

The Drury Industrial Tramway

A review of management options



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December 2017

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Cover image: Detail of Drury Pottery and Fire Clay Works, Drury. Henry Winkelmann photograph. Auckland War Memorial Museum.

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1 Introduction

This report has been prepared to give effect to recommendations included in the Drury Structure Plan historic heritage topic report (Plan.Heritage 2017) in relation to an early tramway and railway route within the structure plan area.

The topic report noted that there have been a number of early roads, railway routes and other forms of early transport infrastructure within the future urban zone (FUZ). Places of historical or archaeological interest identified in the report include part of the line of what is reputed to be the earliest tramway in the North Island, and the route of a 'mineral railway' established in the early 20th century to serve the Drury Coal mines, Pottery and Fireclay works.

The topic report concluded that archaeological remains associated with early transport within the FUZ are poorly recorded and understood, but potentially of significant interest, and are likely to be affected by development. The report identified an opportunity for these routes and associated sites to be investigated and potentially interpreted as part of the structure plan process. The topic report included a number of proposals for further action or research. This included a recommendation that the tram/railway route/s be interpreted, and potentially developed as future cycling, walking routes or bridal paths (Plan.Heritage 2017:5; 46; 53).

2 Scope

This report has been prepared to give effect to the recommendations of the historic heritage topic report in relation to the early tramway and subsequent railway within the structure plan area. In particular it considers the recommendation that the route/s be interpreted in part by the provision of cycling or walking routes.

The scope of the work has been limited to targeted historical research, observations based on aerial photography and brief site visits from the public realm.

3 History of the Drury tramway and ‘mineral railway’

3.1 The first phase – ca 1859-1864

Coal was mined at ‘Waihoihoi’[Waihoehoe]¹ by the Waihoihoi Coal Mining Company from the late 1850s on land owned by James Farmer (Fig. 1).

<p style="text-align: center;">Coal Mines.</p> <p>WANTED—Two Practical Miners to open and work the Opaheki Coal Seams on Mr. Farmer’s land known as the Waihoihoi.</p> <p style="text-align: right;">Apply to Mr. R. TURNBULL, One Tree Hill.</p> <p>September 24, 1858.</p>	<p style="text-align: center;">DRURY COAL FIELDS.</p> <p>THE COAL MINE at Waihoihoi, having now been opened sufficient to prove the value of the Coal, as well as its superior quality for Steam and Domestic purposes, the undersigned are prepared to receive Tenders until WEDNESDAY, 24th instant, leasing the same for a period of Six Months upon a royalty.</p> <p style="text-align: right;">TURNBULL & FARMER, Care of MESSRS. BROWN & CAMPBELL</p> <p>November 11. 1858.</p>
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Figure 1. *New Zealander* 25 September 1858:2; *Daily Southern Cross* 23 November 1858:1.

A short self-acting tramway ¼ mile long was used to extract the coal from the mine. Initially the coal was transferred by bullock teams to the Drury wharf to be shipped by sea to the company’s coal wharf at Onehunga. From there it was transported by horse and cart to the town of Auckland. This method proved unsatisfactory due to the swampy nature of the ground, and by 1860 plans were being made to extend the tramway by an additional 2 miles to Abraham’s Point near the mouth of Slippery Creek (*New Zealander* 11 January

¹ Aka Waihoihohi. While the Waihoehoe Stream and locality is located further north on land that was owned by Henry Chamberlin (see SO 200; Deeds Roll 64), the range of hills appears to have been known as the Waihoihoi Range. Kear (1959:849) shows the 1850s-60s Waihoihoi and later Drury mines as being close together on land that was owned by Farmer, in the vicinity of what is now Macwhinney Drive. It is unclear if coal was worked on the Chamberlin property.

1860:3). A brickworks and pottery were also being planned to take advantage of the cheap fuel and good quality fire clay associated with the coal.

The entire length of the line is $3\frac{1}{4}$ miles. The gauge is 4 feet $8\frac{1}{2}$ inches, and the rails are of rimu, which is a timber admirably suited for this purpose. In the construction of this tramway 105,000 feet of sawn timber has been used; besides which the following go to make up the total of the materials, and will give some idea of the magnitude of the work:—

45,000 sleepers of puriri, rata, and mati;
 6,000 puriri trenails;
 20,000 feet squared timber for viaducts, &c.;
 4,000 split slabs for covering ditto;
 200 short and 40 long puriri piles;
 2 tons nails and spikes;
 2 tons iron fixings.

There are about 1,000 feet in length of bridges and viaducts, which is occasioned by the swampy nature of the ground. Upwards of 3,000 yards of earth cuttings have been executed, and 10 miles of drains formed.

At present the rolling stock consists of eight trucks, each carrying $1\frac{1}{2}$ ton coal, but these will be increased as the business requires extension. Mr. Vickery, of Auckland, did the castings for these trucks; Mr. Young, of Diury, supplying the remaining iron work. The works on the tramway were let in sub-sections, the whole being carried out in a most creditable manner under the direction of Mr. Thomas Hyde, the manager, whose practical talents are well attested by the stability and completeness of the line. This tramway cost the company about £400 a mile; and will be worked by horse power. Owing to the incline from the mouth of the pit, which is a drive into the side of the hill, the trucks laden with coal will run half the distance to Slippery Creek most easily, so that the horse labour will not be so much as at first sight may appear. The cost of car-

Fig. 2. Description of the tramway. (*Daily Southern Cross* 6 May 1862:4).

The route for the tramway, designed by civil engineer James Stewart, had been marked out by June 1860 (*Daily Southern Cross* 28 June 1860:1). The tramway was finally opened on 1 May 1862, construction having been delayed for six months by adverse weather conditions (*Daily Southern Cross* 13 December 1861:3).

