

Object in Focus: The ‘Nyasaland Bicycle’ (c. 1900): A History of Technology and Empire

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Collection: [Thinktank Birmingham Science Museum](#)

Historian Nathan Cardon traces the histories and legacies of technology and empire through a wooden bicycle at Thinktank Birmingham Science Museum.

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‘The use of the bicycle expanded from Coventry and the Midlands like a ripple on a pond spreads from the spot where a stone is thrown into the water’.¹

Hanging in the rafters of Thinktank, Birmingham Museum Trust’s science and technology museum, is a wooden bicycle. Beyond it lies a glass wall through which one can make out the massive groundworks of HS2 and the future revitalized Curzon Station that will provide the high-speed rail link between Birmingham and London. In many ways, it is fitting to see these two technologies of nineteenth-century modernity within the same frame of reference. Built in 1838, Curzon was Birmingham’s first rail station, connecting it to the great metropolis of London and the world beyond, while the modern ‘safety’ bicycle — diamond frame and wheels of equal size — was first produced in Coventry in 1885 and brought about a global revolution in personal mobility. In the 1890s, the Birmingham-Coventry axis would be the beating heart of the first global bicycle age, producing bicycles and parts that followed the British empire around the world.

This wooden bicycle is not alone. It hangs with other bicycles that speak to the West Midlands’ role in the development of the modern bicycle. These other cycles, however, are made of steel with rubber tyres and reflect the industrial world of the late nineteenth century. The wooden bicycle stands out, then. And while not completely unique, it is still uncommon to see a surviving wooden bicycle from this period. What is its provenance?

The bicycle is from Nyasaland (now Malawi) and, according to its object file, is ‘made entirely in wood by indigenous populations, except for the drive which is of knotted hide’. It arrived in England sometime before 1924 as part of the East African Pavilion for the [British Empire Exhibition](#) held at Wembley. The bicycle was later donated to the Birmingham Science and

Technology museum in 1954 by the half-sister of the bicycle's owner, Sir Hector Livingston Duff, upon his death.²

Born in 1872, Duff was appointed the Assistant Resident in the British Central Africa Protectorate in 1897 where he was responsible for 'maintaining peace' and assisting in 'agricultural development'. He worked his way up to the Executive and Legislative Councils of the newly formed Nyasaland Protectorate in 1907. Throughout the First World War and the German invasion of northern Nyasaland, Duff operated as the Chief Political Officer and later administered the military government. In 1915, he helped put down the revolt of John Chilembwe, a Malawian Baptist minister trained in the United States, who preached African independence and gathered five hundred followers to rise up against British settlers. Duff retired in 1920, returned to England, was called to the bar, and wrote several books on the history, people, and land of Nyasaland.³

In its construction and provenance, the Nyasaland bicycle is an excellent example of how the processes of local adoption and adaptation can challenge diffusionist approaches in the history of technology and material culture. A diffusionist approach would understand a bicycle in Malawi as a British technology imposed upon the African continent. More recently, historians of technology have argued that, rather than an imposition of metropole technology, technologies are 'understood, assimilated, and utilized by local agency'.⁴ Looking at Thinktank's Nyasaland bicycle and the history of cycling in Malawi can help make this clear.

The 'safety' bicycle arrived in Malawi around the same time as Duff. In 1897, British colonial officials encouraged white settlers to bring bicycles with them, including Scottish and Afrikaner missionaries. In 1905, Blantyre — a city in the Shire Highlands of southern Malawi — had a cycle shop that repaired and sold the latest in West Midlands-made bicycles. By the 1910s, however, most white settlers had abandoned the bicycle in favour of the motorcycle to better move across the long distances and poor roads of the colony. Although the bicycle was short lived amongst settlers, for Malawians the technology has had a longer impact and has been the source of an ongoing 'love affair'.⁵

As early as 1897, Malawian missionaries James Gray Kamlinje and Mungo Murray Chisuse had visited Scotland and learned to ride bicycles. Reports in settler newspapers on 'native cyclists' participating in exhibitions or running afoul of the law provides further evidence of local adoption of the bicycle.⁶ Some members of the land-owning Malawian elite had also acquired bicycles in the years before the First World War, including John Chilembwe, Duncan Njilimia,

