

HaRakevet

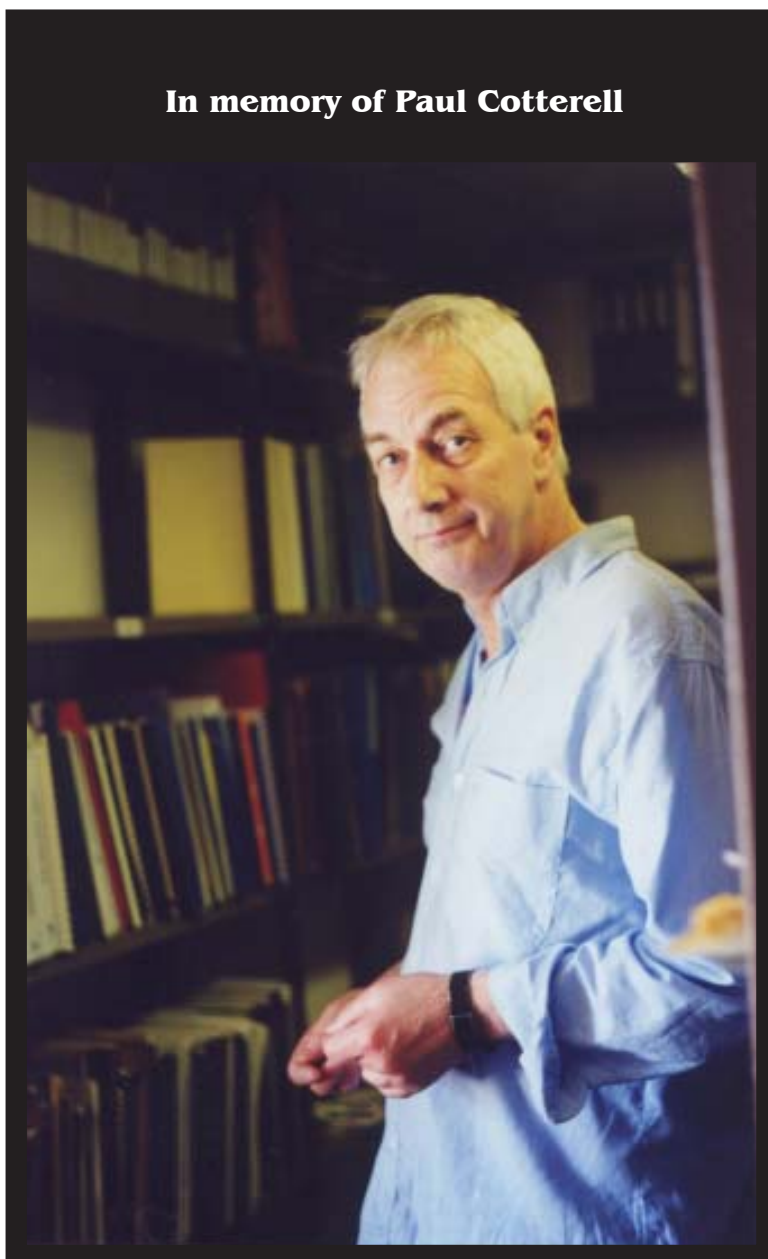
ISSN. 0964-8763.

Series 20 #2
Issue No. 77 June 2007

הרכבת

A Quarterly Journal on the Railways of the Middle East
Edited and Published by Rabbi Walter Rothschild
Passauer Strasse 4, D - 10789 Berlin, Germany
Tel/Fax +49 30 214 73889
e.mail: Rothschild-Berlin@t-online.de

In memory of Paul Cotterell



77:01.

*Paul Cotterell, on 16th. March 1999, at the Library and
Archive of the Haifa Railway Museum.*

77:02. EDITORIAL

. This is a sad issue. The sudden and untimely death of Paul Cotterell has struck a blow at all those who work in the field of research into - or preservation of - the railways of Israel. A full obituary follows and the memories of some of those who have worked with him. Others have sent brief messages and memories and I hope they will not mind that not all can be used here. The message is the same - Paul was an inspiration and support for all who work in this field of Middle Eastern railway history. His work in expanding the Israel Railway Museum - modestly he told me at our last meeting he hoped it would at some point be named in honour of Llan Falkov, who was the pioneer in establishing it - and in sorting and cataloguing the archives, and his many writings, will provide his best memorial. We can only hope to continue the work, knowing in our hearts that we will never quite meet his standards, but hoping he will be generous and forgive.

In this issue we have concentrated - apart from 'News from the Line' and other current events - on items that Paul had sent for publication. Shalom,

The Editor.

77.03. *The original caption reads: "Paul Cotterell, stuffed and mounted as a Signalling Exhibit in the Railway Museum". March 1999.*



PAUL COTTERELL: 9th. July 1944 - 2nd. May 2007.

On 2nd. May 2007 news spread swiftly, news that changed the world for many people. Paul Cotterell, 'Pol' or 'Meester Pol' to so many Israelis, had died suddenly, suffering a cardiac arrest while working for the Israel Railway Museum, searching through the photographic archives at Kishon Works.

Paul was a legend. A stern critic of sloppiness in any form (including in 'Harakevet'!), he was also a guide and mentor to many who sought information or sought to help - according to his own exacting standards. A railwayman through and through, a 'Brummie' and formerly of Saltley depot in that city, a British enthusiast who photographed extensively on the British railways system of the 1960's, (with an especial love for the former LMS and S&D), he later moved to Israel and worked for many years as a signalman at Haifa Central Station signal box. He then moved on to the Railway Museum at Haifa East, where he had long worked in any case on an "unofficial overtime basis" in his free time. Though there was always a figurehead ostensibly in charge, it was Paul who made things

happen there - and such a lot it was, too. A total rebuilding of the museum facilities to incorporate the old HR engine shed and the surrounding trackwork, the acquisition, restoration and display of several fascinating items of motive power and rolling stock..... and small exhibits, tickets, badges, photos, signalling equipment and so much more. He ran a 'team' of volunteers who slogged away at the mountains of putrefying and yellowing paper, covered in pigeon droppings, in damp rooms and in the attic, and transformed

all this into a properly shelved, cleaned, rolled, stored, protected and catalogued Archive. His comments were often sardonic, but you knew that if he ever said something positive, he meant it, and that it was praise indeed. He was respected by all and it was amazing how many Israel Railways employees would light up if you asked them whether they knew 'Meester Pol'.

If there was anything to know - he knew it. If there was anything not yet known - he would be on the trail of it - and often with success. On his computer at the Museum were the materials for several more articles for 'Harakevet' and an album of pictures of

Israel Railways 'master shots' with extended captions, that he was preparing for publication. One hopes his friends can make these materials available for publication after all - alas, now in his memory. He was a regular contributor also to 'Black Eight', the magazine of the Stanier 8F Locomotive Society, and to the 'Industrial Railway Record' - indeed, his interests always tended towards the arcane, the little industrial or military lines that had brief and hidden existences, the obscure byways that he delighted in bringing into the light of his research. He tolerated diesels if they were unusual and 'interesting' but, as has been said by others, his eyes would light up when steam was mentioned.....

In recent months he had - following a slight stroke - stopped smoking and improved his diet; When I last saw him, in March, he strode up and down the roads with myself panting to keep up. He hated being photographed and it was hard to get a shot of him without a crazy expression on his face. He had married, once - an Israeli - and then moved to Canada, where they later divorced. A large wall-map of the Canadian Pacific Railway and its vast empire graced his flat thereafter. They had no children. He came back to Israel alone and became an Israeli, though he never completed conversion to Judaism. He lived alone and spent a lot of his working life alone - night shifts in a signal box are not for those who need constant chatter. And yet - we had many deep discussions about theology and life, about railways and archives and wills - and the need to ensure that collections remained intact.

When I lived and studied in Israel in or around 1980, and began my own personal travels through various archives, everywhere I went I learned that a 'Paul Cotterell' had been there before me. But no-one knew who or where he was. Then one day, sitting on a bench on a station on the North London Line I opened a copy of 'Continental Modeler' - and there was a book review of 'The Railways of Palestine and Israel' - by Paul Cotterell! A letter to Rick Tourret, the publisher, followed, and contact was made, and the next time I came to Israel we met at Haifa Bat Galim station, and a friendship was formed. An irreplaceable one.

We discussed his book and the fact that he had already learned since publication much that was new and much that corrected or modified what had been published. But there appeared no realistic chance for a second edition. So the idea of 'Harakevet' was born one day, as I walked my dog along Nursery Lane in Leeds - a small newsletter for the small circle of people who were known to be interested in this arcane topic, a chance to share new information on an informal basis without all the hassles of a 'real' publication. There was simply a need for a Boswell for Paul's Johnson, and I decided that I was to be he. The magazine began as typed A4 sheets on my synagogue typewriter, photocopied at work - I think originally there were six copies of 'No. 1' - and grew from there. Paul was always the major contributor, often impatient when items stayed 'on file' for too long. I used

to refer to him as "Katar-El" - "The Locomotive of God". Steam, of course..... And high pressure, too.

Paul will indeed be an impossible act to follow. A professional railwayman and an amateur archivist, he nevertheless brought professional standards to both. He was able to negotiate and haggle within the hierarchies and committees of Israel Railways - an amazing feat for someone who, in many respects, could have been classed as an 'outsider'. He Got Things Done - in his own way and pace, but they Got Done.

Paul was buried on 7th. May at the Kfar Samir Anglican / Greek Orthodox cemetery in Haifa, close to Hof HaCarmel station. Almost 100 people attended, almost all of them Jewish, and eulogies were given by several friends and also senior figures on Israel Railways. As Sybil wrote, "Few people are lucky enough to be able to make their hobby their profession, and fewer still are privileged to die without suffering, while doing what they love best." Paul would have hated another stroke and a slow decline. The end came mercifully swiftly - albeit still far, far too soon.

"Zecher Tzadik Livrachah." May the Memory of a Good Person be a Blessing for all who knew him.

Walter Rothschild.

From his sister Mary:-

"You describe him very well. We, as his family always felt the Paul we knew was just the tip of the iceberg. Even in childhood he was distant from us. But his friends were always happy to be in his company and therefore they came to the house and we gleaned more through them about Paul than he would ever tell us himself. So, even then, his friends knew him far better than we did. In our early twenties he went off to Israel and I to Holland and our lives barely touched at all, years would separate each brief encounter. In fact I've had more contact with him this last five years or so, mainly because of family circumstances and the ease of e-mail, than in our whole lives before. Even so, he didn't tell me he'd had a minor stroke last year - so typical.

I was always wanting to please, Paul (sensibly) ploughed his own furrow, always. It certainly paid off for him.

We always knew he was good at what he did and that people realised that, but sadly, it's taken his death to reveal the full extent of him, as it were. I keep saying 'we' but, really it's only me now as Dad died in '92 and our Mother's in a home with advanced Alzheimer's.

You are right, he was a loner, could be prickly and if he didn't like something or some one well they just didn't feature anymore as far as Paul was concerned. First in his life was always railways. As far as I can tell, all his friends feel more or less the same!

As to your question about him working at Saltley in his youth - I think you know by now what the answer is, I'm blown if I know! I wouldn't be surprised, though. The only slight clue I can come up with is that he possessed at that time a bona fide, 100% genuine railwayman's cap to which he was deeply attached, both literally and figuratively! Perhaps he was given it in Saltley!

Please accept my condolences to you on the loss of a good friend and contributor to your magazine. Paul will leave quite a gap in your life, I think.

With kind regards,

Mary.

From Sybil Ehrlich

"I first saw the name of Paul Cotterell when my mother gave me a copy of his book 'The Railways of Palestine and Israel' as a birthday present in 1987. She had read a review of it (by one Walter Rothschild) in the *Jewish Chronicle* and thought I would like it.

I met Paul for the first time when I was on a *Jerusalem Post* assignment (at my suggestion of course!) to the Haifa Railway Museum. I had stopped off at either Bat Galim or Merkaz station - I forget which - and was photographing a loco there. A railway employee saw me and said that since I was obviously interested in railways I must know Paul. I said I didn't, but I had read his book and would very much like to meet him. "You'll find him in the museum," I was told.

Indeed I did. I don't remember exactly what we talked about, although he seemed flattered that I had read his book.

He was more than a friend. He probably didn't know it, but he taught me to focus my interest in a way that even I myself didn't realize was where

it was heading. Without his assistance my collection of station photos – mostly my own, but of course augmented by treasures from the archives – would not have come into being. I would never have been interested in knowing the historic names of stations and localities, and become something of an authority on them myself.

