

Excerpts from:

Tour of Cox's Road to Bathurst on May 23rd, 1965

compiled by E. J. McKenzie. [New South Wales]

Macquarie Regional Council of Historical Societies, 1965. (copyright)

Available from: Mitchell Library: Call No: Q388.1209944/10

Location of Cox's Road - Overview

Cox's Road began on the east bank of the Nepean River opposite Emu Island, where the river was relatively narrow and stoney (see Precinct 1). By the time McBrien surveyed the road, a ferry had been established (1823) south of the ford, of which Old Ferry Road at Penrith and Punt Road at Emu Plains are remnants (see Precincts 2 and 3). Cox's Road then swung to the south-west, running parallel to the river and passed Sir John Jamison's house on the opposite side - this area of the road is built over. It crossed two creeks, Knapsack Gully Creek, around the north west side of Hollier Reserve, Emu Plain, and an unnamed creek in present day Leonay Golf Course, where the road began to ascend to the ridge of Lapstone Hill. It followed the slope along a great curve towards Glenbrook Lagoon, with a deep bend south of the present R.A.A.F. base. Although the road here was extant in 1863, before the railway construction, no trace has been found of it (see Appendix.6). Cox's road and the two succeeding ascents, the 1826 zig-zag and Mitchell's Pass rejoined at the site of the Pilgrim Inn, now Blaxland, and the old line followed part of the present day Wilson Way there (Associated Sites 2 and 3).

The old road from around Blaxland to Springwood follows the line of the Great Western Highway fairly closely, although there are several points where it appears to have been adopted and upgraded as local roads - for example, Foster Road at Valley Heights and Macquarie Road at Springwood (see Whitton's 1863 Railway Survey). Between Faulconbridge and Linden the old road began to cross the rocky points of the ridge and here the first extant examples of the low cuttings/kerbs occur (see Precinct 4), as well as the rutted rocky platforms which formed the

pavement. The configuration of later roads also survives at Martin Place and near the Linden Trig. Station, although the cuttings appear to be post 1860's.

The Linden-Woodford area features extensive precincts of Cox's Road cut through rock, as well as several associated sites of the later period (see Precincts 5-8 and Associated Sites 4- 6). Tollgate Drive and Railway Parade were probably part of the 1835 direction of this section (see 1863 Railway Survey) and the two early roads intersect with the present Great Western Highway at the east end of Bulls Camp Reserve at Woodford.

While the present day highway crosses and re-crosses the railway around the "Woodford bends", Cox's road runs along the rocky ridge above, joining present day Taylor Road. Another intact section (Precinct 8) occurs off Appian Way at Woodford, wedged between two deep railway cuttings.

At Bullaburra/Lawson further investigation may reveal more sections of Cox's Road in the steep area around Mt. Bodington. McBrien shows the road skirting around this mountain, and it possibly coincides with part of Tableland Road. There was a report in 1913 by Frank Walker of extant cuttings and drains 2-3 miles (3.2-4.8 km) north of Lawson on the south side. A section of road is still known as Old Bathurst Road, near-, Wentworth Falls, but no early features were located there. The road from Caley's Repulse (Precinct 6) towards Mt. Bodington still has views of the grand expanse of Kings Tableland as seen by nineteenth century travellers.

While the present day Great Western Highway runs directly ' west at Wentworth Falls, Cox's Road followed the Evans' traverse in the loop along Blaxland Road, presumably to avoid crossing Jamison Creek. There Cox built the second depot, the Weatherboard Hut (Associated Site 7) which gave the area its original name. The more substantial Weatherboard Inn was built nearby c1830 and the road appears, by then, to have been aligned along present day Sinclair Crescent. Finally Thomas

Mitchell selected the present route in 1845.

From Wentworth Falls through Leura to Katoomba, Cox's line appears mainly to coincide with the Highway, and has therefore vanished. After following the present day bends beyond Katoomba, Cox's Road ascended Pulpit Hill (Precinct 9) but this steep and difficult section had been cut off by 1822. Between this point and Medlow Bath, McBrien's traverse shows the road weaving to and fro over the parallel road/railway lines. As this area is relatively undeveloped, it is possible that there are further remnants of the road, although field examination has so far yielded nothing definite (see Photo 150). Just beyond Medlow Bath, short sections of Cox's Road survive as part of a network of later earthen tracks. Two curious deep pits in its vicinity remain unexplained but appear unlikely to be related to Cox's work. (Appendix 6, Photo 151).

