The Journal of African History (2025), **66**, e4, 1–19
doi:10.1017/S0021853725000143

CAMBRIDGE UNIVERSITY PRESS

RESEARCH ARTICLE

Manly Machines and Homely Objects: Gender, Development and Divergent Radio Technologies in Late-Colonial Ghana and Zambia

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(Received 14 July 2023; revised 25 March 2025; accepted 25 March 2025)

Abstract

This article offers the first gendered history of African radio audiences. It uses a comparative approach to demonstrate that colonial development projects in Ghana and Zambia successfully created mass African audiences for radio between the 1930s and 1950s, at a time when most radio sets on the continent were owned by white settlers. However the gendered impact of the projects was uneven. In Zambia the promotion of battery-operated wirelesses inadvertently created a male-dominated audience, while the construction of a wired rediffusion system in Ghana attracted equal numbers of male and female listeners. Ghana's radio project offers new perspectives on the history of colonial development as a very rare example of a scheme that benefitted women as much as men. Differences in the voice of Ghanaian and Zambian radio also reveal that these early radio schemes had a lasting influence on broadcast content and listening culture in both countries beyond the 1950s.

Keywords: Ghana; Zambia; West Africa; Southern Africa; media; development; gender

The first transmission of the Sekondi-Takoradi Broadcasting Service in 1937 was a strange blend of solemn occasion and variety show. Dance band highlife from the Nan Shamaq Orchestra, pianoforte solos by Mrs. Fossey, and six minutes of harmonica by Mr. Lawless were interspersed with speeches from local notables who enthused about the power of modern technology to transform humankind.[1] In one of the earliest radio broadcasts by an African, the tufuhene of Dutch Sekondi pronounced a "leap in the van of civilization" which promised to "make unhappy homes lively and, whilst educating families in a certain manner, keep them together."[2] The governor of the Gold Coast was also in an expansive mood. Arnold Hodson was not only a radio fanatic but a keen amateur dramatist whose fantastical radio pantomime *The Downfall of Zachariah Fee* is still remembered by early listeners.[3] With an eye to the theatrical, his speech introduced radio technology as being "very similar to the

[1]National Archives of Ghana, Accra (PRAAD), CSO 7/7/64, 29A, "Programme of the Official Opening of the Sekondi-Takoradi Broadcasting Service, Thursday, 1st April, 1937," (Accra: Government Printer, 1938).

[2]PRAAD CSO 7/7/64, 29E, "Speech by the Tufene (Chief Kwesi Andoh) of Dutch Sekondi," broadcast in Fanti.

[3]British National Archives, London (TNA), CO 96/749/8, "Pantomime: The Downfall of Zacharaiah Fee by Sir Arnold Hodson"; Interview with Frances Ademola, Dzorwulu, Accra, 12 Jan. 2024. The Pantomime was accompanied by songs from the Gold Coast Police Band, featured in the Colonial Film Unit's "Colonial Cinemagazine No. 9" (1947), https://blogs.bl.uk/sound-and-vision/2018/10/black-history-month-the-gold-coast-police-band.html, accessed 13 Feb. 2024.

magic stone we read of in fairy tales [as] we press a button and are transported to London: again we press it and hear grand opera from Berlin." Like the tufuhene, Hodson also saw the family home as a crucible of modernisation. He invited listeners to

> imagine what an influence this will have from the psychological view. Mothers, when the children have been fractious, or when they have had a trying day cooking and washing clothes, or men who have had a hard day's work will sit down, after a bath and good dinner, and listen to first-class music which will banish their cares and make them forget all their worries.

The new service was designed for two audiences. Evening programme content would appeal to all the family but Hodson announced that daytime programming would "amuse and interest the ladies when their husbands are away at their offices or work" with "orchestral music and important speeches which are being made by Cabinet Ministers and others at official lunches in England."[4]

The prandial perorations of ministers may have made for turgid listening but the pioneers of radio in Ghana took the task of recruiting female listeners seriously, as elsewhere in colonial Africa. Early broadcasters in Zambia, for instance, also claimed to "look upon women listeners as among the most important of the listening groups."[5] This article uses a comparative method to argue that despite its egalitarian aspirations, colonial radio had an uneven impact on African women. The first study to take a gendered approach to the history of radio listening in Africa, it demonstrates that the social profile of early African audiences was shaped by divergent development policies implemented between the 1930s and the 1950s.

