

Equids in Mozambican history: the role of zebras, donkeys, horses, and their hybrids

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Introduction

The late José Capela insisted on exploring the material history of Mozambique, and yet knowledge of the history of animals in Mozambique remains poorly developed. To the extent that scholars have looked at the topic, they have focused mainly on cattle, whereas equids have received little attention. And yet, wild zebras have been hunted for centuries. Seafarers from the Indian Ocean introduced domesticated horses and donkeys, which later came overland from southern Africa. There were imports and local breeding of mules and hinnies, the sterile hybrids of donkeys and horses. Technically, a mule is from a horse mother [mare] and donkey father [jack], whereas a hinny is from a donkey mother [jenny] and a horse father [stallion], although the word 'mule' often embraces both crosses. All domesticated equids were severely tested by disease in Mozambique, although donkeys and their hybrids were somewhat more resistant to the numerous pathogens.

Despite high morbidity and mortality, equids had some significance in colonial history, notably from the 1890s to the 1910s. They served in wars of conquest, and during Portugal's deadly conflict with Germany from 1914 to 1918. They assumed a role in civilian transport, before largely losing out to competition from bicycles and motorized vehicles. Sporting events then remained as a specialised niche, although little is known about this. There were attempts to breed equids locally, albeit not to tame and hybridize zebras, which served as an attraction for hunters and tourists.

After independence, equids suffered mixed fortunes. Zebras were nearly exterminated as a result of civil strife, although they are being reintroduced into national parks. Horse-riding now attracts foreign visitors. Donkeys contribute to pack and wheeled transport, both rural and urban, and are especially valued because of shortages of vehicles and fuel. There is probably an increased consumption of donkey meat, as exports of donkey hides to China rise. This provides nutrition and income, but it may threaten the future of the animals. Moreover, disease remains a menace to the health and lives of domesticated equids.

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Zebras and domesticated equids: differential resistance to disease

Equus quagga, the Plains species of zebras, evolved some 100,000 to 300,000 years ago in Eastern and Southern Africa. In the region that is today Mozambique, the Crawshay sub-species lived north of the Zambezi, while the Selous sub-species ranged to the south (Anon., 2009). The main cause of limitations on zebra numbers were predators, both human and animal. African hunters developed a wide range of techniques to kill game animals, for meat, for hides and other products, and as a social and political ritual (MacKenzie, 1988: ch. 3). Lions were also especially fond of zebra flesh (Selous, 1903: 194).

The great natural advantage of zebras is their resistance to insect-borne diseases. Indeed, their stripes may discourage insects from biting them (Caro, 2016). In contrast, domesticated equids are extremely vulnerable to these pathogens. Moreover, zebras act as reservoirs for the viruses of African Horse Sickness, which are spread by *Culicoides* midges, as well as the parasites that cause equine piroplasmiasis or babesiosis, which are passed on by blood-sucking ticks. A wide range of game animals carry the parasites that cause trypanosomiasis, or *nagana*, which are transmitted by blood-sucking tsetse flies, and are fatal to domesticated mammals (Mitchell, 2017). Furthermore, zebras seem to be unaffected by toxic plants that kill other equids when ingested (Brown, 2008). Donkeys have a greater resistance to all these maladies than horses, with mules somewhere in between, although the extent of any real immunity is hotly debated (Fielding and Krause, 1998: ch. 5).

Donkeys spread overland from the Horn of Africa, reaching the region that is now Tanzania by the first millennium BCE. However, they did not extend to what is today Mozambique by that route, as their advance stopped in the Nyamwezi lands of modern central Tanzania. Susceptibility to disease probably explains why they did not follow cattle, sheep and goats any further into Southern Africa (Mitchell, 2017).

It was therefore from the Indian Ocean that Mozambique initially received domesticated equids. By the nineteenth century, horses, donkeys and mules arrived fairly regularly in dhows in coastal zones of East Africa, albeit on a small scale. The animals originated in the Horn of Africa, the Gulf, and Northwestern India (Guillain, 1856-57: III, 306, 328, 350-1; Burton, 1859: 393-4; Nicholls 1971: 352).

