

Exploring the archaeological traces of frontier violence: a study of the weapons and ammunition of Queensland's Native Mounted Police Force

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The weapons and ammunition recovered from Native Mounted Police (NMP) camp sites provide a window on the nature of colonial conflict between Indigenous and non-Indigenous Peoples in 19th-century Queensland, Australia. Research reveals that weapons issued to the NMP grew increasingly lethal over time, epitomised by the Snider–Enfield carbine, which became synonymous with this force and amplified their effects. Based on knowledge about this weapon and assumptions about amounts of available ammunition, the average strength of NMP detachments, and the troopers' skills as marksmen, it can be estimated that 26,400 Indigenous people were shot by the NMP (resulting in either death or serious injury) in the period between 1871–1890. The examination of weapons-related artefacts, over and above other domestic materials associated with NMP camps, reveals much about the nature, scale and effects of frontier conflict, and the contribution of NMP camps to the broader web of violence which they supported.

Keywords: Native Mounted Police, frontier conflict, Snider rifle, ammunition

Introduction

'... the gash made by a Snider bullet needs no searching for' (The Morning Bulletin, 31 Oct 1884: 5).

The study of conflict and why people resort to deadly violence is arguably intrinsic to understanding human behaviour (Darmangeat 2019: 1556–1557). In Australia, rising interest in what have been termed the 'Frontier Wars'—a century and a half of episodic conflicts, both large and small, between non-Indigenous colonists and Indigenous people, beginning in 1788 and extending into the 20th century (Gapps 2018)—has increasingly contested the long-held narrative that Australia's establishment was largely a peaceful process. Such conflict pitted Indigenous Peoples, with weaponry primarily consisting of spears and nulla nullas, boomerangs and fire, against a variety of State actors—initially the military, followed by various Native Policing units, but also settler colonists—armed with a variety of guns.

The archaeological contribution to understanding the Frontier Wars has to date not matched the historiographic response, principally owing to the particular and peculiar nature of conflict on the Australian frontier, which has resulted in a paucity of direct material evidence (though see Genever *et al.* 2010). Australia had few 'battlefields' akin to those commonly studied in the US (e.g. Bleed and Scott 2011; Greene and Scott 2004; Scott *et al.* 1989, 2016; Scott and McFeaters 2011). Barker (2007) and Litster and Wallis have (2011) argued that the identification of massacres in Australia is especially problematic, in part owing to the widespread pattern of killing small numbers of people in isolated locations and/or over vast areas, taphonomic and other challenges in locating 'massacre sites', and difficulties in establishing cause of death from archaeological evidence alone (see also Gat 2015: 112–113; Pardoe 2014: 123, 2021:

64). Hence, establishing a direct nexus between acts of violence on the frontier and their archaeological correlates is problematic.

This paper focuses on one of the few material traces of frontier violence: the weapons and ammunition issued to a particularly devastating agent of 19th-century Australian colonial conflict—the Native Mounted Police (NMP) of Queensland. Operating as highly mobile, mounted paramilitary detachments of Indigenous troopers under the command of non-Indigenous officers, the Queensland NMP was the longest-lived force of its kind in Australia, coalescing and crafting a highly effective system of employing Indigenous men taken from one part of the colony against Indigenous people in another (Richards 2008: 185, 186). Deployed on the margins of settlement for just over 80 years (1848–1929), they were a cheap and effective means to quell Indigenous resistance, with far reaching consequences for Indigenous Peoples in all parts of the colony, many of which still resonate today.

The Archaeology of the Queensland Native Mounted Police (the AQNMP) Project, a four-year project to document the physical traces of this force, yielded hundreds of weapons and ammunition artefacts from a series of NMP camp sites (Barker *et al.* 2020; Burke and Wallis 2019) (Figure 1). In this paper we briefly outline the nature of frontier warfare in relation to the NMP, then present a summary of the weapons and ammunition that were distributed to them. Using data retrieved by the AQNMP project from the three camps with the largest ammunition assemblages—Lower Laura (Boralga), Eyres Creek (Cluney), and Burke River (Figure 1)—we consider the tactics associated with these weapons and the resourcing of NMP camps. Finally, we use ammunition data for the Snider carbine—a weapon that became synonymous with the NMP from 1871 until 1890—to assess potential death rates on the frontier.

In pursuing these lines of evidence, we seek to connect the small-scale material patterning of individual discarded cartridge cases and bullets to the larger-scale patterns of life in an NMP camp and, from this, the contribution of these camps

