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The Red and Blues: A 1905 photograph showing players of the Kalgoorlie Football Club. That year the Kalgoorlie Miner newspaper indicated that the team’s colours were red and blue.

This article examines how nineteenth-century transport timetables were designed, understood and used. It examines changes in timetable design during the nineteenth century, as railway timetables in particular had to convey more and more complex information. I argue that time-tables reflected societal notions of time and helped to construct new understandings of space; yet, the times and spaces they propagated were only some of those circulating in the nineteenth century. I demonstrate that the timetable is an item through which it is possible to show how design — in this instance, of information — pervaded day-to-day life. I show that the design of timetables was fundamental to passengers’ ability (or inability) to find the information they required. The article therefore analyses a range of passenger responses to timetables, from comments about incomprehensibility to attempts to make timetables more relevant to their individual needs. This focus highlights the significance of design in its social context.

Introduction

Since 9 December 2007, railway passengers in Britain have been unable to consult a single national printed timetable: publication of the, 2,800-page book ceased in the face of dwindling demand. One of the reasons why demand has fallen is the difficulty that people experienced in reading the timetable book and in extracting the information they required. Such difficulty is hardly new: it has been experienced since the 1840s. It is therefore perhaps surprising that time-table producers have often reused designs that readers have found — and still find — problematic to use.

In this article, I show how information was designed and used in the context of the nineteenth-century transport timetable in Britain. In doing so, I show how the timetable reflected changing notions of space and time in the nineteenth century. I start by discussing the historiography of time; in making links between these understandings of time and the analysis offered in this article the railway — the epitome of timetabled precision — is particularly significant. I consider what constituted a timetable and what information it had to convey to prospective passengers. I analyse how the design of timetables dealt with time, looking in turn at some of the physical aspects of design (particularly typography and layout of information) and at some of the theoretical aspects of design (particularly how timetables might have served as a marker of the modern age, reflecting understandings of space and time).

I conclude by assessing how some passengers used timetables and by analysing the gendering of timetable use. In this, we can see some of ‘the relations within which design has existed’. I suggest that timetables are one way of accessing how people might have experienced design and information as a regular feature of life in the past, and how everyday design might have shaped peoples’ perceptions of the world around them.

Perspectives on time — and timetables

The history of time and time-consciousness has attracted significant attention in the past decade, as critics have sought to reassess EP Thompson’s classic account, ‘Time, Work-Discipline, and Industrial Capitalism’. Whilst Thompson does acknowledge the spread of clock time and changes in understandings of time before approximately 1700, his argument focuses on the eighteenth and nineteenth centuries. According to Thompson, ‘modern’ understandings and uses of time were enforced during industrialization, notably a uniformity in the nature of time. This modern life was centred on the clock, a disciplinary regime of the severest order, and was particularly a product of factory work.

There have been some important challenges to the homogeneity suggested by Thompson. Stephen Kern’s analysis of the period between 1880 and 1918 suggests that people experienced ‘a plurality of times’, including ‘public’ and ‘private’ times. Paul Glennie and Nigel Thrift have presented a more direct challenge to Thompson, citing the varied ways in which time was experienced throughout the eighteenth and nineteenth centuries, and the increasing use of and competences with clock time between 1300 and 1700. The rise of the factory is not seen as crucial to the spread of time-consciousness, and they suggest that time-discipline was not reliant upon clock discipline. Accordingly, then, we should not think of the history of time, but rather histories of times. Glennie and Thrift also see travel and communication as vital elements in the construction of time. This article considers what role transport timetables might have had in these understandings of time and how timetables might have reflected notions of time.

The significance of the timetable is reinforced because the railways occupy an important place in the narrative of the creation and modernization of the ‘nation’. The story commonly told observes how the railways were largely responsible for the imposition of standard national time zones (the case of larger countries) these accounts often focus on the minuiae of organizing train services rather than considering the wider implications of standard time. Wolfgang Schivelbusch has offered a much broader approach, discussing how the geographic reach and speed of railways resulted in perceptions of space — time compression: as the time to reach once-distant places reduced, so people understood those places as closer to hand. In this article, I demonstrate that timetables offer one way of understanding how the railways might have reorganized space.
spatial awareness.