When I moved to Beit Shemesh and began concentrating on the history of my local station, originally named Deir Aban, later Artuf and Hartuv, Paul helped make my collection into what must certainly be the best documented railway station in Israel.

Every so often a large Israel Railways envelope addressed in Paul's distinctive handwriting appeared in my mailbox. What would it be this time? It was often an enlarged laminated reproduction, of Tulkarm circa 1940; five men on a strange contraption and labelled "New road culverts near Artuf 1937-38"; an architect's drawing of Artuf Station Signal Cabin & Ticket Office, dated 1928 (a unique building sadly demolished in 2002 when the station was rebuilt); an official map of Artuf station dated 1944, a plan of Proposed Passenger Shelter at Artuf station, 1947 – a project that never materialised – and innumerable photographs.

He and I had a long-running but good-natured argument about whether a certain photograph, taken around 1913, showed Deir Aban, as I insisted, or somewhere else, which Paul was convinced was the case although he couldn't suggest where it might be. But I live there, I said. I know! Track layouts change, but hills don't. Eventually he graciously conceded defeat. It wasn't often that you could prove Paul wrong. According to a recent issue of Railway Magazine, the grand total of steam locomotives ever built is 636,000. Most have of course long since gone to the great loco shed in the sky. Paul won't be bored.

It is said that nobody is irreplaceable. Whoever came up with that one obviously never knew Paul.

Sybil Ehrlich"

From Silvio Gryc

"As part of my History studies in the University of Haifa I prepared a seminar on the Turkish railway to Auja in WWI (I presented it during an MA campus held in the area of Nitzana). In the course of January and February I visited the railway museum and archive in Haifa, had lengthy and enlightening talks with Paul, and got from him valuable help.

In Nitzana and Birin (Beerotaim) I took plenty of photographs of what is left from the Turkish enterprise there, bearing in mind to prepare a copy for Paul. After the seminar I held a phone conversation with him about some of the findings there.

Last month I submitted the written seminar to the professor, and last week prepared a copy of it for Paul. Then I contacted the museum and asked for Paul to decide on how to transfer the material (photographs and seminar) and was told of his death five weeks ago.

During our meetings and phone conversations I was very impressed by his deep knowledge and his love to everything that was related to railways and their history, and his willingness to help and to share his knowledge with others.

The copy of the seminar was originally intended as a present of gratitude. Now, regrettably, it can only serve as a tribute in memory of Paul Z"L
Silvio Gryc. Kamon. ISRAEL"

77:04.

NEWS FROM THE LINE.

[Many items have been sent by Aharon Gazit and have been slightly edited. The majority deal with the continuing saga of how to cope with the abysmal standard of driving on Israel's roads. Ed.]

(a). INFRASTRUCTURE COMBINED PROJECTS.

On 22.04.07, Isra-Rail Co. Ltd. General Manager Mr. Ofer Linchevsky, together with Transport and Roads' Safety Minister Mr. Shaul Mofaz, the Ministry's General Manager Mr. Gideon Sittermann, and National Roads Company (formerly Public Works Department) Deputy General Manager Mr. Yehuda Bar-On, made a presentation on three combined transportation projects: The A1 fast

rail link to Jerusalem; the line to Modi'in - which deviates from A1; and road No. 431 which shares about 8 km. alignment with the line to Modi'in, to a delegation of the World's Bond-an American Jewish organization which raises money for highly important projects in Israel.

The presentation took place at Anabe Interchange near highway No. 1 to Jerusalem; here one of the most complex transportation projects in Israel is being carried out; the A1 line to Jerusalem runs in a tunnel under road No. 1, then on a bridge over road, and road No. 431 runs through an interchange currently under construction into highway No. 1 and on a bridge over highway No. 1 westward to Rishon-Le-Zion; it is one of the most important transverse roads being built. In the long term a rail link is planned to Rishon-Le-Zion Rishonim (Roses Garden) station, and this will share the alignment with road No. 431, and the National Roads Company is securing the right-of-way for the rail link.

These projects show how co-operation between two authorities - which were until some years ago almost hostile to each other - can be fruitful, efficient, and save a lot of resources!

(b). HAIFA CENTRAL TO BE RENAMED.

From a press release of 22.04.07 by Isra-Rail Co. Ltd.:

The railways have decided to change the name of Haifa Central station to "Haifa Central Station Named After the 8" to commemorate the eight railway employees of the Haifa East loco depot who were killed last summer, on 16.07.2006, by a rocket which penetrated the roof during the 2nd Lebanon War. (A second rocket penetrated through the same hole about 2 weeks later!) The decision was made about 2 months ago in a meeting between the families, Transport and Roads Safety Minister Mr. Shaul Mofaz, and the railways' General Manager Mr. Ofer Linchevsky. It was introduced to the railway Directorate, who immediately approved it. On 16.07.2007, one year after the tragic event, the station name will be changed.

The press release was timed to coincide with the start of Yom HaZikaron, the memorial day for all of those who were killed in the wars before and after the foundation of Israel.

Mr. Mofaz said: "During the Second Lebanon War the hinterland

became a front; dedicated employees risked their lives in order to provide passenger services and the 8 paid the highest price; there is not a day more symbolic than the Memorial Day when all the nation remembers its dead fighters, to commemorate the 8."

Mr. Linchevsky said: "Unfortunately, during the last year the railways have joined the families of the dead fighters; we hope that our activities will help not to forget our brave people."

(c). BUS DRIVER STUPIDITY.

A bus driver with 18 previous traffic violations drove a bus full of passengers across the level crossing near Ashdod-Ad-Halom station while the red lights were already flashing; the barrier arm went down and got stuck on the bus, and an approaching train had to make an emergency stop, thus avoiding a disaster.

Despite the previous violations, the Traffic Judge's decision appears ridiculous; the driver was fined only \$477 and his license was put on probation for 3 years; the judge took into account his personal situation, as he was married with 5 children.

(d). OVERCROWDING.

A journey between Nahariya and Tel-Aviv on Wednesday, 25.04.07 will not be soon forgotten soon; at the beginning it was routine, but unlike the usual mid-week days, the train became rapidly filled, and upon arrival at Haifa it was already overcrowded; the train made its regular stop there - mainly in this case for passengers who needed to disembark - but dozens of passengers who were waiting for the train tried to break in, whilst not enabling those on board to disembark, and when the security team and the conductors tried to prevent boarding and enable disembarkation, the clashes became almost 'warlike' and even those wishing to leave the train were brutally pushed out (unwillingly of course).

The clashes continued for more than an hour, and many passengers who tasted the 'sardine-like' overcrowding swore that "they will not use again trains until the railway administration realises what a shame it is to travel that way;" "Delays we can sometimes forgive but for 'sardine-like' conditions we will not", said others.

But even this was not the end of the matter; upon arrival at Tel-Aviv, some of the passengers went to the Railways' offices to complain and protest against the treatment they had re-

ceived; No explanations were given and only some of the complaining passengers who insisted on this received compensation tickets.

The picture worsened even more with the railways' explanation, which referred only to "the delay caused by those passengers who insisted on boarding the already-overcrowded train"; they forgot that the responsibility was theirs, because they could easily have added a special train due to the fact that this was not a usual mid-week day, but one day after the Independence Day - which is a holiday - when many people had to travel back to their usual destinations; the holiday comes every year so there should not be any surprises!

(Aharon adds: "This reminds me travelling at the beginning of the 1960's, when we used to say that if somebody wanted to enjoy a smooth ride - which was rare at those times - he should choose an overcrowded train; it would surely be stable!")

(e). PUNCTUALITY STATISTICS.

According to figures given by the railways Punctuality was between 86% and 100% in the period February - March 2007, which Mr. Linchevsky defines as conforming to International standards and close to European standards.

For the purpose of defining Delay IR refers to a train being late by more than 5 minutes. During February and March 2007, 4.43% of trains were late by from 6 to 10 minutes, 3.9% were late by from 11 to 20 minutes, 1.3% were late by from 21 to 30 minutes, and 0.5% were late by more than 30 minutes.

(f). ANOTHER STRIKE OVER PRIVATIZATION.

On 30.04.2007 sudden sanctions were imposed by the Railways' employees - mainly the drivers - which caused many delays; the reason was the management's decision to privatise all railway activities, which their union is strongly opposing; Mr. Linchevsky quickly briefed the press saying: "It was a wild action and now I'm more determined than ever to implement the privatisation!"

(g). MORE ON LEVEL CROSSING SAFETY AND GRADE SEPARATIONS.

(i). RADARS.

From a press release of

29.04.07 by Isra-Rail Co. Ltd.:

"The German company Scheidt & Bachmann has been awarded a contract worth \$12 Million from the railways to supply, install, and maintain 18 modern radar systems for level crossings; the systems will be connected directly to the signalling system, thus stopping the train automatically; with the barrier arms down, the radar scans the tracks area between the arms to warn against the presence of any dangerous objects.

Currently, five such systems are being operated at Kfar-Vitkin, Beit-Yehoshua, Atlit, Hadera-West, and south of Zikhron-Yaakov level crossings; an additional system has been installed at Kfar-Shmaryahu and awaits approval for operation from the Transport and Roads Safety Ministry; all these level crossings mentioned are on the Haifa - Tel-Aviv line.

Location of the other radar systems awaits a decision of the Higher Steering Committee for Level Crossings; the whole project is being carried out on a turnkey basis.

Transport and Roads Safety Minister Mr. Shaul Mofaz (for how long?), who approved and promoted the systems' purchasing said: "The radar systems will provide a temporary solution for the meantime, until the completion of level crossings; it is very important for both train and car passengers, and it is important to use any proved solutions increasing safety."

The Railways' General Manager Mr. Ofer Linchevsky said: "The purchase of the radars is part of our activities to increase safety at level crossings; just on 24.04.07, the radar system installed at the level crossing south of Zikhron-Yaakov warned a train driver to stop after identifying a vehicle stuck between the barrier arms and thus avoided a collision; though the system is not a perfect solution like a level crossing, it nevertheless proved itself in the mentioned case, as well as in other case, and thus the decision to install additional systems for the time being."

(ii). CONSTRUCTION STARTS.

From a press release of 01.05.2007 by Isra-Rail Co. Ltd.: "Isra-Rail Co. Ltd. is starting nowadays to build - through their subcontractors - the following seven grade separations for which tenders have been published during the last 2 months:

1. An overhead road bridge at the section Kfar-Habad - Tzafariya - level crossing No. 202 on the Tel-Aviv - Lod line; implementation time: 13 months.

2. A railway bridge over road No. 410 near Yavne - level crossings No. 144 & No. 145 on the Yavne - Rehovot line; implementation time: 18 months.

3. An overhead road bridge at level crossing No. 53 on the Akko - Nahariya line; implementation time: 12 months.

4. Four under-track grade separations at Moshav Mazor-level crossing No. 117 on the Lod - Rosh-Ha'Ayin line, at Beer-Yaakov level crossing No.134 on the Lod - Rehovot line, at Rosh-Ha'Ayin level crossing No. 186, and at Tal-Shakhar level crossing No. 220 on the Naan - Beit-Shemesh line.

These grade separations will cost about \$25 Million."

(iii): MORE TENDERS.

Additionally the following has been given in the same press release: The railways have published tenders for 9 additional grade separations:

Tender No. HN/KB/14/07: Grade separation at Maagan-Michael, level crossing No. 16 at km 35.672, and grade separation at Maayan-Zvi level crossing No. 15 at km 33.658 on the Tel-Aviv - Haifa line (both points measured from Haifa East).

Works include: design and building of 3 bridges and ramps, preparatory works for dismantling and removal of disruptions, pavement and signs, drainage and culverts, construction works, reinforced walls for enforcing soil outside the bridges, environmental re-building, and other different works.

The tender includes the following structures:

1.1: Design and building of bridges at level crossing No. 16: structure No. 11.
11.1: Design and building a road bridge over road No. 4.

11.2: Design and building a road bridge over the track.

1.2: Developing and re-paving road No. 4: structure No. 12.

1.3: Developing and paving ramps and an access road to Maagan-Michael: structure No. 13.

1.4: Design and building of bridges at level crossing No. 15: structure No. 21.

21.1: Design and building of a road bridge over the track.

21.2: Design and building of ramps on and off the bridge.

1.5: Developing and paving an agricultural road to Maayan-Zvi : structure No.22.

