

## CARTRIDGES AND CHRONOLOGY: AN EXERCISE IN RELATIVE DATING\*

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### ABSTRACT

The investigation of a Late Iron Age settlement near Winburg, Orange Free State, produced cartridge cases from excavations, while others were collected on the surface. These finds are described and discussed and are used to date aspects of the occupation. Excavated middens produced cartridge cases dating from the Second Anglo-Boer War (1899-1902) to about 1923. Cartridge cases collected on the surface included calibres manufactured for use during the Anglo-Boer War and to the time of modern day hunting ammunition. Based on this evidence it is argued that people were living at the site from before 1900 to about the early 1920s.

### INTRODUCTION

Archaeological reconstruction of the history and lifestyle of peoples is often based on the remains of utensils from daily domestic use. Ordinary objects can supply important evidence to date the occupation of specific sites or certain historical events. A cartridge case, for instance, is normally rendered worthless after it has been fired and discarded. This paper deals with the dating of a site based on the information obtained from fired cartridge cases. It is argued that cartridge cases which were manufactured for war and hunting during a specific time place the occupation of the site between 1890 and 1923.

The site is located at the farm Doornpoort 19 near Winburg (Fig. 1). This region played an important role during the early history of white settlement in the Orange Free State (OFS). The town of Winburg originated on the Voortrekker route and it became a gathering point from 1836. During the long and drawnout border disputes with the Basotho of Moshoeshoe, from about 1848 to 1868, Winburg played a key role as a stronghold in a sparsely populated country. The town was attacked by the Basotho on a few occasions and in 1866 livestock were taken from the commonage and the herdsmen murdered (Jacobs 1952:21; Taljaard 1979). The area along the Vet River is part of the earliest white-occupied land in this vicinity. The farm Doornpoort was officially surveyed in 1881, but the first owner of the farm is already mentioned in the Land Records of 1848. This is followed by the names of successive occupants until, in 1923, it came into possession of the present owners.

Archaeological excavations at a stone-walled settlement (Fig. 2) revealed material from two phases of occupation.

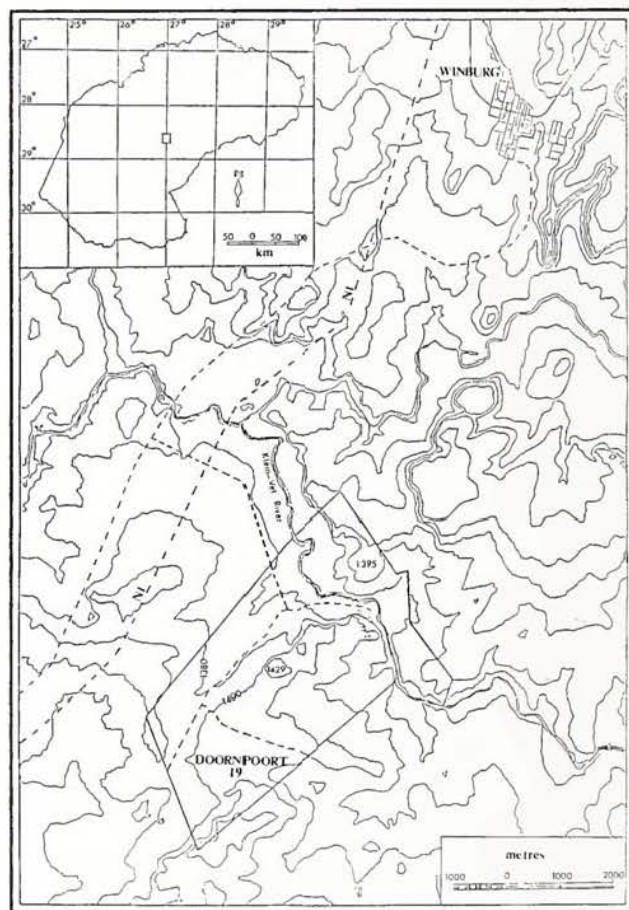


Fig. 1. Locality: Doornpoort 19, Winburg.

