

The Romans Roads in South Lanarkshire

The Romans came and went from Scotland. The first incursion into present-day Scotland by the Roman army was in about AD-80. In AD-82 the Roman army invaded southwest Scotland by marching overland from England as well as with a seaborne force landing on the Ayrshire coast. To hold onto the territory conquered, they built forts, including a chain of forts that crossed the country.

One Roman fort was 31km east of the mouth of the River Irvine, near the present-day Lanarkshire/Ayrshire border (Loudoun Hill). The second fort was 33km further to the east, on the bank of the River Clyde, east of present-day Lanark (Castledykes, near Carstairs). The next fort was 26km further east, on the Lyne Water, 2km from where it flows into the River Tweed, west of present-day Peebles. The next fort was 34km further east on the bank of the River Tweed, east of present-day Melrose (Trimontium, just outside of present-day Newstead). The mouth of the River Tweed is 48km northeast of Trimontium.

It has long been believed that this chain must have also included a port and fort near the mouth of the River Irvine and another near the mouth of the River Tweed, but those sites have not yet been identified.

The Roman army built two major roads north from England. The western route paralleled the present-day M74 motorway, went to their Castledykes fort and onward toward present-day Glasgow. The eastern route was beneath and parallel with the present-day A68 to Trimontium and onward toward present-day Edinburgh.

The Roman army also built a road to connect their east-west chain of forts. The route of that road has been explored and documented by a variety of people, beginning with General William Roy in the mid-1700s. Little has been found of the route from the mouth of the Irvine to Loudoun Hill. General Roy identified the route from the Avon Water east of Loudoun Hill to the Cander Water near present-day Blackwood. The route from the Cander Water across the River Nethan and across the north shoulder of Black Hill has not accumulated much supporting evidence since the time of General Roy. From the 1950s until the 1970s several searchers found evidence of the route from south of Kirkfieldbank, across the Clyde, through Lanark and up to Castledykes Fort. Eastward from Castledykes the Roman road is parallel to the present-day A721 and then largely beneath the present-day A72 to the Lyne Fort. From the Lyne Fort to Trimontium the Roman road has not been explored much but is presumed to be mostly covered by the A72. The line of any route between Trimontium and the mouth of the Tweed has yet to be discovered.

During several occupations of Scotland, the Romans did not find the land sufficiently useful to stay very long. It was less agriculturally productive than today and they seemingly found no minerals that they didn't have in plenty in milder climates. It seems that the Roman army invaded Scotland largely because the emperor in Rome needed to expand the size of his empire in order to enhance his imperial reputation.

Within five to ten years of their AD-82 conquest, it seems that the Roman army withdrew most of their garrison troops, abandoning all of the forts with the possible exception of Trimontium, which was apparently in an area of friendly natives. The army may have sent mobile patrols through southern Scotland but the troops were

based in England or at Trimontium. In the AD-120s the Romans expended a monumental effort to build Hadrian's Wall across the north of England.

Then about 20 years later, with a new emperor in Rome who needed some glory from conquest, the Roman army again invaded Scotland in AD-142. This time they established their frontier across the Clyde-to-Forth isthmus and built the Antonine Wall, from west of present-day Glasgow to east of present-day Falkirk. They seem to have recommissioned many of their 60-year-old Scottish forts. They no doubt set out to repair the 60-year-old road network as well. It seems that some sections of past roads were rebuilt on a different alignment. And, since the centre of activity was now the construction and garrisoning of the Antonine Wall, it appears that the changed traffic needs motivated them to build some new routes during the AD-140s.

With the above background, the author of this article researched, during the 2005 to 2007 period, a road seemingly built by the Roman army to provide a shorter route from the existing road from Loudoun Hill and the Ayrshire coast to the central portion of the Antonine Wall. This recent search found evidence of a 13km road from the long-known Roman road south of present-day Stonehouse, across the River Clyde to a Roman road junction east-northeast of present-day Carluke.