1.6: Different works: structure No.32. Implementation time: 18 months. Latest bidding date: 21.05.07. (Note: at these 2 level crossings, many collisions

have occurred during recent years.)

The cost of these 9 grade-separations is about \$36.40 million.

(iv). Tender No. HN/KB/11/07: Building of a grade separation at level crossing No. 132 where road No. 44 intersects with the Lod - Rehovot double track line at the entrance to the city of Ramla. Works include: design and building of an overhead road replacing level crossing No. 132: structure No. 11: Development works; structure No. 12 include: earthworks for buildings, concrete channels and acoustic walls, cast concrete works, sealing of walls and concrete channels, electricity, communication, frameworks, drilling, inserting, and casting of piles, pavements and stairs, reinforced walls for soil, roads development, drainage, and additional various works. Implementation time: 16 months. Latest bidding date: 21.05.07.

(Note: this grade separation is one of the most important being carried out; the traffic on the road is steadily rising and train traffic as well, causing severe disruptions all the day long, with nervous drivers often breaking off the arms.)

(v). ADDITIONAL TENDERS:

(a). A level crossing at Hartuv quarry (for cement) at level crossing No. 225 on the rebuilt old line to Jerusalem, to be completed within 12 months; this will put an end to the damage caused to the track by the lorries crossing it and covering it with soil; it will also enable a slight speed increase.

(b). Three grade separations: at level crossing No. 277 belonging to the regional council Tamar; at level crossing No. 279 Maale-Akrabim ('Scorpion slope'); and at level crossing No. 268 - an access road to Nevatim settlement on the Beer-Sheva - Dimona line; all these three grade separations are in the south of Israel, and will be completed within 14 months.

The railways' General Manager Mr. Ofer Linchevsky said: "Safety is our top priority; during the last months many tenders have been published and subcontractors selected, so that many grade separation building works are underway; within the next few months, additional tenders are to be published, so within 30 months, the wide-scale operation costing \$494 million will be completed, thus significantly reducing the dangers which have existed for many years at level crossings."

(Note: On completion, Israel Railways may become the first in the world in terms of the number of grade

separations relative to the number of level crossings and track length!)

(h). SIMULATOR TRAINING.

From a press release of 11.04.2007 by Isra-Rail Co. Ltd: "Transport and Roads' Safety Minister Mr. Shaul Mofaz, visited to-day the railways' Training Centre located at Tel-Aviv South station (opened in November 1970, replacing an old station of the same name in the middle of Tel-Aviv but very little used due to its location outside the city).

During his visit he was introduced to the new driving simulation system recently purchased and to be put into service in May 2007.

The simulator was manufactured by the French company OKTAL in co-operation with the two Israeli high-tech companies Tadiran Ltd. and Ness Technologies; 6 international companies had competed in the tender.

The simulator, which is built like a real loco, and simulates travelling on each of the existing railway lines, shows the alignments, stations, level crossings, scenery, different weather conditions, as well as emergency braking.

It will improve significantly the drivers' training, which so far has required a special loco for training; however, it does not replace the real practical training on a loco.

Minister Mofaz said: "The railways are undergoing a tremendous development, not only by adding hundreds of kilometres of new lines, and new stations, but also in the safety aspect, and the new simulator will contribute to this by training the drivers to be more professional, thus to be able to cope better with emergency situations."

(i). LEVEL CROSSING DETECTION.

From a press release of 06.05.07 by Isra-Rail Co. Ltd.:

"Isra-Rail Co. Ltd. started recently the pilot programme of systems for detection and identification by visual means of obstacles at level crossings. This is within the framework of the railways' activities to increase safety. The various systems to be tested have a visual mapping ability of the level crossing, as well as transmitting the data with the warning to the drivers' cabs and to central control.

Within the pilot programme, the systems' performance will be tested, taking into consideration, among other factors, the percentage of detections, number of false alarms, maximum time for detection and warning, resistance,

survivability, number of failures, and performance of control centre.

The 4 selected companies are: ORAD Control Systems Ltd., ELTA Systems Ltd. (part of Israel Aerospace Industries), ORTEC Ltd. (part of ELBIT), and MAGAL Security Systems Ltd.

Each company has installed its systems at three consequent level crossings, from which pictures will be transmitted to the control centre and to two locomotives.

The 4 companies have therefore installed a total of systems at 12 level crossings and on 8 locomotives. The pilot programme will take 2 to 3 months in order to test the ability of implementation, the fitness, and the quality of the suggested solution.

If the pilot programme proves successful, the winning systems will be installed at all level crossings. the Transport and Roads Safety Minister Mr. Shaul Mofaz, has recently visited the control centre.

(j). NEW CONTROL CENTRE & SYSTEM.

From a press release of 08.05.2007 by Isra-Rail Co. Ltd.:

"From this weekend (11/12.05.2007), the railways will be operated by a new automatic traffic control system.

In order to start this system, all traffic will be suspended between Thursday midnight and Saturday midnight, thus enabling the trains to be operated on Sunday 14.05.2007 by the automatic system.

The system type "Command 900", purchased from the German manufacturer Thales and widely used on European railway networks, is one of the world most advanced of its kind, and will initially provide an automatic interface for traffic control and electronic signalling systems.

The system has been initially installed at Lod control centre, and will be responsible for all train traffic between Tel-Aviv and Kfar-Sava, and Ashkelon and Dimona; with the second stage, at the beginning of 2008, the system will be connected also to the electrical signalling systems enabling it to operate all trains from one control centre at Haifa, automatically, and with maximum safety and punctuality.

The system will enjoy a failsafe backup, and it enables operational flexibility by controlling different areas with different system operators according to circumstances.

General Manager Mr. Ofer Linchevsky said: "This is a further step towards improving passenger services;

the signalling system controls the entire railway traffic, affecting punctuality, safety, and operational and location control of each train; within several months the system will control the whole network, thus improving operation."

The railways will use the opportunity of the traffic suspension to carry out other works on the network, which are impossible to implement while trains are running."

(k). LUNATIC DRIVERS.

From a press release of 08.05.07 by Isra-Rail Co. Ltd.:

"The railways are publishing today the "seasonal" violation report (by car drivers), which unveils that between January and April 2007, the watchmen posted at level crossings have fulfilled 200 reports of drivers' violations either by crossing rail when red flashing lights are operating or after the arms are down; 141 arms have been broken by drivers; the railway authorities are repeatedly clarifying that despite the watchmen presence, they themselves have no authority to arrest the violent drivers, although their reports go directly to the traffic police.

Additionally, the traffic police itself made during the same months 528 reports on crossing rails at a red light, and the driving licenses of 362 drivers have been suspended administratively; the police cameras installed at 3 level crossings - Ashdod, Ramla, and Binyamina - have caught 741 violations by drivers.

The railway authorities say that the report should worry all the authorities who have anything to do with transportation and safety; while the railways are doing all they can to identify and trace the criminals, the law authorities must be more decisive and firm."

(l). MORE ON LEVEL CROSSING RADAR.

From a press release of 21.05.07 by Isra-Rail Co. Ltd.:

"The railways will start operating at this weekend (25/26.05.07) a radar system installed at Kfar-Shmaryahu level crossing for obstacle detection, as an intermediate solution until the grade separation - for which Netivei-Ayalon (Ayalon Roads) Co. has recently published a tender - is completed.

This is the 6th. system installed in addition to those already operating at Atlit, Zikhron-Yaakov South, Hadera West, Kfar Vitkin, and Beit-Yehoshua, all on the main line Tel-Aviv - Haifa;

the railways have purchased an additional 18 systems, the location for which is to be finally decided by the Higher Steering Committee for Level Crossings.

According to a decision of the Transport and Roads' Safety Ministry, the railways will add a lane on the road leading to Kfar-Shmaryahu level crossing in order to relieve traffic congestion.

(m). SAFETY-RELATED ACTIVITIES BETWEEN 2006 and JUNE 2007.

From a press release of 11.06.07 by Isra-Rail Co. Ltd.:

"Between 2003 and 2007, the number of level crossing collisions went down from 9 to 2, a reduction of 70%!

Between May 2006 and April 2007, the traffic police issued 1666 reports to drivers who crossed the rails on a red light, while 1282 driving licenses have been suspended administratively; between April and August 2006, the watchmen reported on 2800 cases of drivers crossing rails on red light and/or after arms went down.

The railways are promoting plans for building 100 grade separations within 2 years; most of which had been stuck for years due to either statutory or other reasons; so far tenders have been published for 58 grade separations out of 72 which are under the railways' responsibility; implemented and towards implementation are 40 separations, while an additional 9 are the responsibility of Yefe Nof Roads Co. (active in Haifa and northern Israel), 11 are the responsibility of Netivei Ayalon (active at the central part of Israel), and 8 are the responsibility of the National Roads Co.

As for now, there are 118 level crossings (of which 3 gates are locked; these do not include inactive lines), as against 149 on 31.12.05, i.e. 21% less; During 2007, one additional level crossing was closed, and in process of being closed are several more crossings upon which the Supreme Level Crossings Steering Committee has decided.

The railways are now at the world first place with radars for identifying obstacles installed (as a pilot) at 5% of the level crossings compared with 0.3% in Germany. These pilot systems have been presented on March 2007 at the conference of the European Forum for Research on Level Crossings Safety, and drew a lot of interest from delegates of several countries who intend to come to Israel in order to see them on site.

Additional solutions being carried out according to the committee's recommendation include: A road traffic light to be installed just before a level crossing and co-ordinated with rail traffic; At two level crossings the pilot scheme will be carried out; Improvement of signs at two pilot points with follow-up research; Separations each side of the road leading to the level crossing to avoid cars attempting to bypass them - a pilot started at several level crossings.

The budget has been increased from \$119 Million (in the original development plan) to \$314 Million and - for the first time in history - is higher than the safety budget of all other transportation authorities!

(n). CONSTRUCTION CORRUPTION?

The railway authorities may find themselves in an embarrassing situation: at the end of 2006. The contract with Baran Engineering, which had won the tender for managing the construction works on the A1 to Jerusalem, was halted by the railways, who claimed that the invoices were exaggerated.

Recently a new tender has been published, for which the selected winner was the company Adir, Baran's subsidiary (Baran shares 50% ownership of Adir) receiving the highest professional rank.

But Baran Engineering did not give up, and now has appealed to the courts, demanding from the railways \$17.50 million as compensation for stopping the contract; if they win, there will be an absurd situation in which compensation and fees will have to be paid both to the mother company and the subsidiary, totalling \$35 million; Baran is run by 2 partners, each of whom shares 25% of Adir!

As if that were not enough, it has been revealed that, despite the fact that the bid by Adir was 35% higher than that of the competitors, the company won the tender thanks to a change of criteria, which instead of calculating 50% for price and 50% for professional quality, now give 80% for the professional quality and 20% for the price.

The railways claim that the winner is an entirely different company, which won the tender according to a very well-balanced criteria.

(o). ISRAEL RAILWAYS STATISTICS.

Rolling stock and motive power:

Locomotives: 80; of which are 40 diesel-electric Alstom (now Vossloh)

Mega (Prima) type JT42BW 3200 HP, plus 6 on order for passenger services. These are numbered 731 to 772 (and will reach 778 with the 6 on order); 24 freight locos of which are: 8 Alstom Sem-Mega type JT42CW, 1 EMD-GM type KW701, 15 EMD-GM type G26CW2, 4 shunters of which 3 are Alstom E900 and 1 KALMAR type T44.

Railcars. 48 Bombardier IC3 Flexliner dmsu (including 3 trains damaged last July during the 2nd Lebanon war; including 8 trains bought 2nd-hand from Sweden); of these many were locally assembled at Israel Aerospace (formerly Aircraft) Industries' Ramta plant at Beer-Sheva.

Coaches. :35 Alstom built (locally assembled at the then-Haargaz plant near Ramla) single-deck push/pull cars of which 5 are power cars; here the number was reduced from 37 due to 2 entirely destroyed at the Beit-Yehoshua collision with a car.

: 146 double-deck push/pull cars, of which 31 are power cars, built by Bombardier, with many assembled at Ramta.

: 48 old cars -7 of which are 51 years old - of various manufacturers; these will be scrapped once the newly-ordered 87 single-deck push/pull cars from Siemens arrive (no date as yet; likewise no information yet on the number of power cars out of the total 87 ordered).

Stations: 42 passenger stations were operated in 2006; By the end of 2007 this number will rise to 47.