John Gray Kufa, Gordon Mataka, and George Masangano. All of whom, with the exception of Mataka, would take leadership roles in Chilembwe's uprising while Kufa, Njilimia, and Chilembwe would lose their lives as a result. According to the historian John McCracken, although a useful means of transportation, for members of this elite group 'bicycles were also prestige objects demonstrating ... their right to be considered as civilised gentlemen in an overwhelmingly racist society'. Following the Chilembwe Rising in 1915, all the bicycles owned by this native elite were 'looted by the government forces'.⁷ It is entirely possible, although not certain, that Duff acquired the bicycle now in Birmingham's collection from these raids.

John Chilembwe was born in Chiradzulu, Malawi in June 1871. In 1880, he became a student at the Church of Scotland mission in Blantyre where he converted to Christianity. As a student, Chilembwe showed talent and became an assistant to Joseph Booth, a white British missionary who preached racial equality and argued for 'Africa for the Africans'.⁸ In 1897, with the help of Booth, Chilembwe travelled to the United States to attend the Virginia Theological College in Lynchburg.⁹

His arrival in Virginia attracted the attention of the *Richmond Planet*, the state's largest Black newspaper. In keeping with the race pride and uplift mantra of the end of the nineteenth century, the *Planet* reported that Chilembwe was 'surprised' to find Black southerners in positions of 'preachers, lawyers and doctors' and that he was in Virginia to 'get an education, and then return to his own country to preach the gospel ... and establish an industrial school for his people'.¹⁰ According to Mungo Murray Chisuse, Chilembwe's friend, in the United States, Chilembwe was awakened to his race, including racial discrimination, the history of abolitionism, and the freedom movements of 'coloured peoples'.¹¹ After his sojourn in Virginia, Chilembwe returned to Malawi in 1900 as an ordained minister and with the help of the African American National Baptist Convention founded the Ajana Providence Industrial Mission near Blantyre along the lines of other industrial uplift institutions in Africa and the US South.¹²

Chilembwe's political philosophy initially aligned with the popular accommodationist rhetoric of [Booker T. Washington](#), the famous Black educator and founder of Alabama's Tuskegee Normal and Industrial Institute. Chilembwe's views, however, shifted in the years before the outbreak of the First World War. With locals already suffering famine, Chilembwe spoke out against African conscription into the British army to defend against the German invasion of northern Nyasaland. But the main issue that seems to have triggered the unrest was ongoing mistreatment of the African population on a local plantation by a white British planter.¹³

In late-1914, white settlers accused Chilembwe of encouraging African nationalism and burnt down several buildings of his industrial mission. Chilembwe mobilized a multi-tribal response and led a series of guerrilla attacks against the colonists in January 1915, killing three settlers including the owner of the local plantation where workers were mistreated. The Nyasaland administration was 'savage' in its response, executing thirty-six Malawians and imprisoning three hundred others. On 3 February 1915, Chilembwe and his nephew Morris were assassinated by the settler police force on the pretence of resisting arrest and quickly buried in unmarked graves.¹⁴ Today, John Chilembwe is widely regarded as one of the founders of the African independence movement and celebrated as an anti-colonial hero both within and outside Malawi, recently becoming the [first African to have a statue in Trafalgar Square](#).

John Chilembwe was a revolutionary and a cyclist. The fact that his and other Malawian elite's bicycles were 'looted' by colonial forces makes clear the radical potential and, in the minds of white settlers at least, threat cycling mobility posed to British control. It is highly likely that while in the United States, Chilembwe encountered Black American cyclists. His arrival in 1897 corresponded with the high-point of the bicycle boom in the U.S. By the mid-1890s, middle-class and elite Black southerners had embraced the bicycle not only as a symbol of their modernity and class status but also the radical mobility it afforded them to navigate around Jim Crow segregation. Chilembwe would also have encountered the global exploits of champion Black cyclist Marshall 'Major' Taylor whose success was covered across the front pages of Black newspapers, including the *Richmond Planet*.¹⁵