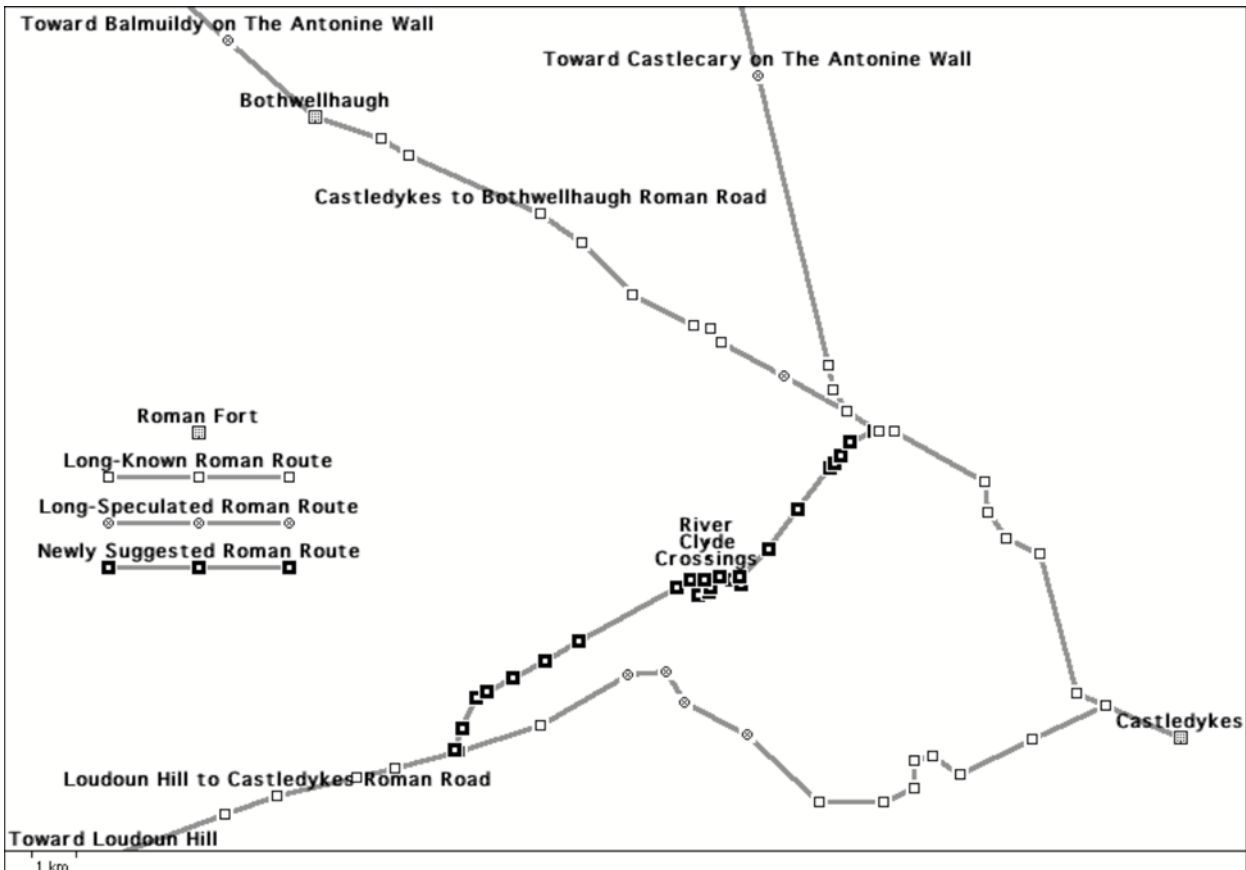
The new route began west of the Cander Water, perhaps because flooding during their 50-year absence destroyed the crossing (bridge or ford) built during the first Roman occupation.

Several types of evidence have been found during the recent research. At a number of points along the route there are apparent hillside cuts to allow a constant-gradient descent to a stream. These suggest that the road was designed for heavily laden carts and wagons. Also there are straight field boundary hedges for substantial stretches. In addition, two burns have sharp changes of flow direction that could have resulted from stone culverts constructed so that the burn flowed beneath the road.

When stone quarrying was possible locally, the Romans built important roads with a layer of heavy stones covered with a layer of gravel, and cambered so that rainwater would flow away. So the recent searching used a thin steel rod to probe the soil for such bottoming stones. The probing was extended beyond the sides of the route to confirm that stones occurring naturally were far less in density. This soil probing method was appropriate to the route explored because, unlike many Roman routes, a modern road did not overlay much of the route.