Dorthe Simonsen has recently argued that the homogeneity of Schivelbusch’s space—time compression was more apparent than real, as ‘speed has produced diverse and interacting, occasionally conflicting, times and spaces’ (11). In terms of the construction of the nation, Eugen Weber’s Peasants into Frenchmen has resonances for the design and use of timetables. Weber has argued that, from the 1880s, the railways were one of the forces that drew a group of related but disparate areas together to form the nation ‘France’. Along with the communication system and the military, the transport network expanded people’s spatial awareness and sense of cohesion (12). Finally, Di Drummmond has argued that although the railway did contribute to emerging notions of the British nation in the nineteenth century, the effects of the railway (in terms of travel times and accessibility) were uneven in their distribution (13). As with time, then, we must question any narrative which posits a single account of space, opting instead for a more nuanced understanding of spaces.

From the general (time) to the specific (timetable): how has the timetable been discussed? Much of the literature which considers the design and reading of timetables and tabular material dates from the 1970s and the 1980s and is connected with computer science, psychology and information design. The concept of functional literacy — the levels of reading and writing ability necessary to perform basic tasks — has also promoted interest in the reading and use of timetables. Yet, research into timetables has paid relatively little attention to the historical origins and evolution of design features used to communicate everyday ideas or information.

This paucity of analysis is partly because of the ephemeral nature of the timetable — in the nineteenth century they were mass produced, often on cheap paper, and were only intended to survive for a maximum of six months, and were largely discarded after use. Timetables have also been overlooked by historians of reading, who have concentrated upon the book or the newspaper — a product of the visibility of book and its designated cultural value. For the design historian, items such as the timetable are intended for use in everyday life, and where an action is supposed to happen; in relation to transport, typically they inform the user of the destinations and times at which it leaves each calling point. The timetable is an artefact of everyday mobility: it represents the factors that shape provision of services and signifies the passenger when and where they can travel. The timetable is an arrangement of information, designed to show when events happen; in relation to transport, typically they inform the user of the destinations between which the service runs and the time at which it leaves each calling point. The timetable is an artefact of everyday mobility: it represents the factors that shape provision of services and signifies the passenger when and where they can travel. It is a representation, in two dimensions, of space and time. When we think of the timetable, we tend to visualize a matrix arrangement of information; the calling points typically use the vertical axis, whilst the horizontal axis shows the progression of time through the day.

However, other designs, although not tabular, were commonly understood to be ‘timetables.’ Early sources of transport service information adopted an existing layout of information, based upon the book — already familiar to those who could read. Detailing an extremely limited number of services, they used linear sentences to provide the passenger with information. If it was necessary to convey more information (more services on the same route, for example), other designs offered advantages over linear text. Information about multiple services was presented as lists, in which one service time was visibly distinguished from the next, often using a separate line for each time. Finally, there was the ‘ABC’ [1]. First introduced in 1853, it listed in alphabetical order all the destinations accessible from one location. This offered the reader simplicity. The Railway

Fig 1. Reid’s Railway Guide and North-East Coast ABC TimeTable, Andrew Reid, Newcastle, April 1886, p. xxxi, 190

What a ‘timetable’?

The timetable is an arrangement of information, designed to show when events happen; in relation to transport, typically they inform the user of the destinations between which the service runs and the time at which it leaves each calling point. The timetable is an artefact of everyday mobility: it represents the factors that shape provision of services and signifies the passenger when and where they can travel. It is a representation, in two dimensions, of space and time. When we think of the timetable, we tend to visualize a matrix arrangement of information; the calling points typically use the vertical axis, whilst the horizontal axis shows the progression of time through the day.
The Times
August 2016

Traveller’s Handy Book—an advice manual for prospective passengers—noted that ‘The ABC Railway Guide is ... an easy work of reference, the names of the places being alphabetically arranged ... It is, however, chiefly adapted for the use of persons who have only to proceed direct from one point to another.’