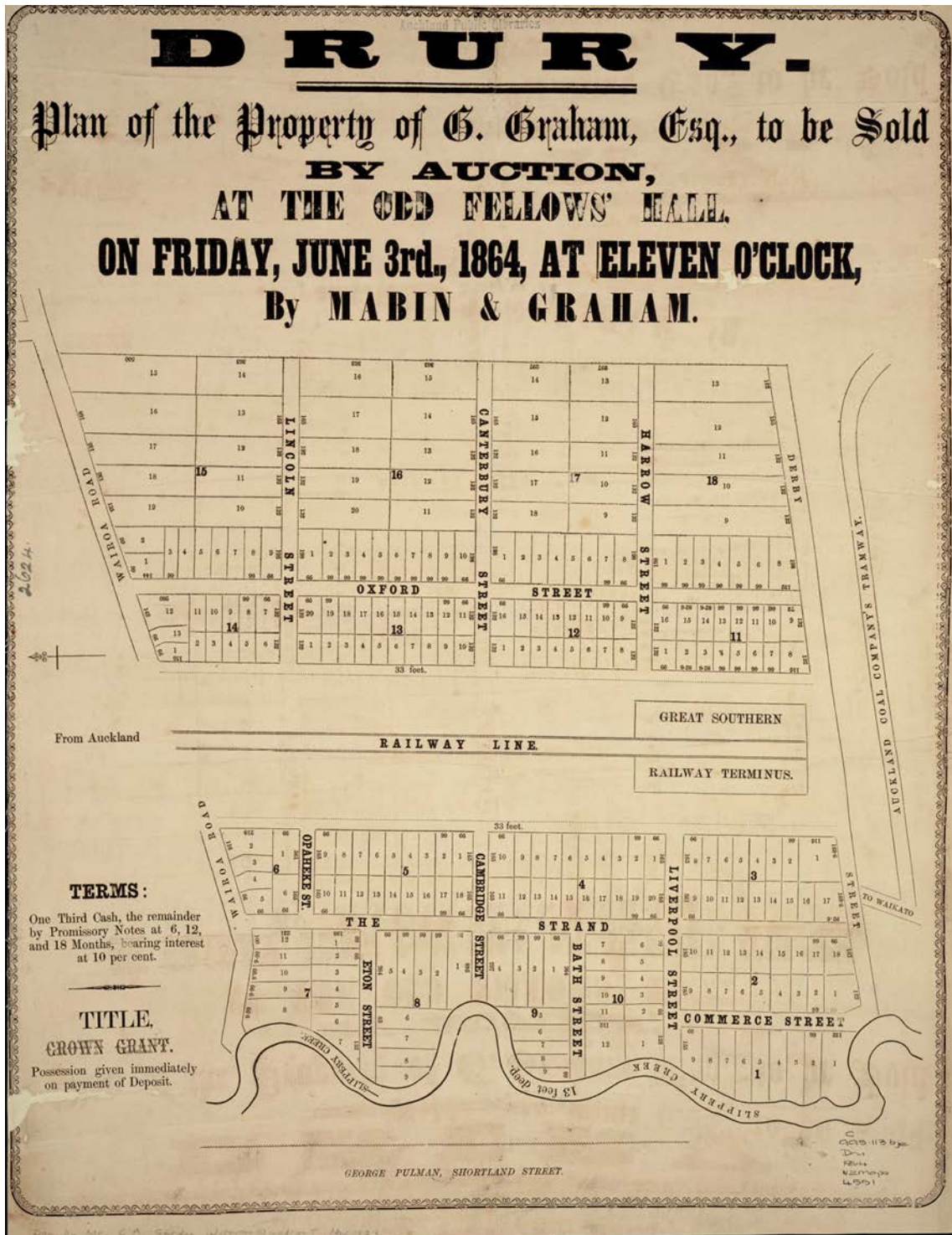


Figure 3. An 1864 plan showing the location of the tramway (right side of image) near Slippy Creek. NZ Map 4551.

The single line horse-drawn tramway was built upon an embankment of shale tailings from the mine. The sleepers were made from locally cut puriri, and the rails of 5" square rimu. Provision was made for the passing of return wagons. The cost to build the tramway was £1500, considerably less than had been estimated (*New Zealander* 5 July 1862:4).

The mine was found to be uneconomical due to transport costs, the poor returns from the sale of the low quality sub-bituminous brown coal and the nature of the deposit². The operation lasted less than a year in full production, and finally closed during the Land Wars (*New Zealand Herald* 18 April 1904:6).



Figure 4. Location of Waihoihoi Coal Company terminal and wharf on Slippery Creek.

3.2 Auckland-Drury railway

In 1864 the Provincial Government authorised the construction of a railway from Auckland to Drury (*The Colonist* 12 February 1864:5). Construction commenced in 1865, but was halted again in 1867 when the Provincial Government ran out of money (Ball 2009; La Roche 2012). The project was resurrected in 1870 and by 1874 the main line had reached Drury. The availability of this rail connection would influence subsequent changes to the route of the tramway/railway from the mine.

3.3 Second phase – 1904>

In 1904-5 a new syndicate, the Drury Coal Company, opened a coal mine and built a new

² The coal seam was only 2m thick with an uneven floor and was quickly worked out.

'mineral railway'. The mine appears to have in close proximity to the ca 1859-64 coal mine and they appear to have upgraded and modified the existing tramway route to create the new railway. The railway terminated at Drury station rather than at Slippery Creek (Fig.5). The availability of substantial quantities of fireclay associated with the coal lead to the development of a pottery and brickworks which opened on 12 October 1906, using the coal to fire the kilns (*New Zealand Herald* 13 October 1906:6). The company was renamed the Drury Fireclay, Brick and Potteries Limited.

Demand for the company's products had increased to the extent that expansion of the works was necessary in 1906 and in 1908, and the 'mineral railway' was upgraded to the government railway gauge so that ordinary railway trucks could be used to deliver the firm's products directly via a private siding without being transferred (*New Zealand Herald* 4 December 1906:3; *Auckland Star* 20 August 1908:7). Problems were experienced with obtaining an adequate water supply, necessitating the construction of a new pipeline in 1908 (*Auckland Star* 21 February 1908:6).

