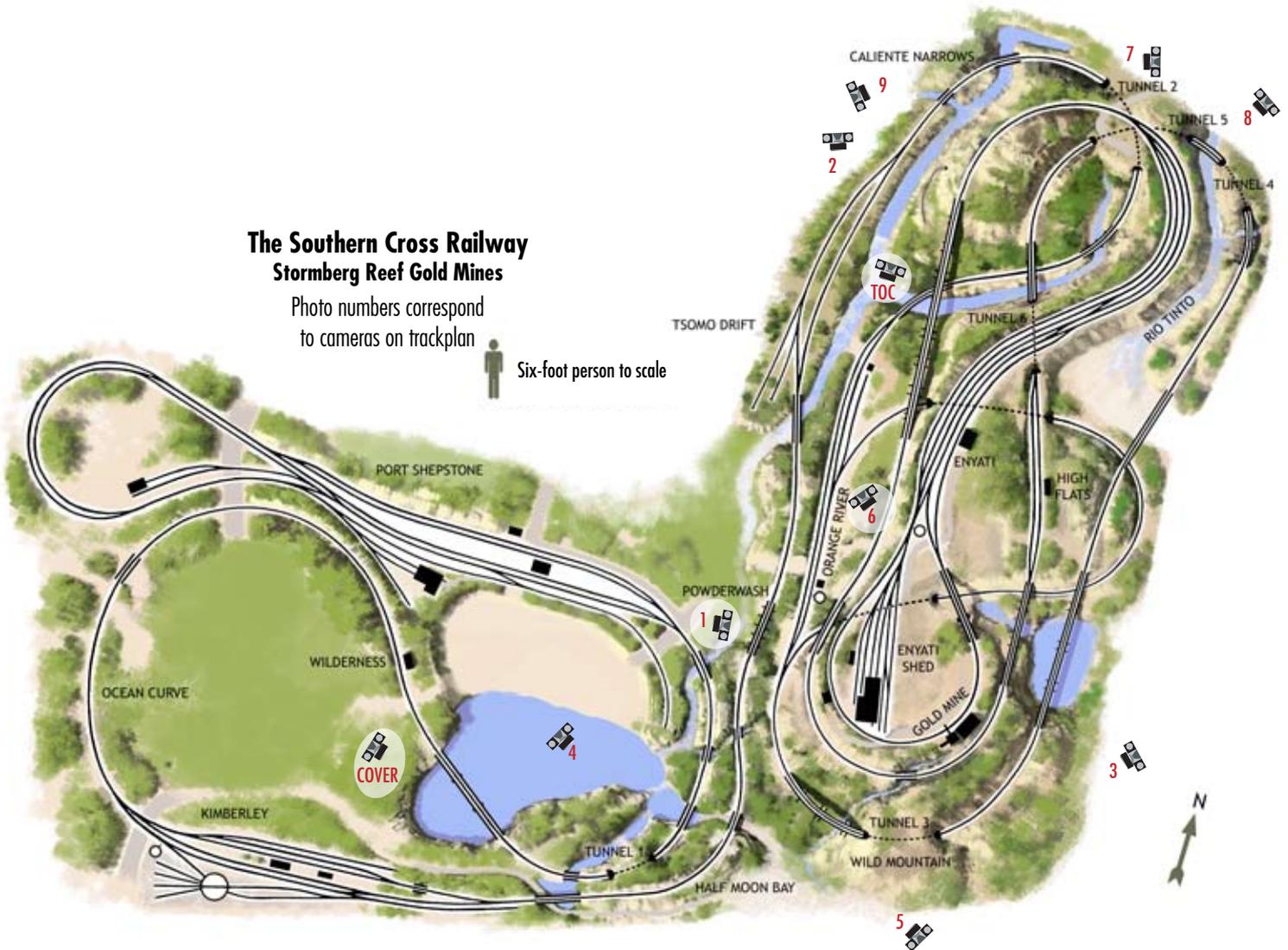


1. PORT SHEPSTONE. It is a warm evening at Port Shepstone, and trains are preparing to head back into the mountains. Taking on water is the ex-South African Railways locomotive *Kimberley* with a string of hoppers. The green Mallet tank is backing towards the 0-6-2T *Zulu* to doublehead the oil tankers, while alongside, Mallet N° 226 waits for its train to be brought up from the harbor by the yard pilot. The line's third Mallet, N° 12, can be seen over at the shed, having disgraced itself earlier in the day with a hot axle box.

