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‘A CONVENIENT PADDOCK FOR HORSES’: THE ARCHAEOLOGY OF THE HERMITAGE STABLES

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Introduction

On 30 September 1884 an article appeared in the *Timaru Herald* that signalled the commencement of work on the first Hermitage at Mt Cook:

Preparations are being made for the accommodation of tourists to the neighborhood [sic] of Mount Cook during the coming mountaineering season. Mr F. F. C. Huddleston is about to erect a roomy accommodation house at the spot called “Governor’s Bush”, a few miles above Birch Hill Station, and above the confluence of the Tasman and Hooker rivers. This site has been chosen on the account of the existence of a small flat there which can be fenced in to form a convenient paddock for horses. Mr Huddleston this morning invites tenders for carting about twenty tons of material and stores to the place.

The Hermitage opened for business the following year (*Timaru Herald*: 29/6/1885), and was to expand to meet increasing demand for accommodation from tourists wishing to see Mt Cook and explore the glaciers, and from the growing mountaineering community. The first Hermitage was built near the terminal moraine of the Mueller Glacier and stood there until destroyed by flood.

The expansion of the Department of Conservation car park at the White Horse Hill Camping Ground (Figure 1) near the site of the first Hermitage in 2007 exposed the remains of the stables associated with the Hermitage. The excavation revealed some of the posts from the stables building itself, a cobblestone floor within the stables (this cobblestone floor has been left in situ) and the fence posts from the paddock in front of the stables (Figure 2). It also yielded an assemblage with a NISP of 1061 artefacts, most of which were horseshoes

and nails. A detailed analysis of the horseshoes was undertaken with the goal of learning more about the use of horses at Mt Cook.

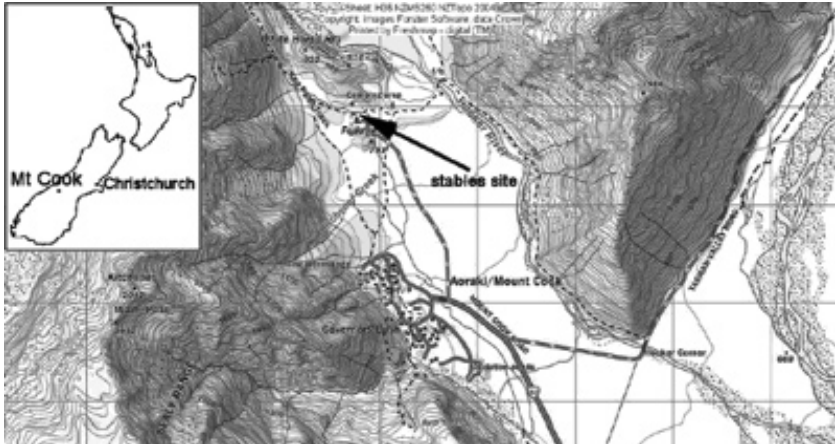


Figure 1. Location plan.

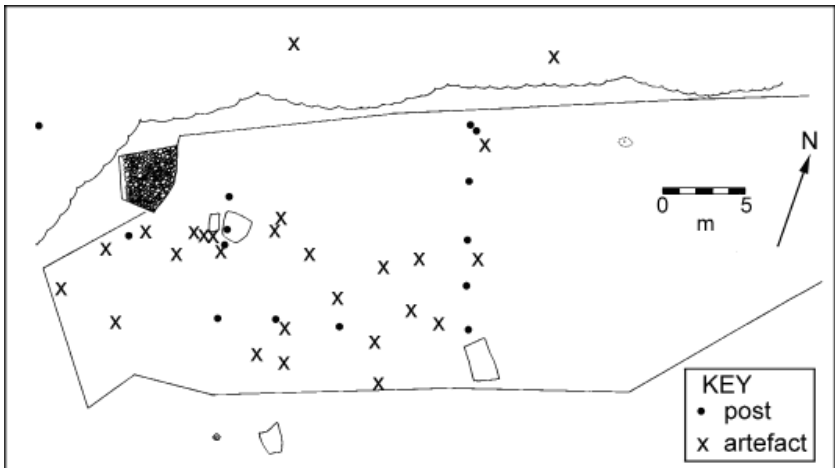


Figure 2. Site plan.