77:05.

TENDERS.

(i). Nahal Soreq. Another example of co-operation between the National Roads' Company and Isra-Rail Co., is a tender published by the first for a grade separation and track re-alignment near Nahal Soreq operational station. This will involve an overhead railway bridge over road No. 3 now being rebuilt and widened into 4 lanes, thus replacing the old rebuilt railway bridge dating from World War 1; the re-alignment will slash some minutes between Tel-Aviv and Beit-Shemesh and eliminate headaches for the railways by demolishing the level crossing. The whole project is the initiative of the roads' company but of course it benefits the railways too. It will cost \$16 million, and will take about 20 months.

(ii). Tender No. HN/KB/15/07: Carrying out archeological rescue excavations on the alignment of the Lod-Naan line over an area of 875 sq.m.

Implementation time: 45 days. Latest bidding date: 15.05.07.

(iii). Tender No. HN/KB/16/07: Carrying out archeological rescue excavations on the alignment of the Kiryat-Motzkin-Akko line over an area of 500 sq. m. Implementation time: 45 days. Latest bidding date: 15.05.07. Note: in both cases the archeological sites are the obstacle for double-tracking.

(iv). Tender No. HN/KB/17/07: Rescue excavations to archeological sites on the alignment of the Naan - Kiryat-Gat section of the Tel-Aviv - Beer-Sheva line. These works are crucial in order to enable the line double tracking. Implementation time: 30 days. Latest bidding date: 20.05.07.

(v). Tender No. MS/RC/2007/9: Introducing a catering trolley at the stations of Binyamina; and at Keysariya-Pardess-Hana.

Tender No. MS/RC/2007/11: Introduction of a catering trolley at the station of Kfar-Sava - Hod-Hasharon (Nordau) station.

Tender No. MS/RC/2007/12: Introduction of a catering trolley at the station of Hertzliya.

The contract for each station is 12 months with optional extending for additional 24 months. Latest bidding date: 28.05.07.

(vi). Tender No. MS/RC/2007/10: Introduction of a catering trolley at the station of Paatei-Modi'in (Modi'in outskirts). The contract is as on the 3 above-mentioned tenders. Latest bidding date: 17.05.07. (Note: the importance of this tender is that it proves that the long-awaited station is really to be opened on July 2007 as promised!)

77:06.

LIGHT RAIL NEWS.

A. JERUSALEM.

(i). The Bridge.

In Jerusalem plans become reality and history is being made: The following report is a summary of 4 press releases dated 11.04.07, 12.04.07, 16.07.04, and 18.04.07, all dealing with the assembly of the Jerusalem LRV Calatrava bridge at the city's western entrance, and has been given by the LRV project's management, the Jerusalem municipality, Moriya Co., Ministry of Transport and

Road's Safety, Jerusalem's transportation master plan team, Coor Metal Ltd., Gadish, and Ramet companies.

The bridge is of 360 m length, 10 m wide, weighs 4300 ton and is raised about 6 m above street level; it will finally have a mast of 118 m high to be held by 66 steel strings (cables); it is the first and the world's biggest LRV bridge of this type, and is being assembled in stages (40 nights in total) as follows:

During the night between 11.04.2007 and the morning of 12.04.2007 (24:00 to 05:00 and eventually until 02:00), the first central part, 30 m long, 14 m wide, and weighing 350 tons was erected successfully, with minimum disruptions to the nearby residents.

During the night between 17.04.2007 and the morning of 18.04.2007 (until 03:00) the erection of the second central part (identical to the first) was completed successfully; this week, after the independence day celebrations (24.04.2007), the third part, linking the already erected central parts with Jaffa street, were to be erected, while the last and fourth part, linking the central part with Hertzl Avenue, was to be erected 2 weeks later, to be followed by positioning the mast with the cables; the bridge completion is expected in the autumn of 2007.

The bridge will also have a special pedestrian lane.

It should be mentioned that the bridge-building involved accurate coordination, and the use of the tallest crane available (the one used belongs to The Israeli Electrical Company) in order to complete quickly the erection; the co-operation between Moriya Company responsible for infrastructure works, the Italian company Cimolai together with the Israeli company Coor Metal Ltd. who produced the bridge, the Israeli construction company Ramet, and the Israeli engineering and management company Gadish, helped no doubt achieve these successful stages; This was (and still is) an engineering and operational challenge even for well-experienced companies from Israel and worldwide.

Another aspect, no less important, is logistic; semi-trailers with special dimensions belonging to the Israeli transportation company Taavura (transportation) are transferring all the bridge parts from Haifa to Jerusalem - a distance of almost 200 km - at nights, thus minimizing the traffic disruptions.

Finally, the greetings and responses:

The Mayor of Jerusalem Mr. Uri Lupolyansky said: "Jerusalem will soon celebrate 40 years of unification, and will now become one of the most beautiful cities in the world combining historical legacy with modern innovation; there could not be a better gift for the celebrations." Prime Minister Ehud Olmert, formerly the mayor, surprised the mayor with a sudden visit at the site just before works started, said: "The project, which now becomes a reality, is a result of years of hard work; the Mayor deserves special credit for pushing it ahead!"

The LRV project's chairman and the municipality's general manager Mr. Eithan Meir said: "The bridge will be an architectural monument of the scope of the Eiffel Tower; it will symbolize the new and old Jerusalem, and is the most practical solution for the over crowded junction enabling the LRV to run free of disruptions as well as causing no disruption to road traffic."

Deputy General Manager of the Jerusalem's Transportation Master plan Team, Mr. Nadav Maroz said: "When the decision was taken to build an overhead LRV bridge, we had to decide between a regular concrete bridge or one of special architectural appearance, we've decided on an efficient solution combining beauty, which will be more distinctive and will give the city a magnificent new gate in addition to the already existing historical gates."

Moriya's General Manager Mr. Yekhiel Lavi added an important detail: "7 provisional steel supports have been positioned on concrete foundations cast into ground; these are intended for carrying the bridge parts until the cables will be installed, thus carrying the bridge from the mast; then after supports removal, the bridge will undergo test runs to check any foreseen scenarios prior to service start."

(ii). Jerusalem LRV project:

From a press release of 10.05.07 by Veolia Israel and The Israeli Electrical Co.:

Veolia Energy (Delkia) and The Israeli Electrical Co. will cooperate in the tender for the electrification of the city's 1st LRV line.

The two companies have signed memorandum of understanding, according to which both companies will participate together in the \$75 million tender in 3 stages; the tender includes building of substations and catenary along 13.8 km; Delkia will carry out the low-voltage infrastructure, while The Israeli Electrical Co. will do the high-voltage works.

Veolia shares 5% of the concessionaire Citypass; Veolia Public Transport (Connex) will be the project operator of the whole project during the period of the concession and holds 80% of the operational company stock.

(iii). From 'Jerusalem Post'. 28.05.2007.

"Tracks for the light rail are now being laid on Sderot Herzl and by Ammunition Hill on Highway No. 60. But the really big inconvenience will begin in October, when sections of Jaffa Road, starting at the Central Bus Station, are slated to be closed for track laying - never to reopen again for private vehicles. The street will be temporarily impassable for pedestrians as well.

The light rail, which was due to begin service on January 5, 2009, is now some four or five months behind schedule, according to Shmuel Elgrabli, spokesman for the light rail project. The first streetcar will arrive in November, he added.

Meanwhile over in Haifa Port, the CityPass consortium (building the urban rail and bus system) is coordinating with the police on when to bring the 118-meter mast of the single-column suspension bridge to Jerusalem. Two of the three sections, fabricated in Italy and each measuring approximately 40 meters, have already arrived. "We won't close the expressway entirely," promised Shmuel Tsabari, project manager for the light rail.

With the 118-meter high pylon in place, work will then begin on laying the 66 cables that will support the unique suspension bridge. Averaging four to six "strings" per night, Tsabari anticipated somewhat vaguely that this phase will be finished by the fall. The bridge's horizontal bed should be finished by August, while the vertical mast is scheduled to be raised in September.

Matatz, an acronym for *Maslul Tahbura Tziburit* (Public Transit Route), is going to be on the tip of Jerusalemites' tongues this summer and fall as we gear up for the construction of the city's Red Line LRT and Blue Line busway, both slated to open in two years.

With last year's roadwork completed on Keren Hayesod and King George streets, the chaos has now moved south to Derech Hebron and the Ottoman-era train station, and north to Yehezkel and Strauss. Shortly, these streets will be permanently closed to private vehicles to allow buses and taxis to zip ahead.

Traffic will be permanently rerouted to an inner city ring encompassing Agron, King Solomon, Tzanhanim, Highway No. 60, Hanevi'im, Kikar Davidka, Kol Yisrael Haverim, Agrippas, Eliash, Shmuel Hanagid and King George streets.

Driving downtown inside that circle? Forget about it. The Shmone Esrai prayer includes the benediction "Blessed are You God, who builds Jerusalem." Forty years after the city's reunification, one wonders how many Jerusalemites stuck in traffic will answer "Amen."

(iv). Lights!

On 17.05.07 at 20:00 a huge crane reaching a height of 120m. and simulating the Calatrava bridge mast was put at the bridge centre, and 66 strings with lighting cables attached connected with the planned tie points, thus creating an image of the bridge as it will look when completed.

This event, although planned anyway, was some compensation for the city's citizens and many guests who came to celebrate 40 years of the city unification (or occupation...here no celebration), which had to be cancelled the previous day due to a sudden heavy rain causing heavy floods.

The lighted bridge remained so for 5 days; this was an initiative of the municipality's General Manager Mr. Eithan Meir, in cooperation with Gil Teichmann Lighting Systems Co.

The Minister for Jerusalem Mr. Jacob Edri, and the mayor Mr. Uri Lupolyansky greeted the event.

B. TEL AVIV.

(i). From www.haaretz.com of 29.05.2007:- **Tel Aviv light rail concession finally signed with MTS.** By Avi Bar-Eli & Zvi Zahava. "Six months after the announcement of the tender results, a concession agreement has been signed between the state and Metro Transportation Solution group (MTS), the winner of the tender for the light-rail's Red Line in Gush Dan. The signing went ahead after the Knesset Finance Committee approved the state's financial commitment for the most complex and expensive infrastructure project in its history. Work should begin by 2008 and continue for about five years (2013).

The winner for the Red Line service, the first portion of the first mass transit system in metropolitan Tel Aviv, was announced on December 31, 2006. The MTS group, which consists of Africa Israel, Siemens of Germany, the Egged bus co-operative, CCECC

(a Chinese infrastructure company), the Portuguese infrastructure firm Da Costa Soares, and the leading Dutch transportation company HTM, will carry out the BOT (build, operate, transfer) project, meaning it will build the line and manage it for 32 years, after which it will transfer it to the state for no recompense.

MTS will receive a grant of NIS 7.16 billion, while the project is estimated to cost about NIS 10 billion.

The 22-km Red Line will connect between Petah Tikva and Bat Yam via Tel Aviv. The line will include 10 underground and 31 above-ground stations, beginning at Petah Tikva's central bus station, through B'nei Brak, Ramat Gan, Tel Aviv-Jaffa, to Bat Yam with trains running every two to 10 minutes. The Red Line is expected to serve 100 million-120 million passengers yearly.

Transportation Minister Shaul Mofaz said that "the light rail in Tel Aviv is expected to change the face of the entire metropolis, and is part of the vision for transportation in the State of Israel, which includes quality, efficient service and advanced technology for all of its citizens."

(ii). From a press release of 28.05.2007 by NTA:

"To-day the BOT concession between the state of Israel and the concessionaire MTS for building, operating, and transferring the Tel-Aviv first LRV line, the Red Line, was signed after the Parliament's (Knesset) financial committee approved the state's financial commitment for the most complex and expensive infrastructure project in its history - \$2.1 Billion - the government share; the whole project will cost \$2.9 Billion.

The agreement signed by the Finance Ministry's Accountant General Dr. Yaron Zalikha, the Chairman of Africa-Israel (part of MTS) Mr. Erez Melzer, and the General Manager of MTS Mr. Yohanan Or, contains detailed principles for the complex BOT, including schedules and costs to be paid by the concessionaire and the state like:

A. Schedule - the project will take 6 years to complete, namely: the design, excavation, and construction works will be completed at the first half of 2013; the underground works will start towards the end of May 2008 and 2 years later the surface work will start.