The Dutch, soon after their settlement at the Cape of Good Hope in 1652, introduced horses from Europe and donkeys from the Cape Verde Islands, and bred mules by hybridizing the two animals. Domesticated equids then gradually spread north and east along highlands and drylands, although African Horse Sickness proved to be a major barrier (Swart, 2010: 21-31, 69; Andreas, 2016). The Great Trek of the Boers in the early 1830s, away from British-ruled areas, accelerated the movement inland.

Horses in early modern Mozambique

After the Portuguese had settled on the southeastern coast of Africa, they sought to conquer the fabled gold mines, and rumoured silver mines, of the Mwene Mutapa on the Zimbabwean Plateau. For his great expedition of 1571-75, Francisco Barreto commandeered a few animals locally in the region of Mozambique Island. He then received 25 to 30 horses from India in Sena, which were of varying quality. The Portuguese accused local Muslims of poisoning a number of these animals, and inflicted savage reprisals. However, the symptoms described for the death of one animal, namely yellow matter issuing from the beast's mouth, suggest that it died of African Horse Sickness. The Portuguese rode horses in the campaign, and employed them for reconnaissance and charges, whereas they transported their artillery by water or ox-carts (CEHU, 1962-1989: VIII, 284-96, 370-2, 378,

398, 404, 408, 410, 412). All the original animals had died by the time that the expedition ended (Newitt, 2002: 75).

Later Portuguese plans to conquer the gold mines mentioned horses, but there is no clear evidence that they were ever actually employed again in any military operations. In 1585, a report estimated that 2,000 men and 200 horses would be necessary to seize the lands of the Mwene Mutapa. A similar project, in 1614, made no mention of animals, though they may have been subsumed in the calculation of general costs (CEHU, 1962-1989: VIII, 528; IX, 376-8).

Horses became more important for Portuguese diplomatic initiatives directed to the Mwene Mutapa, albeit with no greater visible success. Around 1614, Diogo de Simões, knowing that the ruler had earlier fruitlessly asked Estêvão de Ataíde for a horse, bought one from a Sena trader. However, the Mwene Mutapa sent a message not to send the animal immediately, as the land was very dry, and it seems that the animal was never despatched (Boccaro, 1876: II, 587-8). In 1621, the Mwene Mutapa again requested the gift of a horse, and the Portuguese authorities in Hormuz or Goa were told to send a pair of them to Mozambique, with appropriate trappings. The king then repeated this order in 1624 (Theal, 1898-1903: IV, pp. 183, 187). In the event, it seems that no horse was ever delivered to a Mwene Mutapa, and that the animals did not become established on the Zimbabwean Plateau till the late nineteenth century (Randles, 1975: 75).

Importing and breeding horses for the defence of the Portuguese colony proved no more viable. In 1635, the king ordered that 200 mares and some stallions be distributed to settlers, for their security and for that of the mines, although he opined that local oxen would be adequate to transport artillery pieces (Theal, 1898-1903: IV, 248-9). Suggestions of imports of military horses, from India or Arabia, continued to be made in the eighteenth century, with the argument that Africans would be terrified of the beasts. Some writers thought that horses could easily be bred locally, whereas others were more prudent in their evaluations (Rodrigues, 2017). The Captain General of Mozambique in 1802 called for 'two pieces of field artillery' for the flat lands of Zambezia, presumably to be drawn by horses or mules, although his advice went unheeded (Lima and Bordalo, 1844-1862: IV, 34).

In the mid-nineteenth century, little had changed in Zambezia. The Portuguese employed light artillery against local *aringa*, stockades of living trees, during the Zambezi Wars of 1840 to 1869, but it is unclear how they moved their guns (Newitt, 1995: 315). The Junta Geral da Província de Moçambique inquired into introducing horse breeding in 1856. Francisco Bordalo applauded this initiative, and argued for a cavalry force of some 50 men in Zambezia, with horses imported from Arabia and pastured in Sena (Lima and Bordalo, 1844-1862: IV, 94, 139).

Nevertheless, new sources of horses emerged in the first half of the nineteenth century. Initially, the extension of the Atlantic slave trade to Mozambique led to occasional imports of horses from Brazil. A few of these animals were thus found in Quelimane in 1823 (Boteler, 1835: I, 247). In 1858, the governor of Tete ordered that a horse be sent to him from Quelimane, although it died of trypanosomiasis before it could reach him (Livingstone, 1865: 41). Boer settlers, in what became the Transvaal, also brought horses overland, with the Portuguese of Lourenço Marques remarking on the fine horses of the Boers in 1844 (Jackson Haight, 1967: 315).