The recently discovered route seems to branch off from the Loudoun Hill to Castledykes Roman road first identified by General Roy south of present-day Stonehouse, at a spot 1.2km east-northeast of Dykehead Road. The site of this Roman fork in the road was perhaps chosen to avoid the ravine that opens out just to the northwest. The newly discovered road initially heads off in a north-northeasterly direction. The apparent fork in the long-known Roman road is extremely difficult to identify today because of the abandoned route from Couplaw Farm to Tanhill Farm that crosses the same area at a slightly different angle.

That spot does not look today like it would have looked in Roman times. The poor drainage now evident was most likely caused by the hedges and stone walls built in recent centuries to enclose the various fields.



About 500m north-northeast of the suspected fork in the Roman road there is a cluster of evidence near the small (seemingly nameless) burn southeast of the Castlehill ruined farmstead. South of the burn there is a cleft in the hillside that may have been a cut so that a road could descend to the stream on a constant gradient. There is an abrupt shift in the flow direction of the burn that may have resulted from a culvert constructed beneath the ancient road. Across the burn, probing the soil revealed apparent bottoming stones beneath the present-day field.

After the route has seemingly shifted to the east-northeast, there is another cluster of evidence on the slope down to the Cander Water north of Spittal House. Just north of the hedge line, apparent bottoming stones were detected by probing the soil at two locations. Ignoring the nineteenth century railway embankment, the gradient of the slope down to the Cander is constant, suitable for descending heavy carts and wagons. To the east of the Cander, the ascending slope appears to have once been a constant gradient, but it is hard to be sure since that area has been mined in recent centuries.

Evidence was also found at the top of the next hill, beside the M74. Probing the soil in the narrow field between the B7078 and the M74 showed apparent bottoming stones at two places just north of the old hedge line. Only 45m to the north there is an ancient ditch and mound, more than half of which was destroyed by the building of the M74 motorway. One wonders whether those earthworks may have defended a Roman watchtower. With visibility to the west, south and east, it would have been a good lookout site.

Continuing straight along an east-northeast line, another cluster of evidence was found near Dalserf Burn south of Burnhead Farm. Apparent bottoming stones were detected by probing in the field. Close to the burn there are apparent bottoming stones on the surface that have been exposed by erosion. The abrupt change in flow direction of the burn might have resulted from a culvert beneath an ancient road.

On the hillside above the River Clyde, it appears that the initial route may have been down to a ford east of Threepwood Farm. But fording the Clyde at that point would only have been safe during a dry season, so it seems that a bridge may have been built later about 300m up the river. There is an aerial photo of the flat field on the other side of the Clyde in the Edinburgh archives of the Royal Commission that shows evidence of a defensive enclosure situated between the two possible crossing sites. That enclosure could have been a Roman fortlet or camp. Also, soil-probing evidence has been gathered of bottoming stones beneath that field. In addition, a credible constant-gradient route was found leading from that large flat field up the steep hillside east of the Clyde.

Evidence of the route was found to the northeast heading toward Carluke. Apparent bottoming stones were detected by probing in the first field above the steep hillside. In addition, evidence of bottoming stones were found further to the northeast, south-southeast of Oldhill Farm, beside a small burn called Maregill Burn on the old maps. A plausible route was found crossing Jock's Burn and then ascending to a junction with the long-known Castledykes-to-Bothwellhaugh Roman road on the high ground east of Carluke.

Interpreting the results of archaeology is speculation. Each individual piece of evidence may seem like conjecture or the randomness of nature. However, they gain credibility when many pieces of evidence line up into a plausible route over many kilometres.

The apparent design of the road and the route taken allows speculation on the motive for building it. Could it have been built for the transport of bulk goods via heavy carts and wagons from the Ayrshire coast to the central portion of the Antonine Wall? To sustain a large army, it seems that the Romans would have needed to transport substantial quantities of goods like grain and iron from England. Possibly landing such supplies in Ayrshire, as opposed to landing at the west end of the Antonine Wall, which exposed slow heavily laden sailing barges to hostile native raiders emerging from the sea lochs along the Firth of Clyde, was the slower, but safer, route.