Ghana and Zambia are unusual subjects for a comparative history, but they are uniquely well-suited to an inquiry into the social impact of radio as they were the only countries to conduct national development schemes to promote affordable sets before the 1960s. In Ghana the construction of a wired rediffusion system (RDS) produced an audience of equal numbers of men and women but in Zambia a scheme to promote battery-powered "Saucepan Special" wirelesses inadvertently created barriers to female listening and resulted in a male-dominated audience. From a continental perspective, Zambia's adoption of a wireless system was typical of the rest of Africa, where wireless radio was and remains the norm, while Ghana's reliance on the now-obsolete technology of wired loudspeakers was unique and seems, in retrospect, arcane. By comparing a typical case study with an outlier I demonstrate that radio comprised a plurality of technologies in its early days and that the technical choices made by its architects resulted in profound and lasting differences in the profile of audiences, the voice of broadcasts, and the experience of female listeners in the two countries.

That radio sets should be understood as objects in physical and social space has been argued convincingly by anthropologists, notably Deborah Spitulnik, who characterised them as "mobile machines" in her study of Zambia in the 1980s.[6] This premise provided the inspiration and starting point for my own research into the gendered past lives of radio sets as manly machines or homely objects. To unearth the social history of radio technology I apply gender history methods to government and broadcaster archives and oral history interviews in Ghana and Zambia, local newspapers, and the BBC's Written Archive. Quantitative data generated by contemporary audience surveys is a good starting point for historians of audience but few surveys were conducted before the mid-1960s and it was rare to record the gender of listeners at the time. To overcome the limitations of this archive I triangulate the small number of relevant surveys with government estimates of numbers of radio sets (a more reliable metric as new sets were subject to import duties), imaginaries of audience in newspaper advertisements for radio sets, and oral history interviews with a randomised group of

[4]PRAAD CSO 7/7/64, 29B, "Address delivered by His Excellency the Governor," 1 April 1937.

[5]University of Zambia Library, Lusaka (UNZA), "Programmes for Women," *The African Listener* 33, Sep. 1954, 9.

[6]Deborah Spitulnik, "Mobile Machines and Fluid Audiences: Rethinking Reception through Zambian Radio Culture," in *Media Worlds: Anthropology on New Terrain*, eds. Faye Ginsburg, Lila Abu-Lughod, and Brian Larkin (Berkeley: University of California Press, 2002), 337.

twelve people in Accra and fifteen in Lusaka and Kafue who remembered listening in the 1950s or earlier. Surprisingly, oral history interviews with female listeners have been almost entirely ignored as a source by historians of radio.[7] My participants were a small and non-representative sample but their testimonies offer a rich sense of the range of listening experiences in a wide variety of geographical locations and social contexts. My research also uses interviews with retired broadcasters and broadcast content to analyse the gendered voice of radio.

The historical relationship between development, technology, and society in Africa provides the central enquiry of my study. Historians of development commonly make the argument that state-led projects failed to benefit their intended recipients.[8] They also concur that the structures of colonial rule and the impact of late-colonial development tended to advantage men over women even in countries that had established matriarchal traditions, such as Ghana and Zambia, because women were denied political participation and marginalised in wage labour economies.[9] This was particularly apparent in settler colonies like Zambia where officials had a paranoid fear of single women in urban spaces and sought at first to exclude women from towns using legal codes and intimidation, then later to incorporate urban women into a European imaginary of the "modern family," with men as wage-earning heads of the household and women as stay-at-home wives and mothers.[10] Officials in Ghana were also concerned to promote patriarchal visions of the ideal family, as demonstrated by Hodson's comments above, but here the social and economic marginalisation of women was less acute thanks to a longer history of women living and working in urban spaces especially as market traders, mission education for girls, and a greater interest in women's issues on the part of the anticolonial movement.[11] Histories of development have tended to pay little attention to media infrastructure projects and scholarship on women's history in Africa has overlooked the ways in which technological change shaped gender relations. My research makes a major contribution to these fields, first by highlighting rare examples of late-colonial development projects that actually benefited Africans and, second, by demonstrating that new media technologies played an important role in reinforcing the patriarchy of settler colonialism in Zambia while in Ghana, by contrast, they improved women's access to the public sphere.

