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## Over and Under the Gotthard

by Giles Della-Gana

*Photographs by the author*

### 1: Over the Gotthard by Pullman

**When I first** arrived at Luzern station during my 1984 Swiss holiday, I picked up a sheet, printed in English, advertising a daily *Orient Express* Pullman car from Basel to Chiasso and back. As I was in a hurry I did not give it much attention at the time. Upon reading it in greater detail a day or so later, I found that this Pullman car was attached to the train I intended using to return north after a visit to Locarno the following day. The warning that seat reservation was compulsory sent me hot-foot to the local station Flüelen. A phone call by a member of staff (this at about 21:00 hours) brought the assurance that it was not necessary to book ahead and that all I had to do was to present myself, together with an appropriate travel ticket, to the steward on the car.

This the following afternoon found me hurrying up the platform at Bellinzona as the

Interior of Pullman car 4161D.

15:53 Chiasso-Basle train drew in. Pullman car 4161D (UIC running number 51 85 09-30 001-9) was coupled immediately behind locomotive 11669, the rest of the train being made up of SBB light-weight stock plus a pair of *Einheitstyp IV* seconds at the rear. Sadly for the owners, Intraflug of Zürich, my fears of having to fight for a place proved groundless and I was able to choose my seat amongst but a handful of fellow passengers.

Car 4161 was built in 1929 by Entreprises Industrielles Charentaises Aytres of La Rochelle as one of a batch numbered 4148 to 4164 for the *Côte d'Azur* service, rather than the *Orient Express*. The interior decor is in the *Blue Bird* style of Rene Lalique, the name deriving from the glass panels, depicting the said birds, set between the windows. Seating for 28 is divided between two 4-seat coupes (compartments), one towards each end, and two saloons, one seating eight, the other twelve. At the smaller



saloon end there is a toilet between the coupe and the vestibule, at the opposite end there is a rack for the storage of luggage. The steward proudly pointed out that unlike certain other ex-CIWL Pullmans running, 4161 was still in original condition. Whilst this was true enough of the body, a pair of Schlieren bogies were substituted in 1957 to enable running at 160 km/h on the *Mistral*. At the same time some form of air conditioning appears to have been added. 4161 was purchased by Intraflug in 1980. The company also had three other cars of this type, 4149, bought in 1977, 4158 in 1976 and 4164 in 1980.

Such was the vehicle in which I made a memorable trip over the sunny Gotthardbahn. The train is a semi-fast, presumably in deference of the vehicle's age. All too soon we reached Luzern, where despite the steward's observation that my ticket and the supplement paid would take me all the way to Basel, I had to get off. I was not in such a hurry that I could not pause to take photos and to resolve that if I had enough funds left at the end of my holiday that I would take up the suggestion and travel though to the Rhine.