Horses at the Hermitage

The first regular coach to the Hermitage was established in 1886 by the Mount Cook Hermitage Company (Holm 1992:62). It began at the railhead

at Fairlie and consisted of a six-in-hand coach driven by John Rutherford, one of the company's shareholders. The Rutherford family took over both the coaching and the mail contracts to the Hermitage and either drove the coaches themselves or employed other drivers (Holm 1992:60-61). In 1888, however, a rival coach company was established, adding to the company's financial worries (Holm 1992:62). A letter written in 1886 to George Mannering illustrates the complications of transport to the Hermitage:

Communication with the Hermitage is so uncertain that there would be very slight chance of your letting us know when you would be leaving there, so that you would require to keep the horses there during your stay in that locality, but their keep would cost you nothing...Of course if you stop there a week or so and keep the horses there we shall reduce the price per day a little.

(McLeod and Rossiter 1886, cited in Mannering 2000:21.)

Transport to the Hermitage and the use of horses is often referred to in government reports by the Department of Tourist and Health Resorts. In 1898 it was reported that saddle horses, provided by the hotel for tourists who wanted to ride to see the sites, were used regularly (*AJHR* 1898 C1) and in 1902 the coach services were described as "excellent" (*AJHR* 1902 H2). Horses were commonly used to take tourists to Ball Hut and to other areas of interest around Mt Cook. They were also used to pack gear for mountaineering expeditions. The 1908 report states that horses were in great demand both at the Hermitage and between the Hermitage and Fairlie (*AJHR* 1908 H2).

The first decade of the twentieth century saw motorised trips to the Hermitage begin. In 1906 the Mount Cook Motor Company began running service cars to the Hermitage; John Rutherford, who had driven the first regular horse coach in 1886, also drove in one of these first cars (Holm 1992:238). The motor service reduced the two day trip from Fairlie to one day, making the Hermitage much more accessible (Wilson 1968:118). Despite the advent of motorised transport, horses continued to be important in the running of the Hermitage and the activities undertaken in the area. Photographs from the 1920s and 1930s show horses being used to pull sledges in winter and being ridden in the winter.

The earliest depiction of the stables is on a government survey (S.O. 4589) produced in September 1889, showing them to the south-east of the 'Hermitage Accommodation House'. It is possible that this survey also depicts a small shed next to the stable's eastern side, but it is difficult to be sure. A historic photograph taken by Jock Adamson and of uncertain date clearly shows a corrugated iron building beside a small bush-covered mound with an enclosed area at its front and a track leading to the Hermitage (which is shown in a

photograph taken from a similar position; Figures 3 and 4). This also shows a gallows for hanging carcasses on to the rear of the stables and another smaller shed further to the west. There are two newspaper mentions of the stables, one in 1900 (*Timaru Herald* 30/11/1900) when a driver was injured whilst dealing with his horses at the stables. The second is from the following year when it is noted that, during the severe winter, part of the stables had been “wrecked” (*Otago Witness* 25/12/1901).