Zebbras, donkeys, and mules in early modern Mozambique

Portuguese commentators were fascinated by zebras, which were unfamiliar wild cousins of domesticated equids. However, they sometimes created confusion by describing them

as donkeys or mules. As it became clear that zebras were a different species, opinions were divided as to whether they could be tamed or not, although no Portuguese attempts to do so have been recorded. There were also the mysterious *miruns*, described as grey wild asses that Africans loved to eat (Mártires, 1823, 99; Botelho, 1835: 254). The *mirun*, also spelled *miru*, *meru*, or *merum*, may have been the animal known as the quagga to the Dutch, although this now extinct equid is not thought to have extended as far north and east as this.

Donkeys and mules fared slightly better than horses in early modern Mozambique. Barreto commandeered donkeys in the north for his ill-fated campaign up the Zambezi, as well as camels, which were seemingly brought from Arabia. Among the equids arriving from India, there was at least one *macho*, translated as 'mule' but possibly a hinny, which soon died (CEHU, 1962-1989: VIII, 264, 370-1). Donkeys carried water-bags on the Portuguese expedition, whereas camels transported heavy goods (Theal, 1907-1910: I, 322).

Good donkeys were bred in the north by 1809, when Henry Salt reported on large white animals that were raised on the Mossuril Coast, opposite Mozambique Island. They were employed locally for pack transport over short distances. A few of these fine animals were sent to Brazil as gifts (Salt, 1816: 34-5, 73). Often called 'Muscat asses', as they were originally imported via the port of Masqat in Oman, this breed originated in al-Ahsa or Bahrayn, on the Arabian side of the Gulf (Clarence-Smith, forthcoming). Frei Bartolomeu dos Mártires further remarked on half a dozen nondescript donkeys, belonging to individual settlers, which foraged in the streets of the capital in 1822 (Rodrigues, 2014: 26; Mártires, 1823: 4-5).

Donkeys became established in central Mozambique, but apparently not in the far south. Reports of 1758-1762 noted their presence in the Rios de Sena in 1758 (Ellert, 1993: 138-9). Tonga oral traditions, of uncertain date, record that the Chikunda, the military slaves of the Portuguese, employed some pack donkeys, together with porters, to trade in ivory away from the Zambezi (Matthews, 1976: 197, 513). Thomas Boteler commented on the large size of the 'asses' that he saw in Quelimane in 1823 (Boteler, 1835: I, 247). In the far south of the colony, however, there were said to be neither donkeys nor horses in 1835 (Botelho, 1835: 74).

A trader's donkey attained unexpected diplomatic celebrity, as a result of António Cândido Pedroso Gamitto's trip to the Central African kingdom of Kazembe in 1831-32. Accompanying the expedition as it left Tete was a Portuguese merchant riding on a donkey, although porters carried his trade goods. When the trader died, Gamitto took over his mount, although he complained that the animal was poorly equipped, and was averse to crossing marshy ground. On reaching Kazembe, Gamitto seized the opportunity to impress the king and his court by riding the animal, dressed in his full uniform (Gamitto, 1854: 8, 162, 233-4, 383). This incident shows that Simoni's assertion that nobody rode donkeys in the colony, because there were Africans to carry them in litters or hammocks, was something of an exaggeration (Simoni, 1821).

David Livingstone provided further evidence for donkeys and mules. In 1856, he noted that a trader of Tete employed donkeys to power a rudimentary groundnut mill (Livingstone, 1857: 645). Three years later, he borrowed two donkeys in Tete to travel to the Upper Zambezi. In 1863, he had a 'mule-cart' to travel up the River Shire, possibly with mules imported from South Africa (Livingstone, 1865: 183, 207, 335, 426, 464). For his final expedition, he brought two mules and four donkeys from Zanzibar, as pack animals. However, they all succumbed to trypanosomiasis as he went up the Rovuma valley (Livingstone, 1874: I, 9, 15-16, 23, 29-30, 34-6, 42, 61, 68, 75).