The Southern Cross Railway Stormberg Reef Gold Mines

Photo numbers correspond
to cameras on trackplan

 Six-foot person to scale



The sunlight soon faded into the typical gray of an autumn afternoon, but the inspiration has stayed with me through the 12 years it has taken to transform the wartime relic into a mountain railway. During that time, many tons of earth, rock, and concrete have been arranged to resemble the mining railway of my imagination. It is a composite of a number of actual, steam worked, industrial railways that I have been fortunate enough to visit in Africa and South America, most of which have since closed or have been converted to diesel power. My railway tries to keep some of the memories alive.

Nip-and-tuck locomotives

Self-contained industrial railways make ideal modeling projects, especially if, like me, you don't want to be a slave to accuracy. In 1990, a sugar mill in Cuba took the boiler and cab of an Alco-built engine and fitted them to the frames of a Vulcan

The railway at a glance

Name: Southern Cross Railway
Theme: Present-day industrial railway of the Stormberg Reef Gold Mines
Fictitious location: Somewhere in the southern hemisphere
Size: 110' x 80'
Track plan: Loop to loop
Length of mainline: 960'
One complete circuit: 1700'
Gauge: N° 1 (45mm)

Scale: 1:24 and 1:20.3
Power: Radio-controlled live steam and manual battery electric
Maximum gradient: 1 in 70 (1.4%)
Minimum radius on mainline: 10'
Track: Peco G45 on concrete roadbed
Structures: Scratchbuilt and modified kits
Age: 12 years

Iron Works locomotive. The result was quite handsome. So, if that's real life, why not do it with Aristo-Craft and Bachmann engines? Even just repainting an engine with automobile sprays gives it an individual look. By swapping chimneys, cabs, tenders, or whatever, a mass-produced engine gains a unique character.

Whenever possible, I like to be

inspired by real engines. My stretched Bachmann 2-8-0 now has an LGB truck under the cab and is similar in outline to a K-27 Mikado. The LGB Mallet tank has lost its German-style cab in favor of a British one, giving it the look of a South African mining engine, with its deep buffer beam, big headlamp, and gaudy paintwork. I felt that LGB's Sumpter



2. **TSOMO DRIFT.** It's the usual problem on a single-track railway — waiting for traffic coming the other way. A great horseshoe curve links Tsomo Drift with Orange River, although, as the crow flies, they are very close, so the driver of the Baldwin 2-8-0, N° 724, can see the reason for this long delay. Over at Orange River the up line is blocked by N° 12 switching a train for the Roaring Canyon branch, and the habitually late-running passenger is due on the down line. The driver is beginning to wish he had brought his fishing rod.



3. WILD MOUNTAIN. The section of line near Tunnel 3, high up on the slopes of Wild Mountain, offers panoramic views of hills receding in summer haze to the glittering ocean away to the south. Passengers on this Sunday excursion, headed by 2-6-2s (N^os 3 and 24) are looking forward to an afternoon of walking in the meadows above Enyati. As the line curves inland, the gradient stiffens and the two Prairies throw cinders into a clear, blue sky, but the lovely sound is soon carried away on the wind.



4. JOURNEY'S END. On the final leg of the journey to the coast, the line skirts the estuary of the Wilderness River, crossing numerous tidal inlets on the way. N° 18, *Cotopaxi*, drifts lazily along this easy stretch, with the rhythm of its progress carried across the still water, accompanied only by the call of wading birds on the marshes and a gentle breeze from the ocean.

Valley Mallet deserved a bigger tender, so I made a Vanderbilt type for it from a piece of drainpipe.