B. Works - the government and NTA accepted MTS offer to bore 2 separate tunnels, one each direction (instead of a double track single tun-

nel); 9 underground stations will be bored, and one under ground station will be built in the cut and cover system, in order to minimize disruptions to daily life at the work site; additionally, there will be 21 surface stations.

C. An innovation introduced in this concession is the pre-design, parallel to financial closure-unlike other infrastructure projects managed by the state like the Jerusalem LRV, and toll highway No. 6.

It should be mentioned that the Red Line project, is the first BOT project in which the concessionaire is committed for purchasing from Israeli suppliers at 30% of the total project value! Dr. Zalikha said: "The Red Line project is the Diamond in the Crown among the infrastructure projects being carried out in partnership with the private sector".

Minister Mofaz said: "The LRV in Tel-Aviv will change the whole metropolitan area, by being part of the Israeli transportation vision in which the public transport will mean quality, efficient service, and advanced technology for all users, thus reducing road congestion and road accidents".

NTA's Chairman advocate Benny Waknin said: " We still face a long time of design and building which calls for all the factors involved in the project both from the state and the concessionaire, to be deterrent; however, signing the agreement clearly shows the trust in NTA's ability to bring the project to completion".

The line is expected to carry between 100 and 120 million passengers annually.

(iii). Preparation Works.

Works started at the end of May 2007 on renewal of infrastructure works at Jerusalem Avenue in Jaffa, to prepare it as the alignment of the Red Line.

The works are to be carried out from south to north on the eastern side of the avenue and vice versa on the western side; divided into 4 equal sections of 500m each, it is expected to take 4 to 6 months on each section.

During work times, each section is closed for private car traffic, this being diverted to side streets already prepared; public transport is diverted to the western lane as well as bus stops; all other services for the population leaving and/or working there, like loading and unloading, nearby parking particularly for disabled, and rescue services are being given to the

Continued on page 11

NOTES AND COMMENTS.

(a). OLDENBURG DISTRICT TURKS.

We have already raised the issue of some coaches which were built for Turkey but stayed in Germany. Here is more. In "Eisenbahn Magazin" 3/2007 pp. 40f. appeared an article by Hermann Hoyer on several coaches which, built for Turkey, remained in Germany.

"The German Reich before the Second World War suffered from a constant shortage of Foreign Exchange. The reasons for this were not only the very heavy Reparations payments following the defeat in the First World War, and the resultant economic problems (including the inflation crisis) but also the Re-Armament programme driven on by those in power in the 'Third Reich', which left industry with little possibility to concern itself with export markets.-

On the other hand. Germany was dependent on foreign countries for raw materials and agricultural products. Reichsbank President Schacht therefore developed a plan, whereby so far as possible goods should be bought from places where German goods would be needed in return. Bilateral trade agreements were therefore struck, and by 1938 25 of these had been signed. One of these was with Turkey, which in 1938 placed a large order for railway vehicles with the German "Waggonbauvereinigung" (Wagon Construction Consortium). In total this involved 924 vehicles (including 12 railcars) and nine sets of bogies. Amongst these were 24 Ci (i.e. 3rd. class 4-wheel coaches), of which 12 each were to be built at Bautzen and Ammendorf (Lindner).

Due to the further political developments in Europe and the beginning of the war, the larger portion of this order had to be cancelled and this included also these 24 Ci coaches which were already under construction. Since these were not wanted by the Deutsche Reichsbahn, they were offered to the 'Reichsverkehrsgruppe Schienenbahnen' (Reich Transport Group, for Railways) which in turn offered them to its member railways. The following recipients are known:-

- Reichswerke Hermann Goering (RHG), Watenstedt. 14 coaches, Nos. 1 - 14. (Linder 6, Bautzen 8.)
- Kreis Oldenburger Eisenbahn (KOE), 3 coaches, Nos. 17 - 19. (Lindner).
- Hersfelder Kreisbahn. 4 coaches, Nos. 11 - 14. (Bautzen).

The Lindner coaches were delivered in June 1940, the Bautzen ones by that autumn. No recipient is known for three of the Lindner products.

When the KOE was nationalised in 1941 the three coaches 17, 18 & 19 came after all to the Reichsbahn, which initially gave them the numbers 88 213, 88 215 and 88 216. On the DB they were later 98 073, 98 074 and 98 075.

In winter 1948 88 213 was allocated to the Eisenbahndirektion Hanover, Station Celle, but later came to the BD Hamburg. In Summer 1955 98 073 and 98 074 were based at Lübeck, and from that autumn's timetable change at Flensburg. They stayed here for several years. 98 075 had already been transferred to the ED Karlsruhe, Station Freiburg, from where it was used mainly on the Höllentalbahn Freiburg - Neustadt and branches.

In the 1950's the BD Stuttgart had a problem. It had been decreed that wooden-bodied coaches were no longer to be given major overhauls, and so the last of the Württemberg 4-wheel coaches which had been built for the mountainous Honau - Lichtenstein line with 'Hikp' Brakes ('repeating Hildbrand Knorr-Brakes for Passenger trains') had a limited future.

The Hikp brakes had been insisted upon, once the coaches with rack-braked wheels originally used had been withdrawn. There was therefore a search for steel coaches fitted with the Hikp brakes. With Order Hw Pw 113 Bbzp of 1.12.1958 the two Hamburg 'former KOE Turks' were reallocated to Reutlingen.- In return Flensburg received two 'Donnerbüchser' from Ulm, Nos. 83 220 and 83 262. At least it was now possible to offer two 'comfortable coaches' on trains on this line; the rest of the train consisted of Provisional Passenger Vehicles ('Behelfspersonenwagen') Type 'MBi', which received the Hikp brakes from delivery. The use of these spartan vehicles, converted from the Type 'Glmhs' 'Leipzig' goods van design during the war years, probably contributed to the decline of traffic on this branch. The two Turkish coaches survived for some time after their withdrawal as Departmental vehicles."

A Reader's Letter in the following issue notes that similar or identical coaches were indeed used on TCDD, so at least some must have been exported.

(b). PHOTOGRAPHIC PERMITS.

We have bewailed on several occasions the problems that one can get into when attempting to take photographs in Israel of a railway line, station or train. The best solution is to have a piece of paper to wave in the faces of any security guards - it won't prevent them hassling you but will enable you to get away! The best way to do this at present is to contact beforehand Ms. Maly Cohen, the Public Relations Officer of Israel Railways ("Doveret"). Send her a Fax on 00 + 972 - 3 - 693 - 7480, detailing when you intend to be in the country and your passport number and any other relevant information. (Full name etc.) On arrival in Israel travel straight to Tel Aviv Savidor station; the main public exit here leads past the entrance to a group of modern low buildings on your right, which form the headquarters complex of IR. Here you will have to ask for her office and maybe let yourself be guided, but the chances are you will get a friendly reception and a letter of authorisation will be awaiting you.

As a pure technicality, this should not be needed - Photography is NOT officially prohibited. but experience shows that, whatever the theory may be, the practice is otherwise.

Continued from page 10

maximum possible degree, while additionally new parking areas have been prepared in the nearby streets.

Works on the first stage include: moving water, sewage, and drainage infrastructures at Dante complex, new traffic lights working on the Green Wave principle, the electricity network will be transferred underground, new seats, new plantation, new lighting, etc.

In the second stage, after renewal of all the structures along the LRV alignment, tracks will be laid, and the Red Line will become operational about 6 years from now, in 2013."

(c). ORENSTEIN & KOPPEL.

The traveller from Berlin to Hanover or Hamburg will, on leaving the new Spandau Hbf., see on the left a factory yard with lots of tarmac and many road construction machines standing around; there is also a rail connection from the industrial line that curves under on its way to Johannesstift. This is the factory of Orenstein and Koppel.

The O&K factory in Berlin ceased making railway vehicles in at the end of December 1981, when the construction was transferred to the then-“Waggon-Union” in Borsigwalde. However, in 1955 they constructed eight bogie passenger coaches for Israel Railways.

(d). Re 74:06:g. THE LAST H.R. TRAIN IN ISRAEL. (by Paul Cotterell.)

“This subject refuses to go quietly and continues to stir up heated debate. In the IRM Archives is a copy (herewith appended) of a postal cover of some sort. Postmarked 20.8.51, this bears the Israel Railways logo and underneath (in Hebrew of course) is printed:

OPENING OF HAIFA-AFULA RAILWAY LINE.

Announcing to all interested parties: on Yod Chet b'Av Taf Shin Yod Alef (20.8.51) the Haifa-Afula line will open to railway traffic.

Moshe Alon (Paikovitch), General Manager.

The postal cover is annotated in handwriting ‘By Registered Mail as Souvenir’, ‘Printed Matter’, and is addressed to ‘Ephraim Lieberman, Kiryat Haim, 24 Chet St.’ The cover has a registered mail stamp numbered 04054 issued at the Affula [sic] post office. There are thirteen postage stamps each of 3 agorot value. It seems that, at a total cost of 39 agorot, this was a fairly bulky item.

Now, the question is - was this mail sent by train from Afula? Chen Melling and I have trawled through File Kaf/4/6 together, but the material (mostly internal correspondence) is maddeningly vague and inconclusive. Chen is adamant that no train was actually run on 20.8.51. However, from my reading of the letters and memos, I am by no means convinced that this was so - and, after all, how else do you open/reopen a line if **not** by running a train?! Perhaps an outside source, the local newspaper for instance, would provide a full and true record of events. And even if a train did run that day it was evidently not the very last on the HR in Israel (see 68:6(b) and 72:10:5).”



(e). ROBERT RICHARDSON.

Robert W Richardson died in February at the ripe old age of 96 in Pennsylvania. An author and photographer,

he was best known for his unflagging efforts to save narrow gauge railway equipment in Colorado, but took time to contribute reminiscences and photos of his WW2 stint in Palestine to early issues of *HaRakevet*. (PC).

(f). Re 76:09. THE HAMENIA LOCOMOTIVE.

Amith Ben-Shalom has returned to Kibbutz Na'an and reports the use of what appear to be 60cm rails in the roof supports of an open-sided building called the 'Red House', the inference being that they came from the little Gan Hadar - Niana Station line. A couple of modern photos show these rails but it is not possible to be certain of their provenance. (PC)

(g). Re 76:11. KIRYAT HAROSHET HALT.

This halt is situated south **east** of Haifa.

77:08.

REVIEW. "WORLD RAIL ATLAS - THE MIDDLE EAST AND CAUCASUS."

by Neil Robinson - the maps themselves drawn by his wife Nadia.
ISBN 10 - 954 - 12 - 0128 - 8. First edition, August 2006. 168 pages.
Several colour illustrations.

First of all - it must be stated that this is a good piece of work and it deserves support. Though not perfect, it makes no claim to be perfect and represents the current state of research in many obscure areas of the world. The author specifically asks readers to send any comments or corrections for incorporation in any later edition. Having said that, the maps are in some areas rather sparse and in some very detailed - almost excessively detailed, inasmuch as the attempt has been made to include past and present lines on the same map page. This can, as in the maps of Israel, (Maps 20 & 21) despite enlarged Insets of some areas, lead to some confusion - there are the presumed tracks of narrow-gauge lines from the First World War, as derived from articles in 'Harakevet' (which is duly credited as a source), overprinted with the current network as well! There are also a few inaccuracies. But one has to start somewhere.

This volume (it is actually described as Volume 8 of what will be a very ambitious series of 20, though it is the first or one of the first to appear) covers Armenia, Azerbaijan, Bahrain, Cyprus, Georgia, Iran, Iraq, Israel (& Palestine), Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates & Yemen. Not all have or had much in the way of railways, but it is nevertheless fascinating to pore over the maps (there are 71 in this volume, to various scales) - and read the footnotes and 'bubbles' that explain why certain squiggles represent lines whose actual course remains unclear, but which have been included nevertheless for completeness and as a stimulus to further research. Many were short-lived, or were laid during wartime, or in countries where accurate map-making of strategic infrastructure was not actually encouraged..... The book incorporates a brief but comprehensive history and description of each country, with significant dates - especially as relating to railway history, and the lines, their lengths, gauges and other information. The 'Index of Passenger Stations' has over 200 entries just for halts or places known as "Km. Something-or-other"!

The author notes at the outset: "This book attempts to be a complete historical register of the railway routes of the regions covered, but of course there will be omissions. Some of these countries' railway networks are diagrammatically represented in print for the first time ever, save for minimal and obscure diagrams produced through the years, and together with all distances shown to the nearest tenth of a kilometer, where known, gives as complete a picture as is possible at this stage. It must be stressed though that kilometre distances are sometimes haphazard even in official documents, and without actually travelling on all routes to verify the distances, errors are likely through either incorrect readings given by the railway companies, or in past publications, or by re-alignments and consequent removal of curves."