Modern wars of conquest, 1894-1914

In the late nineteenth century, Europeans developed a novel optimism that they could overcome the diseases of animals, which had for so long hampered their penetration of Africa. The discoveries of Pasteur, Koch, and other scientists heralded a new era. Veterinary medicine did not fully live up to this promise, as parasites and viruses proved much more difficult to suppress than bacteria, but it became somewhat easier to keep equids alive in Africa (Brown, 2008: 33-5). The development of veterinary services in Mozambique may have had a positive impact in the colony, although it is hard to judge (Mendes, 2006).

Some equids were locally procured for military purposes in Mozambique, but South Africa emerged as a major new source. Horses, mules, and donkeys regularly came over the land frontier with the Transvaal (Andrade, 1907-1910: I, Appendices, 18). Horses, and more especially mules, also came episodically by sea from Durban (Coutinho, 1904: 84). Many mules in South Africa were in turn imported from the Río de la Plata area of South America (Tegetmeier and Sutherland, 1895: 56). Equids were also sent with military expeditions from Lisbon, which became more numerous as the 'Scramble for Africa' took off.

The Portuguese began to employ equids for wars of colonial conquest in a serious way from 1894, when they faced a major military threat to the rapidly expanding city of Lourenço Marques [Maputo] from King Ngungunyane of Gaza. However, neither animals nor carts accompanied the metropolitan expedition, which left Lisbon on the 15th October 1894 (Pélissier, 1984: II, 590, 594). Presumably, the soldiers were expecting to procure the means of transport locally in Mozambique.

Joaquim Mouzinho de Albuquerque, who arrived in 1895, was a cavalry officer from a noble family, and a lover of horses. He led a small force of mounted men in the operations of 1895 against Gaza, initially disposing of 121 horses and mules. The four mountain-guns and two machine-guns of the expedition were transported by equids. However, horses and mules died so fast that Mouzinho de Albuquerque was on foot when he famously captured King Ngungunyane at Chaimite. Portuguese artillery was paralysed, and Boer ox-wagons had to be procured for logistics. Ironically, Ngungunyane was riding a cart pulled by mules as he retreated, and it may be that his mules were better acclimatised than those of his foes (Pélissier, 1984: II, 595, 603-7, 614-17).

Despite this inauspicious start, the Portuguese became somewhat more effective at keeping their equids alive, albeit with marginal effects on their military efforts. Mouzinho de Albuquerque conducted minor operations in the Maputo area in 1896 on horseback, making up for his frustration the year before (Pélissier, 1984: II, 625-6). In 1897, there were plans to deploy 200 Europeans and 50 horses for a campaign against Maganja da Costa, in Zambezia (Capela 1988: 17). However, no equids were mentioned in the actual operations in the following year (Pélissier, 1984: II, 475-6).

Mouzinho de Albuquerque's campaign against the Namarrais in the area opposite Mozambique Island, in 1896, is harder to interpret. He was lucky to be able to retreat out of an ambush, twice wounded but alive, and it may have been a cavalry charge by the 68 horses in the Portuguese column that avoided an even more spectacular defeat for the Portuguese (Pélissier, 1984: I, 197). Local Africans have a tradition that they ate the horse of the vanquished commander (Cahen, 2017). Horses continued to be part of Portuguese forces in the north after this defeat, but on a reduced scale (Pélissier, 1984: I, 197, 203, 207). Although Mouzinho de Albuquerque had quite limited success in deploying equids of war in Mozambique, colonial apologists later employed the iconography of the horse to the full. Salazarist ideologists turned Mouzinho de Albuquerque into an exemplary colonial figure (Rodrigues, 1956). An enormous equestrian statue of the hero was erected in a prominent

position in the square named after him in Lourenço Marques, in front of the city hall, and it was embellished with bas-reliefs of cavalry charges on the plinth (Anon, 2015).

In 1902, the African state of Barué, in central Mozambique, witnessed the most significant Portuguese military expedition between 1895 and 1914. José de Azevedo Coutinho, Governor of Zambezia, had an unusually large contingent of artillery, consisting of nine pieces, two mortars, and a Maxim gun, but René Pélissier does not explain how the guns were transported. He notes a cavalry charge with lances in the crucial battle of the campaign, but says nothing about the mounts (Pélissier, 1984: II, 488-502).