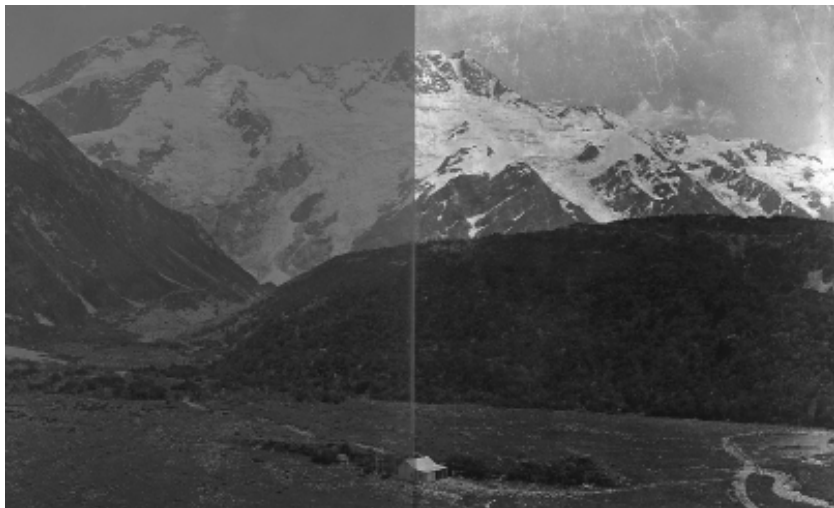


Figure 3. The stables, with the meat gallows and a small shed further west. Photographs taken by Jack Adamson. Reproduced with the permission of the Department of Conservation.

It is not known when the stables were last used or demolished, and they may have continued to be used after the new Hermitage was built, although the distance between the two is likely to have made this an unsatisfactory arrangement. It is possible, however, that, if the stables remained standing after this

date, they were used by people who chose to camp at White Horse Hill rather than stay at the Hermitage.



Figure 4. The Hermitage, taken from a similar vantage point as Figure 3. Photograph taken by Jack Adamson. Reproduced with the permission of the Department of Conservation.

The Horseshoes

The analysis of the horseshoe assemblage (Table 1) focused on the additions to the horseshoes and the wear patterns, in an attempt to learn more about the horses used at the Hermitage. The additions that were observed within the assemblage were fullers, seats, wide-webbed branches, toe clips, trailers and heel caulks. Each horseshoe recovered had a fuller while none of the horse shoes had toe caulks. While this suggests that the former was a standard addition on a late nineteenth century horseshoe, this is not the case even today, and nor was it the case with the horseshoe assemblage from a blacksmith's site in Waipu. Only 84% of the horseshoes recovered from that assemblage had fullers (Best et al. 2003:23). This suggests that the addition of fullers was widespread in mid-late nineteenth century New Zealand and that the journey to and around the Hermitage was such that it should not be attempted without fullered horseshoes. Fullered horseshoes wear more quickly than unfullered shoes (Humphrey 1995:22); thus, the presence of only fullered shoes in the

Hermitage stables assemblage indicates that the benefit of the extra traction provided outweighed the cost of replacing horseshoes more frequently than if unfullered shoes were used.

Position	Quantity
Front	69
Hind Right	56
Hind Left	72
Unidentified (right branch)	12
Unidentified (left branch)	20
Unidentified	1
Total	230

Table 1. The position of the horseshoes.

Wide-webbing is employed to protect the perimeter of the hoof and provide more ground contact for the hoof, thus giving the horse greater stability, something that would be useful over rough or uneven ground. Today, wide-webbing is often associated with larger horses – no such relationship was observed in the Hermitage stables assemblage. One disadvantage of wide-webbing is that it decreases traction (Hill and Klimesh 1994:68-69). While wide-webbing was not an unusual feature in the horseshoe assemblage, just over a quarter of the shoes had this addition (Table 2), suggesting that most of the horses did not require additional stability. With regard to the problem of loss of traction when horseshoes are wide-webbed, the main addition used to increase traction in the nineteenth century was caulks – only four horseshoes with wide-webbing also had caulks (6% of the shoes that had wide-webbing; Table 2), suggesting that the loss of traction through wide-webbing was not a significant problem for horses at the Hermitage.

Seats were the most common addition and are often associated with wide-webbing. They are used when a shoe with wide-webbing is applied to a hoof with a flat sole to prevent the application of too much pressure to the sole (Hill and Klimesh 1994:69). This relationship was borne out by the fact that 70% of the horseshoes with wide-webbing also had seats (this was the strongest relationship observed between any two additions; Table 2). Over half of the shoes that had seats, however, did not have wide-webbing (Table 2), and these seats were presumably added simply to relieve pressure on the horse's soles. One disadvantage of seats is that debris collects under the seat, which increases the risk of a horseshoe being sucked off in heavy going (Hickman and Humphrey 1998:58). Some riders and coach drivers must have felt that

the risk of this on the journey to (or around) the Hermitage was not sufficient to outweigh the benefits of adding a seat to a horseshoe.

	seat	wide-webbing	trailer	toe clip	heel caulk
seat	44%	45%	3%	44%	1%
wide-webbing	70%	28%	5%	51%	6%
trailer	25%	25%	5%	25%	8%
toe clip	45%	23%	3%	43%	8%
heel caulk	6%	25%	6%	50%	7%

Table 2. The relationship between additions, on horseshoes with two additions. The grey squares show the percentage of horseshoes in the assemblage with that addition.