The table, on the other hand, conveyed information that was ‘free standing’: it was possible to use it to or from any point on the system. These tables were comprehensive, showing every passenger service operating on that route. From the late-1830s, the railways added a previously unseen layer of complexity to timetables. As the railway system grew to cover greater distances during the nineteenth century, timetables increased in size. This was a result of factors such as the speed and numbers of services run, the numbers of different routes served, the precision of timing required for operation, the capacity of the infrastructure and the number of different operators. Representing this information in linear sentences was possible, but it would have taken up vast amounts of space. The tabular design was, comparatively, more space efficient; and it might have made the information more easily comprehensible by the user.

The remaining examples in this article are taken from tabular railway passenger timetables, for two reasons. Structural factors (particularly the complexity, number and interlinking of services) meant that railways had to cope with more difficult issues than most other transport providers. This manifested itself in the provision of complex information within the tabular space of the railway timetable and in the use of some innovative designs to convey service information. In addition, the table was the dominant design used to convey information to railway passengers. In principle, the points raised are applicable to any tabular timetable (hereafter simply timetable), whether railway or beyond (for example, for collections from urban post boxes in the 1850s).

Fig 2. Reid’s Railway Guide and North-East Coast ABC Time Table, Andrew Reid, Newcastle, February 1913, p. 2. Complete passenger service information, displayed in a matrix arrangement; locations down the vertical, time throughout the day increasing along the horizontal. © British Library Board. All Rights Reserved, PP.2500.nk.

Fig 3. Tide Table for Bewmares Ferry, n.d. (late-eighteenth century), 130 x 72 mm. Centre for Ephemera Studies, University of Reading.

Tabular information did not suddenly manifest itself in the transport timetable; way timetable producers drew upon tables found elsewhere in society. Items such as ledgers and accounts, bills of mortality, tide tables, logarithmic tables and almanacs used horizontal and vertical axes. The tabular arrangement was more widely distributed in society than might have been thought, so at least some people would have been familiar with the demands that the railway timetable made upon reading skills (particularly the need to read on both axes).

The increasing complexity of travel services on offer during this period saw a corresponding increase in the quantity and complexity of information about travel required by the passenger. The first public steam railway was opened for traffic in 1830, between Liverpool and Manchester; in the subsequent decade, many more lines were built across Britain, increasing the...
Fig 4. Norfolk and Eastern Counties Railway Time Table, 1 October 1846, printed in unknown newspaper, 214 × 185 mm. Note the indications of the route served: 'Yarmouth, Norwich, Ely, Cambridge, and London' underneath the timetable title and 'London to Yarmouth' and 'Yarmouth to London' in the table itself. These last two designations also give the direction of travel 'down' from London to Yarmouth and 'up' from Yarmouth to London. Note also the bold rule dividing Sunday trains from weekday services, the rules give the direction of travel 'down' from London to Yarmouth and 'up' from Yarmouth to London in the table itself. These last two designations also give the direction of travel 'down' from London to Yarmouth and 'up' from Yarmouth to London.}

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number of companies that offered services and the distances that it was possible to travel by train. As a result of the increased mobility of the nineteenth century, more people than ever before required information about transport services. Timetables codified this information, potentially being read by millions of people; they represented an attempt to aid passengers' transit through the transport system.

The number of timetables in circulation increased dramatically during the nineteenth century: in one year of the 1880s, a single railway company produced 35,000 copies of its summer timetable — and this does not include the winter issue or timetable posters for display at stations; or timetables produced by any of the approximately 100 other railway companies or those produced by other transport providers or by the hundreds of private publishers. As a result, in 1874 The Times newspaper felt confident that this was 'an age of timetables'. Evidence from newspapers and literary sources suggests that timetables were to be found in private and in public: Wilkie Collins, George Gissing and Anthony Trollope all made timetables a natural part of the scene in the guest houses used to accommodate their characters. It seems likely that this availability of timetables ensured that reading tabular material — particularly in public — became more widespread than had previously been the case. Clearly, timetables came to play a part in the public life of the nation.

Timetables also went beyond a practical purpose: they offered support for conceptions of time and space, providing knowledge of places that were often far distant. In 1885, Edmund Venables saw timetables as 'a necessity of life in these days of constant locomotion'. The increased opportunities for travel and the increasing distances over which it was possible to journey — the space — time compression identified by Schivelbusch — helped to change mentalities. In the course of everyday life, it became necessary for many people to conceptualize their journeys across the nation: the timetable was a support for this process. To Venables, then, as to others, timetables were emblematic of modern time and nation.