For this unusually successful operation, Coutinho procured a small but serviceable contingent of equids. There were 34 horses, mainly for the cavalry, 58 mules, mainly for the artillery, and 11 donkeys, mainly for logistics, although porters were far more significant in this regard. Mounted men were armed with lances, swords and carbines, and some rode mules. Horses were partly bought in Durban, and partly obtained locally, while mules were nearly all purchased in Durban. The quality of these animals was good, and having geldings, rather than stallions, avoided problems with mares. Few losses were recorded among the equids, possibly reflecting cold winter weather and altitude (Coutinho, 1904: 601, 65-8, 84, 352-9, and Tables after 385).

Equids in the First World War and its aftermath

The outbreak of the First World War in Europe led to an immediate increase in military activity in Mozambique. Even though Germany only declared war on Portugal on the 9th of March 1916, the northern frontier was tense from August 1914, and armed clashes occurred (Pires, 2017).

Around 2 000 horses and mules were probably sent to the front in northern Mozambique during the war, although there are discrepancies and uncertainties in the figures. Pack saddles, Alentejo carts, harnesses, and forage for equids were also dispatched from Lisbon. A decree of the 21st August 1914 authorised the first expedition, made up of 1 527 men and 322 *solípedes*, that is horses and mules combined. A second wave, leaving in October 1915, brought 1 543 men, but no animals. After the formal declaration of war in March 1916, a set of ships left Lisbon between May and July, carrying 4 642 men and 1 378 *solípedes*. The animals left on two separate ships, on the 3rd and 8th of July. By this time, equids were becoming scarce in Portugal, and many had to be acquired from Spain, with some difficulty. In addition, several hundred were purchased in South Africa, but again with difficulty, as General Jan Smuts had requisitioned 11 000 for his own army. The fourth expedition, departing between January and July 1917, consisted of 4 509 men, but apparently brought no equids. Forty lorries were obtained in 1916, from Italy and the United States, possibly in response to reports of high equine losses (Barbosa, 1917-1918: 841-2, 21-5, 107-8, 129-31). General Ferreira Gil gave a lower number of 945 *solípedes*, with 159 carts, for the 1916 expedition (Gil, 1919: 334).

Equids sent to northern Mozambique lacked immunity to local diseases, and died quickly and in large numbers. Indeed, the average life-span of these animals in Africa was estimated to be only four months (Pires, 2014). Tsetse-borne trypanosomes were particularly bad in the Rovuma Valley, as David Livingstone had discovered decades earlier (Gil, 1919: 342). Death rates of equids in the British expeditionary forces in East Africa were equally high. Of the 88 000 horses, mules and donkeys, which were sent from South Africa in January 1916, only 3 000 were left alive in October of that year, chiefly due to the ravages of trypanosomiasis and African Horse Sickness (Tylden, 1980: 63).

In addition to high losses from disease, the Germans captured equids from the Portuguese, killed some in battle, and caused others to flee into the bush (Costa, 1932: 50, 53-4, 60, 135, 143, 145, 159, 176, 180-1; Paice, 2007: 273). In the last phase of the war, the Germans were mainly interested in eating the equids that they took from their enemies (Lettow-Vorbeck, 1920: 232; Paice, 2007: 338).

Horses were mainly destined for cavalry squadrons, but the Portuguese were at times unable to make use of this arm, for lack of mounts (Pires 2014). When General Gil arrived with the second expedition in early July 1916, he discovered that the remaining troopers of a cavalry squadron, which had come out the previous year, were stuck in Porto Amélia without any horses. Only with the arrival of horses from South Africa, procured through the intervention of the Governor of Mozambique, was the squadron able to take part in the invasion of German East Africa in September of that year, in which the cavalry provided vital reconnaissance services (Gil, 1919: 336, 343, 348). When the Portuguese took the German fort of Newala [Nevala] in late October 1916, they were able to send a force of some 30 horsemen to pursue the retreating Germans. However, the Portuguese lost these horses, together with some mules, when they were in turn obliged to withdraw from the fort in the dead of night, for lack of water (Costa, 1932: 52; Lettow-Vorbeck, 1920: 232, 273). Horses were also issued to officers in infantry units. This is portrayed in a number of photographs from this period (Gil, 1919: 338-339, 342-343; Anon, 2008; Anon, 2014). However, it is unclear how many horses were attributed to this service, and whether infantry officers also rode mules. On the German side, mules and hinnies were commonly the mounts of mounted volunteers (Inhülsen, 1941: 11-12).