The old road wound through present day Blackheath and was regularised as part of the Highway after 1862. At Mt. Boyce the presumed line of Cox's Road has been upgraded in the Soldiers Pinch section (see Precinct 10) which was cut off by the new highway by 1862, and interrupted at the bottom of the slope by the railway, which now separates it from the Fairy Bower Precinct (Precinct 11) near Mt. Victoria.

The Mt. Victoria area was a turning point for the three major stages of the mountain crossings. Cox's Road continued further north-west towards Mt. York; Mitchell's 1830 line ran west over the gorge towards Hartley (Associated Site 12); the railway swung to the north through Mt. Victoria village towards Bell. Cox's Road ran more or less along the present day sealed Mt. York Road towards the termination of the ridge with its startling views of Hartley Vale below. Lawson's Long Alley and Lockyer's Road lead down the ridge before the original descent, Cox's Pass, at the end (Precinct 12, Associated Sites 10 and 11).

At the bottom of Cox's Pass the original route of Cox's Road is unrecorded, since by the time McBrien made his survey it had been realigned further north, to avoid the swampy ground. It is thought that Cox curved the road around the base of the hill and then cut across the flat valley floor, joining the Hartley Vale Road via "Venice Park" and "Glenrock" towards the Great Western Highway (see also Associated Sites 14 and 15). From here the early road, like many sections further on, has been adapted and used as an earthen farm track. Cox followed a 3-mile ridge down to the first river-crossings, the River Lett and Cox's River (Precinct 13). The road then ascended steeply and began the crossing of Clarence's Hilly Range, high mountainous sparsely timbered country which is part of the Great Dividing Range. A modern farm track leading from Lithgow Road to the Mt. Blaxland property approximates the location of Cox's Road, swinging to the south-west to begin the great climb of the ridge opposite Mt. Blaxland (which was itself known as "Mt. Blaxland"). From here the road is for the main part well marked and is still a Crown Road (see Precinct 14) to the Karawatha property on Sodwalls Road. At this property the old road runs briefly along the Sodwalls Road to the north and then turns west along the vicinity of Cut Hill Road towards Pitts Corner (Precinct 15). Part of the original alignment has been recently upgraded to service a pine plantation.

Cox's Road (here also still a Crown Road) then runs along the farm road to "Clover Downs" and "Ambervale" towards the descent to the Fish River, the present day line following some of the later (c1826) alignment, clearly marked by the line of standing timber (see Precinct 16). At the Fish River near Phils Falls there are only vague signs of a crossing while the abrupt ascent on the opposite side to the summit of Fish River Hill was the last of the difficult obstacles on the road. It then crossed a tributary of the Fish River, following the general line of Phils Falls Road and later joining the line of Mt. Olive Road, a modern earthen surfaced road lined with trees. The creeks at Emu Valley and Snakes Valley were both forded (see Precinct 17). Sidmouth Valley still presents the lush green slopes which delighted early travellers fatigued by the journey over the difficult, windy range (Slides 18/1,

18/2). The road and bridge here have been realigned for the original location to the north (Precinct 18).

From Sidmouth Valley the road ran over undulating hills and open country along the line of Carlwood Road, and just before the junction with the O'Connell Road, McBrien noted the bearing of the "old road to Bathurst" running off in a westerly direction, while he continued to Bathurst along the new line via O'Connell.

From O'Connell Plains to the bridge at Campbells River the exact location of Cox's Road is still unknown. Detailed field surveys along the likely route may reveal faint traces of the road. A rough survey of the Bathurst district in 1823 by McBrien shows the location of Cox's Road from Campbell's River to Bathurst. [1] The crossing was on the north side of a bend in the river opposite the "Bidgeribbin" property, though physical remains appear to have been obliterated by silting and flooding. It appears that the line then followed the Orton Park-Lagoon Road, crossing undulating, open country and entering Bathurst via Gormans Hill Road and Gormans Hill. The flagpole near the old Government House at Bathurst marked the end of the road, the beginning of the town's development, and the central point for later surveys.