The earliest phase is represented by circular stone-walled enclosures of various sizes (Fig. 3) and the remnants of

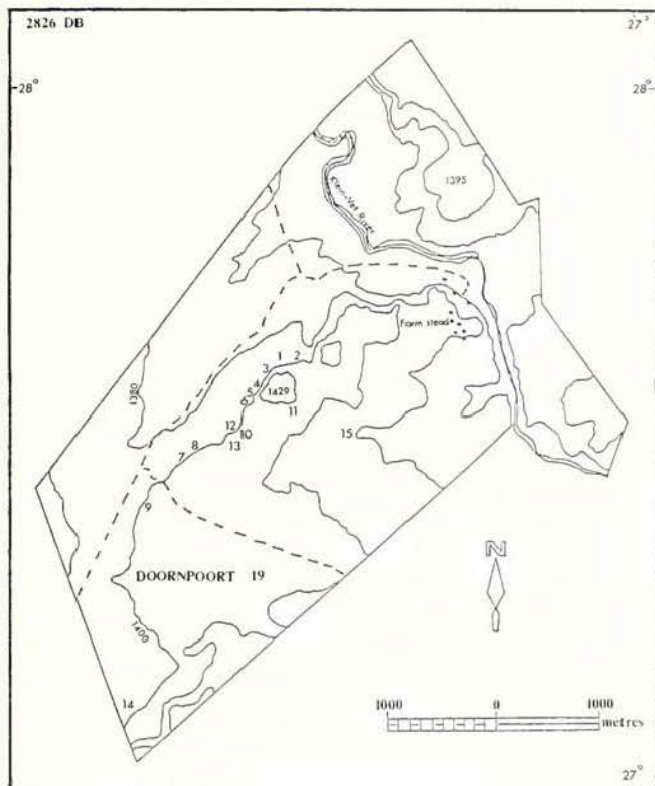


Fig. 2. Locality of excavated sites.

huts of reeds and mud plaster associated with baked clay pottery representing the Late Iron Age. Radiocarbon dating showed that this earlier settlement took place at about 1700 (Dreyer 1992).

The second period of occupation on the site is more recent. Occupants of this phase have demolished the stone walls of the first phase to build rectangular cattle byres and a row of adjoining four-cornered single rooms. Three middens found in association with these latter buildings were investigated (Excavations 2826DB 2 and 2826DB 11 A and B respectively) (Fig. 3). The remains of glass, porcelain, pieces of wire, nails and glass beads were recovered from the middens, indicating the presence of European trade goods. These, however, are not described in the present discussion.

The investigation also produced fired cartridge cases of different calibres from the upper layers of the excavations. The finds are described in Table 1. Simultaneously a surface collection was done in the vicinity and on a midden with associated stone buildings some distance away. This collection (Table 2) produced similar material, dating from the Anglo-Boer War, but followed through to the 1930s and 1940s and even included modern day hunting calibres. Information obtained from the cartridge cases is applied to date the younger occupation of the site.

## DISCUSSION

The headstamp of a cartridge case produces the vital characters and codes for identification and dating. Usually it contains information identifying the manu-

facturer and calibre of the bullet as well as designating either military or hunting use. Not all the information is necessarily found on every cartridge case, but it can usually be derived directly from the codes given and from documentation.

To learn more about the history and background of cartridge cases it is also essential to be acquainted with the history of the rifles which fired these bullets. Rifles used during the last decade of the 19th century and since 1900 are discussed below.

### Martini-Henry .577/.450

Since 1883 and particularly between 1896-1899, considerable numbers of these rifles were purchased by the Boer Republics (Scurfield & Tylden 1964:12), some of which were specially made for the South African Republic (ZAR) by Westly Richards (Bester 1987). Other Martini's of British Military origin were also used (Scurfield & Tylden 1964:12). The OFS Republic obtained their rifles from Webley, presumably assembled from used parts (Bester 1987:13).

Soft-case cartridges of rolled brass foil for the Martini-Henry were manufactured from 1871 to about 1880 (Simpson 1982) and were still freely obtainable up to the 1930s.