Continued from page 12

(h). Re 76:14. EGYPTIAN LOCOS ON IR.

The Editor was not kidding in his editorial to that issue! This article was written so long ago that I can't even remember writing it. The remarks in the last paragraph concerning ex-ESR 550 and 607 were overtaken by and correctly updated in 72:10 and 74:06:a. (PC).

possible at this stage. It must be stressed though that kilometre distances are sometimes haphazard even in official documents, and without actually travelling on all routes to verify the distances, errors are likely through either incorrect readings given by the railway companies, or in past publications, or by re-alignments and consequent removal of curves."

An indication of the sort of research work that has gone into this book can be provided by citing in full some of the explanatory footnotes to the maps - in this case, for Iran (from p.22):-

"3. It is not clear what the purpose of this border crossing is. There has never been a passenger service, and indeed

the nature of the freight traffic is unknown. Its very existence is unconfirmed!

4. This border was inaugurated on 15/05/2002 for the new international Tehran - Almaty, Kazakhstan passenger service. The train only ran on this day each way and was then withdrawn. The Iran - Turkmenistan border stations had newly-built facilities especially for this service, but the exact reason for the withdrawal of the passenger service after such a short time is unknown. The actual cross-border section is dual 1435mm/1524mm gauge track, and it is not known which gauge was inaugurated on which date, and if the gauge changing facilities are used in Iran or Turkmenistan or both."

5. This section was damaged during the Iran-Iraq war, then rebuilt and re-opened by the date shown.

7. Opened initially for freight to/from Sarcheshmeh Copper Mine, with passenger services introduced in 12/1990 with the opening of the section to Sirjan.

8. It is thought that passenger traffic consisted of unadvertised restricted workers traffic only. The current status of such is unknown.

9. The distances given for this branch should be treated with caution. Those used in this atlas are the same ones that are supposedly mileage distances. It is impossible to reconcile the distance between Hoseinieh and Tanuma as 45 miles, therefore the assumption used that kilometres were mistaken for miles.

10. The entire section from Tehran to Karaj was officially inaugurated in 20/094/200. Note that there are several other spurious earlier dates in circulation for this route, probably erroneous through incorrect conversion from Islamic dates."

And so on! One can sense the sheer sweat that went into checking out some of this data.

So - despite any slight reservations - this Atlas is heartily recommended to all readers of 'Harakevet'. Especially those who feel like undertaking some fieldwork.....

For details, contact the author on neilrobinson543@yahoo.com. or 1, High View Close, Darfield, Barnsley. S73 9AR England.

FROM THEN TILL NOW

(Part 19):

Noted in reading by Paul Cotterell from Baruch Katinke's book 'Me'az v'ad Hena'; see earlier installments in 11:22, 13:17, 16:15, 19:19, 20:15, 24:11, 30:21, 38:15, 46:12, 59:15, 61:9, 63:11, 64:9, 66:13, 68:13, 69:10 and 71:08. This is the chapter entitled 'Hands Raised in Surrender' on pp. 223-226 of that book.

"The last days before the conquest were hard. The English and French planes visited us constantly and bombed us without pity. Life above ground was unbearable, so we dug-in well in deep shelters. We also built a shelter for the only remaining locomotive and six wagons. Not far from the station was the residence of the district army headquarters. The work there, also, was done in underground offices during daytime. The vanguard of the Turkish army dug-in on hills to the right of the railway station, while the English forward positions were to our left in the direction of Amman station. The artillery battle between them continued without pause. At nightfall we would sneak out of the shelter to breathe fresh air and hear the news. Amman was already in English hands and even "the residence" [sic] had been captured by them. Only we stood between them and the Arabian Peninsula.

I did not have any work. In fact, according to the last orders, I was to keep the loco ready to travel, day and night. I was also to keep operable, as far as possible, the pump house. Each evening we checked the pump which stood hidden to one side, and happily for us wasn't much damaged. A German major, who was also a commander in the Turkish army, served as district army officer in charge of the railway. He was most courteous and did not like the Turks [*courtesy and a dislike of Turks were presumably synonymous!-P.C.*]. I met with him frequently to receive orders about essential army journeys. But lately, with train movements limited to just tens of kilometers in either direction, his demands on the railway also lessened.

The station was prepared for the army withdrawal. Everything was ready for blowing-up and destruction, including the loco and wagons.

At that time the railway traffic controller lived with me in the shelter, an Armenian, nephew of the Armenian Patriarch of Jerusalem, Poposian his name. We 'kept house' together. We were joined later by an Albanian who was the traffic controller's assistant. Every few hours each morning, in turn, one of us risked going outside to inform the others what was happening in the meantime and when redemption would arrive.

And then one night the army commander appeared suddenly in the shelter. I invited him to sit and drink with me. He refused, saying that he only came to tell me that tonight, at midnight, the Turkish army would withdraw from the place, both to new positions in the Arabian Peninsula and also to Damascus. I and all the other railwaymen had to leave at midnight for Damascus. Destruction of the station would be carried out by the rearguard. Only I and the German officer were in the shelter at the time. I had an army revolver in my belt and a small Belgian pistol in my right hand trouser pocket, cocked and ready to fire. My hand grasped the Belgian gun. I don't know what made me turn to the officer and say that I thought the railway no longer needed my services and that it was better for me, instead of retreating to Damascus, to try and reach my home and family in Jerusalem, in English hands for more than a year [*sic*]. I was prepared for him to shout at me, that he'd claim I was a traitor and deserter. The little pistol was in my hand hidden in my trouser pocket, ready to silence him, even at the cost of his life. Shots were being fired all day and all night, many dead were lying around; who would pay attention to one missing officer? But the officer did not shout. Quietly he said that he understood my reasons and hoped that I would arrive home safely. I thanked him for his humane attitude and wished him also a safe journey home to his country. I told him of my intention to escape, even by force, and showed him my small pistol. I gave him the gun as a souvenir, and he gave me his as a souvenir. We agreed that when we found peace and rest we would write to each other and tell how we arrived and how we found our families. I gave him my simple address: "Engineer Katinke, Jerusalem", and he promised to write first. And after about six months I received a letter from him, and we continued to correspond for two years.

I told the two residents of the shelter about my conversation with the officer. To be

safer, we decided to leave our refuge at night and hide elsewhere. At midnight, silently, without any trumpet blasts, the army left the place. Only a rearguard of cannons and machine guns remained on the nearby hill tops to delay the English advance as much as possible. The battles continued until the following afternoon. Towards mid-day the bombardment increased so much that we felt the whole earth tremble. Suddenly there was silence. Only here and there did the sound of single rifle shots reach our ears from the direction of the hills. I went to the shelter entrance, my companions following me. I could see at a glance that the station had not been blown up. The hill tops all around were covered with white flags, the sign of surrender. While we were standing and dreaming of redemption we heard the thunder of approaching horses. In a moment a New Zealand officer and two soldiers appeared before us riding horses, in the officer's hand a pistol and, in the hands of the two soldiers, rifles with bayonets fixed. They halted beside us. We raised our hands in surrender. The officer asked us who we were and what we were doing. I answered that I was a Jew, an engineer and chief inspector on the railway. My comrade Popozian was an Armenian, nephew of the Armenian Patriarch in Jerusalem, and the third man was Albanian and he too was in railway service.

The officer relaxed, dismounted and allowed us to lower our hands. He asked me if the station was mined. I answered in the affirmative and explained that the fuses for the mines were kept in the station safe, for which I had a key. He took the key and ordered me to go with one of the soldiers and show him where the mines were placed. Before leaving he asked me if there was a loco and wagons here. I replied that there was one engine still operable and six wagons ready and waiting to travel, parked in a shelter not far from the station.

While talking, I saw a large column of lorries with British soldiers passing not far from us and heading into a wadi between the hills. I knew that wadi well and I knew there was no way out. I couldn't stop myself, I told the officer. He halted the lorries and ordered a bicycle rider escorting the column to check the wadi. Encouraged and happy at redemption I entered the train shelter and went to the loco. It was hot with a full head of steam and ready to move, but the driver and fireman were not beside it. I raised my voice and called to the driver who appeared after a

moment from the darkness of the shelter. In a state of nervousness I raised my hand and slapped him on the cheek, saying: "The Turkish period is past, now you're in the service of the English". I told him to move the train to the station. And behold, a wonder – suddenly the driver opened his mouth and called to the fireman who also appeared immediately. The driver slapped his cheek and said: "The Turkish period is past, now you're in the service of the British". We all climbed aboard the engine and left for the station. We halted near the officer. He told us to stay there at our posts as we were now in the service of the British army. The officer ordered that the loco be filled with water as he had to transport soldiers in the direction of Arabia. I said that at a distance of about 25 kilometres there was a destroyed bridge and the train could not get past it. He laughed and said that he knew all about it. In the meantime the soldier who had reconnoitered the wadi returned and informed the officer that, indeed, there was no exit. The soldiers got down from the lorries and climbed on the wagons. Two soldiers with machine guns joined the driver on the loco and the train moved off.

The officer noted our names and functions and then left. Once again silence descended on the station. We three were left alone. We entered the shelter and opened a few bottles of wine to celebrate our redemption and reward until morning. I suggested to my comrades that we remove our shoulder flashes, insignia of rank and German and Turkish medals, and appear from now on as civilians. My friends did not agree to the suggestion. I took off my Turkish army cap and exchanged it for a tarboosh. I removed my shoulder badges, insignia and medallions. I became an ordinary man among men. I buried my revolver by the exit to the shelter. Only my small pistol remained in my pocket.

For a couple of hours we sat outside, sailing in imagination to anticipated meetings with our families. In the distance we saw the grounds of the Turkish headquarters encircled with barbed wire with British soldiers nearby. We clearly made out Turkish officers being led inside – as prisoners. Suddenly we heard a whining sound "how-how". It was the ululation of Beduin coming close to the station. We'd heard many stories of Beduin encampments following in the tracks of the British army, stealing and pillaging everything to hand. We did not look forward to meeting these wild men. We ran to the army headquarters, sure that in the company of armed British soldiers the Beduin would not dare harm us. When we arrived the British soldiers ordered us into the prison compound. We told them we were workers in the service of the British army, but to no avail; we were forced to join the rest of the Turkish, German and Austrian officers. After a while the British appointed a German officer as translator, and we received an order to mount horses that were saddled and ready. Each of us mounted a horse and we lined up in a row as ordered. We were 81 officers."

77:10:

JUNCTION STATION.

By Paul Cotterell.

We have devoted some attention to the subject of this mysterious but strategically-important station, its history and exact location and development, From Peter Smerdon of Basingstoke I have received the following photocopies, which I hope will reproduce adequately, and map. The first is a postcard (No. 150) described as "Prisoners being despatched from Junction Station in a captured Turkish train", the lower one we reproduce, is taken from "The Great War" Part 187 and is captioned "Captured Turkish train at the platform of the junction where the Beersheba and Gaza lines branch off from the Damascus - Jerusalem Railway. British soldiers marching along the permanent way exchanged cheering congratulations with the driver and armed guards of the rolling stock." They form a fascinating example of 'poetic license' even at that early date before computer-scanning and manipulation. The basic picture is clearly the same - the locomotive is one of the La Meuse 2-6-2T's, coupled to an HR flat wagon with two rectangular water tanks as a supplementary tender. One of the tenders seems to have a pile of coal or something similar on one of the tanks, placed where it could be reached from the cab - assuming it didn't all fall onto the track instead once the wagon begins to move. It appears to be preparing to move off 'tender first' so to speak, hauling an HR bogie van fitted with windows as some form of staff or guard wagon, a short - probably four-wheel - open, two bogie opens with some people sitting on them, then some high-sided opens. There is a crew of two on the loco and two guards with solar topees on the 'tender'. There are also two or three men on the end balcony of the covered van. In the distance are an open wagon loaded with crates, and a bogie van, on the centre track.

The station building clearly has three shuttered windows on the first floor, and four chimneys. On the further side is a single-storey extension with flat roof and railings. There is a goods shed with a typical round opening in the stone end wall adjacent and presumably a loading platform hidden behind the train. Behind the wagons in the distance is another stone building end-on to the tracks.