Walking along a route that has been accepted as Roman helps to train one's eye to see the landscape as a Roman army officer who specialized in the layout and construction of military roads would have seen it. The author of this article used the long-known Roman road south of Stonehouse to study the art and science of searching for a Roman road, along with studying current and old books and maps. The book "Roads in Roman Britain" by Hugh Davies was of great assistance in learning the Roman road building techniques.

Between major terrain obstacles, Roman roads were built straight, which makes it easier to trace their route today. When possible, the Romans put their military roads on high well-drained land, so that the road crossed fewer streams that required the construction of a crossing (ford, culvert or bridge). High ground also allowed effective watchtowers to be built to guard the road. The design requirements that a road be

straight and remain on high ground is often in conflict, so it is interesting to see how the Roman road engineers compromised.

When the natural slope down to a stream or river was too steep, the Romans cut into the hillside or went sidelong down the hillside to reduce the descending gradient, as do modern road engineers. Roman army supply wagons and carts are not likely to have had any wheel brakes so it was more important to the Romans than today that the descending slopes have a constant gradient. Hillsides undisturbed by human activity are unlikely to have a constant descending gradient. So finding a constant gradient slope suggests a man-made road.

Old maps and books describing old roads have been studied to see if there has been a road along a particular route within recent centuries. Lanarkshire was surveyed for the first-edition Ordnance Survey maps in the late 1850s. Those maps allow comparison of the present land usage with the land usage 150 years ago. There are archival maps with substantially less precision that go back 100 years earlier. The turnpike roads built during the pre-railway industrial era are usually easy to identify (they are often still highways today). The pre-turnpike roads are more challenging to identify.

A useful way to identify a Roman route is to see if there are foundation stones. When research of old maps and books shows no evidence of a road and no evidence is seen of building, mining or quarrying disturbances during recent centuries when walking the field, probing the soil for Roman bottoming stones can be productive. When there are bottoming stones beneath a suspected route and far fewer stones on each side, it could be a Roman road, particularly if there is similar evidence at other sites along the route. If there are no bottoming stones, it does not preclude it being a Roman route, since some Roman routes did not merit the labour investment of stone foundations or quarry stone was not readily available.

The Shire booklet, "Roman Roads" by Richard Bagshawe provided a technique for probing for bottoming stones. A T-shaped probing tool was fabricated for the author by a shop that makes custom stainless steel equipment for restaurant kitchens. It is a stainless steel rod 8mm thick and 1m long, with one end sharpened into the shape of a broken pencil or a bullet and the other end welded to a tubular stainless steel handle.

Probing for bottoming stones with such a tool is effective when the soil is sodden. But even then, it takes careful effort to push the rod into the soil until it hits solid stone. Large stones tend to make the tool ring when the point hits the rock firmly. The Romans put compacted gravel above the bottoming stones to form the road surface, so it is common for force to be necessary to push the probe rod past the small stones in the gravel until it hits a large stone. The judicious use of force also involves not bending the thin steel rod.

The long-known Roman road that crosses Dykehead Road south of Stonehouse was used to practise the probing technique and decide how many places to probe across the width of a suspected road. The probing experiments were conducted at a site that was believed to have bottoming stones and seemed to be undisturbed by human activity other than agriculture. The testing was done 50m west of Dykehead Road. The method that was established was to probe twice per metre (every 50cm) across the width of the road and for several metres beyond each side. The depth at which solid stone was encountered was recorded. When the rod was clearly being pressed down through gravel before a solid stone was encountered, that was recorded as well. Using

the probe tool one can usually tell the difference between soft overlay soil and the gravel. The gravel layer was more difficult to penetrate and made scratching sounds as the rod was pushed downward.

When the rod did not reach a solid stone, the soil was probed again 10cm away to see if the initial probe had fallen in a crack between two bottoming stones. When a total of six nearby probes failed to reach a solid stone, it was tentatively concluded that the edge of the paved road had been detected. But to verify that, the probing was continued every 50cm for several metres to find out how many natural stones there are at that location. After the probing was complete, a hand-held GPS receiver was used to determine the map grid position of the centre of the apparent bottoming stones.