### Guedes 8X60R

These rifles were originally ordered by the Portuguese Government from Steyr, Austria. Prior to delivery, certain modifications were suggested by the clients. The first consignment was sold to the republican governments of the ZAR and OFS, who were desperately in need of arms after the Jameson Raid in 1895-96 (Simpson 1982; Bester 1987). As some of the ammunition for the Guedes carries no headstamp, the specific manufacturer cannot be established.

### Mauser 7X57

The 1888 and 1896 model Mauser firearms were most commonly used by the Boers who became famous for their ability to shoot accurately with these rifles. Incidentally, these weapons were used in many of the skirmishes that took place in the Orange Free State during the Anglo-Boer War.

Ammunition was supplied to the Boer forces by Ludwig Loewe & Co., Berlin (DM), during 1896-97 and from 1897 by the Deutsche Waffen und Munitionsfabrik (DWM), Karlsruhe.

### .303 Lee Metford & Lee Enfield

The .303 calibre replaced the Martini-Henry as weaponry of the British and colonial forces after 1888 (Simpson 1982:26) and was used throughout the duration of the Anglo-Boer War (1899-1902). Although the Mark II cartridge was made from 1893 to 1903, most of those used during the Anglo-Boer War were made by the Royal Laboratory and contractors during the war years only. Due to an alleged lack of stopping power a better bullet, the Mark IV hollowpoint expanding bullet, was introduced in 1897. For technical reasons this ammunition had to be withdrawn in 1899 (Wilson