### Designing time

The timetable was part of what GK Chesterton characterized as the 'literature of information': it was not read for pleasure, but for action, to enable mobility. The timetable needed to convey at least three things: a departure location, an arrival location and a time of departure. During the nineteenth century, as timetables had to convey an increasing quantity of information, many design features were incorporated in order to try to transmit details of the services on offer. In the following discussion, I highlight only a few of the common designs, which can be considered typical of timetables and which relate to the issues of space and time I wish to interrogate.

The first tabular railway timetables were produced in 1838. A basic 'grammar' of the timetable was soon established, in which time was represented along the horizontal axis and location down the vertical axis. This tabular arrangement of information, more choices available to the passenger, requiring more decisions about where and when to travel. In most instances, passenger would not have been interested in everything contained in the timetable — column rules were included, separating different services from each other and preventing people from reading tables as if they were linear text.

As the numbers of services increased, too did the volume of information contained in the timetable. From simple tables containing only 20 or 30 times, timetables grew to include hundreds of individual timings. Time appeared to multiply, with more choices available to the passenger, requiring more decisions about where and when to travel. In most instances, passengers would not have been interested in everything contained in the timetable — they required only the details of the journey that they intended to make. Timetables therefore had to balance the provision of complete information about services...
with designs that allowed the passengers to search out and access information specific to their individual needs. In order to achieve this, ‘prompts’ were included to help the readers identify the information most relevant to them. In timetable books, pages were numbered, and indexes and contents pages listed locations served. Tables were given titles indicating the route detailed (for example, see [4], ‘London to Yarmouth’).

Time was one of the most complex challenges faced by timetable designers. Exact times were clearly significant in representing railway services: times were given down to single minutes. Yet until the 1860s, there was no agreed meaning of ‘exact time’. Until a uniform time zone was legally imposed in 1880, time in Britain varied according to location. This resulted in debate as to which time should be used in the timetable: local time contrasted with ‘London time’ (i.e. Greenwich Mean Time (GMT)). If local time were used, people could get to the station at ‘their’ time, but if the trains were running on London time, passengers would either have to wait or they were in danger of missing their train. In contrast, using London time in the timetable might confuse passengers, particularly as the differences were magnified the further away from London people travelled — Oxford was five minutes behind London; Plymouth, twenty minutes.

As the railway network extended over increasing distances and ran increasing numbers of trains, the problems raised by these differences in time according to longitude became more acute. From the 1840s, timetables would often specify which time they used. For example, the Grand Junction Railway timetable of 1846 informed the reader that that company used local time: ‘N.B. – The Clocks are set according to the Longitude of each Station’.

The Great Western Railway, on the other hand, specified in 1842 that ‘London time is kept at all the stations on the railway’. If time was not yet standard, travellers were at least pre-warned of potentially critical discrepancies. By the 1860s, London time was accepted as the standard measure, and this qualifier virtually disappeared on timetables. The railways’ role in introducing uniform time has been noted; the timetable had an important role in disseminating knowledge of a national, standard time.

Assuming passengers understood which time system was in use, there still remained the issue of how time should be divided. Hours and minutes had to be represented in the timetable, and they had to be distinguishable from each other so as to avoid confusion. Rather than using a decimal point or physical mark on the page, most timetables separated hours from minutes with a space. This seemed legible enough when the timetable was well spaced. Yet when space was at a premium, some publications attempted to cram as much information as possible onto the page, resulting in a mass of numbers and extreme difficulty in differentiating the hour from the minute. It was observed

Fig 5. Great Northern Railway Express Route October 1902 until June 1903, Love and Malcolmson, London, 1902, p. 18, detail 75 × 167 mm, from page 290 × 180 mm. How to understand the difference between morning and afternoon times is explained at the top of the page, to the right of the page number; type size and weight (the ‘thin’ and ‘thick’ figures) are used to indicate meaning. In this scheme, the train departing Wick at 2.45 is an afternoon departure; it arrives at Perth at 5.05 in the morning. Note also the space between the hour and minute figures, rather than a decimal point; and the lack of a ‘0’ for minutes past the hour less than 10. Ken Hoole Study Centre, Darlington, KH 3100.