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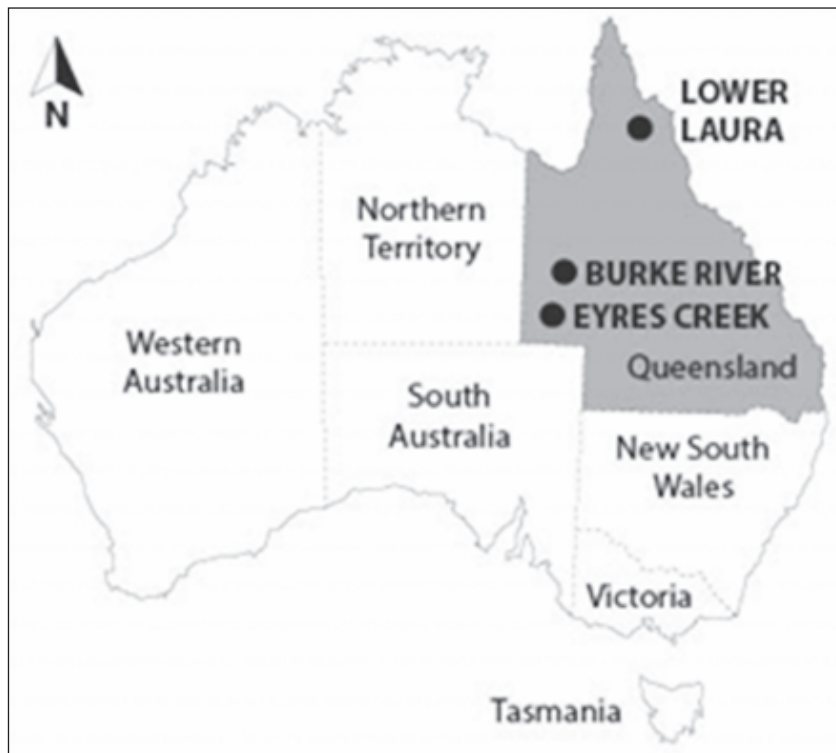


Figure 1: Location of the three study sites in Queensland (map by H. Burke, 2023)

to the broader web of frontier violence which they supported. We contend that the examination of weapons-related artefacts, over and above other kinds of domestic materials commonly associated with NMP camps, reveals much about the nature, scale and effects of frontier conflict.

The paramilitary role of the Queensland NMP

The particular way in which the Australian colonies expanded meant that, for many years, the military performed the duties of police (Pratt and Hopkins-Weise 2019: 34, 35; Richards 2013: 49). Although civil police forces began to be introduced from the 1840s onwards, it was not until the British Government announced their intention to withdraw all military support by 1859—the process was protracted with the last troops departing in 1870—that the development of colonial policing forces accelerated (Skenneron 1975: 1–2). This was guided by models from the United Kingdom (UK), whereby the role and function of police was akin to that of the unarmed constables of metropolitan London. Such a model was not suited to the frontier, however, where Indigenous resistance had to be effectively quashed before an area could be patrolled by ordinary police, a situation that could be swift or slow to accomplish depending on circumstance. It was during this liminal period that what Kraska (2007: 501) referred to as the ‘blurred arenas of war and law enforcement’ emerged in spaces that were occupied by both the ‘enemy’ and ‘offenders’. Permanently armed and mounted, the Queensland NMP were explicitly designed to operate in such liminal environs. More closely resembling the Irish Constabulary, who operated to repress resistance in a paramilitary fashion (Dukova 2020: 55), historian Jonathan Richards (2008: 8–9) has noted that the Queensland NMP was defined from its outset as a corps, combining characteristics of both police and military (Lutterbeck 2004: 46).

The NMP was created as a force in 1848, before Queensland itself was formally constituted as a colony. Between 1848 and 1855 the command of the NMP lay with a Commandant, briefly transitioning to the Inspector General of

Police for NSW in 1855 and 1856, before returning to a Commandant after 1857. In 1859 Moreton Bay separated from New South Wales to become the nucleus of the Colony of Queensland, and the first Governor for the Colony of Queensland assumed responsibility for policing, both establishing a ‘regular’ Police Force and taking control of the NMP from NSW (*Moreton Bay Courier* 27 Apr. 1860: 2; Robinson 1997: 14). In 1864 the newly created office of Commissioner of Police took over both civilian and NMP forces in Queensland and the NMP became even more highly militarised, especially after 1870 when they were issued with one of the most lethal weapons then available—the Snider–Enfield carbine.

The paramilitary purpose of the NMP was reinforced through the proficient use of weapons, enhanced by institutionalised learning centred on a code of conduct and competency in firearm handling. Part of the duties and responsibilities of NMP officers was to ‘drill the troopers every day they are in camp, until they are perfect in their exercise, mounted, and on foot’ (*Queensland Government Gazette* 10 Mar. 1866: 258–261). In the 1850s a Sergeant Major was appointed specifically to drill new recruits, although officers of other ranks took over that role variously throughout the 1860s and 1870s. Such practices differed markedly to the training for regular police, who were only required to drill and use firearms ‘to make the force effective, and not to make it approximate in its character to a military body’ (Anon. 1869: 11). The NMP could therefore be perceived as equivalent to modern day Special Forces soldiers rather than regular police. Collectively, these elements suggest that the NMP were a police force in name only; in reality they were a militarised corps of the highest order.