For the Malawian elite, the bicycle was no doubt a claim on a class status that white British settlers sought to deny them. Chilembwe and many of the uprising's leadership were part of 'an emerging petty-bourgeois class' of African planters in the Shire Highlands who dressed in European fashions and adopted middle-class comportments. Upwardly mobile, they bristled at the fact that they 'were never treated as equals but always had to show deference towards Europeans, and were often subjected to verbal and even physical abuse'.¹⁶ Faced with such racism, the radical mobility of cycling would have had a political resonance beyond class status.¹⁷ Riding a bicycle was an act of everyday resistance to the British occupation of eastern Africa. For instance, in October 1909, the *Livingstonia News* expressed concern that a 'Brother Bink'—a follower of Kenan Kamwana and Joseph Booth—was disseminating 'truths' by bicycle and had sought entry into Nyasaland after the deportation of both Kamwana and Booth for preaching [Ethiopianism](#), an anti-colonial religious movement that mixed Christianity with African belief-systems.¹⁸

The mobility cycling offered Malawians was compelling enough that through local knowledge and materials, a local crafted their own bicycle and it was noteworthy enough to come into the possession of Duff, the colonial administrator, sometime before 1920. It was constructed around the time of Chilembwe's return to Malawi in 1900 and was apparently 'copied from a cycle which belonged to the Governor [Alfred Sharpe] of the Colony'.¹⁹ According to the description accompanying its display at the British Empire Exhibition, its frame was made of wood and its wheels made of reeds and small wooden slats. The tyres were made of cowhide and the chain was made of knotted skin strips of an antelope. The description also notes, in a clear example of local adaptation, that the bicycle was frequently used and 'if the chain became loose, the owner would simply knot it together' thereby increasing the tension.²⁰

For most Malawians at-the-turn-of-the-twentieth century, bicycles would have been prohibitively expensive. In crafting their own bicycle, the maker was able to access a manoeuvrability that was denied them, and could resist limits placed on their lives by the British occupation. By the time the Nyasaland bicycle made it to England in the 1920s, however, bicycles were more affordable and were an increasingly important part of Africans' lives. In 1938, for instance, the *Daily Telegraph* reported that every Malawian's 'ambition is to own a bicycle', with exports to Nyasaland more than doubling between 1935 and 1936.²¹ By the interwar period, cycling in Malawi was a significant mode of transportation that provided personal independence prior to national independence.²²

Back in the imperial metropole, however, the bicycle was no longer viewed as a cutting-edge technology of modernity. At the 1924 British Empire Exhibition, the Nyasaland bicycle was portrayed as a curiosity that signalled Africans' need for further industrial uplift. In 1906, Duff had claimed the bicycle was one of the 'more civilised means of locomotion' introduced to Nyasaland by Europeans.²³ This racist logic was replicated in advertisements and images that surrounded the Nyasaland bicycle at the exhibition.

In the *Illustrated London News* special issue for the Empire Exhibition, the Nyasaland bicycle is shown with a schoolgirl attempting to mount it with the caption: 'Made by a native of Nyasaland without European tools or instruction: A curiosity in bicycles' [fig. 2]. The image is one part of a photocollage of the British empire in Africa, featuring sights of imperial extraction and indigenous craft. In some ways, the image confirms a prevalent sense that in the wake of the automobile, the bicycle was now a child's toy and a developmental waypoint on the path to adulthood. The Nyasaland bicycle at the exhibition seemed to endorse the racist logic of imperial rule, in which subjugated locals were taught to be modern by British occupiers and

intruders. At the same time, whether intentionally or not, the bicycle and its caption appeared to disrupt this logic: a European machine made by an African *without* European tools or help, a 'curiosity' that did not fit neatly with white uplift narratives centred on instruction and tutelage.²⁴

After the exhibition, the Leicester-based John Bull Tyre company also made use of the Nyasaland bicycle on a postcard to sell its pneumatic rubber tyres. The advert claims that an 'African native from Nyasaland made this cycle and used it regularly until it was bought by an explorer for a British museum'. In outlining the bicycle's construction and material, it highlighted the ingenuity of the bicycle's maker. The last line, however, emphasised the limits of inventiveness for Africans: 'What rapture awaits this native when he acquires a modern cycle fitted with JOHN BULL TYRES'. Rather than emphasising the resourceful modernity of the Nyasaland bicycle, the John Bull advert highlights its supposed primitiveness to sell rubber tyres.