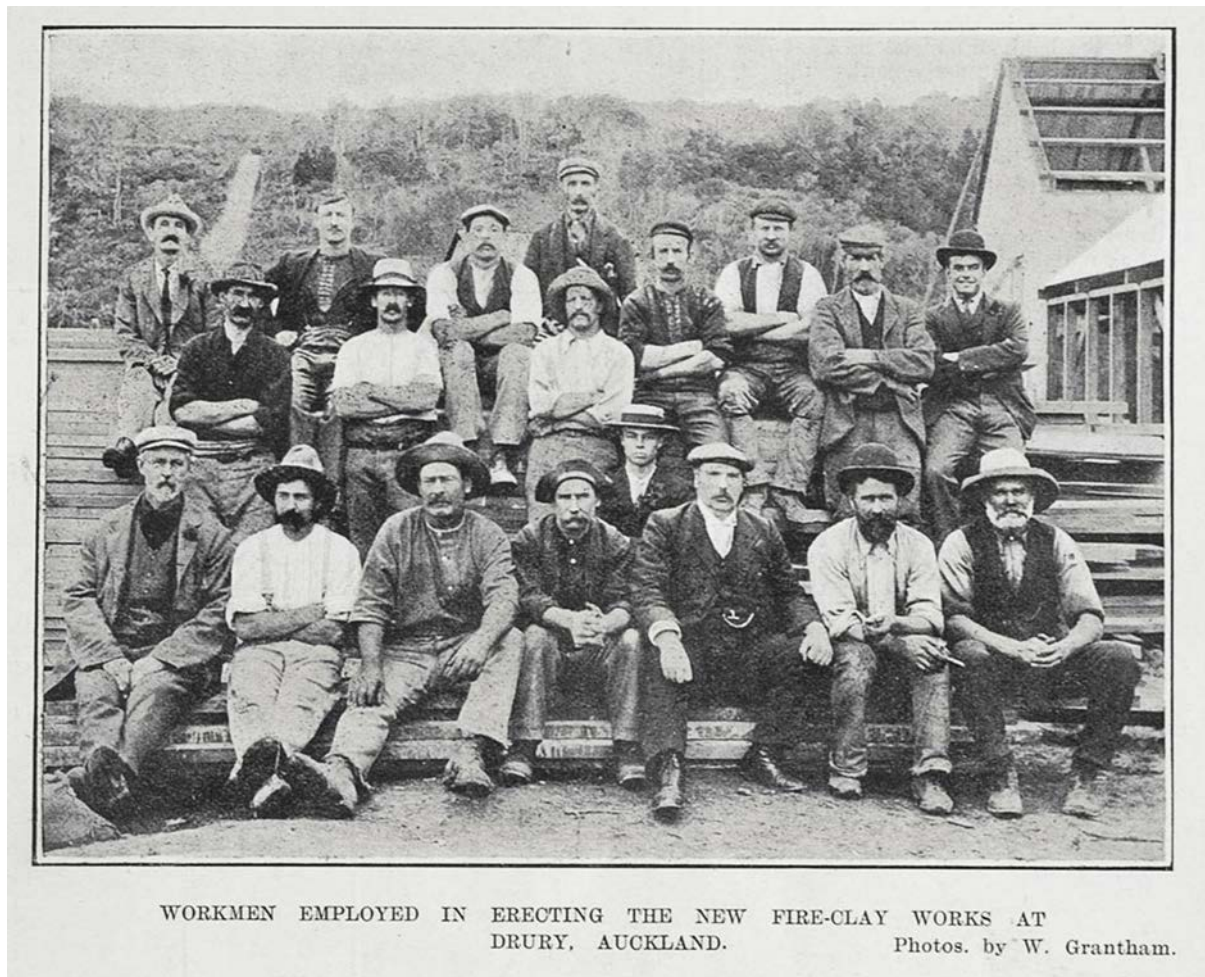


Figure 5. Photograph taken during construction of the new works, with the tramway route to the mine visible in the background.



Figure 6. Transporting ballast material to construct the new railway line, 1905.