The weapons of the Queensland NMP

Weapons were obviously crucial to the NMP’s core purpose, although, to date, it has been unclear precisely which firearms were issued to them. Historians have pointed to NMP use of government-issue Snider–Enfield rifles in the 1870s and

Weapon	Ammunition	Description	Issued
		Constabulary and Yeomanry percussion, smoothbore 20-gauge single barrel carbines	c1848
	As above	'Cape' Pattern percussion, smoothbore 20-gauge double barrel carbine	1860
No image available. Similar to above.	As above	Potts & Hunt percussion, smoothbore 20-gauge double barrel carbine	1862
		Westley Richards & Co pinfire, smoothbore 20-gauge double barrel carbine	1867
		Colt Navy Model 1851 or Model 1861 percussion .36" calibre single action six shot revolver	1868
		P. Webley & Son Snider-Enfield artillery centrefire, rifled .577" calibre single barrel carbine	1870
		P. Webley & Son RIC No.3 centrefire, .442" calibre six shot revolver	1870
		Martini-Henry MkIII centrefire, .577/.450" calibre single barrel carbine	Post 1885

Figure 2: Weapons known to have been issued to the NMP and their corresponding ammunition (images by A. Pagels)

Martini–Henry carbines in the mid-1880s (Richards 2008: 55–56; Robinson 1997: 41–42, 44–50, 59), but also argued that the distinctive Westley Richards pinfire carbine, a weapon purchased specifically for the NMP in the late 1860s, was never in fact issued to them (Robinson 1997: 35–38). Detailed archival, museum and archaeological work as part of the AQNMP project has enabled, for the first time, the compilation of a definitive list of nine arms issued to, and used by, the NMP (Figure 2).

In the 1850s and 1860s NMP weaponry consisted of five percussion arms: the muzzle-loading Constabulary 20-gauge carbine and the Yeomanry 20-gauge carbine (c. 1848), the muzzle-loading ‘Cape’ Pattern 20-gauge double barrel carbine (1860) and Potts & Hunt 20-gauge double barrel carbine (1862), and the Colt revolver (the Colt Navy Model 1851 or Model 1861 .36 inch revolver) (1868). Although sporadic purchases of percussion longarms and revolvers continued until 1869, in 1867 a shipment of 200 Westley Richards & Co. double barrel, breech loading, 20-gauge pinfire carbines were purchased specifically for the NMP, albeit issued in restricted (and unknown) numbers. Initially, these weapons were purchased separately from their ammunition, which proved difficult to source and supply, and less than two years after receiving the arms a decision was made to sell half the inventory (Clerk in Charge Colonial Stores 1869). From 1870 they were replaced by the newer, rifled and breech-loading P. Webley & Son Snider–Enfield MkIII .577-inch centrefire single barrel artillery carbine (1870), along with Royal Irish Constabulary (R.I.C.) revolvers by the same manufacturer (1870). After 1885 the Martini–Henry .450 inch centrefire breech-loading single barrel carbine was added to the arsenal, although in limited numbers.

The ammunition for the nine weapons ranged from generic 20-gauge lead balls to distinctive, self-contained pinfire cartridges that could be loaded with shot or bullet (Figure 2). These culminated in the Boxer-constructed rolled brass centrefire cartridges for Snider–Enfield weapons that could take either conical bullets or shot of various sizes, and the Boxer–Henry solid drawn brass cartridges and conical bullets designed for the Martini–Henry arm.

The three NMP case study camp sites

The NMP established a total of around 162 strategically anchored camps across Queensland throughout their 80 year-long existence (Burke and Wallis 2019). The organisation of a camp involved at least one White officer—usually with the rank of sub-inspector—in command of a detachment of between four and 15 Indigenous troopers, who would regularly leave the camp on patrol duty, sometimes for weeks at a time (Barker *et al.* 2020: 26). The daily running of each NMP camp required a dedicated camp keeper—who usually held the rank of sergeant or constable—to take charge of the stores while the Sub-Inspector was on patrol. A typical camp keeper’s duties consisted of cleaning the camp, ensuring that buildings and fences were erected and maintained, repairing saddlery, collecting the mail and other daily maintenance and organisational tasks (Native Mounted Police 1880–1882).

Archaeological investigations at three camps—Lower Laura (1875–1894), Burke River (1878–1886) and Eyres Creek (1882–1888) (Figure 1)—recovered a range of material. All archaeological work was restricted to the environs of the camps, since no specific locations associated with patrol activities are known for any camp. This meant that evidence for weaponry and ammunition in the possession of each detachment was derived from activities carried out inside the

camps themselves, including the manufacture of ammunition and the reloading of cartridges, the disposal of spent cartridges and accidental loss. The ammunition artefacts from Eyres Creek and Burke River were recovered from surface contexts, while those from Lower Laura were retrieved from excavated contexts. All surface material was piece plotted, while excavation trenches were located in association with geophysical anomalies, visible surface rubbish concentrations and extant structural features. Fired cartridges resulting from activity post-camp closure were excluded from subsequent analyses.

The earliest of these camps, Lower Laura, was one of the longest occupied, remaining in use for nearly 20 years, including through a transition to reduce the number of NMP camps, troopers and officers after 1887. Located on the east bank of the Laura River in far north Queensland, the camp was established to protect travellers to and from the Palmer River goldfield (Cole 2004: 160). Trooper numbers were highest in the first three years of NMP presence, ranging between 10 and 11, before falling to five by 1890. At least 15 officers of the rank of sub-inspectors or constables were stationed there at various times. Archaeological evidence suggests possible, sporadic post-NMP use, but all dateable items aligned with NMP occupation.