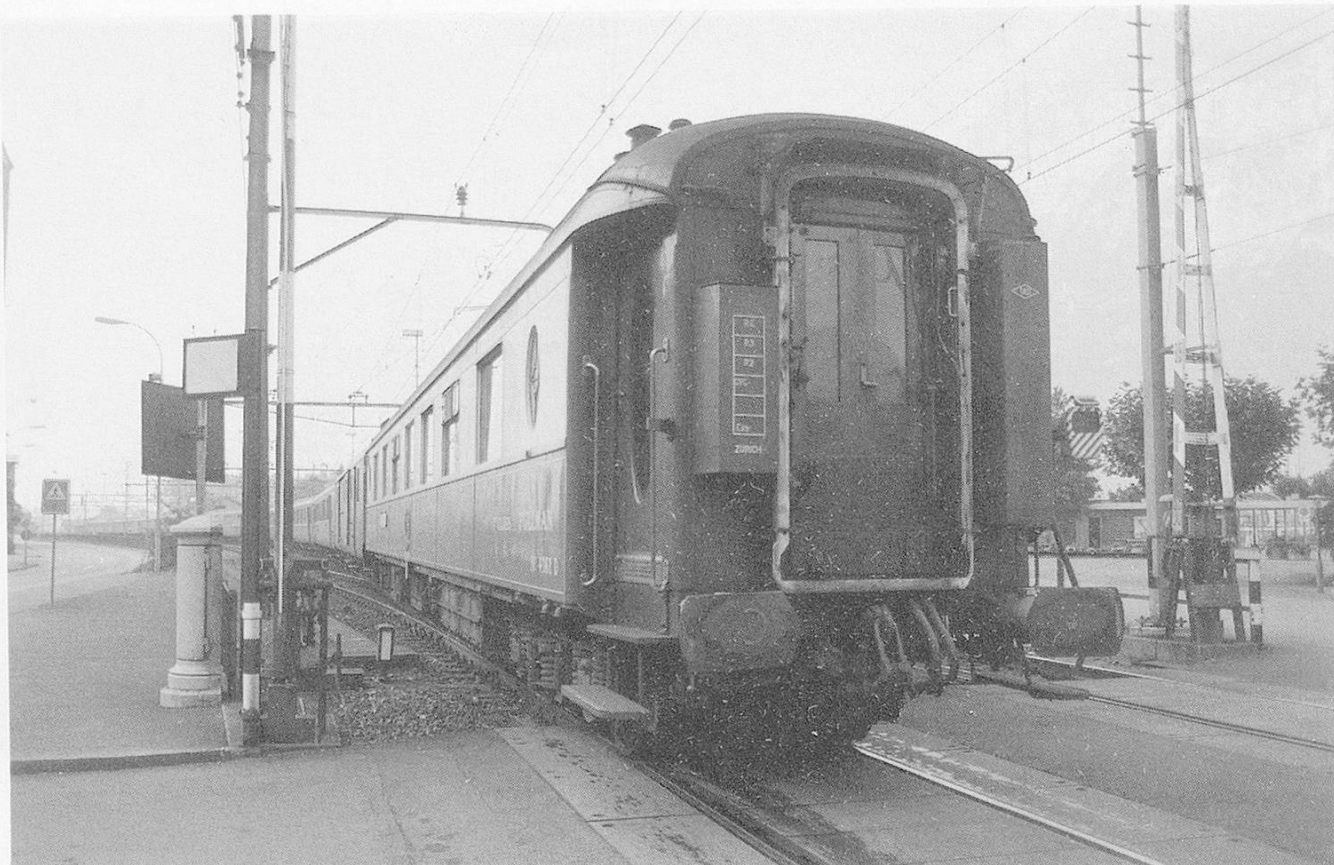
Pullman car 4161D (UIC 51 85 09-03 001-9) in Luzern station 31 August 1984.

So it was that when I made my way from Luzern to Basel in order to catch the overnight service to Oostende a week or so later, at was aboard 4161 again, and once more there was but a meagre load of passengers, this time including a dog. These low numbers must have been typical (though it should be pointed out that neither of my journeys were made at the week-end) for the service only seems to have lasted one season. This was a pity as it provided an opportunity to ride in a vehicle that would normally only be used on very up-market specials. Perhaps the facility could have been advertised more widely, something that has been done with the current *Wilhelm Tell Express*.

#### Postscript

The above article was written some time ago. Following a disastrous excursion into the North American market with a luxury service between New York and Chicago, brought to an end by poor loadings and a level crossing





Pullman car 4161D at Flüelen, 1 September 1984.

accident involving a lorry, Intraflug has ceased rail operations. Its vehicles have been sold to Reiseburo Mittelthurgau who have sent some to Moscow for service across Central Asia to Beijing. The rest have been retained in Western Europe. Should you wish to follow the fortunes

of any ex-CIWL vehicles, I would suggest membership of the recently-formed Wagon-Lits Society.