Assuming passengers understood which time system was in use, there still remained the issue of how time should be divided. Hours and minutes had to be represented in the timetable, and they had to be distinguishable from each other so as to avoid confusion. Rather than using a decimal point or physical mark on the page, most timetables separated hours from minutes with a space. This seemed legible enough when the timetable was well spaced. Yet when space was at a premium, some publications attempted to cram as much information as possible onto the page, resulting in a mass of numbers and extreme difficulty in differentiating the hour from the minute [6]. It was observed
in 1897 that:

Crowded columns seem to be inevitably characteristic of Time Tables ... They are narrowed down to limits which crush the figures within them into a black mass, often in many pages obscuring the figures; at all times rendering them difficult to make out; everything is so compressed.

This was a trade-off between the physical constraints of the format and the functionality of the finished item — and one in which the functionality could suffer.

The timetable also signalled the continuing rise of non-natural time and rhythms. Although awareness of (non-natural) clock time predated industrialization, as Glennie and Thrift have shown, with industrialization, the significance and precision of clock time became increasingly important in daily life. Dickens dramatized this in Dombey and Son: Staggs’s Gardens is converted — ‘There was even railway time observed in clocks, as if the sun itself had given in’.

The timetable exemplified this; time was shown as divided into hours and minutes and split between morning and afternoon. Before the 1960s, timetables used the twelve-hour clock, which meant that morning had to be distinguished from afternoon in some way.

A number of techniques were used. Most common was the inclusion of ‘a.m.’ or ‘p.m.’ with the particular service being referred to: probably near the departure time from the train’s originating point. The Great Northern Railway’s 1902 timetable attempted to avoid this by using different sizes and typefaces to depict morning or afternoon. This was a very deliberate attempt to draw the reader’s attention to the formatting of the timetable and make design features carry meaning. Such designs were attempts to make the information more readily accessible to the passenger — and to reinforce understandings of time that were socially constructed.

Similarly, the different social values placed upon different days of the week were reflected in the design of the timetable. As different train times operated on Sundays, it was necessary to signal these differences clearly. This was done by separating Sundays from weekdays. Most tables con-

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**GRAND JUNCTION RAILWAY.**

**LIVERPOOL, BIRMINGHAM, AND LONDON.**

**TIME AND FARE TABLE, ON AND AFTER THE 1ST FEBRUARY, 1846.**

(The Time and Fare Tables for the Other Sections are issued separately.)

**N.B.**—The Clocks are set according to the Longitude of each Station.

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<table>
<thead>
<tr>
<th>Stations</th>
<th>Lancaster and Liverpool</th>
<th>Up Trains from Liverpool</th>
<th>Sunday Trains</th>
<th>Passenger Fares from Liverpool</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

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Fig 7. (a) Grand Junction Railway, Liverpool, Birmingham and London Time and Fare Table, 1 February 1846, detail 203 × 217 mm, from page 477 × 265 mm. (b). Reproduced by permission of the Bodleian Library, University of Oxford, John Johnson Coll. Railways Folder III, Grand Junction Railway, Time and Fare Table, 1st Feb 1846 (b) Grand Junction Railway, Liverpool, Birmingham and London Time and Fare Table. In February 1846, detail 63 × 168 mm from page 477 × 265 mm. Weight, case and larger type size are used to indicate the more important stations on the line (Liverpool, Warrington, Hartford, etc.). Leader dots are also used to guide the eye across the page, from the locations to the times at which trains call at the respective stations. Reproduced by permission of the Bodleian Library, University of Oxford, John Johnson Coll. Railways Folder III, Grand Junction Railway, Time and Fare Table, 1st Feb 1846.
tained details of the trains in two separate but related portions of the table: one under the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays’. In addition, the difference was highlighted by the bold rule dividing the title ‘weekdays’ and the other under the title ‘Sundays'. The table depicted in Figure 8 shows Brown’s Clear Type Railway Time Table, Ringwood, December 1907, p. 57, 164 × 8 E. Zerubavel, ‘The Standardization of Time: A Sociological Perspective’, American Journal of Sociology, vol. 88, no. 1, July 1982, pp. 5 – 10; M. O’Mal-

**Notes**


**Fig 8. Brown’s Clear Type Railway Time Table, Ringwood, December 1907, p. 57, 164 × 104 mm. Notes are used in the body of the table, indicated in this instance by the letters ‘A – H’, with the meaning of each explained beneath the table. © British Library Board.**


18 Provision of services is influenced, for example, by planning, route and stock availability, route capacity, economics of de-mand and supply, politico-legal fac-tors and cultural elements.