The Burke River camp was established in far western Queensland in 1878 to facilitate the westward expansion of cattle pastoralism. The number of personnel stationed at Burke River spiked in 1880, suggesting an influx of resources to carry out punitive expeditions following the killing of four pastoral workers in 1879 (Davidson *et al.* 2020), while a reduction in trooper numbers after 1884 suggests that Aboriginal resistance may have largely been broken by this date. Certainly, the posting of regular police to the Boulia township in 1883 would indicate that ‘pacification’ was complete. Only three officers—with the ranks of sub-inspector and constable—were known to have been assigned to this camp. Once the detachment was removed in 1886 the site was sold to the local pastoralist and the buildings possibly reused. Later material indicates continued, albeit sporadic, use into the present for camping, fishing and tourism.

The Eyres Creek camp was established in 1882 in far western Queensland also to support pastoral expansion. The number of personnel stationed at this camp varied between five and eight troopers and included six White officers at both sub-inspector and constable ranks. Closed in 1888, the barracks were sold in 1890 to a local pastoralist, and archaeological evidence indicates subsequent occupation well into the 20th century.

Weapons and ammunition across the three camps

In total, 488 ammunition artefacts were retrieved from the three sites (Tables 1 and 2). The majority of these (n=254) had been discharged, although the primer was absent, damaged or corroded in 176 cartridge cases, making it impossible to determine whether they had been discharged or not. Forty-eight cartridges were unfired, suggesting they had been dropped or lost. Ammunition from four key weapons used by the NMP was present: the 20-gauge pinfire; .442” revolver; .577” Snider–Enfield; and .577/.450” Martini–Henry. In addition, ammunition associated with weapons not known historically to have been issued to the NMP was also identified, including 12-gauge shotgun cartridge heads and loose shot.

The Burke River assemblage of 103 ammunition items was a diverse sample that could be matched to 11 different types of

weapons (four handguns, six rifles, and a shotgun). Eyres Creek contained more ammunition artefacts (n=116), but a less diverse assemblage, comprising only four handguns, three rifles, and three shotguns. Of all three sites, Lower Laura was the longest occupied, had the greatest number of finds (n=269), the widest variety of ammunition and the largest range of weapons (n=12). Unfortunately, while the finds from Burke River and Eyres Creek were remarkably well preserved, the impact of corrosion and oxidation on the finds from Lower Laura made distinguishing between cartridge cases for the .577" Snider–Enfield carbine and the .577-.450" Martini–Henry carbine impossible in 26 cases (5.3 per cent of the total sample). Nonetheless, positive identification was accomplished in 449 cases (92 per cent of recovered finds). Less frequent elements of the ammunition assemblage included percussion caps from Lower Laura (n=4) and Burke River (n=1).

Cartridge headstamps were used to date ammunition. Plotting this material against the camps' occupation reveals that all ammunition had extensive production periods, and that some of it was manufactured before the earliest occupation of the camps studied here (Figure 3). The E.B./Eley Brothers headstamp, for example, was found on ammunition from a

range of weapons (revolver, rifle and shotgun) and occurred in both pinfire and centrefire forms. Dating as it does to before 1874, this headstamp is four years older than the establishment of the Burke River camp and six years older than Eyres Creek. This may not have been unusual, however, simply because the Colonial Store would have held surplus stock, issuing it only when needed. For instance, Martini–Henry carbine ammunition on hand in 1890 was still in store and available in 1903 (Figure 4), so there was no way to determine the age of cartridges when they were dispatched. Nonetheless, headstamps are a dateable feature of ammunition and the purchase of arms show when they were issued to the NMP (Table 2). In combination this information defines the periods when certain arms were in use.

Two other elements of the ammunition indicate the use of much older weapons long after their initial distribution. The percussion caps from Lower Laura and Burke River derive from percussion-type arms which predate the introduction of self-contained ammunition weapons in the 1860s. Unfortunately, none of them can be clearly dated, since they are without makers' marks, although they are consistent with Eley-manufactured military percussion caps in private collections. The 20-gauge pinfire cartridges from Eyres Creek

Table 1: Ammunition identified by calibre at the four NMP camp sites

Category	Calibre/Bore	Burke River	Eyres Creek	Lower Laura	Total	Percentage (%) of total
Handgun/revolver	.30" rimfire			1	1	.2
	9mm pinfire			1	1	.2
	.380"	1	1	2	4	.8
	.410"	1			1	.2
	.442"	6	5	22	33	6.8
	.450"	4	4	1	9	1.9
	unknown			3	3	.6
Longarm/rifle	.22" rimfire	5	2		7	1.4
	.22" magnum	1			1	.2
	.360" No 5	2			2	.4
	.380" long			1	1	.2
	.442" long	4		5	9	1.9
	.44-40 Winchester		1	41	42	8.6
	.577/.450" Martini Henry	1		6	7	1.4
	.577" Snider	34	36	43	113	23.2
	.577" or .577"/.450"			26	26	5.3
	Unknown	4		21	25	5.1
Longarm/shotgun	12-gauge	19	36	43	98	20.1
	16-gauge		7		7	1.4
	20-gauge pinfire		6	17	23	4.7
	Loose shot	8	1	7	16	3.3
	Unknown		6	2	8	1.6
Miscellaneous	Brass foil	8	7	18	33	6.8
	Percussion or primer caps	2	1	2	5	1.0
	Unknown	3	3	7	13	2.7
Total		103	116	269	488	100