Mules were mainly designated for transporting Portuguese mountain-guns and machine-guns. Equipment and munitions were in short supply, hampering the effectiveness of the artillery. More seriously, animals had been hastily selected just before departure, and were not given time to acclimatise in Africa. They soon died of trypanosomiasis and African Horse Sickness (Machado, 2011). By the end of 1917, Portuguese artillery forces found themselves virtually paralysed by a shortage of animals. The 5th battery of mountain-guns had only 11 mules left, which was insufficient to carry two dismantled guns. The battery was also short of harness and other equipment (Pires, 2014).

Insufficient general means of transport was one of the causes of Portugal's poor performance in military operations in East Africa (Paice, 2007: 269). To be sure, logistics depended mainly on tens of thousands of sullen and resentful African porters (Pélissier, 1984: II, 684). Nevertheless, mules were expected to transport munitions, tools, and sanitary equipment (Barbosa, 1917-1918: 841-2). Photographs of the period depict mule carts, probably loaded with artillery shells, as well as wagons, which appear to have been drawn by either oxen or mules (Gil, 1919: 338-339, 342-343; Anon, 2008; Anon, 2014). Lorries also began to be employed towards the end of 1916, but the atrocious state of roads made it difficult to deploy them effectively (Gil, 1919: 349). Overall, the contribution of animals to Portuguese logistics remains unclear, as well as the impact of their high morbidity and mortality.

The First World War marked both the peak in Portuguese recourse to war equids, and the beginnings of rapid decline. The stupendous death rates of imported animals, together with the arrival of significant numbers of lorries and cars, speeded up an incipient transition to motorized vehicles. That said, there appears to have been some residual use of horses by the Portuguese armed forces in Mozambique, even as late as the liberation wars of the 1960s and early 1970s (Cruz, 2008).

Equids in civilian employment from the late nineteenth century

The story of civilian equids ran parallel to that of military ones. A brief intensification in the late nineteenth and early twentieth centuries was followed by decline, due to competition from bicycles, cars, lorries, and buses. The perpetual problem of disease made it especially hard for equids to compete, with both trypanosomiasis and African Horse Sickness continuing to kill many of them (Districto de Quelimane, 1909, 229-30; Districto de Inhambane, 1912: 139; Great Britain, 1920: 68). Donkeys were seen as most resistant to these maladies, followed by mules, with horses being especially vulnerable (Maugham, 1910: 222). Relative susceptibility to disease was reflected in scattered statistics, in which initial small numbers probably reflect the exclusion of most stock owned by Africans. In 1908, 800 donkeys, 712 mules, and 172 horses were recorded in the District of Lourenço Marques (Mendes, 2006: 6). For central Mozambique in 1920, the figures were 351 donkeys, 94 mules, and 57 horses (Companhia de Moçambique, 1890-1942: Report 1921, 27). Grillo's figures indicated the existence of nearly 78 000 donkeys across the whole colony in 1951, each one worth on average about half the price of an ox or a cow. About 50 000 donkeys were in the central provinces, 22 000 in the south, and only 6,000 in the north. There were about 500 other equids (Grillo, 1958: 32, 67-8). However, Boléo's figures for 1960 show a total of just over 12,000 donkeys, without any explanation for the discrepancy (Boléo, 1966: 117).

Access to horses was often an indication of wealth. The richest residents, especially those in towns, owned animals for riding, harnessing to carriages, or sporting events. This was especially marked in Lourenço Marques and Beira. Middle class urban people seem to have had recourse to horse-drawn urban cabs (Miranda 1902: 92-3; Anon., 2010).

The government made use of horses for the delimitation of the frontier between Mozambique and the Transvaal, together with mules and donkeys. Reports noted that horses that survived an infection with African Horse Sickness were known as 'salted horses'. In theory, they were protected from further attacks (Roque, 2017).

Mules, including hinnies, became more widespread in this period, partly in urban areas. Postcards of the early twentieth century show pairs of mules in harness in Lourenço Marques, hauling two-wheel carts or four-wheel wagons. In the 1920s, a mule was photographed with a cart, in front of the shop of one Aboobakar, probably a South Asian trader (Loureiro, 2001: 30, 32; Gama, 2006: 77).

Mules also spread for rural transport. Swiss missionaries in southern Mozambique seem to have been keen on mule power, perhaps due to their experiences in South Africa. One photograph portrays a mission cart drawn by two mules in southern Mozambique, in about 1900 (IMPA).