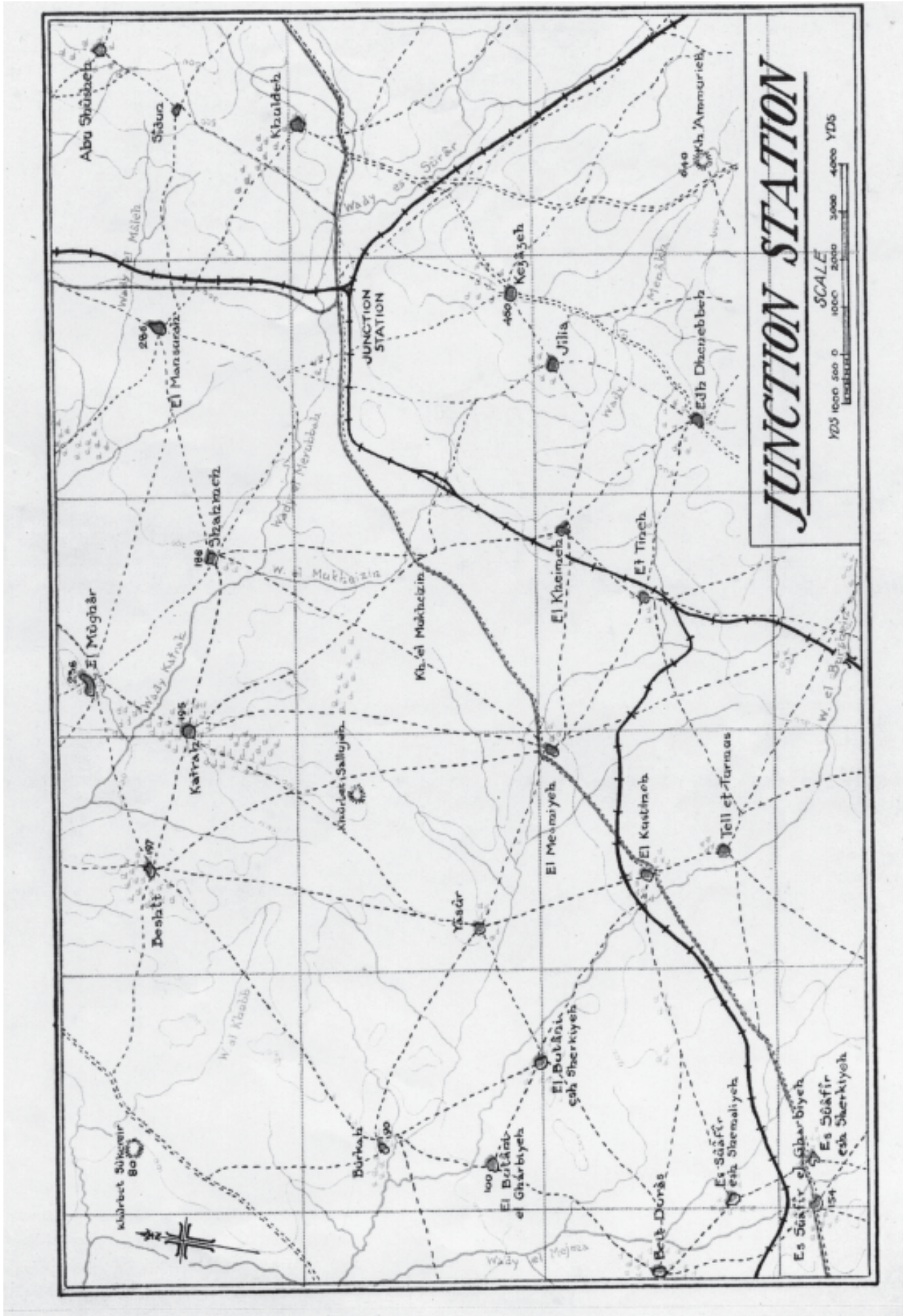
The big difference, of course, is the sudden presence of a lengthy column of men in the foreground, someone else apparently inspecting the permanent way heading the other direction, and suddenly one of the chaps on the water tender is waving rather than having his hand on his hip.

The obvious question is - who changed what, and why? That is to say, to ADD all these men, carefully drawn with their uniforms, equipment and even shadows, and with diminishing perspective, would have been an enormous amount of work, though technically possible for one experienced in retouching pictures of the period. Though why bother? To scrub them out of the picture and replace them with scuffed ballast would have been easier, though still not without effort. It is even possible that both are genuine, that the photographer simply set up his tripod and took a picture, and then saw a group of marching men and decided to press his trigger again for a second and more animated shot; though why the men on the loco and tender were ready to keep up essentially the same poses would be questionable, and the walking figures are not 100% convincing.

Seeing is not necessarily believing.

The 1912 Baedeker's Guide, p. 14, describes 'Route 3'. from Jaffa, as follows:

"25 Mile. Sejed. The station is situated in an insalubrious but fertile plain. From Sejed the line follows a depression of the Wadi es-Surar (the valley of Sorek; Judg. xvi.4), which is wide at its mouth, but afterwards narrows. Beit Atab, situated on the top of the hills to the left, remains for some time in sight; farther on, also to the left, the weli of Sar'a (the ancient Zoreah, Josh. xv.33, xix.14, Judg. xiii.2). To the right lies the deserted village of 'Ain Shems (the ancient Beth

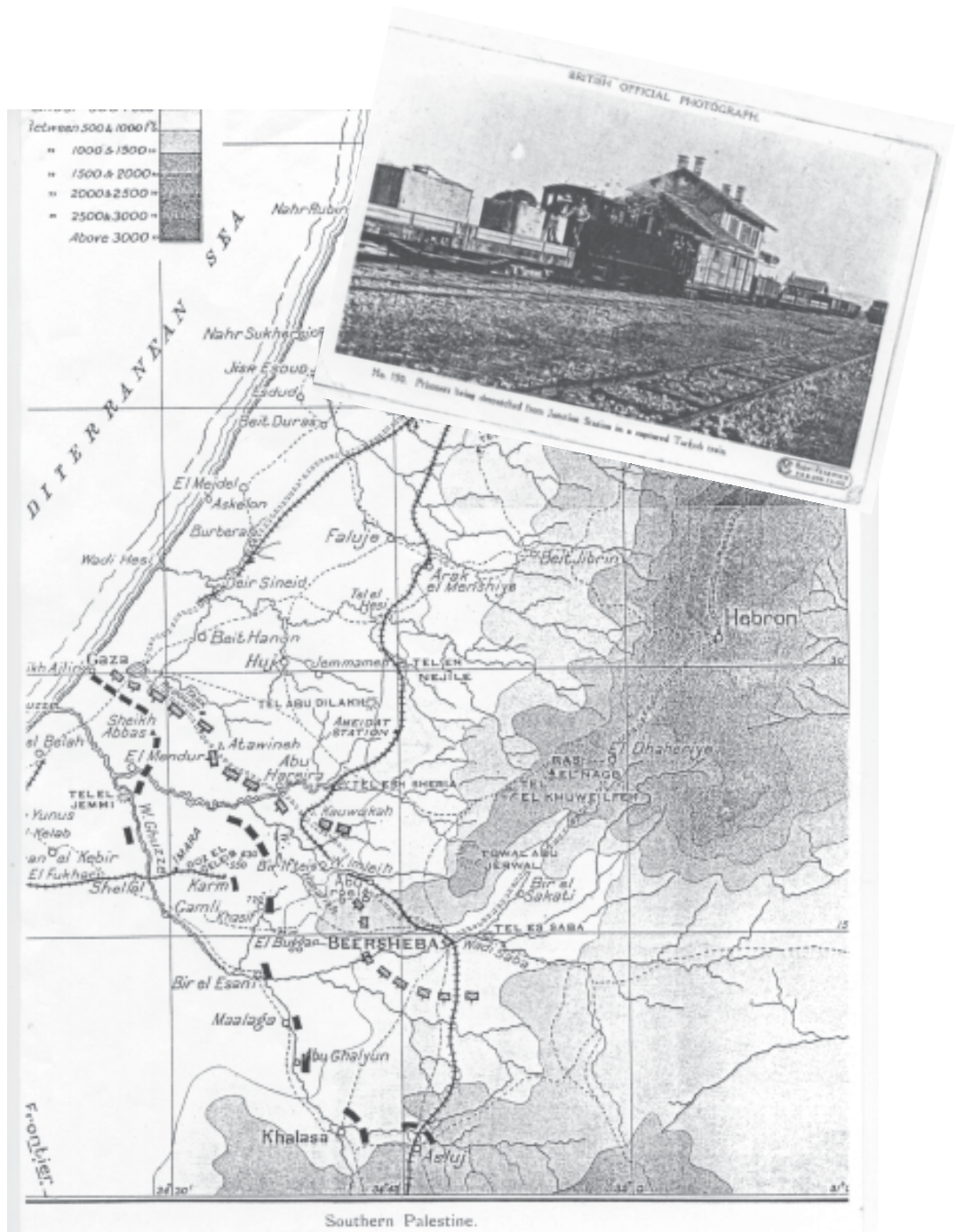


Shemesh), 1 Sam. vi.9; 1 Kings iv.9), where excavations are now being carried out by the Palestine Exploration Fund. A megalithic wall, dating from the Israelite kingdom, with a well-preserved gate (S.) and quadrilateral bastions has been laid bare nearly in its whole circuit. Pottery of the same period as well as of pre-Israelite times (imported from Cyprus and Crete) has also been found., Farther on the S., on the hill, is Beit el-Jemal (agricultural college of the Salesians).

31 1/2 M. Deir 'Aban; the station is about 3M. distant from each of the three villages that are served by it: Deir 'Aban (to the S., not visible), Sar'a (see above), and Artuf, a colony of Bulgarian Jews (pop. 95), founded in 1896, a little below Sar'a. Sar'a and Artuf are seen on a hill to the left. The mountains now begin. Shortly after entering them we see high up in the rocks to the left the mouth of a grotto, the so-called Samson's Cavern (the story of Samson is localized in this district: Judg. xiii-xvi). The line passes along precipitous walls of rock and ascends the windings of the Wadi es-Sarar. We pass (38 1/2M) Deir esh-Sheikh, on a hill to the right, and (40 1/3M) 'Akur, on a hill to the left; beyond it, the Wadi Kaloniyeh opens on the left.

The line continues to follow the Wadi es-Sarar. On a hill; to the right is the village of (46M) Bittir. 47 1/4M. Bittir. The Baither of Joshua xv.59 in the Septuagint (Beth-arabah of Josh. xv.61 in the A.V.), or Bethar, played an important part in the insurrection of Bar Cochba against the Romans The latter succeeded in capturing it only after a siege of 3 1/2 years (AD 135), when a terrible massacre of the inhabitants ensued."

The map is from the book "The Palestine Campaign" by Col. A.P. Wavell.



CLOSING THE RAFA-BEERSHEBA LINE

by Paul Cotterell.

File 134.1/1 at the IRM Archives gives a good insight, via internal PR correspondence, into the short-lived standard gauge line between Rafa (Rafiah) and Beersheba which was laid in 1917-18. It has much to add, in particular, about the bridges at Shellal and Wadi Hanafish which featured in 65:11. The following are very short extracts from that file, and include a few interesting incidental points not directly concerned with the Rafa-Beersheba branch line.

The correspondence centres on Engineering Department matters and, while there are gaps in written material from other departments, it does allow a clear overall picture to be built up. The file opens in 1921 with a remark on the LSWR 0-6-0s which were recorded as operating all traffic over the line. These locos, however, were giving serious problems (unspecified) and it was hoped that Baldwin 4-6-0s could be used instead. However, the Baldwins would probably be too heavy for the wooden trestle bridge at Shellal and the long metal bridge over Wadi Hanafish at Km 43.500. (Incidentally, the Wadi Hanafish bridge is referred to as both steel and iron in different memos, but the preponderance of opinion indicates it was iron). To accommodate the Baldwins the Shellal trestle would probably need replacing and the Wadi Hanafish bridge would have to be strengthened. A later inspection showed that the Shellal bridge suffered from the effects of heavy dew penetrating cracks in the timbers, but regular maintenance and coating with tar might overcome the trouble, in which case Baldwins could probably be allowed across it. The Wadi Hanafish bridge was considered too weak for the weight of Baldwin locos. It was not being properly maintained and "the girder is in very bad condition". There was even a suggestion that it could be strengthened with timbers from the "old Yarmukh trestle bridge" (this being the temporary wooden trestle which replaced the original Yarmuk No.2 bridge near El Hamme on the Haifa branch of the Hedjaz Railway that had been sabotaged by the re-treating Turks in 1918).