The most extensive rebuild was that of an LGB Mikado into a South African-style engine. A new front end and smokebox, wider running plates, bigger cab, and British-style chimney have turned a 1:29 scale, standard-gauge locomotive into a 1:24 scale, 3'6"-gauge engine. I have just finished doing similar work to Aristocraft's 2-8-8-2 Mallet, inspired by a Brazilian meter-gauge engine. It's a monster at 4' long.

On my Bachmann 2-6-0 N° 13, I replaced all of the old-style cowboy features with modern fittings, mostly salvaged from a redundant Bachman Ten Wheeler. Now it's reminiscent of some of those ancient Cuban engines that have seen use in three different centuries.

Buildings

Structures are a mixture of modified Pola buildings and simple scratchbuilt affairs,

Plants on the Southern Cross Railway

Gloucestershire, England
USDA Hardiness Zone 8

My soil is very thin on upland limestone, so although thymes do okay and miniature conifers (mostly) survive, I have to be careful to select only lime-loving plants. The winter-flowering heathers are tolerant of lime, but not the other lovely heathers I see on sale in the garden center.

Much of my strategic planting is actually on built-up scenery with a soil/gravel-and-compost mixture stuffed into the hollow centers of concrete blocks, sometimes up to four feet above the natural ground level. We have long dry periods here (even in Britain) and so only thymes and self-sown sedums cope with the lack of water. I have to be careful to water the conifers that grow in the hidden tubs and concrete hollows on the higher levels.

CONIFERS

Snow White Lawson cedar

Chamaecyparis lawsoniana
'Snow White'

Dwarf Atlantic cedars

Chamaecyparis thyoides cultivars

Dwarf Irish juniper

Juniperus communis 'Compressa'

Giant sequoia

Sequoiadendron giganteum

SHRUBS

Honeysuckle

Lonicera species

Potentilla

Potentilla fruticosa cultivars

PERENNIALS AND GROUNDCOVERS

Winter heather

Erica carnea

Golden hebe

Hebe odora 'New Zealand Gold'

Lavender cotton

Santolina chamaecyparissus

Saxifrages

Saxifraga species

Sedums, stonecrops

Sedum species

Hen-and-chicks

Sempervivum species

Lemon thyme

Thymus serpyllum x *citroides*



5. WILD MOUNTAIN TRESTLE. A Sunday maintenance train provides N° 226 with a gentle running-in turn. Only yesterday, it was over the wheel-drop at the works with its rods lying about, so it's a tribute to the staff at Enyati to see the locomo-

tive back in action so soon. It has just crept onto the trestle at Wild Mountain and is about to set back again into Orange River. The brilliant foliage of the golden hebe offers beautiful background highlights.

using corrugated-plastic sheeting over plywood substructures. The sheeting helps to protect the wood and, when painted in car-undercoat gray and artist's acrylic colors, gives a satisfying effect of rusty, corrugated iron on station roofs and mine buildings. High winds will have me searching the following day for the odd sections blown into the neighboring paddock where, if I'm not quick enough, Basil the pony will have added a few more corrugations. This same pony once escaped and discovered my mainline was a shortcut to the lawn. He showed his displeasure at being told off by galloping

the length of Kimberley yard, realigning my track, and demolishing buildings, but we still love him. The lesson learned for outside structures is build 'em tough.

The railway

The Southern Cross Railway is set in the present day, somewhere in the southern hemisphere. It is a self-contained mining operation whose private railway serves as a refuge for old locomotives that would otherwise have been scrapped long ago. Of course, it's only a model railway, and a meager substitute for the real thing, but on those wonderful occasions when

sunlight slants across the garden, glinting gold on the sides of trains and trestles, and throwing purple shadows over miniature rivers and canyons, the magic is plain to see and a little bit of the romance of steam is kept alive. In an attempt to keep the illusion intact, the captions to the accompanying photos are written from the perspective of a visitor to this world. For those interested in the background story, here are some words about the construction.

The track bed is made from concrete lintels, 6" wide and 2.5" deep. These are laid end to end and are supported



6. ENYATI MINE. Basking in the warmth of a summer evening, a selection of Baldwins await the call to duty while, beyond, at the Number 4 Shaft loading point, Mikado N° 1426 is switching a rake of empty hoppers under the chutes.