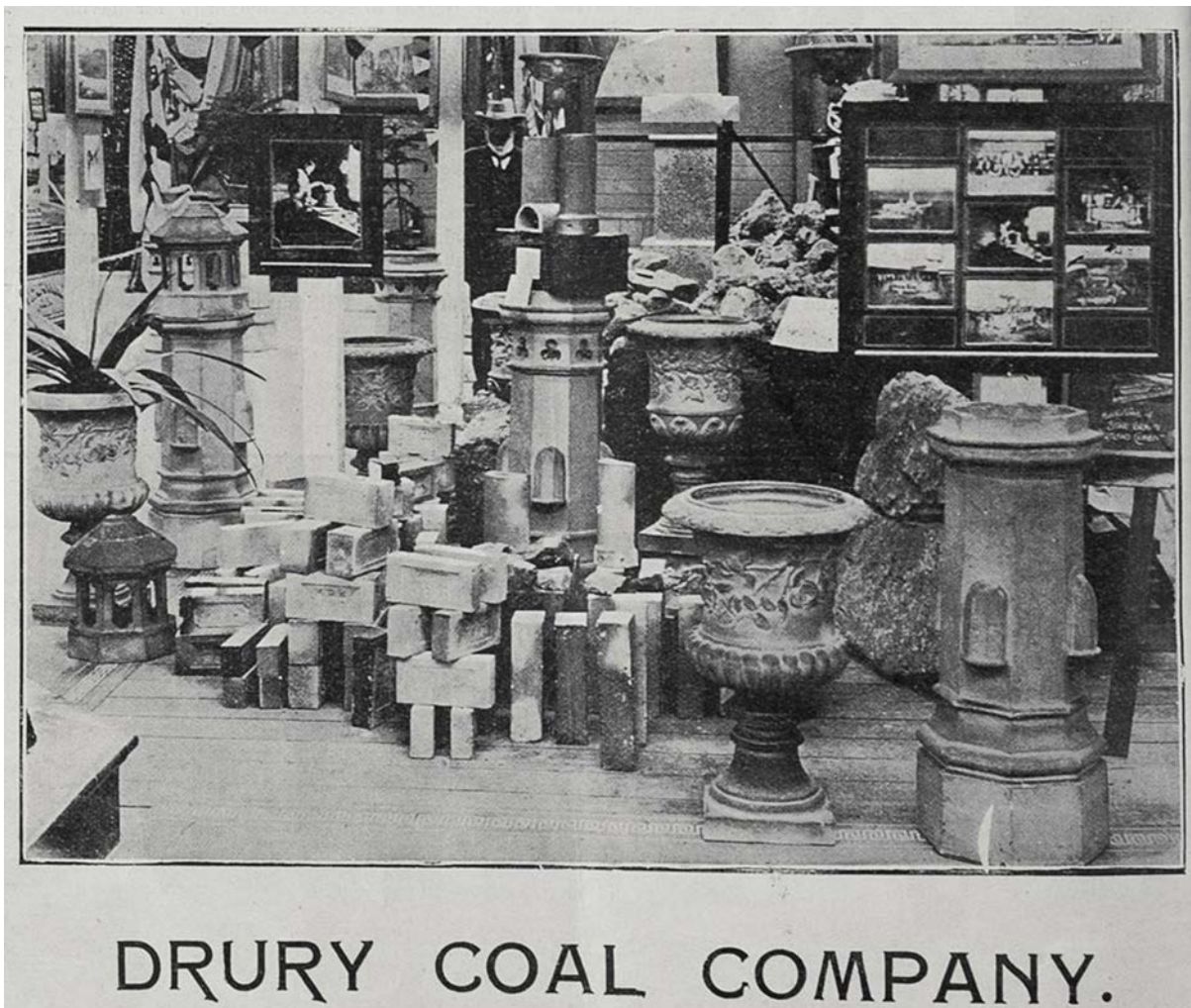


Figure 7. Exhibition stand showing the range of products produced at the works.

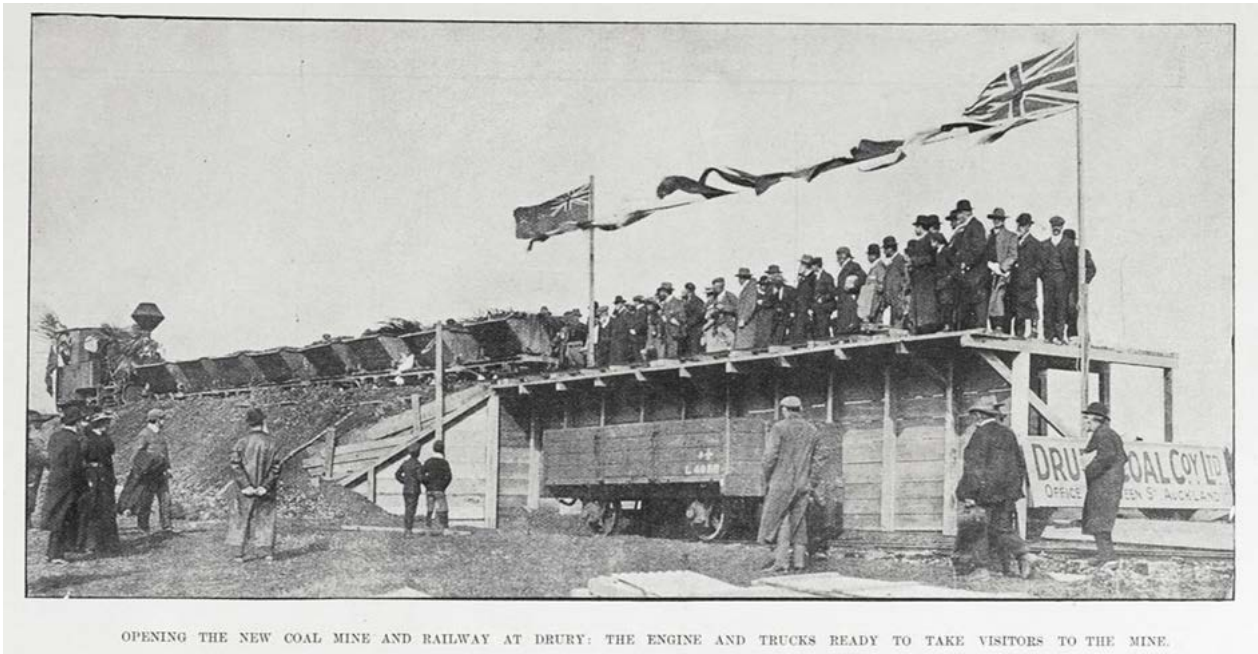


Figure 8. Termination of the new railway near Drury Station.



Figure 9. The branch line to the mineral railway, 1905.

3.4 Decline and eventual closure of the works

The venture was not a financial success. The company went into liquidation to shed liabilities, only to be reformed again under the same name. By 1912³ the company was again in trouble, and was liquidated yet again in 1913 (*New Zealand Herald* 29 August 1913:12) and the assets advertised for sale in 1914. The works were reopened under the new name Drury Brick and Tile Company in 1915 (*Pukekohe & Waiuku Times* 18 June 1915:3). The works were for sale again as a going concern in 1917 (*New Zealand Herald* 10 February 1917:2 and again in 1921 (Fig.10).

**THE WHOLE OF THE BUILDINGS,
BRICKS AND SUNDRIES
OF the
DRURY BRICK CO.,
Two Miles from Drury Station.**

**The Buildings are of wood and iron,
covering an area of 180 by 130; also 5 small
buildings (wood and iron).
The quantity of Bricks is estimated at
250,000, including a percentage of fire bricks.**

**For further particulars apply to
A. W. BRYANT,
2. Waitemata Chambers,
Customs Street West.**

Figure 10. Advertisement from the *New Zealand Herald* 8 January 1921:2.