Like wide-webbing, trailers (Figure 5) provide greater stability for horses. They are used to lengthen the heel of the shoe and thus provide additional limb support for fatigued horses travelling long distances and protect the heels of the hoof over rough terrain. Further, horseshoes with trailers “are an excellent preventive shoe and performance enhancer when used on horses engaged in strenuous athletic activities...” (Hill and Klimesh 1994:68). The presence of trailers suggests traversing long distances over rugged ground. Given the length of the journey to Mt Cook, and the nature of the terrain covered (which was often particularly rocky), then, it is surprising that only twelve horseshoes had trailers. This indicates that the addition was not essential for making the journey. The small number of horseshoes with trailers also indicates that wide-webbing was more useful for the terrain. One horseshoe had both trailer and wide-webbing – perhaps a particularly unstable horse? Trailers are generally only added to hind shoes, due to the risk of injury if they are added to front shoes (Humphrey 1995:53) – and only one front shoe in the assemblage had a trailer.

In total, only 85 horseshoes (37%) had some form of stabilisation addition. This low number is surprising, given the rocky, muddy and slippery terrain the horses would have been covering. Perhaps the horses selected for working in this environment were chosen for their ability to deal with the terrain with a minimum amount of intervention and thus did not require these additions.

Toe clips (Figure 6) are associated more with the nature of the horse’s hoof than the activities the horse may be carrying out, although Hill and Klimesh (1994:75) note that clips may be necessary on the shoes of active horses when nails are not sufficient to hold the shoe on. They also suggest that clips are particularly useful when traction devices, such as caulks, have been added to

shoes – half the horseshoes in the assemblage that have caulks also have toe clips (Table 2). It is possible that the presence of toe clips on just over quarter of the assemblage is related to the level of activity undertaken, but it may also have simply been to compensate for deficiencies in the horse's hoof. It is difficult to draw any conclusions based on the available evidence.



Figure 5. A left hind shoe, with a trailer.



Figure 6. A left hind shoe, with toe clip.

Caulks (Figure 7) can provide information on the type of terrain being traversed and horses being used. The presence of caulks indicates a need to increase traction and they are typically associated with horses carrying out heavy work (such as Clydesdales or other draught horses; S. Brown, pers.

comm.). Hill and Klimesh (1994:157) note that traction provided by caulks is very important during winter riding, as they sink into semi-frozen ground. It is also mentioned that "...requiring a horse to work on precarious footing without adequate traction can result in muscle strain...caused by constant slipping" (Hill and Klimesh 1994:24). The small number of horseshoes with caulks in the assemblage suggests that the work being undertaken by these horses was not heavy enough to require caulks, and that large draught horses were not commonly used, if at all, at the Hermitage. Draught horses were not typically used for pulling passenger coaches in nineteenth century New Zealand and were usually employed for heavier work. No doubt the horses used for pulling coaches were selected for a combination of speed, stamina and strength, rather than just their strength. Caulks are generally only added to hind shoes as, on front shoes, they can lead a horse to injure its elbows when lying down (Humphrey 1995:25) – only one front shoe had heel caulks.



Figure 7. A left hind shoe with heel caulks and fuller.

Of the 230 horseshoes recovered from the site 50 shoes (22% of the assemblage) did not have any additions (with the exception of fullers). Of these 50 shoes, only three did not exhibit any sign of wear. This means that a significant number of horseshoes were used (given the presence of wear) but do not have any additions (with the exception of fullers), indicating that none of the other additions were essential for horses travelling to and around the Hermitage. Alternatively, these horseshoes may be from horses which were

ill-prepared for the journey. The balance of evidence (see below) supports the former interpretation.