19 For example, Rusher’s Reading Guide noted that ‘Harris and Co’s pass upwards [i.e. towards London] daily, from three to four in the morning [time of departure] … Change horses at Mr Hayman’s, Castle-street [place of departure] — Golden Cross, Charing Cross, London [destination].’ Rusher’s Reading Guide, or Gentleman’s and Trader’s Directory, James Rusher, Reading, 1801, unpaginat-ed, p. 7.


22 For example, monthly issues of Bradshaw’s reflected this increasing complexity: from 98 pages of timetables in 1852, to over 200 in 1862, approximately 410 in 1888 and over 940 pages in 1912.


24 Railway companies also produced ‘working timetables’, which included every movement on the railway lines (such as goods trains) and were used only by railway employees in order to ensure the efficient operation of the system as a whole. These timetables followed the same structural layout as passenger time-tables (matrix arrangement, locations on the vertical axis, increasing time through-out the day on the horizontal axis), and they seem to have evolved in the mid-1840s, shortly after passenger timetables and as traffic intensified. They were de-signed for a skilled subset of the popula-tion — railway employees — who were familiar with the intricacies of railway operation and timetables. On the similar
design of information, compare the passenger timetables featured in this article with the working timetables in London and South Western Railway, Working Time Tables, 1 June – 30 September 1909 (1909), Ian Allen, Shepperton, 1969. Surprisingly, given they were private operational documents, working timetables have received a limited amount of historical discussion: Simmons, ‘Working Timetables,’ op. cit.; Gough, op. cit. As with railway passenger timetables, working timetables were observed contemporeaneously; a series of (largely descriptive) articles, by G. Sekon, appeared in The Railway Magazine between October 1907 and February 1909.

26 Brief descriptions and historical contextual information about these documents can be found in M. Rickards, The Encyclopedia of Ephemera.
30 The Times, 29 August 1874, p. 9, col. c.
32 The Times, 14 August 1885, p. 10, col. d.
34 Needless to say, there were attempted innovations that resulted in some unusual designs, which, although interesting, did not become common and failed to last much longer than a year or two. It is impossible to say whether this was a result of the failure of the designs themselves or of the conservatism of the producers (who had capital invested in the existing designs) and users (who knew how to use the existing designs).
36 Interestingly, this reversed the use of axes in chronological tables, which represented time down the vertical axis and space/place across the vertical axis. On chronological tables, see Twyman, ‘Articulating Graphic Language’, op. cit.
39 Statutes (Definition of Time) Act, 1880 (43 and 44 Vict. c. 9).
40 Simmons notes that this debate was not new to the railways, but had taken place on a limited scale when fast mail coaches were introduced in the 1780s. However, in the 1840s as the railways developed into a national network accessible by large numbers of the population, who were thereby able to move at increasing speeds, the debate about national/local time became more pressing. Simmons, The Victorian Railway, op. cit., pp. 345 – 6.
41 John Johnson Collection, Bodleian Library, Oxford, Railway Folder III, Grand Junction Railway, Liverpool, Birmingham and London Time and Fare Table, 1 February 1846.
42 John Johnson Collection, Bodleian Library, Oxford, Railway Folder III, Great Western Railway, London to Cirencester, Bath, Bristol and Bridge-water, 1 June 1842.
43 A. Hill, The Complete Time Table, Andrew Hill, Glasgow, 1897, p. 4.
46 This issue still confronts timetable designers to this day: MacKenzie-Taylor, op. cit., p. 185.
49 Symbols are to be found in Bradshaw’s of 1852 (for example, see National Railway Museum, York (NRM), BRAD 14/12, Bradshaw’s Threepenny Guide for all the Railways, Bradshaw & Blacklock, London, December 1852, p. 72). By the 1860s, some complex symbol and key arrangements were to be found in virtually every Bradshaw (for example, NRM, BRAD 22/10, Bradshaw’s Threepenny Guide for all the Railways, Bradshaw & Blacklock, London, October 1860, p. 88).
Football (Aussie Rules of course) was a well-established sport in Western Australia with regional leagues set up throughout the state. Matches between towns often required special trains to convey players and spectators and perhaps one of the longest journeys made in WA was that between the goldfields centres of Kalgoorlie and Leonora – a rail distance of 161 miles.