Table 2: Dateable ammunition identified by headstamps

Dateable feature	Date Range	Lower Laura	Burke River	Eyres Creek	Total	(%)
E.B./Eley Bros headstamp	1854–1874	18	7	13	38	7.79
Battery primer	c1866–1884	6	5	1	12	2.46
Boxer design	1866–c1900	77	36	36	149	30.53
Eley London headstamp	1875–1920	45	23	43	111	22.75
Kynoch headstamp	1884–1897	5	1	2	8	1.64
Drawn brass	1885–present	59	7	6	72	14.75
Other		59	24	15	98	20.08
Total		269	103	116	488	100

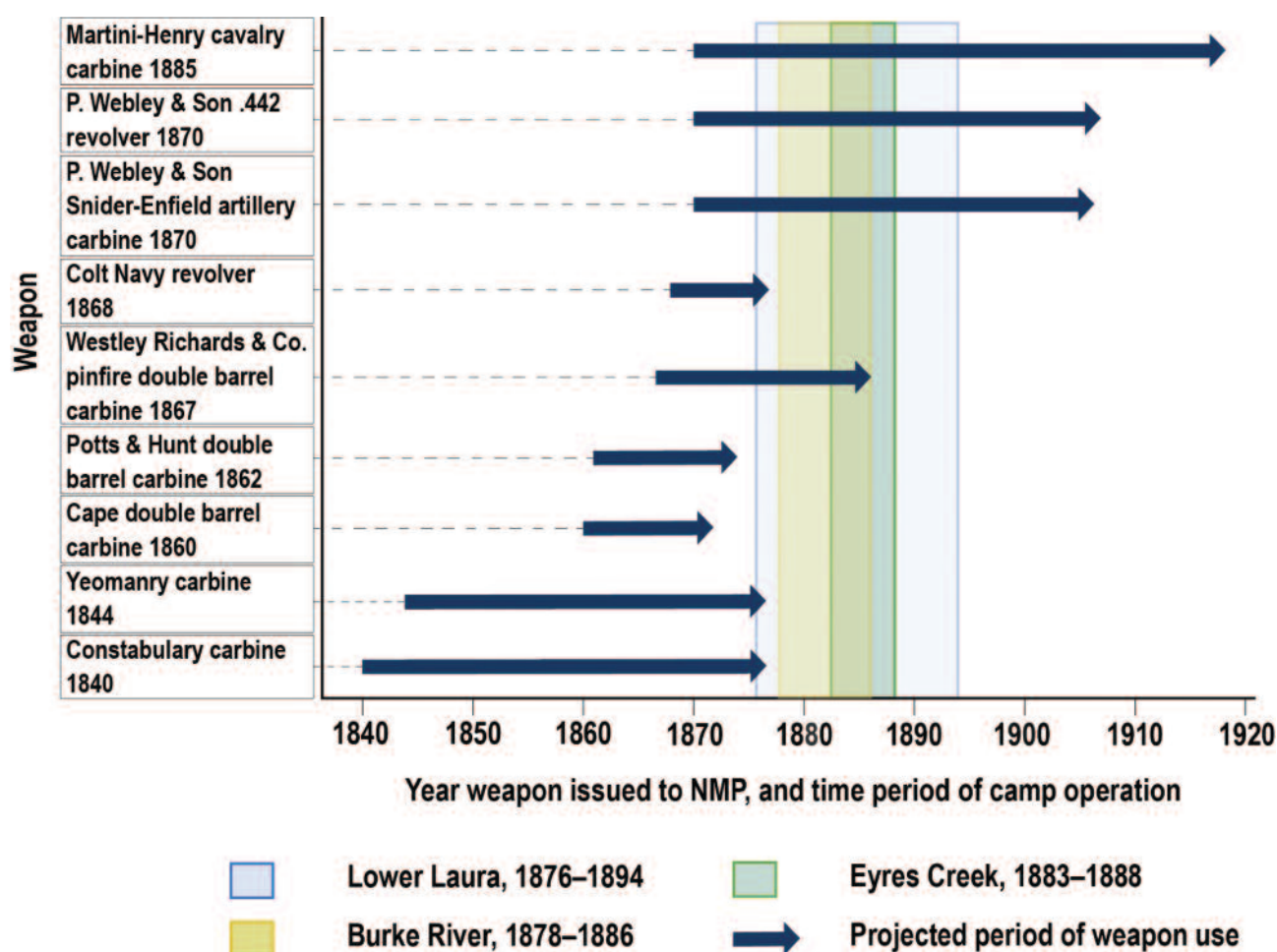


Figure 3: Date range of recovered ammunition against camp dates (image by A. Pagels)