Foreign-owned chartered companies and Portuguese settlers similarly had recourse to mules in rural areas. O. W. Barrett, employed by the *Companhia de Moçambique*, travelled about 250 miles on mules in the 1900s, compared to some 125 miles in a hammock carried by porters, and around 1,000 miles by boat (Barrett, 1910: 821). Some individual Portuguese settlers preferred mules to other equids. Thus, Miguel Paes kept six mules, two horses, and two donkeys in the Inhambane region, in 1906-1907 (Districto de Inhambane, 1907: 89).

Donkeys were employed for menial tasks in cities. Around 1900, there were a series of municipal regulations concerning these tasks in Lourenço Marques, in terms of how the animals were to be used, where they should be housed, and so forth. For example, donkeys were employed to transport bodies to cemeteries, and to remove rubbish from the streets of the city (Roque, 2017).

The main sphere of action for donkeys was rural. The government employed them to carry packs in expeditions for the delimitation of frontiers. Exceptionally, when cattle died in

vast numbers from the numerous bovine diseases that afflicted the region around 1900, donkeys would be substituted for oxen in pulling carts or wagons (Roque, 2017).

Chartered companies and settlers also made use of donkeys. In Macequece, Manica, close to the border with Rhodesia and in the lands of the Companhia de Moçambique, donkeys were hired out on a daily basis around 1900 (Miranda, 1902: 92). The Companhia da Zambézia owned 58 *burros* in 1908 (Companhia da Zambézia, 1909: 25). Such *burros* were employed for light work on estates, even though mules and hinnies were considered to be better for such tasks (Andrade, 1907-1910: IV, 255). In the District of Quelimane in 1909, Europeans owned 69 donkeys, but only eight mules and two horses (Districto de Quelimane, 1909, 230). There is an intriguing set of photographs on the internet of donkeys, both ridden by Europeans and carrying packs in caravan formation, which are said to have been taken in Mozambique in 1890-1891. They are hosted by Pinterest (<https://www.pinterest.pt/pin/431501208019289119/>), and attributed to the Instituto de Investigação Científica Tropical of Lisbon, with an origin in the Arquivo Histórico Ultramarino. However, no further details are given.

Africans made considerable use of donkeys for transport, appreciating their cheapness and strength (Grillo, 1958: 68). In the far north of the colony, the Portuguese were seeking to replace African porters with donkeys in 1883. The authorities were thus 'introducing' these animals, apparently unaware of previous problems with disease (O'Neill, 2016: 319). Generally speaking, however, the Portuguese did not concern themselves much with encouraging the spread of humble *burros*.

Breeding and importing equids in the age of high colonialism

During the brief heyday of colonial equids, roughly from the 1890s to the 1910s, there were renewed efforts at breeding these animals. However, imports from South Africa and British Central Africa did not cease (Andrade, 1907-1910: I, Appendices, 18; IV, 255). Indeed, horses were imported from as far away as Australia, perhaps for racing (Yarwood, 1989: 202).

The government played a small part in breeding. The authorities in Inhambane kept a horse for stud purposes in 1910-1911. The animal was shown in a photograph with a caption, but there was no comment in the text (Districto de Inhambane, 1911: op. 148). The same situation occurred in Quelimane in that year, with a photograph and caption, but no explanation in the text (Districto de Quelimane, 1911, op. 148). This may have been in response to a specific request for information from the central authorities.

Foreigners were probably more prominent in breeding, and they experimented with producing mules and hinnies. According to O. W. Barrett, the Companhia de Moçambique imported big white 'Muscat asses' from the Arabian Gulf in the 1900s for stud purposes. The company apparently achieved excellent results in the cool Manica highlands, bordering on Southern Rhodesia. Barrett further recommended that small Basuto or Timor stallions should be mated with the finest donkey jennies, so as to generate hinnies for estate work (Andrade, 1907-1910: IV, 255). The Swiss Protestant Mission also appears to have bred mules in Matutwini, in southern Mozambique (IMPA).

Zebbras in colonial Mozambique served mainly for hunting and incipient tourism, without any obvious attempts at domesticating or hybridizing these animals. There were experiments of this kind in other parts of southern and eastern Africa, with the purpose of overcoming the problem of equine diseases. These trials enjoyed some successes, although they largely ceased with the spread of the internal combustion engine. Such experiments were known in Mozambique before the First World War, but were apparently not emulated there (Maugham, 1914: 98-100).