A long discussed match between Kalgoorlie’s Mines Rovers and a Northern Combined Association select 18 team was held at Leonora on Sunday 4 September 1910. The Leonora Football Association chartered a special train to depart Kalgoorlie at 7.30am and (according to the Weekly Notice) arrive in Leonora at 1.30pm – a 6 hour journey. Four second class coaches and a brake-van made up the consist. Fares from Kalgoorlie were 12/6 return, Menzies 7/6 and Kookynie 5/- and it was reported that over 300 passengers arrived in Leonora, but as most came from intermediate stations the association lost a considerable amount over the train.

The day was not only about football and special tram services were run on the Leonora – Gwalia tram route to give visitors the opportunity to visit Gwalia and the district’s major mine, Sons of Gwalia as well as enabling Gwalia residents to visit Leonora. The Leonora Miner reported that each tram trip run in quick succession brought car loads of visitors on pleasure bent. A 3/6” gauge steam tram commenced the two mile route in 1903 and on 5 October 1908 the service was electrified and it was the sole electric car and two steam trailers that ran these 1910 services. The electric services ended in 1916 when a fire destroyed the powerhouse but the tram continued to operate using a converted road motor vehicle until 1921.

The Leonora Football Association said they’d have a strong team to meet the Rovers and a good game should result. However after Leonora had won 7 goals 12 to Rovers’ 6 goals 10 the Kalgoorlie Miner said The match resulted in a surprise for all parties concerned, as it was looked upon as a foregone conclusion that the Mines would have an easy win.

The return train was timed to leave Leonora at 7.30pm and after the match the visiting team and representatives were entertained at a banquet at the Grand Hotel. An unfortunate incident was that a number of players and visitors, relying on the latitude usually granted on these excursions, did not hurry to catch the train, and only arrived at the station in time to see it steam away. The advertised time for leaving was 7.30 and after waiting ten minutes the inspector, who was on the train, insisted on it leaving and the consequence was that some 40 or 50 passengers were left behind. Much indignation was expressed by the local people, as well as the disappointed passengers at the action of the railway officials in not allowing time for the players to board the train, as they were all within hail on their way down from the banquet when the train pulled out. Considering that the promoters of the excursion paid £128 for the use of the train for the day, the railway officials might have allowed as much latitude as is usually the case on such excursions.

Kalgoorlie residents on the train were due in town at 1.30am on the Monday. For those left in Leonora the next train was No. 6 mixed due out at 8.15am Monday, due in Kalgoorlie at 4.42pm – nearly 8 ½ hours later.

The Leonora Miner predicted a return match at Kalgoorlie before the close of the season and such a game was
arranged for Sunday 9 October. The special train was to leave Leonora at 6.30am and promises to be one of the most popular trips yet organised on the northern fields. The weather on Sunday 9 was fine but attendance at Kalgoorlie Oval smaller than anticipated. There were ugly rumours about the disappointing form shown by some of the Mines Rovers against Boulder City the previous Sunday and this deterred many fans. However the train was well patronised and a handsome surplus was made which made up for the previous loss when the Mines team came to Leonora.

However the northern football team faced a loss this time, going down 2 goals 6 to Mines Rovers 10 goals 11. The Leonora contingent put it down to playing on turf after the hard grounds of the north.

Unfortunately there was no timetable for the return train in the Weekly Notice but the advertisement in the Leonora Miner said the return was due to leave Kalgoorlie at 7.30pm, with the train offering 8 hours to see the sights – and there were also no subsequent reports of passengers being left behind!

References:

Kalgoorlie Miner 1/9/1910, 7/9/1910, 8/10/1910 and 15/10/1910
Leonora Miner 10/9/1910, 8/10/1910 and 15/10/1910
Weekly Notice 36 1910
Newcastle 100

Jim Wells

It is always of interest to review how bus operators group routes when producing printed or pdf timetables. Some of course don’t group – one route, one timetable.