The history of African radio is a growing field of scholarship. Much of this research has been concerned with radio as a tool of political control, sometimes undermined by individual broadcasters

[7]Sarah Acrofi-Quarcoo's research on female listeners to children's programmes in Ghana is a significant exception, "Children and Literary Broadcasts on Radio Ghana: Listening to Story Time and Taataa Tee," *Obsidian* 44, no. 2 (2018): 182–99. See also Maggie Andrews, *Domesticating the Airwaves: Broadcasting, Domesticity and Femininity* (London: Continuum, 2012) for this method.

[8]See James C. Scott *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998). Ghana's Akosombo Dam and Zambia's Kariba Dam are cases in point.

[9]Edzodzinam Tsikata, "Women's Political Organisations: 1951–1987," in *The State and Development Politics in Ghana*, eds. Emmanuel Hansen and Kwame Akon Ninsin (London: CODESRIA, 1989), 73-93; Monica Munachonga, "Women and the State: Zambia's Development Policies and Their Impact on Women" in *Women and the State in Africa*, eds. Jane Parpart and Kathleen Staudt (Boulder: Westview Press, 1989), 130–42. For matriarchal traditions see, Tom McCaskie, *State and Society in Pre-Colonial Asante* (Cambridge: Cambridge University Press, 1995); Jane Parpart "Sexuality and Power on the Zambian Copperbelt: 1926–1964," in *Patriarchy and Class: African Women in the Home and the Workforce*, eds. Sharon Stichter and Jane L. Parpart (London: Routledge, 2019).

[10]Jane Parpart, "'Where is Your Mother?' Gender, Urban Marriage and Colonial Discourse on the Zambian Copper Belt, 1924-1945," *The International Journal of African Historical Studies* 27, no. 2 (1994): 241–71; Miles Larmer, *Living for the City: Social Change and Knowledge Production in the Central African Copper Belt* (Cambridge: Cambridge University Press, 2021), 172–77; James Ferguson, *Expectations of Modernity: Myths and Meanings of Urban Life on the Zambian Copper Belt* (Berkeley: University of California Press, 1999), 170–77.

[11]Ibid.; Emmanuel Akyeampong, "'Wo pe tam won pe ba' ('You like cloth but you don't want children'): Urbanisation, Individualism and Gender Relations in Colonial Ghana, c. 1900–39," in *Africa's Urban Past*, eds. David Anderson and Richard Rathbone (Oxford: James Currey, 2000), 222–34; Jean Allman, "The Disappearing of Hannah Kudjoe: Nationalism, Feminism, and the Tyrannies of History," *Journal of Women's History* 21, no. 3 (2009): 13–35; Jeffrey Ahlman, *Living with Nkrumahism: Nation, State and Pan-Africanism in Ghana* (Athens, OH: Ohio University Press, 2017), 160–66.

https://doi.org/10.1017/S0021853725000143 Published online by Cambridge University Press

or writers acting as intermediaries between nervous states and critical audiences, or by political exiles operating cross-border "guerrilla radios."[12] A handful of studies have also considered the relationship between radio and development, either as a vehicle for education, public health, and agricultural campaigns or as development goal in its own right, especially in the era of postcolonial "nation-building."[13] However the role of radio in colonial development schemes remains under-researched, with the exception of Marissa Moorman's research on Angola.[14]

Even less attention has been given to the gendered impact of radio in Africa. Liz Gunner has highlighted the ways in which female broadcasters shaped the voice of Zulu radio and how radio dramas offered a space for negotiating femininity and modernity in South Africa, despite their patriarchal agenda.[15] Like Gunner I use voice to explore the lasting legacy of early technologies on the sound of broadcasting. Historians of radio in Africa have so far given no attention to female audiences so I draw on Kate Lacey's approach in her influential study of female listenership in the German interwar period. Lacey challenges Jürgen Habermas's conception of an inclusive, unitary public sphere by reconfiguring the female audience as a "public" in its own right, excluded by a divisive and male-dominated national discourse. In Germany, Lacey found that carving out a "domesticated, maternalized space" on the airwaves for "women as *women*" rather than citizens "underscored the conventional gendered separation of the public-private divide" which excluded women from national politics.[16] Other historians have applied this argument to interwar Britain and I argue below that Lacey's analysis also applies to Zambia in the 1950s.[17] By contrast, the boundary between gendered "publics" in Ghana was more blurred, as has been observed of the United States, Argentina, and Uruguay from the 1930s.[18] A comparison with the colonial press which, aside from women's columns, was heavily male-dominated in both countries also highlights the exceptional significance of the femininity of Ghana's early radio culture.[19]