Figure 4: An 1890 packet containing ten Martini-Henry Carbine cartridges, with Queensland provenance, examined and deemed serviceable in 1903 (image by A. Pagels)

and Lower Laura both derive from the Westley Richards & Co carbine, a weapon issued to the NMP between 1868 and 1869. That it was still in active use in camps dating at the earliest from 1876 (Lower Laura) and 1882 (Eyres Creek) indicates considerable curation of older weaponry by the NMP, even though the Snider was issued to them in large numbers after 1870. The self-contained pinfire ammunition made the Westley Richards carbine more useful in damp conditions, and these weapons were favoured because they were double barrelled, meaning they did not require as much reloading, especially on horseback. Archival and archaeological evidence indicate that at least one or two were issued to each detachment, and they were retained into the 1880s until the supply of ammunition was exhausted. A comment by an ex-NMP officer, Robert Johnstone, suggests that some were then converted to use centrefire ammunition and kept in use even longer (Johnstone 1904). Previously, Robinson (1997: 35-38) had suggested that only 71 pinfire carbines were distributed to the regular police in 1868-1869, and that few, if any, of these weapons found their way to the NMP, despite historical documents specifying they were purchased specifically for them in 1867 (Richards 1866, Sargeant 1867). The archaeological presence of pinfire cartridges, however, suggests that their use by the NMP was more widespread and sustained than historical documents or Robinson's work indicate.

Taken together, these data reveal several broad patterns in weaponry and ammunition use, as well as some inconsistencies between archaeological and archival sources.

First, three breech loading weapons dominated NMP activity between 1870–1890: the .442” Webley RIC revolver; the single barrel .577” Snider–Enfield artillery carbine; and the double barrel, 20-gauge Westley Richards and Co. pinfire carbine. All sites contained ammunition from the first two, while the pinfire cartridge was found only at Eyres Creek and Lower Laura.

Second, .44”-40 Winchester cartridges were recovered from both Eyres Creek and Lower Laura, with substantially greater frequencies from the latter (n=41). Historians have previously argued that, despite its general popularity (Skenneron 1975: 33), the Winchester was purchased in only small numbers for the Queensland police, and issued solely to inspectors and sub-inspectors after 1893 (Robinson 1997: 69–70). Headstamps on the .44”-40 cartridges from both camps indicate production dates between 1874–1919 and 1886–1928 (cf. Harding 2006: 149), however, meaning these .44”-40 rifles would have been manufactured sometime between 1874 and when they were known to have been issued to police c. 1893—making their issue earlier than Robinson realised from historical records. While the use of old ammunition could have occurred, it is unlikely here, as the government would not purchase ammunition for weapons not on issue. Moreover, they must have been specifically issued to NMP personnel at Lower Laura. Such weapons were rare, however.

Third, 12-gauge shotgun ammunition was recovered from all three sites, amounting to 20.1 per cent of all finds (Table 3). The cartridges for these shotguns were produced by only two manufacturers, Eley Brothers and Kynoch, both of whom have well established dates for their products (Harding 2006, 2009). Cartridge heads marked ‘ELEY BROs’ and ‘E.B.’, retrieved only from Eyre’s Creek, can be dated to between 11 March 1866 and 1874. Those marked ‘ELEY No. 12 LONDON’ and ‘ELEY LONDON No.12 GASTIGHT’ date from 1874 until 1919, and those marked ‘KYNOCH BIRMINGHAM No 12’ from the late 1860s until 1888. All three makes were recovered from all three sites, placing production and use firmly within the NMP occupation periods for all camps (Figure 3).

Table 3: Distribution of .577” Snider and 12-gauge shotgun ammunition across the three camps

Site	.577 Snider	12-gauge shotgun	Other	Total
Burke River	34	19	50	103
Eyres Creek	36	36	44	116
Lower Laura	43	43	183	269
Total	113	98	277	488

The uniqueness of 12-gauge shotguns at all three camps and the overlap between the two key longarms—the double barrel Westley and Richards pinfire carbine and the single barrel Snider–Enfield artillery carbine—raises two additional questions that shed further light on the activities of the NMP: why did the NMP possess and use 12-gauge shotguns, and what might the differential distribution of double- and single-barrel carbines signify in terms of the functioning of NMP detachments?

Shotguns and carbines

To date, there is no archival evidence for the purchase of 12-gauge shotguns by Queensland Government authorities or for connecting the use of this weapon to the NMP. Archaeological evidence, however, makes it clear that these weapons were actively used at NMP camps. One plausible

explanation for this anomaly is that camp life regularly included the hunting of game to supplement government rations. While the specifics of life at the three case study sites have not been recorded in archival documents, camp keepers’ journals from other NMP camps reveal that troopers often left to hunt every few weeks (Native Mounted Police 1864–1871, 1880–1882). It is also conceivable that the camp keeper was required to ensure adequate provisions for the detachment and other residents if rations were insufficient or otherwise unavailable. Camps were strategically located adjacent to permanent waterholes that would have attracted an abundance of wildlife and the 12-gauge shotgun loaded with ‘birdshot’ was the ideal weapon for hunting small animals and birds.

Archaeologically, the Lower Laura and Burke River NMP camps included both introduced and native faunal remains (Artym 2019: 142; Bateman 2020: 239). At Lower Laura, 29 per cent of the assemblage was macropod (kangaroo and wallaby), followed by possum, rat, snake, birds, fish, and freshwater mussel, with 50 per cent of these taxa recovered from the troopers’ area (Bateman 2020: 223–238). The officers’ area contained equal quantities of cow, kangaroo/wallaby and birds (n=15). This suggests that both troopers and officers were supplementing their official rations, though troopers more so. The Burke River faunal assemblage (1177.35 grams) included mussels, emu eggs, various birds, reptiles, marsupials, and dingo, with all finds deriving from areas argued on the basis of oral history and archaeological evidence to have been occupied by troopers (Artym 2019: 144–148). No non-European fauna was recovered from the areas associated with officers, suggesting that only troopers were supplementing their rations via hunting at this camp.