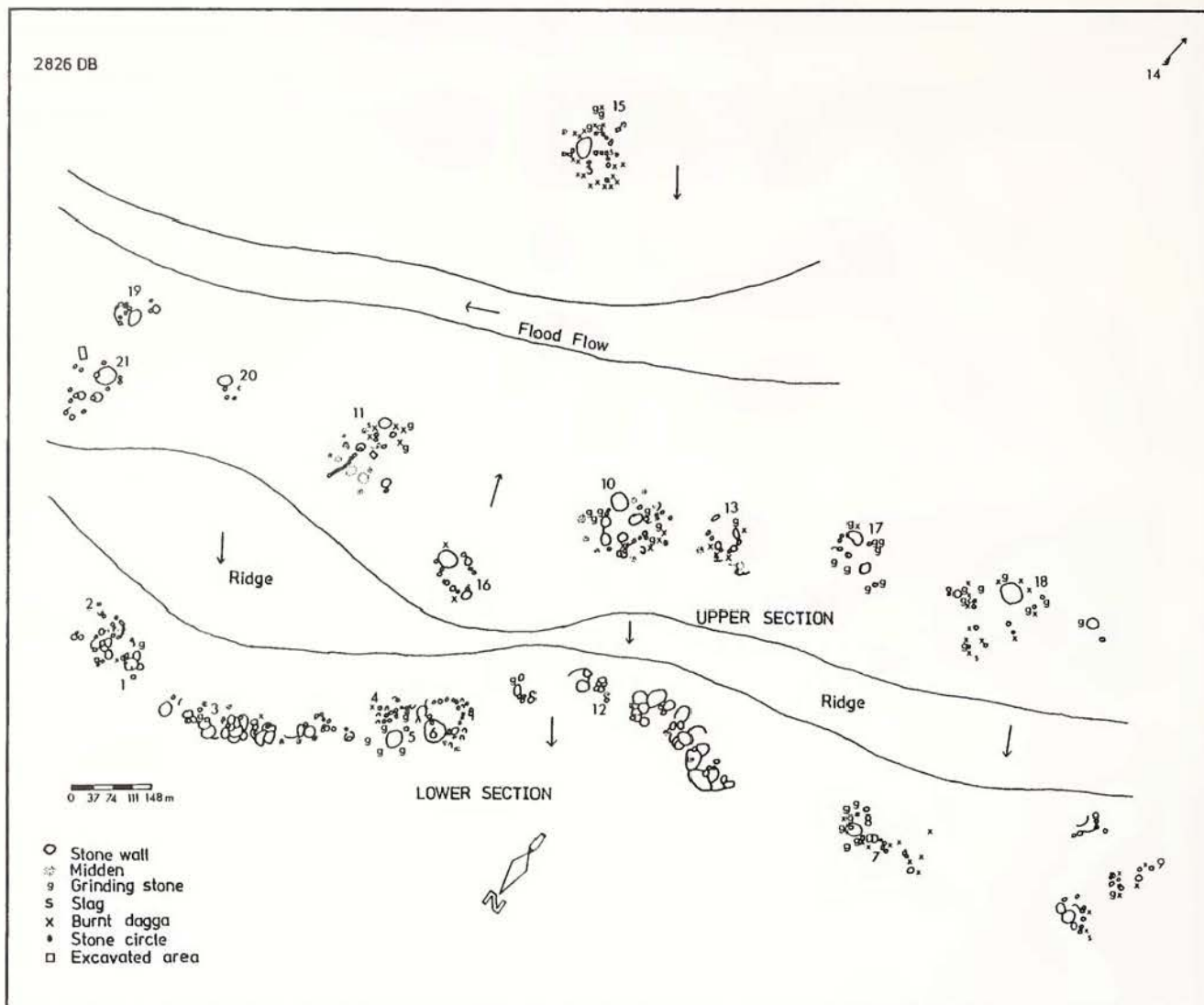


Fig. 3. Site plan at Doornpoort 19, Winburg.

1972:18). Small supplies of the Mark V dum-dum cartridges were already in the hands of some of the British troops before its use was prohibited in 1899. The cartridges were therefore used in limited numbers in the early days of the War.

The Boer forces were equally familiar with the .303 calibre rifles, as Lee Metfords had also been issued to burghers of the ZAR and OFS prior to the War (Simpson 1982:27; Bester 1986:160). During the latter part of the war the Boers were also forced to use captured British arms.

### CONCLUSIONS

The archaeological excavations at Doornpoort, Winburg, produced material dating from the Anglo-Boer War. Others from 2826DB 11A represented the time around 1910. The shells collected on the surface came from a wide selection of arms used during the Anglo-Boer War and from hunting by the local farmers in more recent times.

The interpretation of the material should be treated

with caution, because the presence of cartridge cases on a site do not imply their use by the occupants. Furthermore, confusing implications arise when the occupants selectively collect materials from nearby sites. The damaged state and the way in which some of the cases were inserted into one another indicate that they could have been collected and brought to the site by children as toys.

The calibres of all the cartridge cases found at Doornpoort could be determined and most of the manufacturers identified. It is important to note that cartridge cases of the .44-40 and .45-75 Winchester, .500/.450 No. 1 Carbine and No. 2 Musket and 8x50R Austrian Mannlicher calibres, which predate the Anglo-Boer War, were absent at Doornpoort. Extensive collecting in the districts of Beaufort West, Calvinia and Britstown for instance, showed that these calibres were common in the Karoo (J.C. Looek pers. comm.).

The cartridge cases excavated at Doornpoort represent a period from the Anglo-Boer War (1899-1902), including the Rebellion (1914) and the occupation of German South West Africa (1915) during World War I,

Table 1. Cartridge cases from the excavations.

PROVENANCE	NUMBER	CARTRIDGE	HEADSTAMP	INTERPRETATION	REMARKS	USE
2826DB2 Layar 1	1	.303 British		Royal Lab. Woolwich Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902
	1	.303 British		Kynoch, Birmingham Cordite Mark V	Hollow-nosed "Dum-dum" Manufactured 1899-1903	Anglo-Boer War 1899-1902
2826DB2 Layar 2	1	8x60R Guedes M85 Portuguese			Manufacturer unknown Probably made in Austria	Anglo-Boer War 1899-1902 Used by Boer forces first year of War
	2	.577/.450 Martini-Henry		No Headstamp	Drawn case Military	Anglo-Boer War 1899-1902
	1	.303 British		Royal Lab. Woolwich Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902
	1	7x57 Mauser		Deutsche Waffen und Munitionsfabrik, Karlsruhe	Manufactured c.1902-1939 Sporting	Hunting
2826DB11A Layar 1	1	.303 British		Kynoch, Birmingham Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902
	2	.303 British		Kynoch, Birmingham Mark VI, 1911	Military Rebellion 1914	Union Defence Force
	1	.303 British		Kings Norton Metal Co. Birmingham Mark VII, 1910	Military Rebellion 1914	Union Defence Force
	1	7x57 Mauser		Deutsche Waffen und Munitionsfabrik, Karlsruhe	Manufactured c.1902-1939 Sporting	Hunting
2826DB11B Layar 1	1	.577/.450 Martini-Henry		Soft case, rolled foil "sagte dop"	Manufactured 1871-c.1880 Military	Hunters up to 1930
	1	.577/.450 Martini-Henry		Drawn case Royal Lab?	Manufactured Great Britain	Anglo-Boer War 1899-1902
	2	Lead bullets Martini-Henry				
	1	.303 British		Eley Bros. London Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902
3	.303 British		Royal Lab. Woolwich Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902	