[12]Zambia and Ghana are prominent in this literature: Mhoze Chikowero, "Is Propaganda Modernity? Press and Radio for 'Africans' in Zambia, Zimbabwe, and Malawi during World War II and Its Aftermath," in *Modernization as Spectacle in Africa*, eds. Peter Bloom, Stephan Miescher, and Takyiwaa Manuh (Bloomington: Indiana University Press, 2014), 112–35; Audrey Gadzekpo, "Glocalising radio during empire," *Obsidian* 44, no. 2 (2018): 164–81; Robert Heinze, "'Men Between': The Role of Zambian Broadcasters in Decolonisation," *Journal of Southern African Studies* 40, no. 3 (2014): 623–40; Sekibakiba Peter Lekgoathi, Tshepo Moloi, and Alda Ramão Saúte Saíde, eds., *Guerrilla Radios in Southern Africa: Broadcasters, Technology, Propaganda Wars, and the Armed Struggle* (Lanham: Rowman and Littlefield, 2020); Victoria Ellen Smith, "Introduction," in *Voices of Ghana: Literary Contributions to the Ghana Broadcasting System, 1955–57*, ed. Victoria Ellen Smith (Oxford: James Currey, 2018).

[13]See for instance Aïssatou Mbodj-Pouye, "Radio and the Road: Infrastructure, Mobility, and Political Change in the Beginnings of Radio Rurale de Kayes (1980–early 2000s)," *The Journal of African History* 62, no. 1 (2021): 125–49; James Brennan, "Communications and Media in African History," in *The Oxford Handbook of African History*, eds. John Parker and Richard Reid (Oxford: Oxford University Press, 2013), 502.

[14]Marissa Moorman, *Powerful Frequencies: Radio, State Power, and the Cold War in Angola, 1931–2002* (Athens, OH: Ohio University Press, 2019), see chs. 1 and 3; see also Neel Thakkar, "Speaking as a Colonial State: Mass Broadcasting and the Language of Development in Northern Rhodesia, 1941–1963," *Journal of Imperial and Commonwealth History* 50, no. 1 (2022): 185–212; Akrofi-Quarcoo, "Children and Literary Broadcasts," 182–99.

[15]Liz Gunner, *Radio Soundings: South Africa and the Black Modern* (Cambridge: Cambridge University Press, 2019); see also Dina Ligaga, *Women, Visibility and Morality in Kenyan Popular Media* (Makhanda, South Africa: NISC, 2020).

[16]Kate Lacey, *Feminine Frequencies: Gender, German Radio, and the Public Sphere, 1923–1945* (Ann Arbor: University of Michigan Press, 1996), 244.

[17]Andrews, *Domesticating the Airwaves*.

[18]Donna Halper, *Invisible Stars: A Social History of Women in American Broadcasting*, (New York: M. E. Sharpe, 2001); Christine Ehrick, *Radio and the Gendered Soundscape: Women and Broadcasting in Argentina and Uruguay, 1930–1950* (Cambridge: Cambridge University Press, 2015).

[19]Kate Skinner, Jovia Salifu, and Akosua Adomako Ampofo, "'Edited and Approved by Women for Maximum Benefit of All Readers': Newsprint Journalism, the International Women's Year and the Remaking of a Gendered National Public in 1970s Ghana," *Gender & History* (2023): 1-17; Francis Kasoma, *The Press in Zambia: The Development, Role and Control of National Newspapers in Zambia, 1906–1983* (Lusaka: Multimedia Publications, 1986), 19–82.