#### **Publications Consulted**

*History of the Trains de Luxe*  
*Pullman in Europe*  
*Swiss Express*

George Behrend  
 George Behrend  
 March 1993

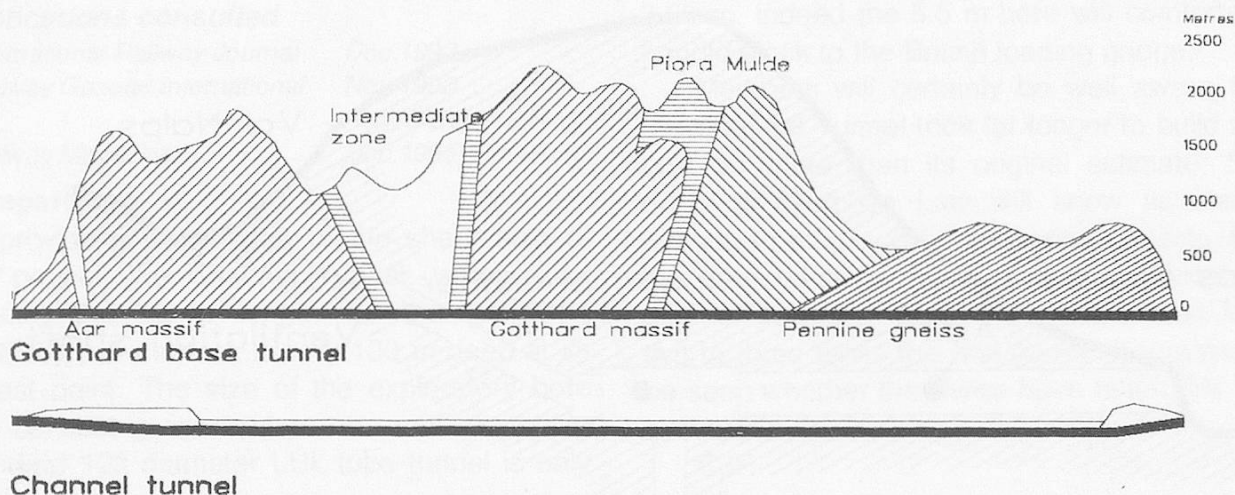
## **2: More on the Gotthard Base Tunnel**

**As more details** are becoming available on what must be the world's greatest tunneling project to date, I feel that it is time to update and expand the information set out in my article *A New Gotthardbahn*, published in the March 1994 issue of *Swiss Express*.

The project was given a symbolic start by Adolf Ogi, then President of the Swiss Confederation, at the Faldo site on 22 September 1993. Work began the following November on a 5.5 km, 5 m diameter gallery, which is being constructed to establish whether the troublesome Piora-Mulde dolomite rock (see *A New Gotthardbahn*) extends down to the intended running tunnel level. This exploratory gallery is to finish 300 m above the projected running

tunnel level and a 330 m deep, 5.6 m diameter shaft will be sunk. If the dolomite extends this far down, the alignment of the running tunnels will be adjusted to pass through this strata at the most favourable location, supplemented by grouting and drainage works. The exploratory work alone is expected to cost SFr.50 million.

A 780 m deep, 8 to 9 m diameter shaft is to be sunk in the area of Sedrun, not a spot immediately associated with the Gotthardbahn. This will be reached through a 990 m long gallery from Las Rueras to be built during 1995/6. This will be extended during 1997 onward and outward by an 8 m diameter, 450 m long ventilation shaft to Val Nalps. The actual shaft will reach tunnel level in 1999, where 1.9 km will be dug northward between