By April of that year the sheds and kilns were being demolished, reportedly to be re-erected in Devonport for the Auckland Gas Company (*Pukekohe & Waiuku Times* 1 April 1921:5)⁴. Quantities of brick seconds and brickbats were subsequently advertised for use as paving around cowsheds.

Another company known as Drury Potteries Limited had been formed in 1927, but this firm also went into liquidation, in 1928 (*New Zealand Herald* 13 July 1927:9; *Auckland Star* 13

³ One source suggests that the company's coal mine was closed down in 1911, but the pottery works remained in operation until 1915. The 'Drury Brick, Tile and Coal Company' was said to be in liquidation in 1911 (*New Zealand Herald* 12 May 1911:7), but it is unclear what the relationship was between the various companies. 'Drury Brick' continued to trade on the share market until 1912.

⁴ Diamond (1978:11) states that the Amalgamated Brick and Pipe Company of New Lynn purchased the works in or around 1929 and sold off the machinery. This date appears to be incorrect.

December 1928:28). It is unclear if they were involved with the site near Macwhinney Drive. Diamond (1978:11) states that a brickworks was started around 1936 on a site near the concrete bridge on the Great South Road using clay from the old works above Drury Hill Road. There are enigmatic reports of a case in 1932 brought against the former directors of the Drury Brick and Tile Company. The directors were subject to unsuccessful litigation over the quality of its bricks supplied in 1930 (*Auckland Star* 30 September 1932:3). This suggests that this company may have been operating from a different site at this time – perhaps that referred to by Diamond.

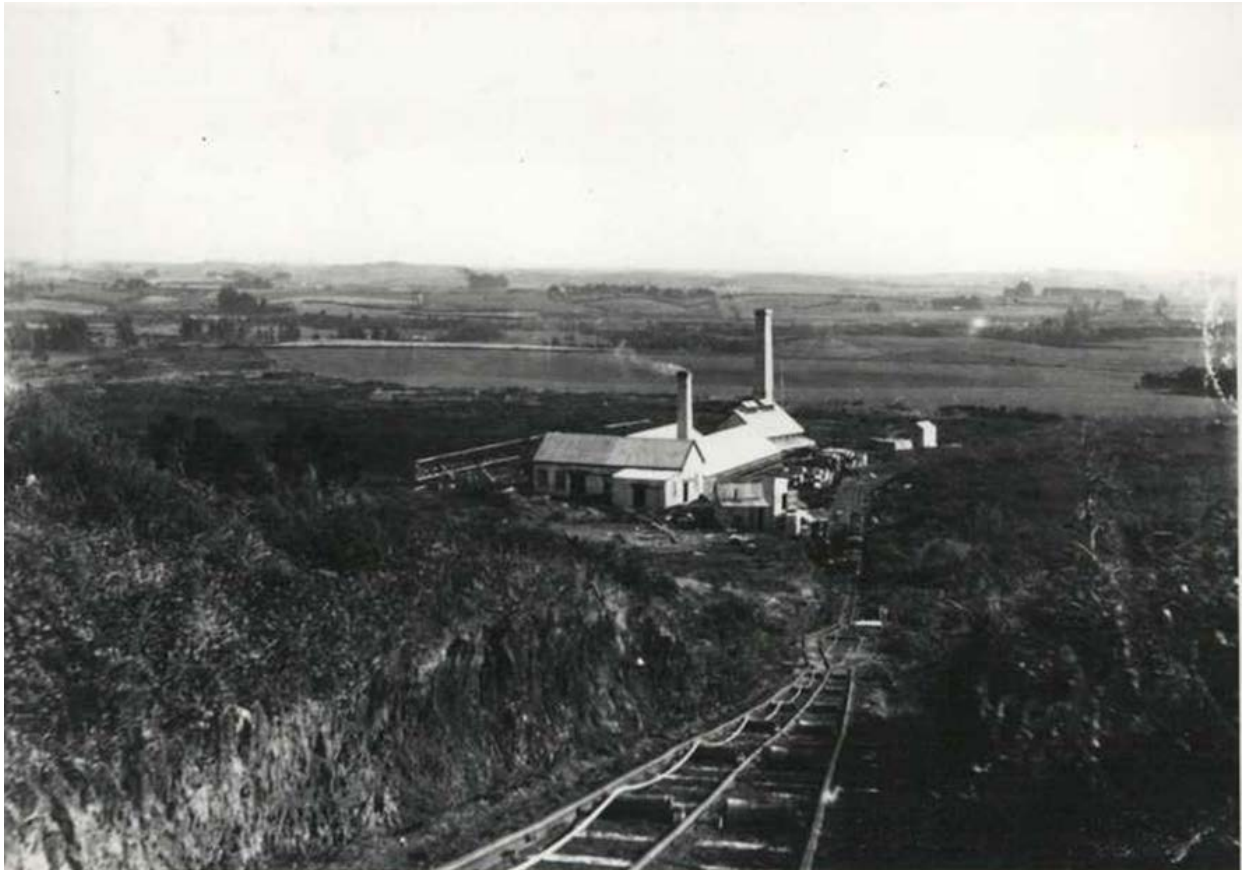


Figure 11. View of brickworks/pottery and tramway in 1906 (ref).