Calculating Indigenous death rates on the frontier

It is possible to take these data one step further. Arguably, before the introduction of highly efficient centrefire weapons in 1870, the NMP were tactically on a more equal footing with Indigenous people. An Indigenous warrior could throw a spear faster than a trooper could reload a muzzle-loading weapon, although the consequence of being struck by a bullet, if not death outright, was severe injury, infection, or other serious complications, while spear wounds were often survivable. The double-barrel carbine introduced in the mid-1850s afforded the NMP a specific advantage, although these were only issued in limited numbers (Robinson 1997: 16, 17; Skenneron 1975: 12, 13, 76). Aimed shooting would have become more effective after the introduction of rifling and the arrival of the Snider–Enfield artillery carbine in 1870. Trials in Britain had endorsed the Snider–Enfield as the best weapon available, a situation that did not change until the Martini–Henry was introduced in 1876 (Skenneron 1975: 103). However, despite the advantages of the Martini–Henry, these were not issued to the NMP until the late 1880s and, even then, only in limited numbers. For this reason, the Snider–Enfield became synonymous with the operations of the NMP (Figure 5).

Various historians have tackled the difficult task of trying to estimate Indigenous colonial death rates (Broome 1982, 1988; Evans 2010; Ørsted-Jensen 2011; Ørsted-Jensen and Evans 2014; Reynolds 1981, 1987; Reynolds and Loos 1976; Ryan 2012; Ryan *et al.* 2019). An early assessment for Queensland by historians Henry Reynolds and Noel Loos argued there were perhaps around 1000 non-Indigenous people killed in frontier conflicts (Reynolds and Loos 1976). Theorising a ratio of ten Indigenous people killed to each non-Indigenous person, they estimated the number of Indigenous

Figure 5: Kenneth Donald Tuach McKenzie with seven Aboriginal troopers, Cloncurry, pre-1882. All are holding Snider artillery carbines and wearing bandoliers filled with cartridges (courtesy of State Library of Queensland D6-19-86; Negative Number 57330)



people killed as 10,000. The ratio of 10:1 became a long-standing benchmark, although it later drew criticism (Reynolds 2013: 96). In a more recent study, Ørsted-Jensen (2011: 47–58, 178–179) argued that, in Queensland, because of the ubiquity and systematisation of the NMP, the ratio could have been as high as 50:1. Ørsted-Jensen and Evans (2014: 2) subsequently used Police Department and other ‘reports and diaries’ to create an alternative method structured on the number of patrols per NMP detachment, the number of dispersals conducted per patrol, and the average number of Indigenous people killed during each dispersal. They concluded that the NMP conducted 6000 patrols and 3420 dispersal events and estimated that, during each event, an average of 12 Indigenous people were killed. Their final tally was thus 41,040 Indigenous people killed at the hands of the NMP between 1859 and 1897 (Ørsted-Jensen and Evans 2014: 4), although this has been disputed (Finnane and Richards 2024).

Here we adopt an alternative and more conservative approach, focusing on the Snider–Enfield artillery carbine. In contrast to the ambiguities in the distribution of weapons and ammunition before 1870, the introduction of the Snider–Enfield is unequivocal and its improved range and accuracy undeniable; all evidence points to it dominating NMP operations between 1870 and 1890 (Pagels *et al.* 2023). Using this weapon, and based on key assumptions about the quantity of ammunition available to each trooper, the average gazetted strength of an NMP camp, and the troopers’ skill as marksmen, it is possible to construct an estimate for the number of Indigenous people likely to have been shot by the NMP.

In relation to the quantity of Snider-compatible cartridges available to each trooper, when Snider–Enfield’s were purchased they came with at least 20,000 rounds of

ammunition, and assessments by Robinson (1997: 44–48) have revealed that at least 97,000 were purchased between 1871 and 1890. Although the Native Police Regulations are silent on the subject of ammunition (*Queensland Government Gazette* 10 Mar. 1866[7]: 258–261), the amount issued to each trooper on patrol can be estimated based on *The Rules and Regulations for the Guidance of the Queensland Police Force* (Anon. 1869: 9), which states that regular police were issued with 20 cartridges, with the requirement to report any expenditure before supplies were replenished. While it is possible that ammunition expenditure limits did not apply to the NMP, NMP accoutrements, such as ammunition pouches and bandoliers, were manufactured to hold 20 cartridges (see Figure 5). This would suggest that each trooper was routinely issued with this number, to be replenished as demand dictated. This is a very conservative estimate of the number of rounds on issue to an individual trooper, with likelihood that each trooper was in possession of, or had access to, additional ammunition, provided it was available. As for their efficiency, an assumption is made that NMP troopers were accurate marksmen, armed with an accurate and powerful weapon capable of hitting its mark at more than 500 yards (about 457 metres) (Miller 1881: 22). Indigenous children in traditional societies possess a suite of skills learnt from an early age, theoretically making troopers highly skilled hunters regardless of their age when recruited into the NMP (Pagels *et al.* 2023: 18–19). Competency in handling European firearms was part of the increasing militarisation of the NMP after 1864, actuated via regular and routinised drill sessions to enhance proficiency (Pagels *et al.* 2024) and marksmanship would have been enhanced by activities such as regular hunting, whether using traditional or Western weapons (Pagels *et al.* 2023: 18). In essence, while the precise nuances of every trooper’s degree of training remain unknown, it is reasonable to assume that the