### Gotthard base and Channel tunnels compared

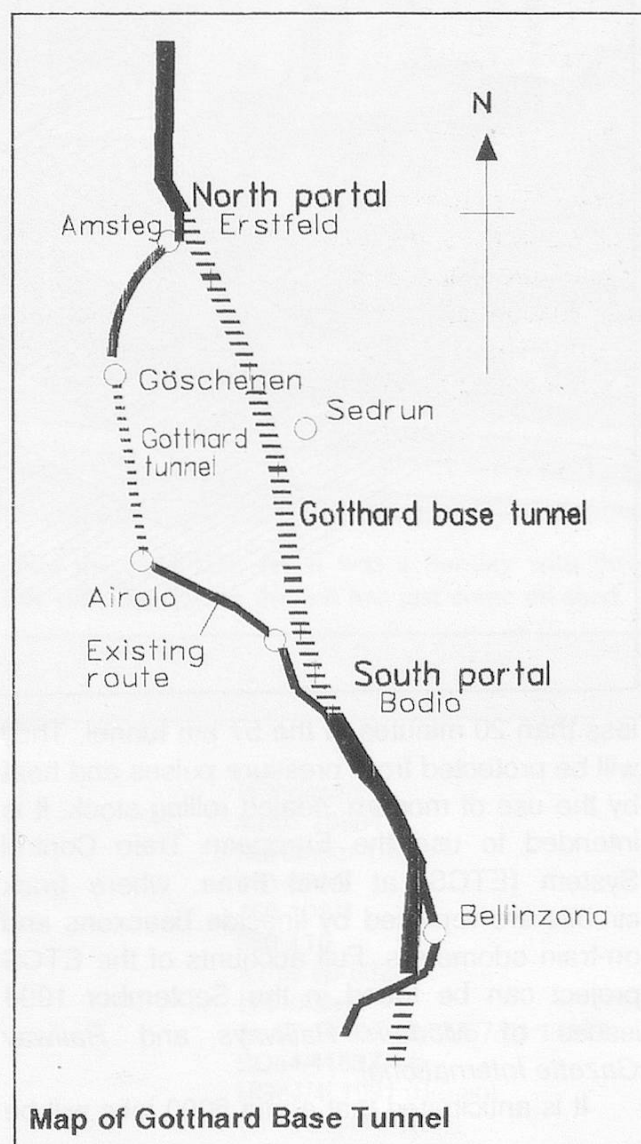
2000/3 and 4.6 km southward between 2000/5. The work will consume 1.5 million tonnes of sand and gravel, 300,000 tonnes of cement and 100,000 tonnes of steel. Some two million cubic metres of spoil will be coming to the surface at this point.

It is pleasing to report that the project planners have received the full co-operation of the local authorities. As many members will be aware, the village of Sedrun is an attractive tourist haunt. This could be turned to advantage as staff accommodation may be designed for further use by visitors after completion of the project. A third intermediate access will take the form of a gallery starting from Amsteg.

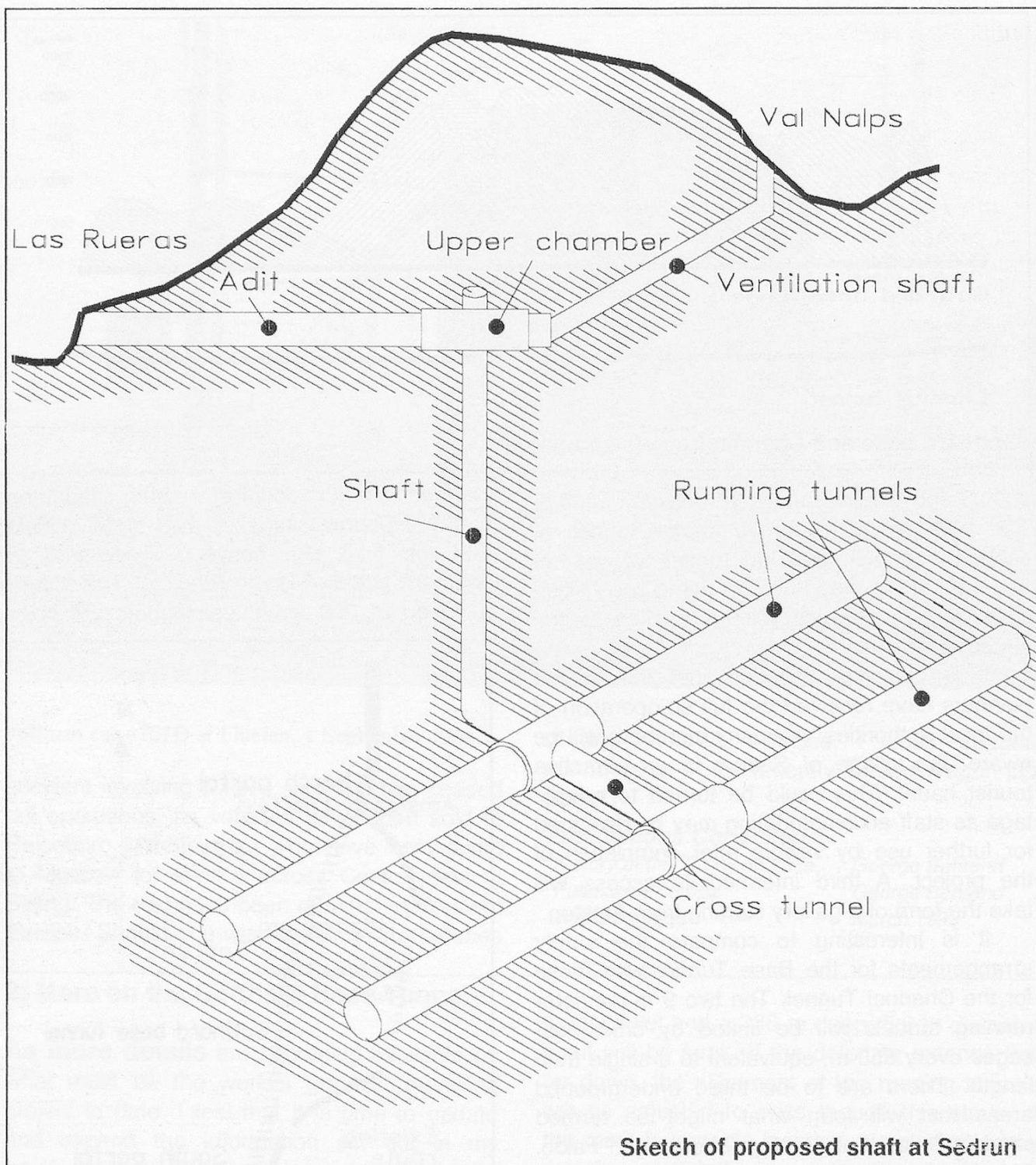
It is interesting to compare the safety arrangements for the Base Tunnel with those for the Channel Tunnel. The two 9 m diameter running tunnels will be linked by cross-passages every 650 m, equivalent to a single train length. There are to be three underground areas that will form what might be termed citadels, located at Amsteg, Sedrun and Faido. They will contain power supply equipment, ventilation plant, rescue facilities and access to the surface. In an emergency a passenger train will be able to stop and unload at these points. It will remain to be seen whether the facilities will extend as far as the arrangements on the new 13.2 km cut-off tunnel north of Bolzano on the Brenner, there the two emergency access tunnels are provided with helicopter pads. This means that no point in the tunnel is more than 15 minutes from Bolzano hospital.