Historical studies of radio technology in Africa are scant and tend to overlook the question of impact.[20] Susan Bowden, David Clayton, and Alvaro Pereira's quantitative work on the consumption of radio sets in British colonies in the 1950s is exhaustive but I take issue with their conclusion that the decision to prioritise wired or wireless systems had little impact on audience.[21] Brian Larkin's history of wired rediffusion in Kano City offers a unique account of the disjuncture between the colonial state's fascination with loudspeaker systems as a figment of the "colonial sublime" and the practical failings of the technology. "Saucepans" and RDS boxes could also be unreliable but his focus on the politics of the "gap between the fantasy of technology and its all too real operation" obscures the transformative social impact of the technology, however imperfect.[22] Histories of radio rarely make the connection between technological variations and the gender profile of audiences, partly because they are dominated by the early adopters, especially the United States, Britain, France, and Germany. Here wireless technology did not produce male-dominated audiences as mains electricity was readily available and listeners did not have to rely on expensive batteries.[23] I demonstrate below that the dominance of the Global North in the scholarship on radio technology has obscured the distinctive experience of battery-operated wireless listeners in regions where electrification came much later if at all and batteries remained the "critical cost bottleneck in the diffusion of radio listening."[24] The leading examples of "wired wireless" systems were the USSR and Communist China where, as in Ghana, it appears that radio attracted a more balanced audience of men and women.[25]

In the first section I compare the evolution and success of radio set development projects in colonial Ghana and Zambia. The second section analyses quantitative evidence for the gendered nature of audience and the third section explores the social impact of different radio technologies to account for the divergence between Ghana and Zambia. In the last section I compare advertisements for radio sets and the voice of broadcasts to demonstrate that the gendered profile of listenership had a lasting legacy on radio culture. The Gold Coast achieved independence in 1957 and Northern Rhodesia in 1964 but for the sake of simplicity I use "Ghana" and "Zambia" throughout.

Colonial Development and Radio

British colonial broadcasting was originally intended to serve an exclusively white audience of settlers and expatriates when it was launched in the 1920s. But the social and political disruption of the Great Depression persuaded officials in London to adopt a new policy of using radio for the "enlightenment and education of the more backward sections of the population and for their instruction in public health, agriculture, etc.," and as an "instrument of advanced administration" or, in other words, political control.[26] These concerns were sharpened during the Second World War when it became apparent

[20]Fred Pratt, "'Ghana Muntie!': Broadcasting, Nation-Building, and Social Difference in the Gold Coast and Ghana, 1935–1985" (PhD dissertation, Indiana University, 2013); Rosaleen Smyth, "A Note on the 'Saucepan Special': The People's Radio of Central Africa," *Historical Journal of Film, Radio and Television* 4, no. 2 (1984): 195–201. For more technical details of the "Saucepan" see David Clayton, "The Saucepan Special and a Radio Revolution in Northern Rhodesia," University of Bristol, School of Arts blog, https://www.bristol.ac.uk/arts/research/global-radio-history/blog/2019/radio-revolution.html, accessed 23 Oct. 2023.

[21]Sue Bowden, David Clayton, and Alvaro Pereira, "Extending Broadcast Technology in the British Colonies During the 1950s," *European Review of Economic History* 16, no. 1 (2012), 42.

[22]Brian Larkin, *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria* (Durham, NC: Duke University Press, 2008), 35 and 62.

[23]E.g. Bruce Lenthall, *Radio's America: The Great Depression and the Rise of Modern Mass Culture* (Chicago: University of Chicago Press, 2007), ch. 2.

[24]Brennan, "Communications and Media," 501.

[25]Stephen Lovell, *Russia in the Microphone Age: A History of Soviet Radio, 1919–1970* (Oxford: Oxford University Press, 2015); Jie Li, "Revolutionary Echoes: Radios and Loudspeakers in the Mao Era," *Twentieth-Century China* 45, no. 1 (2020): 25–45.

[26]TNA CO 885/64, Great Britain, *Interim Report of a Committee on Broadcasting Services in the Colonies, 1937* (Plymouth Report), Colonial No. 139 (London: HMSO, 1937), 4–5.

https://doi.org/10.1017/S0021853725000143 Published online by Cambridge University Press

that Axis powers were using broadcasts to foment anticolonial agitation. The Colonial Development and Welfare Act of 1940 allocated £1,000,000 to support the development of colonial broadcasting, which was mostly spent on improving the quality of local transmitters used to relay the BBC's General Overseas Service, mirroring the approach taken in other European empires. Ghana, Zambia, and Kenya also saw early experiments in vernacular broadcasting.[27] This was all very well but, as many local officials observed at the time, there was no point investing in broadcast output at a time when hardly any Africans owned radio sets.[28]