In 1923, as these deliberations continued, the PR General Manager (Holmes) decided to make a trip south to inspect the two bridges at first hand and also "with a view to studying the possibility of diverting the line to Gaza". The idea was to replace the Rafa-Beersheba line with a new one from Gaza which would have gone via Tel Esh Sheria and utilised the derelict Turkish 105cm gauge military formation thence to Irgeig. The GM set out from Haifa at 0800 on 22nd November in saloon coach No.99 attached to Train No.2 [sic]. As we know, of course, the idea of a new line was taken no further, but the report of the GM's trip makes for some entertaining reading of what might have been. There were even notes on the Turkish military lines south of Beersheba. At Beersheba itself there was "some derelict 3'6" rolling stock of which only one covered wagon would be worth salvaging". It was noted that from "Beersheba to Asluj (30 kilos) no

track exists". In an appendix to the report (written by a Mr Ille following an inspection in April 1922) it was remarked that on the Beersheba-Asluj section (suddenly extended to "35 kilometres"! "most of the steel has been stolen or sold by the District Governor". [I trust he was only responsible for any sale and will not be perpetually maligned by a missing comma!]. "Of those [sleepers] remaining, 80% are damaged by being cut in two. 25% of the sleepers are steel, the rest wood". Between Asluj and Auja el Hafir it was found that "All rails [are] in the ground but 40% are damaged...The sleepers are intact and 25% are steel". From Auja to Kosseima ("about 30 kilometres") Mr Ille recorded that "All rails and sleepers [are] intact and formation complete". This last observation gives particular cause for pause and concern as it contradicts everything that has been believed until now, and is in complete opposition to (among other reliable sources) the British Military Handbook on Palestine of June 1917 where it was clearly stated that "All rails [are] removed south of Auja, except for first 3/4 mile..." (see 57:10). So could Mr Ille have relied on a distant view of that first 3/4 mile, decided he didn't fancy a hot and dusty journey further into the desert, and simply assumed that the rest of the section to Kosseima was also complete?!

There is another telling remark in this report, concerning the Shellal bridge where it was found that "Timber trestles [are] sound except at their bases. These should be cut off and mounted on concrete foundations brought up well above ground level as already done in some cases". This modifies my note on the subject in 65:11. Apart from those "some cases", already done, this work was completed in April-May 1924 and the bridge was then tarred and other repairs carried out. A speed restriction of 5km/h was imposed while these works were proceeding, with a pilotman accompanying each train across the trestle. On 26/5/24 the GM noted that the Shellal bridge was now capable of supporting Baldwin engines but the Wadi Hanafish bridge still could not. This, therefore, was not of much help in solving local motive power problems, and the LSWR 0-6-0s continued to trundle along the line. Repairs and painting were carried out to the Wadi Hanafish bridge, but the plans for strengthening it to accept Baldwin locos were not implemented.

In August 1924 the GM required to know the lengths of these two bridges. He was informed that the Shellal bridge ("timber trestles & stringers") was 96 metres long - ie. 8 metres longer than recorded on drawing A/3/4 (see 65:11). The Wadi Hanafish bridge was noted as 126.8 metres long.

At some unknown date between 1924 and 1926 some unknown person made out a report which included what are thought to be the last observations and basic estimates on that contemplated new line from Gaza to Beersheba. If he had any personal opinions on the matter, the anonymous author wisely kept them to himself: as he did concerning a contemporary suggestion for

"extending the standard gauge system from Haifa to the Syrian Frontier at Ras el Nakoura".

Then, on 8th July 1926, with no advance intimation in File 134.1/1, the GM (by now Campigli) memoed his Engineer, Ways & Works that "It has been decided to abandon the Rafa - Beersheba branch". A whiff of this decision soon leaked and spread, the vultures quickly caught the scent, and a month later the Superintendent of the Line was "being pressed for information as to date of removal of the line by many contractors". Nevertheless, there was no hurry to close the line while possible alternative transport routes (both road and rail) were discussed. It was noted disapprovingly in the meanwhile that on 7/12/1926 Train No.10 "was timed over several Kilometres...at [a speed of] 70 K.P.H., while the speed [allowed] for the section is 50 K.P.H." Those old LSWR 0-6-0s could still break into a canter occasionally, though such speeding over deteriorating track was not to be encouraged.

The line was eventually officially closed on 31st July 1927. Train No.10, out of Beersheba, on Tuesday 26th July was the last train on which public traffic was accepted for despatch. Presumably the next five days were used to work any remaining rolling stock off the line. Instructions were also issued to remove sidings and other installations at Rafa which would become redundant with closure of the Beersheba line. Most, if not all, of the railway buildings at Beersheba were left in situ. The contract for lifting the line was awarded to Messrs. Mohamed El Sayed Abdul Hady and Elias Boutros Egeil, or Ageil, of Haifa (Abdul Hady later withdrew from the partnership).

The timber trestle bridge at Shellal presented no difficulty for the demolition men, but the iron bridge at Wadi Hanafish would be much more costly and complicated to cut up and remove. Several ideas were proposed (there is even a drawing in the file showing how the bridge might be dismantled using a Cowans Sheldon 25-ton steam crane) but it was finally decided simply to leave it where it stood. Lifting of the Beersheba line was due to be completed by the end of 1927 using PR locos and wagons to transport recovered track and other material, but file correspondence peters out in September so we cannot be certain that this timetable was adhered to.

Since we are down in this neck of the desert, and as a footnote to the article in 65:11 on WW1 British military lines in the locality, it is worth noting here that Amnon Gat has again been out and about in the field and come up with further fascinating discoveries. He has found remains of the 60cm gauge 'Decauville' light railway which ran from Gamli to Karm and El Khasif. Just east of the Wadi Gaza/Nahal Bessor, more or less due east of Gamli, there are still short sections of the narrow gauge formation to be seen on the ground. Amnon's photos show that at least one section, a low embankment, is well preserved and readily discernible.

K. HOFFMAN & SONS, TEL AVIV IRONWORKS & FOUNDRY.

By Paul Cotterell.

In the 'Industrial Railway Record' 152 is an article on the 60cm. gauge railway used in the building of the Rutenberg hydro-electric power station of the Palestine Electric Corporation at Naharayim in the Jordan Valley, during the late 1920's and 1930's. Much of the research for this article was carried out in the archives of the Israel Electric Corporation (successors to the PEC) in Haifa. Among the many files on the subject were a couple of contemporary letters relating to the participation of the firm of Pachter & Hoffman of the Tel Aviv Iron Works in this pioneering project to provide electricity to The Land of Israel. It was noted in a PEC letter of June 1928 that Pachter & Hoffman had delivered 90 tip wagons of 3/4 cubic metre capacity and another 200 of 1-1/4 cu.m. capacity. And that was the extent of my knowledge on this firm at the time and for years after.

Then one evening Uri Yinon phoned me to say that he had met Rami Hoffman, grandson of the firm's founder, and that he thought it would be worthwhile my contacting him. So I did. And it was. Rami kindly sent me photocopied extracts from an old catalogue (evidently dating from post-1929) of the Tel Aviv Ironworks & Foundry and also provided historical background on which the following brief notes are based.

Kalman Hoffman was a gifted inventor of things mechanical. He arrived in Palestine as a youth in 1890 from Russia where he had worked as a watchmaker and mechanic. In Palestine he worked at first as a wood engraver and about 1900 was engaged as a metal engraver by Leon Stein, the 'first metal industrialist' (ironfounder?) in the country. (Stein was a mechanic and inventor whose contribution in particular to the early mechanisation of citrus cultivation, through the introduction of such things as water pumping equipment, gave this branch of local agriculture its great strength. In those days Palestine was a world power in citrus production [In fact I remember when I was a boy the trade mark 'Jaffa' was still synonymous with oranges. P.C.] and this had a prime influence on the local economy, its sustainability and therefore the continuing capacity for Jewish immigration.) Stein immediately recognised Hoffman's skills and appointed him Works Manager.

Leon Stein's firm was a technical success but a commercial failure, and closed about 1910. Kalman Hoffman wanted to continue the work and, in order to avoid the same financial weaknesses, went into partnership with Pachter who was to provide money and personal connections. The firm of Pachter & Hoffman was in existence for about twenty years, building small light railway wagons, machines and other items. It was Hoffman's mechanical talents which led to the wide range of varied products.

When the partnership was dissolved in 1929 Hoffman continued the business under the name of K. Hoffman & Sons. With the practical support of his three sons, one of whom was a manager and the others mechanics, there was no need to enter into a partnership outside the family. It appears that Pachter, having little or no practical knowledge of mechanics, did not open another works. The Tel Aviv Ironworks & Foundry of K. Hoffman & Sons continued in operation for about twenty years after 1930, producing equipment and machines typical of the period and later such things as electrical appliances, irrigation and sanitary equipment, machines for use in sorting and packing stations and for the building industry, steam boilers, ploughs and scarifiers, etc. etc.

Accompanying illustrations are from that old catalogue of the Tel Aviv Ironworks & Foundry, though not all the wagons shown in the catalogue are reproduced. Five types of wagon are featured in the original:

1. Light Rail Truck. A 4-wheel skeletal chassis fitted with two cross-braced end frame sanchions only. Presumably the purchaser would add his own components to suit his purpose.
2. Steel Double Side Tipping Wagon of 1-1/4 cu. metre capacity. These are described as 'heavy duty Tipping wagons, suitable for heavy locomotive traction' and appear to be of the pattern used in 'many hundreds' during building of the Rutenberg power station at Naharayim.
3. As above, but fitted with longer chassis to accommodate a screw brake stand and two-plank platform for brakemen at one end.
4. Steel Double-Side Tipping Wagon of 3/4 cu. metre capacity, also as used at Naharayim.
5. Platform Truck - Roller Bearings. Flat wagon with platform of wooden planks. This would have been useful for transporting crates, in particular crates of citrus fruit in orchards. Could the flat wagons seen in 63:15 have come from the Tel Aviv Ironworks & Foundry?

In addition to the vehicles listed above, the catalogue also illustrated a Wrought Iron Roller Turntable (i.e. a turning plate), and four types of Roller Bearing Axleboxes varying in size from 'light unsprung' to 'heavy sprung' and including one described as having 'swivelling roller bearings'.

Any further information on K. Hoffman & Sons and the Tel Aviv Ironworks & Foundry (or any other similar industrial establishment with an involvement in light railways) would be very welcome. For a start, perhaps someone might like to take a crack at the Jaffa Ironworks and its manager A. Siniaver? They are known to have acted as agents for importing little narrow gauge diesel locos into Palestine and Israel, but nothing is presently understood in detail about their history or activities.

BACK- BREAKING WORK.

By Paul Cotterell.

Uri Yinon pointed me in the direction of a Hebrew language book entitled "From Gamda to Rucha", written by Yosef Weitz, (published by 'Masada'), which deals with early Jewish settler efforts to make The Land productive again. As most people will know from the TV news, the Holy Land produces bumper crops of stones. Topsoil is thin and, as I well recall from my days as a kibbutznik, even fields with a good depth of soil have to be cleared of stones and small boulders which appear as if by black magic each year with the winter rains.

Weitz's book gives a graphic account of the method of clearing stony wasteland to turn into productive fields at one settlement, Kfar Szold in the northern Galilee 'panhandle' right on the Syrian border, at the end of World War 2. A diary of the daily grind is included. Settlers went out each morning at dawn to pick up the stones by hand, only returning home at dusk. Progress was painfully, demoralisingly slow, and the work went on for long months without respite. Kfar Szold seems to have been unusual, though, as the members employed a portable light railway and side-tip wagon to remove the stones and boulders - certainly this is the first evidence I have come across to show use of a light railway in such field clearance work. There are even a couple of relevant photos in the book. One shows six men carrying a length of light track through the weeds, while the other is of stones being manhandled into the tip wagon.

HaRakevet is designed by
CPS-Airedale in Leeds, England
and printed on
Canon digital copier

0113 226 7497

"The View Back. A fairly typical pose also for Paul, at Haifa East yard, looking towards the depot and station; as both a signalman and as an historian observing closely the details on a former Palestine Railways signal, next to more modern Israel Railways shunting light signal. Faded denim jeans, a rumpled jacket, camera bag - this was Paul in March 1999."

(Photo: Editor).