Four cross-overs in the running lines are

planned, one just south of Amsteg citadel, one south of Sedrun citadel, a third north of Faido and the final one between Faido and the southern portal at Bodio (Biasca). Travelling at a speed of 200 km/h, passengers will spend







**Sketch of proposed shaft at Sedrun**

less than 20 minutes in the 57 km tunnel. They will be protected from pressure pulses and heat by the use of modern, sealed rolling stock. It is intended to use the European Train Control System (ETCS) at level three, where track circuits are replaced by lineside beacons and on-train odometers. Full accounts of the ETCS project can be found in the September 1994 issues of *Modern Railways* and *Railway Gazette International*.

It is anticipated that about 5000 jobs will be

created by the building of the new 125 km Gotthardbahn between Arth-Goldau and Lugano, together with a similar number in the supply industries. The SBB placed contracts for engineering design during May 1994. This work has been split into 17 lots and divided between 14 groups. The Federal Council (Bundesrat) is expected to make a ruling on the final alignment by early 1995. However, there is continuing concern and debate about the high cost of the project.

### Publications consulted

<i>International Railway Journal</i>	Dec. 1993
<i>Railway Gazette International</i>	Nov. 1993
	Aug. & Sept. 1994
<i>Railway Magazine</i>	Dec. 1995