In Ghana and Zambia officials took the challenge of creating a mass colonial audience more seriously than elsewhere on the continent. Their inspiration was a short-lived Indian development scheme to provide villages with communal preset wirelesses in the early 1930s, which in turn drew on a much more successful Soviet policy of "radiofication" that used the telephone network model to connect local relay stations to wired loudspeaker boxes in homes and public places from the 1920s.[29] This form of radio broadcasting—known as rediffusion or "wired wireless"—is now largely forgotten but it had a brief period of popularity across Europe in the 1920s and 1930s, and in a handful of smaller British colonies such as Hong Kong, Singapore, and Jamaica.[30] RDS was common in the USSR until the 1960s, and China extended a vast wired network to rural areas in the 1950s and 1960s.[31] Later in the twentieth century RDS radio evolved into cable-television.

Radio was launched in Ghana in 1935 at the peak of RDS' brief period of popularity. Most early radio networks in Africa, including in Zambia, used wireless transmission as they were designed to serve a disparate white settler population that could afford expensive sets. In Ghana, by contrast, Hodson chose to adopt the wired RDS model with the aim of making radio accessible to African listeners without risking exposure to potentially-subversive external wireless stations. If there was more than a hint of Soviet "radiofication" about the scheme, Hodson also drew on the recent success of experiments with RDS in Lagos and earlier under his own governorship in Freetown and the Falkland Islands.[32] Small-scale urban RDS networks were soon built in Kaduna, Kano, Nairobi, Johannesburg, Durban, and the Copper Belt. But Hodson's vision of wires reaching even the remotest villages was uniquely ambitious in the colonial world, and Ghana became the only African country to develop a wired network on a national scale.[33] Expansion of the system stalled in the 1940s due to wartime constraints, Hodson's departure, and a BBC-led commission which recommended abandoning wired broadcasting in 1952. But after his election victory in 1951, Kwame Nkrumah's new Convention People's Party government embraced the technology as an affordable option for poorer listeners and an effective method of political control. While RDS was being abandoned elsewhere, the Ghanaian system doubled in size during the mid 1950s and, after a second period of expansion in the late 1960s, the network covered most urban areas and many surrounding villages up to a distance of around ten kilometres.[34]

[27]Louise Bourgault, *Mass Media in Sub-Saharan Africa* (Bloomington: Indiana University Press, 1995), 69–70.

[28]J. Grenfell Williams, "The Development of Broadcasting in British Africa," *Journal of the Royal Society of Arts* 103, no. 4942 (1955): 114–16.

[29]Joselyn Zivin, "The Imagined Reign of the Iron Lecturer: Village Broadcasting in Colonial India," *Modern Asian Studies* 32, no. 3 (1998): 717–38.

[30]BBC Written Archives Centre, Reading (WAC), E3/1205/1, International Broadcasting and Audience Research (IBAR), "World Radio and Television Receivers (WRTR), 1990," 22–23. In 1989 Eastern Europe still had 100,000 wired receivers, and Asia 150,000 (mostly in China).

[31]Lovell, *Russia,* ch. 1; Li, "Revolutionary Echoes".

[32]Sydney Head, "British Colonial Broadcasting Policies: The Case of the Gold Coast," *African Studies Review* 22, no. 2 (1979): 41–43; Ian Mackay, *Broadcasting in Nigeria* (Ibadan: Ibadan University Press, 1964), 3.

[33]Gadzekpo, "Glocalising Radio," 172; Larkin, *Signal and Noise,* ch. 2; Thokozani Mhlambi, "Sound in Urban Public Space: Loudspeaker Broadcasts in Johannesburg and Durban in South Africa, 1940s," *Cultural Studies* 34, no. 6 (2020): 959–78; Larmer, *Living for the City*, 238.

[34]Pratt, "Ghana Muntie!," 61–64; PRAAD ADM 5/4/229, Ministry of Information and Broadcasting, *Wired Broadcasting Service in Ghana,* brochure (Accra: Government Printer, 1964); Bodleian Library, Oxford, Swanzy Papers, Mss. Brit. Emp.