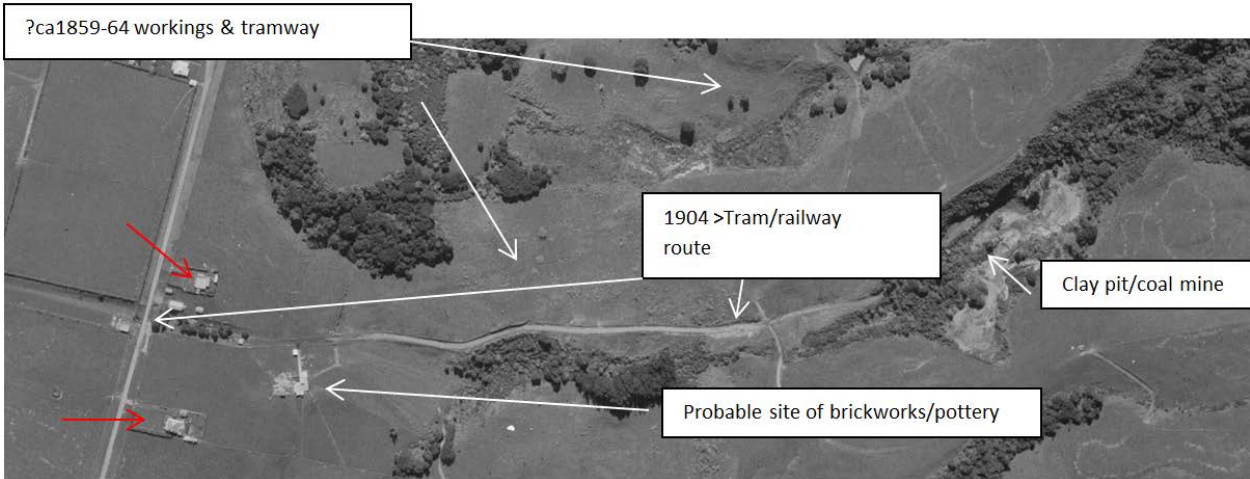


Figure 12. Site of the 1904> clay pit/coal workings (disturbed ground), tramway and works. The tramway route crosses what is now Drury Hills Road. The house in the lower left corner of the picture (red arrow) is thought to be a manager's house and is still intact. The one north of the tramway is substantially modified. What appear to be the earlier mine and tramway route are visible just to the north. SN 1929B/22 (1960).

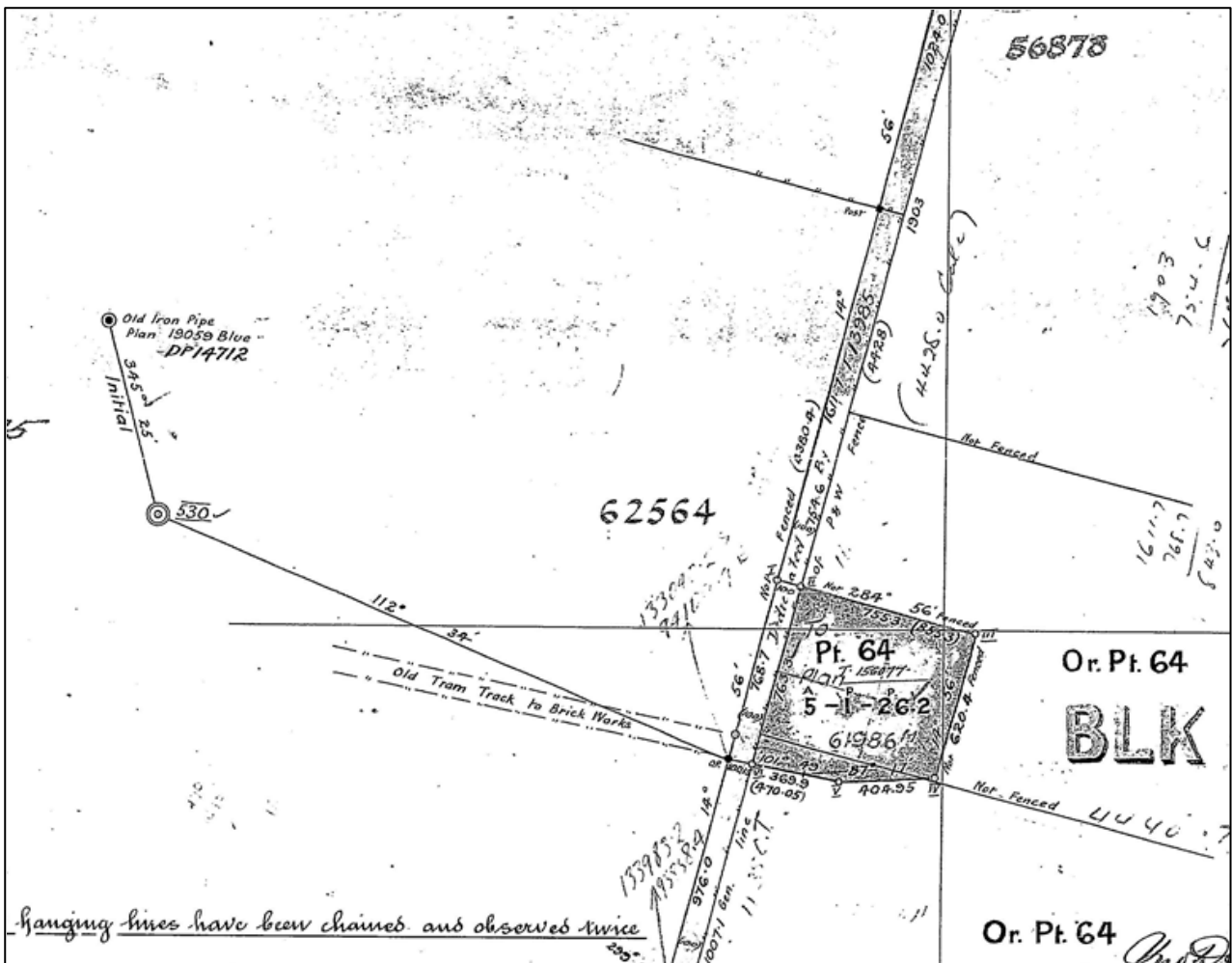


Figure 13. Sectional view of S0 14998 (1920) showing intersection of 'old tram track' with Drury Hills Road.

3.5 Summary of history

The phases of construction of the tram/railway are as follows:

1. Self-acting incline from mine. Bullock road to Slippery Creek wharf (1859-)
2. Horse-drawn tramway replaces bullock road (1862-)
3. Narrow gauge steam powered railway replaces tramway, terminates at old Drury station (1906-)
4. Railway upgraded to wider gauge and linked by private siding to main line (1908-)
5. Decline, closure and demolition (-1921).