This case study looks at Newcastle, NSW’s routes 100, 106, 107, and 111.

This is from the cover. Straightaway we have a problem because these routes are not the only ones providing service from these places to Newcastle.

The key to the timetable is a suburb not mentioned above – Mayfield – as all four routes serve it.

Let’s get into the detail.

All routes run to or from what the timetable calls Newcastle meaning the CBD located near the now defunct Newcastle railway station. Some would say the CBD itself is now defunct as it is no longer a significant retail area, and has little other ‘business’ activity. The hospital has closed down. This situation creates a major challenge for designers of Newcastle’s bus network.

The 111 Mount Hutton service is fascinating. The run time is over an hour and it probably has more street intersection turns than any other service one can think of. Remember the scene from “Murder, She Wrote”. Ma’am, the bus goes up the street and the bus goes down the street. The 111 certainly does this but on many of them.

By one count, there are over fifty streets covered, some counted more than once. This must be a nightmare for driver training. Thank goodness for the STA’s practice of putting direction signs on power poles to aid drivers.

The first leg of the northbound journey is from Mount Hutton via places you don’t need to know about on the other side of the Pacific Highway to Charlestown. But the 111 is not the only service from the Mount to Charlestown, there are also the 310, 317, and 320. Indeed the 310 and 320 also run to Newcastle on a more direct route than the 111, typically taking well under an hour and providing a half hourly service compared to the 111’s hourly (Mon-Fri inter peak, no service on Sunday).

Charlestown is now a major retail centre, the biggest in the Newcastle district. It is served by many bus routes as one would expect. For our purposes we need to note that this is the starting point for the 100.

But to revert to the 111. It runs on a more easterly course to Mayfield serving Adamstown Heights, the Kotara shopping centre and then New Lambton and Adamstown, in the process crossing under the railway at Northcott Dr. The railway level crossing at Adamstown would be an unhappy place for bus services; indeed no bus uses it. The delays with freight trains there can be extensive. The good news for 111 users is that it’s only a short walk from the stop in St James Road to the station.

The 100 runs roughly half-hourly (some services start at Jesmond and terminate at City West) and crosses the railway unseen (tunnel under Charlestown Road), before serving the John Hunter hospital and reaching Jesmond.

This is the terminal for the remaining two services of our interest – the 106 and 107. The distinction between the two is not evident from the timetable (it should be) but is clear from the map; the 107 does a Warabrook circuit which adds about ten minutes to the journey time. The 106 has departures from Jesmond at 6:44, 7:10, 7:52. The 107 has a service at 8:28 and runs hourly until 15:39 with the 106 running the four remaining services, last at 19:58. So the Warabrook circuit does not get a peak hour service. This pattern is evident on Saturdays; on Sundays all services are 106. By the way the Warabrook circuit is quite some distance from Warabrook railway station; the one that services the University. Note that the 100 serves this latter destination.

As is clear from the map the 100 provides a far more direct service to Mayfield and beyond than the 106/107 which meanders around Shortland and Sandgate.

The meeting point for all our services is the intersection of Maud St. and Maitland Road in Mayfield. The 100, 106 and 107 run east along Maitland Road; the 111 does its thing in Mayfield North to join the others at Barton St. before serving the Mayfield shopping centre. The 100 has a direct route into Newcastle; the 106/107 reasonably direct via Tighes Hill, and, you guessed it, the 111 does its twists and turns.

A strong case can be made for inclusion of the 104 service in the booklet as it serves Mayfield East as well as the University and Jesmond and is in the same number grouping of 100 to 111. There are no other routes in this grouping; indeed there are no other 100 series services except for the 118 which is the Stockton ferry and the once only on Friday and Saturday nights ‘night owl’ bus to Fern Bay.

The 104 has a standalone booklet.

In addition to the inclusion of a Warabrook circuit timing point for the 107 service, the timetable would be enhanced by a timing point to breakup up the long sector of the 100 from...
Charlestown to the John Hunter Hospital, perhaps at Garden Suburb. Likewise the 111 could have a timing point at Tighes Hill.

I am grateful to Len Regan for his assistance.