Carefully probing and recording all of the information took several hours, and left one's shoulder muscles tender. The fun part was interpreting the results. The width of the apparent road varied, in some spots for understandable reasons and in other spots the reason was not clear. In one case, a higher stone at the edge suggested that a kerbstone had been used to reduce the amount of gravel that eroded into the adjacent burn. At another site, the bottoming stones appear to have been in two layers, which might be due to repair because of damage done by fully laden carts and wagons descending to the burn.

There is one archaeological method that was intentionally not used. No excavation was done, because it is destructive. Once an area has been dug up, no one can ever learn anything more about that site. As an amateur, there are a myriad of things I would not notice that professional archaeologists could learn from, much of it microscopic evidence that to me just looks like soil.

The final and most important part of any archaeological project is to document it and distribute that documentation so that researchers in the future have access to the information. Discovering things and not documenting them means the discoveries are lost. Europeans sailed to the Americas before Columbus, but he was the first one who made a map, wrote about his discoveries and distributed those written records.

Therefore, the 13km connection route that is believed to be Roman was documented in a brief report and a detailed report, both with maps. The brief report was published in the 2007 edition of *Discovery and Excavation in Scotland*. The detailed report is lodged within the archives of the Royal Commission on the Ancient and Historical Monuments of Scotland in Edinburgh. The RCAHMS on-line database has some of the information and references the rest of it. Hopefully, perhaps long after the author is gone, the information will be of use to someone. The reward is in having made a contribution to available knowledge.

There are many opportunities to contribute to the knowledge of the Roman road network in Lanarkshire and elsewhere in Scotland. A few are listed below:

1. Pre-Ordnance-Survey maps imply that there was a pre-turnpike road from Stonehouse to Lesmahagow that crossed the Cander southeast of Tanhill Farm. Where that route descends to the Cander the gradient is so constant that this searcher-of-old-roads wonders if that crossing was initially Roman and was still in use during the eighteenth century. The Romans who returned to Scotland in the AD 140s may have found that floods had destroyed the crossings of the Cander and the Nethan built during the AD 80s. They may have built a new road that crossed the Cander southeast

of Tanhill, went through present-day Kirkmuirhill, crossed the Nethan, went through present-day Auchenheath, crossed the south shoulder of Black Hill and then followed the previous route to the Roman fort at Castledykes east of Lanark. This possibility has not been thoroughly studied.

2. Was there a Roman route from just east of Carluke to the north, to that section of the Antonine Wall? This author feels that it seems logical but hasn't looked for evidence, and apparently few have looked since General Roy.

3. Little is known of the Roman route near their Loudoun Hill Fort. The site of the fort was destroyed by sand quarrying decades ago, but it seems possible there is evidence along west side of the Avon going eastward from the Loudoun Hill Fort. And perhaps evidence could be found of where it crossed the Avon.

4. Very little is known of the Roman route from the Ayrshire coast to Loudoun Hill. Did the road go up through the Irvine Valley as the current A72 does or, as was more typical of the Romans, was their road on higher ground?

5. It is not well established how the Roman route from England approached the Castledykes fort from the south. This author favours the theory that it crossed the Clyde near Robertson, went over the west shoulder of the Tinto Hills and crossed the Clyde again between Hyndford and Castledykes.

6. Was there a Roman route from somewhere near the mouth of the River Irvine to the Glasgow area? That seems plausible, but the route has not been identified. Several people have speculated on routes, but it does not appear that any evidence has been found.

7. A Roman route from Trimontium to the mouth of the Tweed has also not been identified. Possibly a Roman route could be found beginning just north of the Roman bridge across the Tweed. Such a route could have crossed the Leader and then continued northeast along high ground. In England Roman ports were often not at the mouth of a river but up river as far as heavily loaded sailing barges could be navigated on a rising tide (Colchester, for example). Perhaps the Roman port was several miles west of Berwick.

Possibly this article will encourage others to search for as yet unidentified Roman routes.

Additional information: www.oakchip.com/bill/RomanRoads/RomanRoads.html

Author: Bill Huston, bill@oakchip.com