RDS boxes did not require mains power so the system was extended much further than the electricity network and since the boxes did not use batteries either, listeners could leave them on as much as they wanted.[35] There was also a short-lived network of public loudspeakers or "radio kiosks" in markets, community halls, and lorry parks.[36] The up-front costs were carried by the government and listeners paid a monthly subscription fee of five shillings, which was affordable for many middle-income families.[37] The RDS was supplemented by a wireless service called Station ZOY which was initially established in 1940 to carry Free French broadcasts to Vichy-ruled West Africa.[38] According to official estimates a majority of Ghanaian listeners used RDS rather than wireless sets until the mid-1950s and in urban areas RDS boxes dominated until the early 1960s.[39] The RDS was overtaken by popular demand for new transistor sets from around 1960, which caused the number of wireless sets to rise from 130,000 in 1960 to 900,000 in 1970, but the Ghanaian government continued to expand wired broadcasting into the 1970s and maintained it into the 1980s.[40]

In Zambia a small number of wired loudspeakers were installed in community halls and in mining compound beer halls from 1945 but these spaces proved too noisy to attract significant audiences.[41] Instead, when Zambia launched a national radio project in 1949 it used wireless technology and relied on battery power. The choice to use wireless transmission was dictated by the existing media landscape of settler colonialism and changes in radio technology since the 1930s. Unlike Ghana, Zambia had a significant audience of white listeners who had been tuning in to short-wave external stations on bulky, mains-operated sets since the 1920s and practically no Black listeners until the 1950s. When Zambia's first radio station was established in 1941 the colonial government chose to use long-distance short-wave transmitters as it was designed to serve Black listeners in Southern Rhodesia and Nyasaland as well as the home audience. Behind this decision lay the settler political agenda to federate all three territories into a white-dominated Dominion united, in part, by what became known as the Central African Broadcasting Corporation, alongside other totemic development projects such as the Kariba Dam.[42] Meanwhile wired rediffusion had gone out of fashion in Britain in the 1940s, batteries had become cheaper, and the Nazi government had successfully flooded Germany with wireless "*Volksempfänger*" (People's Receiver) sets.[43] While the capital and maintenance costs of Ghana's RDS were mainly funded by the taxpayer and topped-up by listener subscriptions, in Zambia the Information Department managed to harness market forces with minimal outlay. The "Saucepan Special" scheme was launched in 1949 as a *de facto* public-private partnership with the American

s.501/7/2 (SP), Ghana Information Services, *A New Broadcasting House: The Story of Ghana Radio,* brochure (Accra: Government Printer, 1958).

[35]PRAAD CSO 4/5/104, "Broadcasting Rediffusion Stations – Installations in Large Towns with No Electric Supply," 1937–38.

[36]PRAAD CSO 7/5/141, "Wireless Boxes for Markets and Lorry Parks," 1949–53.

[37]Head, "British Colonial Broadcasting Policies," 40.

[38]Ibid., 45.

[39]Ghana Information Service, *A New Broadcasting House*; WAC E3/1284/1, Overseas Audience Research, "Survey in Ghana," 1966, 3.

[40]PRAAD R.G 8/2/996, see *Parliamentary Debates* for regular requests to expand RDS further, e.g. *Official Report (Second Series, vol. 4, no. 37)*, 17 Sep. 1970, cols. 1643–96; PRAAD ADM 5/4/229, *Wired Broadcasting Service in Ghana*. Figures for set numbers up to 1958 are taken from Ghana Information Service, *A New Broadcasting House*. Set numbers for 1959–85 are compiled from the annual "WRTR" in WAC E3/1199/1-E3/1204/1. The RDS system peaked in 1971 with 95,000 subscribers, but it still had 65,000 in 1984.

[41]National Archives of Zambia (NAZ), Harry Franklin, *Report on the Development of Broadcasting to Africans in Central Africa* (Lusaka: Government Printer, 1950); Francis Kasoma, *Community Radio: Its Management and Organisation in Zambia* (Ndola: Zambia Independent Media Association, 2002), 5.

[42]See Julia Tischler, *Light and Power for a Multiracial Nation: The Kariba Dam Scheme in the Central African Federation* (London: Palgrave Macmillan, 2013).