Table 2. Cartridges collected on the surface.

CARTRIDGE	HEADSTAMP	INTERPRETATION	REMARKS	USE
.577/.450 Martini-Henry		Westley-Richards, Birmingham	Manufactured 1880-1900? Sporting	Used by hunters before Anglo-Boer War
.577/.450 Martini-Henry			Rolled case brass foil 1871-c.1880 Military	Used by hunters up to 1936
.577/.450 Martini-Henry		Kynoch, Birmingham Cordite Mark II	Military Manufactured 1893-1903	Anglo-Boer War 1899-1902
.303 British		Royal Lab. Woolwich Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902
.303 British		Eley Bros. Birmingham Cordite Mark II	Manufactured 1893-1903 Military	Anglo-Boer War 1899-1902
.303 British		Kings Norton Metal Co. Birmingham Mark VII 1910	Military	Union Defence Force Suppression of Rebellion 1914
.303 British		Kynoch, Birmingham Mark VI, 1911	Military	Union Defence Force Suppression of Rebellion 1914
.303 British		Kynoch, Birmingham Mark VI, 1923	Military	Union Defence Force Target shooting.
7x57 Mauser		Deutsche Metallpatronenfabrik Karlsruhe, 1897	Military	Anglo-Boer War 1899-1902 Used by Boer forces during first year of War.
7x57 Mauser		Deutsche Waffen und Munitionsfabrik, Karlsruhe	Manufactured c.1902-1939 Sporting	Used by hunters up to 1939.
7x57 Mauser		Eley Bros. Birmingham	Manufactured 1902-1923 Sporting	Used by hunters up to 1923.
8x57 Mauser		Manufacturer unknown	Sporting	Exact dates of use unknown. Used by hunters mostly between 1904-1950.
6.5x58 Portuguese Vergueiro		Arsenal do Exercito Lisbon, Portugal 1913	Military cartridge for the 1904 "Portuguese Mauser"	Used by Union Defence Force during Invasion of German South West Africa, 1915. Thereafter used by hunters.



Fig. 4. Cartridge cases: Guedes 96' (8x60R), Martini-Henry .577/.450, Mauser DWM, K (7x57), .303 RL II.

up to 1920. Whether all these events were directly associated with the occupation of the site is doubtful. There is evidence, however, of a skirmish in the nearby hills at the adjacent farm Kareedam during the Anglo-Boer War and during the Rebellion some shooting took place at Mushroom Valley about 30 km to the east of Doornpoort.

In view of the fact that a wide range of cartridge cases were found together, it is surmised that they were collected in the vicinity as curios or toys and were later discarded. Because of this selective collection of cases representing a long time span the date of initial European occupation of the site cannot be accurately determined. The cases were recovered from the upper layers and on the surface of the middens, indicating that the occupation was already in full progress well before the end of the nineteenth century when the oldest cases arrived. Shortly after 1920 the site was abandoned as is indicated by the cases from middens. In contrast, the surface collection produced dates up to the 1930s and 1940s and even included modern hunting calibres. It is therefore argued that the assemblage of cartridge cases by the occupants of the site only commenced by c. 1890 and ended somewhere after 1920, thus possibly representing the end of the occupation.

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