This is the highest location on the entire railway, surrounded by the paraphernalia of decades of mining and the comforting whine of the conveyer belts bringing a seemingly endless supply of ore to keep the railway busy .



7. CALIENTE CANYON. The river valleys provided a route for the railway into the heart of the Stormberg Range but it has always been an uneasy relationship, particularly in springtime, when melt-waters thunder through the narrow defiles,

carrying all before them. Keeping close company with today's more docile river, Baldwins N° 18 and N° 1320 climb steadily toward Tunnel 2 with empty oil tankers in the deepest part of Caliente Canyon.



8. ENYATI YARD. On this clear afternoon you can see the coast, a shimmering band of gold far away in the west. That is the destination for the trains that are marshalled up here in Enyati yard. Beginning its journey is the afternoon oil train—only 16 tankers, but quite a weight to keep under control on the steep

grades. The South African locomotive *Kimberley* has just coupled up to a lengthy string of hoppers and is about to propel them towards the loading point. Meanwhile, other engines are busy switching. Some day, in the very distant future, the young giant sequoia planted in the curve will tower above the yard.

where they meet by concrete-block piers built on underground concrete foundations. The longer the lintels, the fewer supporting piers needed. I have used them up to 9' long, although on my 10'-radius curves, 5' lintels are necessary. The standard, 18" supporting blocks allow for up to three lintels side by side, which is ideal for multiple tracks or for supporting adjacent scenery, like the sides of cuttings or tunnels. This is a fast and durable technique for building a railway. In the event of any localized subsidence, the lintels can be gently lifted and repacked from below with minimal disturbance to the track.

Scenery

My scenery-building technique I call "terraforming," a name borrowed from Star Trek. I stack up hollow concrete blocks to create the basic shape of mountains. This is then dressed in natural stone, cemented together. Hollow blocks are lighter to handle and, when filled with soil, provide ideal planting pockets. Thymes grow well in our alkaline soil, as do winter-flowering heathers. I have used many small conifers, too, but even the miniature

types need to be kept in check, as they soon dwarf the trains. My favorite plant—sedum—arrived on the wind. It thrives in gravel or sand and survives the driest environments so, even on the top of my concrete mountains, it gives welcome natural texture without any attention.

During construction, I regularly view the railway through a camera lens to ensure that landscape features are best placed for eventual photography. This has become a hobby in itself and the growing albums of pictures are reminders of the progress made.

I spend a great deal more time building the line than running it, but we do have a number of steamups throughout the year, when all sorts of visiting trains can be seen in action. The railway bursts into life and, being a single track, it's great to see locomotive drivers having to operate as they would on a real line, by waiting in a passing siding for a train heading the other way and always being mindful of other movements: in short, operating a railway, not just running their own train. Those are the happy days of barbecues, beer, and good company that make it all worthwhile. **II**

About the author

Born in 1959 in Plymouth, England, in a house that stood in the midst of a maze of railway lines, Nick Trudgian had no choice but to be a steam enthusiast. This was a place where coal smoke was on the wind and the whistles of steam engines were still the background sounds to everyone's lives. On the passing of steam, he grew up with a sense of loss that set him on a quest to regain a vanished past. As a youngster, his preoccupation with model trains was to the detriment of everything else. The many hours spent drawing trains enabled him to get into art college. For a decade after school he worked as a freelance illustrator, mostly for the oil, shipping, motor, and aviation industries. His ambition to be an oil painter was realized in 1992, when he joined a publishing house producing limited-edition prints of World War II aircraft, another passion of his. Steam trains remained a valuable hobby, with garden railways being a big part of his life since 1994.



9. CALIENTE NARROWS. As the line enters Caliente Narrows above Tsomo, the walls of the old canyon press in, affording little room for both trains and river. The exhausts of tank locomotives N° 14 and N° 19 are amplified by the sheer cliffs, sounding like gunfire as they struggle to keep this heavy load moving up grade.