4 Field inspection

An inspection was made of selected portions of the 1904 - tramline route that were accessible or visible from the public realm on 18 December 2017. Several places where the tramline is intersected by modern roads were viewed.

Although the route can be traced on aerial photographs (Fig. 14), the tramline route is generally not readily recognizable on the ground, except for small sections near the beginning (Figs. 12, 16) and end. The section between the mine pit and pottery/brickworks site has largely been formed as a road and sealed.

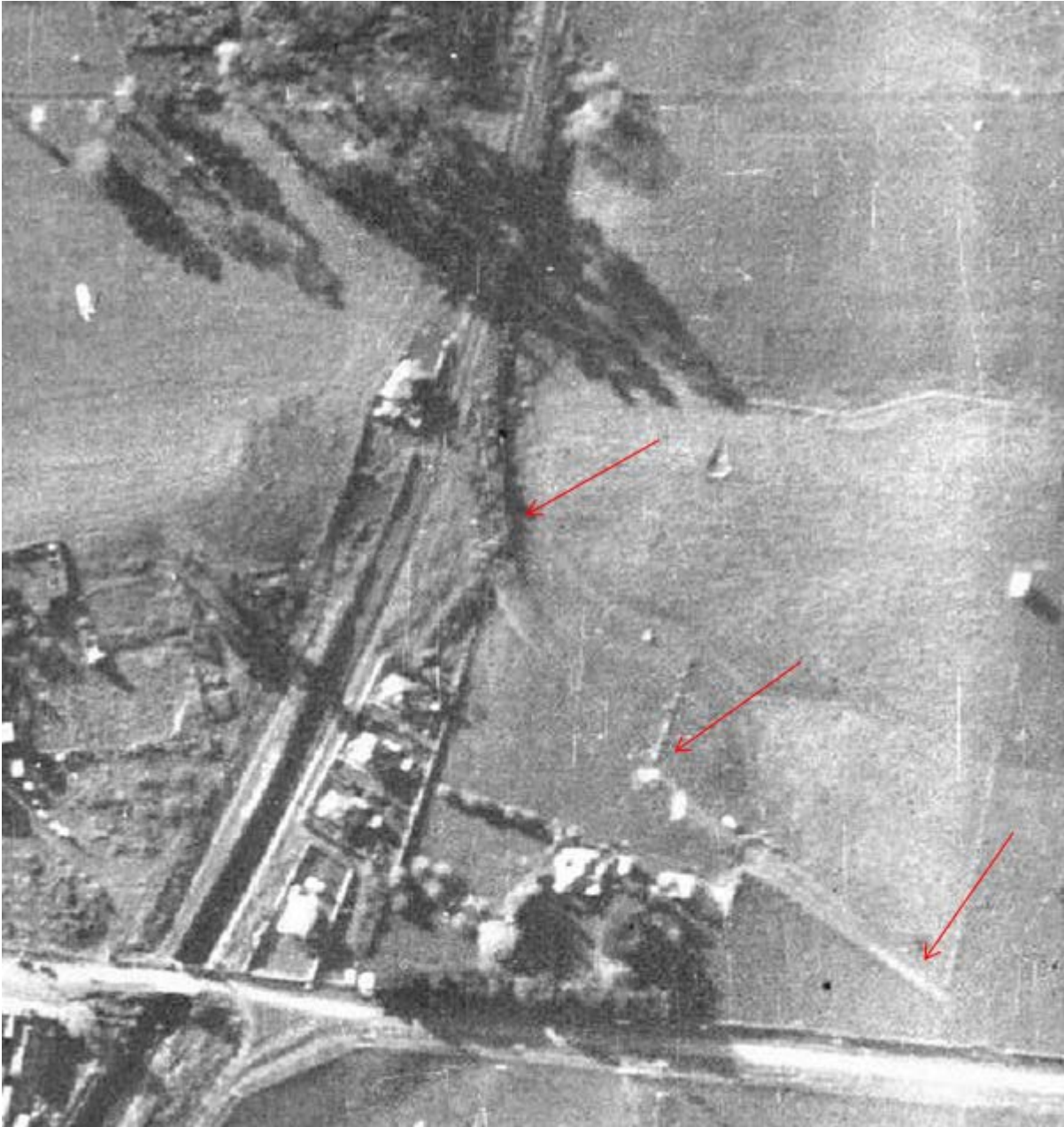


Figure 14. 1940s aerial photo showing the route of the railway where it connected with the main line.

The likely terminus and wharf remains of the 1859-64 tramway is located on Department of Conservation land at 27 Bremner Road, at the junction of Ngakoroa Stream and Slippery Creek. This was formerly known as Abraham's Point. It has been identified and scheduled as a Māori pā site (site R10_08, CHI 6860). However it is possible that some or all of the features formerly visible relate to the use of the wharf and tramway or later uses rather than being of Māori origin. In particular the feature recorded as a defensive ditch at the tramway terminal appears to bisect and thus post-date the tramway embankment (Figure 15). The recorded bank has planting along it in the 1942 aerial photograph. This suggests that it was fenced at the time. The possibility that it was constructed as a historic era ditch and bank stock enclosure (which were typically topped with hedgerows) should be considered.

The site is outside the structure plan area and is overgrown with gorse/weeds and was not accessed.



Figure 15. Traces of the 1859-64 tramway to the wharf at Abraham's Point are visible on this 1942 aerial photograph. The linear feature recorded as a ditch appears to bisect and thus post-date the tramway embankment. Shadows indicate that the feature recorded as a bank has planting along it.

A remnant portion of the tramway/railway embankment is visible at the eastern end just outside the structure plan area on where it intersects Drury Hills Road (Fig.16).

It is possible to identify the location of the 1904- clay/coal pit and tramway route, and what appears to be the 1859-coal workings and tramway route on early aerial photographs (Fig. 12). However these are outside the study area. The environment has been substantially modified and these features are no longer readily identifiable on the ground.



Figure 16. Remnant of the raised tramway/railway embankment where it intersects Drury Hills Road. In the background (at 93 Drury Hills Road) is the manager's house with chimney pots which appear to be products of the firm.