By the time the Nyasaland cycle made it to Wembley in 1924, the bicycle was thought of as a stepping-stone to a 'modernity' supposedly gifted to Africans by British invaders. 'It gives one pause for reflection', noted the *Chelmsford Chronicle* in 1928 in reference to Malawi, 'when men whose fathers were ignorant of the use of the wheel and its mechanical value, are seen...riding bicycles today'.²⁵ Although the Nyasaland bicycle at Thinktank demonstrates the ways cycling was 'understood, assimilated, and utilized by local agency,' for the white British public it was a 'curiosity' that confirmed the supposed benefits of 'imperial progress'.

In its practice and meaning the bicycle is an unstable technology. It needs human locomotion otherwise it is an assemblage of parts, a machine not fully realized. As a result, for the anthropologist Luis Vivanco, the bicycle is not only a spatial object but a temporal one. Its resonance only clear at the moment of movement. The bicycle, he notes, is '[a] material object with multiple experiential, individual, social, and political-economic dimensions,' while its 'forms, uses, and trajectories ... are intertwined in complex ways with people's lives'. This integration of human and machine along with its 'spatial flexibility' makes the bicycle a technology of radical potential both in the past and present.²⁶

In this essay I have attempted to follow the 'social life' of the Nyasaland bicycle from its origins in Malawi at the start of the twentieth century to its current location hanging in the rafters of a science and technology museum in Birmingham, England. The design of the modern safety bicycle emerged in Coventry, travelled to Nyasaland where it was reproduced through local

agency, before returning back to the metropole as part of a celebration of the British Empire in 1924. The Nyasaland bicycle's form, use, and trajectory were intertwined in many people's lives and, in my attempts to trace its history, has revealed multiple vectors of mobility some of which are, admittedly, tangential. These mobilities have included people (John Chilembwe, Sir Hector Duff, its unknown maker and user, and the modern museum-goer), material (wood, reeds, cow and antelope hide), and belief (imperial racism, African independence, and religion). In all these cases, the object of the wooden bicycle makes clear the ways art, manufacture, and empire intersected not only abroad and in the past but in Birmingham and in our present.

In a recent interview the historian Robin Kelley noted that in one of Cedric Robinson's first essays he took historians to task for ignoring the African origins of John Chilembwe's beliefs: 'Chilembwe was not a Cromwell; he never could be. But most importantly he never had to be. His movement had its own special and remarkable integrity'.²⁷ In the end, what the Nyasaland bicycle makes clear is that for the people of Malawi, bicycles have had their own 'special and remarkable integrity' that reveals both the local and radical possibilities of cycling, then and now.

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Images

- Fig.1 Nyasaland bicycle, as currently displayed at ThinkTank, Birmingham. Photo courtesy of Dr Felicity McWilliams, Curator of Science and Industry, Birmingham Museums Trust
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- Fig.2 A young girl attempts to mount the Nyasaland bicycle on display in the East African Pavilion, British Empire Exhibition, Wembley. From: 'Seeking Real Diamonds; Ashanti Weaving; Burmese Music', *Illustrated London News*, 24 May 1924, p. 944. © Illustrated London News/Mary Evans Picture Library
- Fig.3 'Hand Made Bicycles', Postcard, John Bull Tyres (c. 1920s). In the author's possession.

¹ W.F. Grew, *The Cycle Industry: Its Origin, History and Latest Developments* (London, 1921), p. 76.

² BMT, object number 1954S00338.

³ 'Obituary: Duff', *The Times*, 12 February 1954. On the Chilembwe Rising, see Brian Morris, 'The Chilembwe Rebellion', *Society of Malawi Journal*, 68.1 (2015), pp. 20-52.