### Comparisons

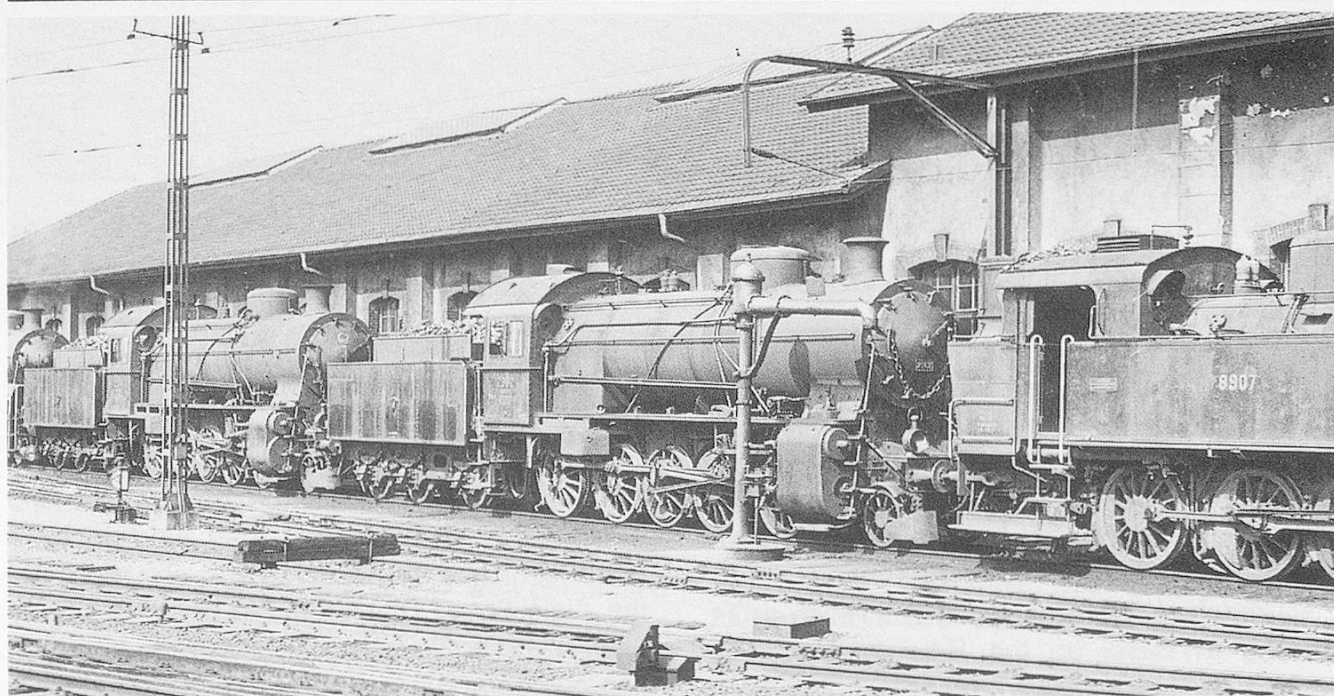
To provide a better idea of the sheer size of this project, the Channel Tunnel, which is of virtually the same length as the projected Gotthard base tunnel, is only 100 m deep at its lowest point. The size of the exploratory bore can be best gauged when one realises that a standard 12ft diameter LUL tube tunnel is only

3.66 m, indeed the 5.5 m bore will comfortably handle stock to the British loading gauge.

Members will certainly be well aware that the Channel Tunnel took far longer to build and cost far more than its original estimate. Students of Murphys Law will know its clause relating to major civil engineering projects, that the time taken is never less than twice the original estimate, whilst the cost will be from two to three times the first guess. It remains to be seen whether the Swiss have taken this into account.

CJF

## Fred Ward remembers



Olten shed, June 1961. Not the dead line, for it was a Sunday with three locomotives having the day off. The one on the left has just come on shed.

## SBB stock changes

### August 1994

#### New

450-082 ZU  
460-099 BE  
550-001 GE  
560-111 BE  
XTms 80-050/1 88-231 88-830

#### Withdrawn

Te<sup>1</sup> 33/6/8/51  
Tm<sup>II</sup> 702  
Ae4/7 10979

### September 1994

#### New

450-083 ZU  
460-101 BE  
560-112/3 BE  
XTms 88-531 88-831

#### October 1994

#### New

450-084  
460-100  
560 114/5  
550-002/3/4  
XTms 88-232

#### Withdrawn

Ae4/7 10984

#### November 1994

450-086/7  
460-102/3  
560-116  
XTms 88-532  
*Withdrawn*  
Ae4/7 10907/29/35/57/61 11023  
BDe4/41637/44  
HGe4/4<sup>1</sup> 1991 (Brünig)  
Tm<sup>II</sup> 727