Formation - Excavation and Embankment

The achievement of a manageable gradient involved the two basic operations of cutting the natural surface down and/or filling over the surface to level and raise it to the required height, as circumstances dictated (see Fig. 22). Wherever the natural terrain sloped from one side of the alignment to the other, the lower side was embanked and/or the higher side was cut down, with the material from the cutting usually forming the embankment. [41] Cox traced his road to avoid construction as far as possible. The steep narrow and winding line which resulted was considered adequate for the purpose of this first road.

Often, though, the rugged topography demanded considerable attention. On major ascents and descents (Lapstone Hill, Bluff Bridge at Linden, Mt. York, Mt. Blaxland

area) Cox was forced to align the road along the mountain side involving side cutting and embanking on the still-steep ascents. At particularly steep slopes such as those near the bottom of Mt. York and on the mountain near Mt. Blaxland, (remade c1826) zig zags were cut back and forth across the face of the slope with cuttings up to approximately 1-1.5 m deep and embankments up to about 2-3 m in height. The comparison between Cox's zig-zag off Mt. York and the c1825 improved zig-zag at Mt. Blaxland highlights the progress in road building made over 10 years - see Precincts 12 and 14.

When he encountered sheer rocky bluffs he overcame these by building timber ramps or "bridges". On lesser slopes his line simply descended in a straight line, sometimes at perilous gradients. On the ridge-tops minor irregularities were often levelled by slight embanking (sometimes with low, rough retaining walls) up to approximately 60cm or by earth and stone cuttings on one or both sides. The Appian Way Precinct (No. 8) illustrates the road as it would have been made over a stepped rock platform - the benches are covered over by a ramp of earth (see Photo 35).

The sections of Cox's Road at Linden and Woodford (see Precincts 6 and 7) together with the Mt. York Precinct are the best known parts of the early road, since the archaeological "imprint" in the stone is much clearer there than on the earthen precincts which are far more overgrown and eroded. On these rocky reaches the gang used pickaxes, sledgehammers, wedges and mallets and evidently pointed chisels or gads (see Appendix 4) both to make and mark the way. Cuttings up to approximately 1m high, but usually less, have irregular faces scored with gouges and pits, while the low "kerbs" typical of Cox's work are only around 10cm high (30cm at most) and finished neatly with thin more regular chisel marks. These latter features serve little practical purpose except as slight drainage, but they marked the edge of the road for the guidance of travellers in these wild, barren and isolated expanses.

At Linden, Cox considered the 320ft (97.6m) approach to his Bluff Bridge to be

quite sophisticated, as it was cut through rock on one side and embanked with a 100 foot (30.5m) long retaining wall on the other (see discussion, Linden Trig. Precinct). On Mt. York immense quantities of stone had to be smashed, blasted, levered or hauled by block and tackle out of the line before the road could be made. Near the summit a narrow path was cut, curving around a great rock outcrop, while further down a precipice was spanned by another timber bridge/ramp. There, Cox cut ridges and sockets for its beams into a rock platform at the top.

The "complete sets of blasting tools" provided would have comprised jumpers or drills (metal bars - round, triangular or faceted) of different lengths, for drilling holes, possibly hammers for striking the jumper, a scraper for removing sludge and dust from the hole, a copper needle for leaving a space for gunpowder in the tamping, and a tamping bar for packing down the tamping over the charge (Figs. 20-21). The blasting process involved the traditional methods of:

... boring suitable holes in the rock to be dislodged ... inserting a charge of some explosive compound into lower portion of those holes ... filling up the remaining portions of the holes with suitable material [tamping - usually clay] and ... exploding the charge (firing). [42]

This simple process was used during the nineteenth century until drilling machines and electric detonators appeared in the 1870's. Although Cox's gang did use gunpowder to remove stone, particularly on Mt. York, no evidence of blasting shafts similar to the numerous examples in the 1830's cuttings of Lapstone Hill or the Great North Road were located. This suggests the relatively limited use of this method on Cox's road, and also that gunpowder was used to shatter and remove rocks from the line of road itself (leaving no trace) rather than on the cuttings, which were cut by hand.

Retaining Walls

Retaining walls were built to support and protect the artificial embankment of the road. Those built on colonial roads and into the early twentieth century were built of local stone, often dry-laid or with primitive mud mortar. From about 1826 they were built to support increasingly ambitious sections of road.