5 Conclusions and recommendations

The early mining and clay-based industries undoubtedly contributed significantly to the historical development of Drury. The tramway and railway were important components of these industries. There is however little physical evidence that is discernible on the ground of the Drury industrial tramway/railway within the Drury structure plan area.

The following recommendations are based on a brief inspection of places associated with the ceramics industry in and adjacent to the Drury South structure plan area:

1. The tramline/mineral railway route likely meets the criteria for inclusion in the heritage schedule based on the historical significance criterion. However evaluation for scheduling is not recommended because the route is almost 4 km long, and passes through multiple properties. Scheduling would not, in my opinion, provide reasonable use of the land.

2. While the tramway/railway route can be identified from historical records, I do not consider that it is well suited to public interpretation or use as a public walkway/ cycle way/bridle path. It is almost entirely on privately owned land and it is unclear how public access through those properties could be obtained. Furthermore, although the route has historic significance, it would appear to have little practical/utility or scenic value.
3. The former manager's house (and outbuilding) at 93 Drury Hills Road appears to be substantially intact. Although just outside the study area, it is the most clearly identifiable reminder and most intact element of this locally important industry. Consideration should be given to evaluating the property for potential inclusion in the AUP Schedule of Historic Heritage.
4. There are elements of the industrial complex within the council owned Macwhinney Reserve, which is located close to the site of the 1904-works and pit, and includes part of the tramway route. Although these are not readily recognizable, they could potentially be interpreted using archival photographs. At present the reserve appears to receive very little public use, and installation of interpretive material would not, in my opinion, be justified. However this situation may change in the future.
5. Opportunities to reference the history of the study area using place names or in the design or alignment of infrastructure (where practicable) should be considered.
6. This study has identified the location of the tramway and coal pit associated with the 1859- mine, and of features associated with the subsequent clay industry. This information will be recorded in ArchSite and the Auckland Council CHI. Effects on pre-1900 sites and features arising from future development can be managed under the archaeological provisions of the Heritage New Zealand Pouhere Taonga Act.

6 References

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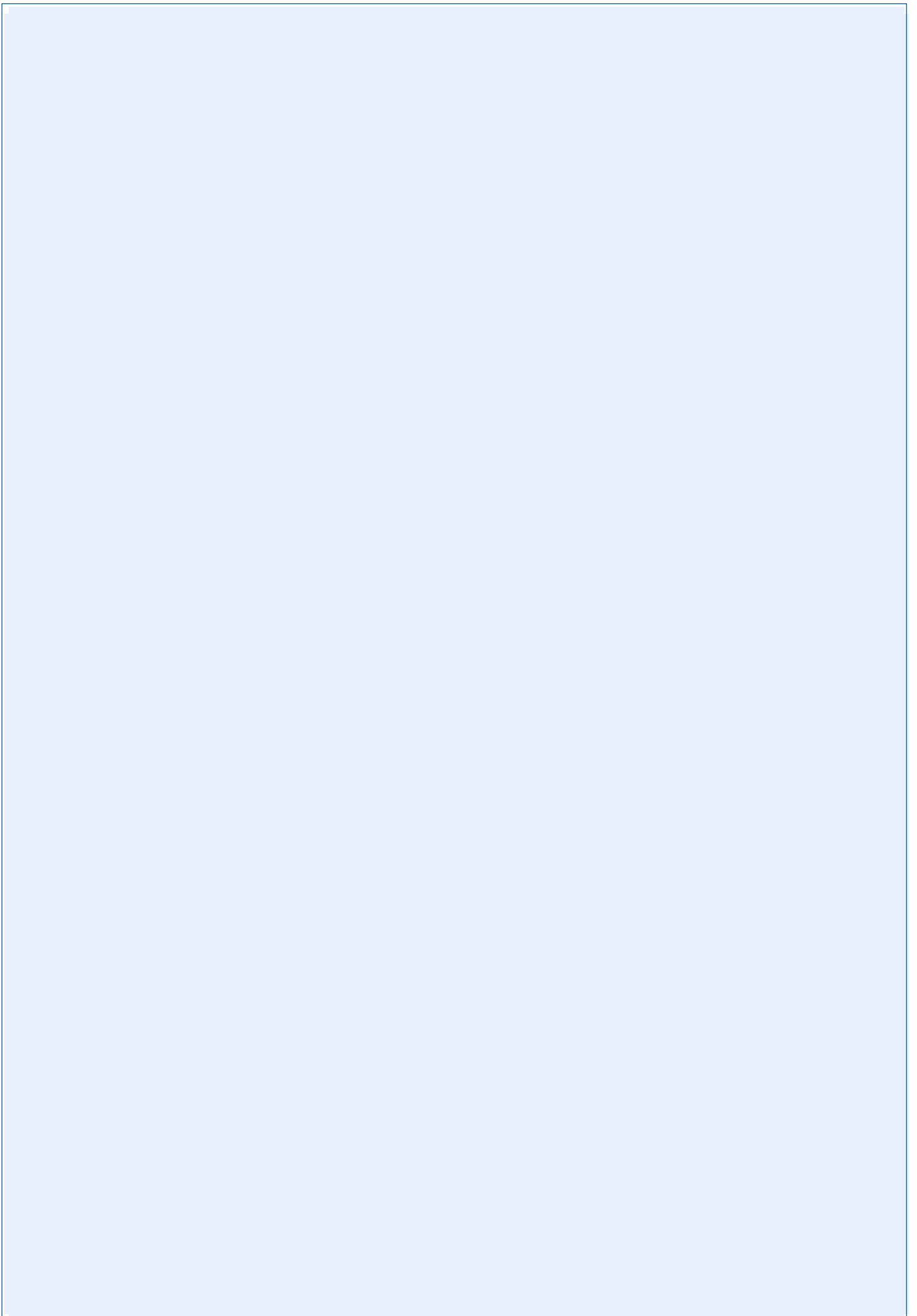
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Newspapers – full references are in body of text



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