⁴ David Arnold and Erich DeWald, 'Cycles of Empowerment? The Bicycle and Everyday Technology in Colonial India and Vietnam', *Comparative Studies in Society and History*, 53.4 (2011), p. 971, 972.

⁵ John McCracken, 'Bicycles in Colonial Malawi: A Short History', *Society of Malawi Journal*, 64.1 (2011), pp. 4-5.

⁶ *Ibid.*, pp. 6-7.

⁷ *Ibid.*

⁸ Joseph Booth, 'Africa for the Africans, 1897', in Kenneth R. Ross (ed.), *Christianity in Malawi* (Gweryu, Zimbabwe, 1996), 182-193. HT/B/37/7. Malawi. Cadbury Research Library, University of Birmingham.

⁹ Norbert C. Brockman, 'Chilembwe, John (A: 1994)', <https://dacb.org/stories/malawi/chilembwe-john/>; and T. Jack Thompson, 'Chilembwe, John (D: 1998)', <https://dacb.org/stories/malawi/chilembwe4-john/>, *Dictionary of African Christian Biography (DACB)*. Accessed 10 March 2023.

¹⁰ 'Che John Chilembwe', *Richmond Planet*, 11 December 1897, p. 4.

¹¹ Morris, 'Chilembwe Rebellion', p. 24.

¹² 'Chilembwe, John (C: n.d.)' <https://dacb.org/stories/malawi/chilembwe2-john/>. *DACB*. Accessed 13 March 2023.

¹³ 'Chilembwe (C)', *DACB*; and Morris, 'Chilembwe Rebellion', p. 20.

¹⁴ *Ibid.*

¹⁵ 'A Colored Wonder: The Astounding Record of Major Taylor', *Richmond Planet*, 3 September 1898, p. 1. Nathan Cardon, 'Cycling on the Color Line: Race, Technology, and Bicycle Mobilities in the Early Jim Crow South, 1887-1905', *Technology & Culture*, 62.4 (2021), pp. 973-1002.

¹⁶ Morris, 'Chilembwe Rebellion', pp. 20-21, 25, 34.

¹⁷ *Ibid.*, p. 35.

¹⁸ W.A. Elmslie, 'Ethiopianism in Nyasaland' and 'Brother Booth Reports Favourably', *Livingstonia News*, 2.5 (1909). HT/B/37/32. Malawi. Cadbury Research Library, University of Birmingham.

¹⁹ 'Live Letters Conducted by the Old Codgers', *Daily Mirror*, 5 September 1966, p. 16.

²⁰ Süddeutsche Zeitung Photo, 'Wooden Bicycle, 1927', <https://www.sz-photo.de/id/01052792> Accessed: 15 March 2023.

²¹ 'Bicycle as Wealth "Barometer"', *Daily Telegraph*, 16 March 1938, p. 5.

²² McCracken, 'Bicycles in Colonial Malawi'. See also, Njogu Morgan, *Cycling Cities: The Johannesburg Experience* (Eindhoven, 2019), pp. 21-30.

²³ Hector Livingston Duff, *Nyasaland Under the Foreign Office*, 2nd ed. (London, 1906), p. xix.

²⁴ 'Seeking Real Diamonds; Ashanti Weaving; Burmese Music', *Illustrated London News*, 24 May 1924, p. 944.

²⁵ Ald. S. W. Robinson, 'The Call of Africa: Imperial Progress', *Chelmsford Chronicle*, 4 May 1928, p. 2.

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²⁶ Luis Vivanco, *Reconsidering the Bicycle: An Anthropological Perspective on a New (Old) Thing* (New York, 2013), pp. 11-12, 41, 43. On the bicycle's 'spatial flexibility', see Evan Friss, *The Cycling City: Bicycles and Urban America in the 1890s* (Chicago, 2015), p. 121.

²⁷ Quoted in Robin D. G. Kelley, Jack Amariglio, & Lucas Wilson, "'Solidarity is Not a Market Exchange": An *RM* interview with Robin Kelley, Part 2', *Rethinking Marxism: A Journal of Economics, Culture, & Society*, 31.2 (2019), p. 169.