Cox's journal records only one instance of wall-building, a rubble wall "100 feet long" leading down to Bluff Bridge at Linden. It is thought that this was located below the present-day Linden Trig. Precinct (No. 5), and was destroyed by subsequent road and railway works. Cox did not mention further retaining walls, but the archaeological record indicates that several other low, rough sections were built.

In order to examine these remnants, the stonework typology devised for a recent study of the Great North Road which covered the wide range of styles and allowed accurate, simple identification, will be used in order to relate the extant stonework sections to one another and to the wider context of colonial work. The typology was based on the simple schemes outlined by nineteenth century writers who divided masonry into three categories; rubble, coursed and ashlar work. The disparate nature of colonial work required that each of these categories be subdivided according to the standard of dressing, jointing and coursing:

Type Ia: The most primitive standard of rubble work comprises field stones (sometimes boulders), possibly sorted into roughly similar sizes, and simply stacked. These walls flank slight embankments and are usually no more than 60cm in height.

Type 1b: This type comprises stones which are roughly faced or shaped with a stone axe or hammer and then stacked, with no attempt at coursing or jointing, though less haphazard than Type Ia.

Type 2a: The stones have been roughly squared with an axe or hammer and there are vague attempts at coursing and jointing.

Type 2b: Stones are better prepared allowing rough open jointing, and definite though inconsistent coursing. Sometimes the faces are tooled. This type can be employed in quite substantial walls.

Type 3a: These walls are rough approximations of ashlar work. The stones are evenly dressed, faced and matched, the coursing is consistent and of even height,

though not always level; the joints are fairly tight. The walls are battered and usually laid in consistent random bonding.

Type 3b: The most sophisticated style answering the description of ashlar work. The stones are dressed to given dimensions, forming a perfectly smooth face with tight bedding and perpendicular joints, and even and consistently horizontal courses. [43]

The sections of retaining walls located on the surviving precincts of Cox's Road fall into the Types Ia and Ib categories. This is consistent with the rapid, cheap and expedient manner in which the road was built, and is reinforced by a comparison with sections of later construction.

On present-day Taylor Road at Woodford (Woodford Trig. Precinct) two sections of early retaining wall lie under the road over hollows on the south side. It appears that those represent two construction periods - the earlier low, rough sections (Type 1b) below and later better constructed courses above (Type 2a) where the road was heightened and levelled (Photos 31-34).

Pavements

Cox's road was built over whatever material occurred naturally along the line; he was not concerned with constructing the dry and long-wearing pavement which obsessed his contemporaries in Britain, for it was accepted that "cart roads" were not paved. Thus embankments and cuttings were left with earthen surfaces (for example, Fairy Bower Precinct No. 11) with existing tree stumps and roots covered over. On the rocky ridges advantage was taken of the virtually imperishable pavement the rock platform provided (Woodford Trig., Caley's Repulse, Appian Way Precincts) although there were disadvantages, too, such as the slipperiness of the smooth rock faces for horses and bullocks hauling heavy loads and the frequent natural benches or "jumpers" which hindered travellers and their vehicles. Today these pavements often bear the marks of wheel ruts. Cox evidently thought that traffic would smooth the road over these rocky and uneven stretches - he wrote "the more the road is used, the better it will be". But the difficult rocky

platforms were among the first to have small unofficial diversions through the bush as the early cart-drivers sought to avoid the discomfort of crossing these areas.

Evidence on Mt. York and at the Mt. Blaxland Precinct shows that the original pavement may have had occasional sections of broken stone packing, but this appears to be more a result of the embankment fill than a conscious attempt at a stone pavement (Photos 88, 105).

Drainage

Road drainage, like pavements, was apparently of no great concern to Cox, although a few sections were given side drains. Examples of those have survived in the stone areas, while in the earthen cut and fill sections, such as the lower part of Mt. York, any side drain that may have been made has been completely filled in and obliterated, and no trace was found here of culverts.

On the rock platform sections, the right angle formed by the cutting or kerbs with the road pavement would have assisted in directing water off the road, and it is possible that the formed embankments were rounded up, a pre-industrial method, so that water would run off them. At Caley's Repulse Precinct and Woodford Trig. Precinct short, shallow races cut from stone at the base of the kerbs, are curved away from the road.