With the exception of fullers, no horseshoe addition occurred on more than 50% of the assemblage. This suggests that the horses that travelled to and around the Hermitage were selected for their abilities to cope with the conditions with the minimum amount of intervention. This is supported by the fact that no shoes with additions to prevent or aid in the treatment of specific gait problems were recovered from the Hermitage stables. Competition between different firms operating coaches on the route to the Hermitage is likely to have encouraged selecting the best horses for the job, a policy which would also have kept costs down in the long run. Further, stories abound of the pride taken in the coaches and horses used on the Arthurs Pass route to the West Coast, including the speed with which the journey could be accomplished (Taylor 2005). No doubt similar attitudes prevailed on the route to the Hermitage.

Other Artefacts

A range of other artefacts were recovered from the Hermitage stables, including 371 nails. Nearly half of these nails were horseshoe nails, some of which had not been used. Other nails recovered were roofing nails and hobnails, the latter being recovered in association with the remains of a leather boot. Like heel caulks on horseshoes, hobnails could be added to boots to provide greater traction, including when traversing slippery surfaces such as ice and snow. Hobnails were also used on musterers' boots.

Other metal artefacts included items of horse cover buckles and horse tack. There were also gate hinges, hand shears, chains, a file and fencing-related artefacts. The presence of the hand shears suggests a relationship between the Hermitage and neighbouring pastoral stations. It is unlikely that the Hermitage was undertaking any sheep shearing and thus storing the shears at the stables. These shears are likely to have been brought from a neighbouring pastoral station (such as Birch Hill) for repair by the blacksmith at the Hermitage. Given the evidence of this relationship, it is possible that the largest horseshoes and/or the horseshoes with heel caulks were from horses used on a neighbouring station.

No direct evidence of a blacksmith's shop, such as slag, was found during the excavation – fine slag can be seen at the Flock Hill stables site, near Castle Hill (I. Hill, pers. comm.). This indicates that the stables themselves were not the site of the blacksmith's shop. Instead, the blacksmith's shop is

likely to have been located in the small shed that can be seen to the west of the stables in Figure 3.

Conclusion

The excavation of the stables associated with the first Hermitage at Mt Cook has added to the body of knowledge about the late nineteenth and early twentieth century world at Mt Cook. Significant information about this world has already been generated by archaeological excavations near the first Hermitage (Ritchie 1985) and at Ball Hut (Bedford 1985). This most recent excavation has shed light on another facet of this world. It located the remains of the stables, and the results suggest that a blacksmith or farrier operated from a small building to the west of the stables. The artefacts recovered from the stables suggest that the Hermitage carried out work for its pastoral neighbours (who may also have supplied meat to the Hermitage). Also of significance is the information gathered about horse travel as a result of the large number of horseshoes recovered from the site.

The analysis of the horseshoes from the Hermitage stables assemblage is something of a test case, undertaken using information and ideas supplied by North American archaeologists, with little consideration of the validity of this approach in a New Zealand context. Further, with limited comparative material available, it is not known whether the nature and make-up of the horseshoe assemblage from the stables site is unusual, or to what degree it reflects the alpine environment of the Hermitage. It is hoped that the detailed analysis of horseshoes from other archaeological sites in New Zealand will provide useful comparative data that will allow some of the statements made in this paper to be refined.

Bearing this in mind, the analysis of the horseshoe assemblage from the stables suggests that some of the horses stabled here were selected for their ability to cope with the terrain and long distances covered on the journey to the Hermitage. Other horses were selected for their ability to cope with the terrain around the Hermitage, including that terrain that might be encountered while carrying tourists and/or their supplies to destinations beyond the Hermitage, such as Ball Hut and the glaciers. Through the careful selection of horses, fewer additions were required to the horseshoes which meant, overall, less time and money spent on the maintenance of the horses, and greater profits, particularly along the coaching route.

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