majority of troopers, especially those with any length of time in the NMP, would have been competent marksmen. Despite this, because it is impossible to know how many bullets found their mark during dispersals, a highly conservative assumption has been made here that only one round per trooper per year hit its mark.

In terms of the gazetted strength of a detachment, figures derived from *Pugh's Almanac* and the Police Commissioner's quarterly reports on the distribution of the police force, show that the minimum ratio of NMP officers to troopers between 1871 and 1890 was 1:4, while average annual strength across the same period was 115.3 troopers. Allowing for discrepancies in these numbers due to death, desertion, illness, and recruiting, a conservative, random adjustment of around 4.5 per cent reduces the mean to 110 troopers annually.

Our estimate of frontier death rates is thus via the following equation: the mean annual number of NMP troopers (110) multiplied by the amount of ammunition issued to each trooper that came into contact with a person (one round in a year), multiplied by the number of years ($n=20$) the Snider–Enfield was in use: $1 \times 110 \times 20=2200$.

This is a highly conservative estimate and, obviously, any increase in the number of people shot by a single trooper only raises this figure. For example, adopting Ørsted-Jensen's and Evans' assumption that 12 Indigenous people were killed during each dispersal and assuming only one dispersal event per trooper per year, the number rises to 26,400 ($12 \times 110 \times 20 = 26,400$). If extended to the 38-year period of Ørsted-Jensen's and Evans' (2014: 4) calculations, it escalates to 47,520, higher than their estimated figure of 41,040.

In some ways a comparison to Ørsted-Jensen's and Evans' figure is unhelpful, since their estimate was based on different assumptions. It is important to point out, however, that our method does not consider the number of Indigenous people killed or seriously injured by the NMP between 1848 and 1870, the quantity of pinfire carbine and revolver ammunition discharged between 1871 and 1890, death or injury caused by weapons other than guns, or the quantities of Martini–Henry and Snider–Enfield cartridges expended in the years after 1890. It also does not take into account any reprisal activity resulting in death or serious injury to Indigenous people by settler colonists. As a result, an estimate of 26,400 deaths at the hands of the NMP between 1871 and 1890 is perhaps not an unrealistic estimation of the carnage this force inflicted.

Conclusion

Nine weapons can be verified from archival and archaeological evidence as definitively having been issued to the Queensland NMP. In short, NMP weapons transitioned from a limited selection of muzzle-loading percussion weapons in the 1850s and early 1860s to a variety of breech-loading arms with self-contained pinfire or centrefire cartridge ammunition from the late 1860s. The rapid changes in weapons technology taking place internationally meant that many weapons were already outmoded by the time they were issued, although some older weapons proved useful long after their technology had been superseded. This created considerable heterogeneity in arms before 1870, similar to patterns identified internationally in other frontier contexts (Leoni 2014).

After 1870, NMP weapons became increasingly lethal, as the introduction of rifling, conical bullets and breech-loading technology offered ever greater range, accuracy and rapidity of

fire. These technological changes were epitomised by the Queensland Police's acquisition and distribution of the Snider–Enfield artillery carbine and, later, the Martini–Henry cavalry carbine. The addition of the 12-gauge shotgun is indicated from archaeological evidence alone, although this weapon may have been reserved for camp food procurement activities rather than offensive patrols.

Although the NMP's operation is not now easily reconstructed owing to the partial nature of both the historical and archaeological records (Burke *et al.* 2022), this paper contributes a small but integral component to our understanding of the NMP. Some scholars have suggested that settler colonialism's dispossession of Indigenous peoples and the deadly violence that enabled it was so endemic as to warrant describing it as genocide (Moses 2013: 2; Tedeschi 2018: 164; Wolfe 2006: 403). This is nowhere more evident than in the weapons distributed to, and deployed by, the NMP, especially the Snider–Enfield carbine, which heralded a significant change in the way the NMP operated, amplifying their effects. Had they been armed more widely with the even more accurate and faster loading Martini–Henry carbines, the consequences would likely have been even more devastating for Indigenous Peoples.

State control of violence is a key hallmark of modernity, the antecedents to which are clearly evident in organisations such as the NMP. Neither police nor military, the NMP were the key agents of colonisation for the Queensland colonial Government, taken to an extreme that was not seen in other colonies. As a 'counterpoint to pacified visions of cultural contact and colonialism' (Gonzalez-Ruibal *et al.* 2011: 41), the archaeology of the weapons and ammunition of the Queensland NMP offers a sobering and stark vision of a force that was constituted to dispossess Indigenous Peoples through violence.

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