Equids after independence

Zebras were decimated in the wars and civil wars that preceded and followed Mozambique's independence. Hunted and eaten by armed groups in contending forces, or by famished civilians, they almost disappeared from the country. However, they are now being protected, and are being reintroduced from neighbouring countries into national parks. With licensed hunting severely limited, they serve mainly to be photographed by tourists (King and Moehlman, 2016).

In recent times, horses have acquired an allied role, in ventures mainly aimed at Western tourists. Horse-riding is popular among such visitors, and Mozambican beach resorts provide this as one of their attractions. Mozambique Horse Safari began its operations in 2006, with horses rescued from the Zimbabwe land invasions (Retzlaff, n. d.). This activity contributes to earning precious foreign exchange from tourists (IPC, 2006: I, 22).

However, it is donkeys that have proved most significant for the independent nation. The long wars seriously depleted local herds, and led to farmers asking the government for help in reconstituting them. In February 2004, imports from neighbouring countries began, with about 20 animals sent from Swaziland to Inhambane, as a pilot project. The idea was to expand this to imports of at least 100 donkeys per province, which would be managed by local communities, in 'loan-and-breeding' programme (Jones, 2004).

Transport has been the most important application of donkeys. As in many parts of Africa, Mozambique has experienced severe transport dislocations since independence (Sabaratnam, 2017). Shortages of fuel, spare parts, trained mechanics, and foreign exchange, allied with persistent poverty, have seriously limited the use of the internal combustion engine. In this situation, 'taxi-burros' have flourished in towns (Saponoticias, n. d.). Similarly, in rural areas, 'burro-ambulâncias' transport the sick to hospital, as in Sofala (Pecuária.pt, n.d.). In 2011, donkeys were reportedly being used in the works for the construction of a new bridge over the Zambezi River (Pinto, 2011). More widely, donkeys have come into their own for rural transport. In 2001, the government considered that the use of animal transport, including donkeys and mules, was a key to opening up access to markets for rural cultivators, thereby reducing absolute poverty (Mozambique 2001).

Donkeys also contribute to nutrition. For example, Africans in the Cabaceira area of Mossuril, opposite Mozambique Island, apparently partake of donkey meat (Terán, 2007: no pagination). Europeans generally refuse to eat equids, reflecting a papal prohibition on eating horse-meat from 732 CE, as well as cultural norms (Simoons, 1961: 84, 86). Similarly, the meat of the domestic donkey and mule is forbidden to Muslims, although Shafi'i Muslims, who dominate Mozambican Islam, may eat the flesh of the horse (Andelshauer, 1996: 45-6). It is thus unclear how widely the flesh of equids, especially donkeys, is consumed in Mozambique.

The export of donkey hides to China from all over Africa has been rising very fast of late, and Mozambique is a participant in this trade. A gelatin substance extracted from the hides is a crucial part of a traditional medicine called *ejiao*, which has become wildly popular as a tonic in China. This may provide a newly lucrative outlet for owners of donkeys, although it is not clear how many of the hides exported through Mozambican ports actually originate in Mozambique. Many certainly come from areas inland, such as Botswana, where the donkey population is much larger (Greef, 2017).

Conclusion

The prevalence of a number of diseases in Mozambique, some affecting mammals in general, and others striking specifically at domesticated equids, has long limited the breeding and use of these animals. Indeed, this disease environment probably encouraged the precocious adoption of cars, lorries, buses, motorcycles, and other motorized vehicles, as in the rest of sub-Saharan Africa.

Despite these unfavourable environmental circumstances, equids have played a certain role in the history of the area that is today Mozambique. This stretches back into the mists of time in the case of wild zebras, which are not affected by disease in the same way as their domesticated cousins. Donkeys, mules and horses have had a more chequered career, but the story of colonial conquest and transport needs to take these animals into consideration. The hidden history of equids in Mozambique thus needs to be recovered, especially that of the humble *burro*, which has long been a precious aid to rural and urban Africans. This essay has done little more than to point to a number of potential avenues for further research, in the hope that others will develop the topic, and will look more widely at the history of animals in Mozambique.

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