[43]Wolfgang König, "Der Volksempfänger und die Radioindustrie: Ein Beitrag zum Verhältnis von Wirtschaft und Politik im Nationalsozialismus," *Vierteljahrschrift für Sozial und Wirtschaftsgeschichte* 90, no. 3 (2003): 269–89.

https://doi.org/10.1017/S0021853725000143 Published online by Cambridge University Press

battery firm, Ever Ready, drawing on the German model of the 1930s. The project was the brainchild of Harry Franklin, the director of the Northern Rhodesia Information Department, who was a radio enthusiast and maverick in the mould of Arnold Hodson.[44]

The "Saucepan Special" valve set was intended to be robust and cheap enough to be popular with African consumers, earning its name from its rounded metal casing that was intended to withstand termites and hard knocks. The Information Department ordered sets in bulk from Ever Ready, exempted them from customs duty, and sold them on through private retailers for a minimal profit at £5 for a set. African owners were also entitled to a fixed-rate government repairs service at minimal cost.[45] The Saucepan was about half the price of the cheapest commercial equivalent and brought radio within reach of many middle-income Zambians.[46] Sales of Saucepans increased exponentially through the 1950s until they were eclipsed by cheaper transistor sets around 1960.[47] In 1948 Franklin estimated that only 20-30 Africans owned sets but by 1954 approximately 13,000 Saucepans had been imported and by 1957 as many as 50,000 sets had been shipped to the Central African Federation, mostly to Zambia.[48] This impressive rate of growth meant that the Saucepan scheme had caught up with and possibly outstripped Ghana's twenty-year-old RDS project in only seven years, although in practice as many as half of the sets may have been bought by white settlers.[49]

Beyond these basic figures it is difficult to make a quantitative assessment of the success of these two development schemes but a comparison with colonial Tanganyika is helpful, as illustrated by Figure 1, below. Tanganyika had no radio development projects during the colonial period and levels of ownership remained insignificant until technological change and popular demand created the transistor boom at the end of the 1950s. The number of wireless sets in Tanganyika caught up with RDS boxes in 1959 and Zambian wirelesses in 1960, although the expansion of radio ownership in Tanganyika was much less impressive in *per capita* terms as its population was nearly twice as large as Ghana and four times larger than Zambia.[50] On this metric it took Tanzania until 1967 to achieve ownership levels comparable to those seen in Ghana and Zambia in 1959, thanks to a government scheme to provide *ujamaa* villages with sets from the late 1960s.[51] Tanzania was a poorer country so it is difficult to compare like-for-like but this analysis suggests that without state intervention Ghana and Zambia would probably have seen desultory growth of audiences until the late 1950s.

The development schemes in Ghana and Zambia produced exceptionally high levels of African radio ownership in continental terms. By 1959 Ghana had 2.8 sets per 100 population and Zambia 2.5 at a time when the continental average was 1.6, as illustrated by Figure 2, below. These figures were particularly impressive since the only other countries to achieve comparable rates of

[44]Smyth, "Saucepan Special".

[45]NAZ Box 170, Harry Franklin, *Report on "The Saucepan Special": The Poor Man's Radio for Rural Populations* (Lusaka: Government Printer, 1950), 18–26.

[46]Smyth, "Saucepan Special," 199.

[47]Graham Mytton, *Mass Communication in Africa* (London: Eward Arnold, 1983), 53.

[48]Franklin, *Report on "The Saucepan Special,"* 5–6; WAC E3/1189/1, the BBC estimated 21,000 wirelesses in "Northern Rhodesia" in 1954; Franklin judged that around there were around 8000 white-owned non-"Saucepan" sets in 1950, 27; Smyth provides an estimate for 1957 in "A Note on the 'Saucepan Special,'" 199. This data is represented in Figure 1 as a line of best fit.

[49]Ghana Information Service, *A New Broadcasting House,* in 1957 there were 33,700 RDS subscribers in Ghana; Smyth, "A Note on the 'Saucepan Special,'" 199.

[50]WAC E3/1189/1, in 1954 the BBC estimated that Tanganyika had 1,500 sets; UNESCO estimated 1,300 in 1955, in *World Communications: Press, Radio and Television* (Paris: UNESCO, 1956), 87; WAC E3/1199/1, "WRTF: 1960," the BBC estimate was 50,000 sets in 1959. This incomplete data is represented in Fig. 1 as a line of best fit.

[51]WAC E3/1199/1, "WRTR: 1960"; WAC E3/1200/1, "WRTR: 1968," Tanzania had 2.7 sets per 100 population in 1967; Gervas Moshiro, "The Role of Radio Tanzania Dar es Salam in Mobilizing the Masses: A Critique," *Africa Media Review* 4, no. 3 (1990): 26.

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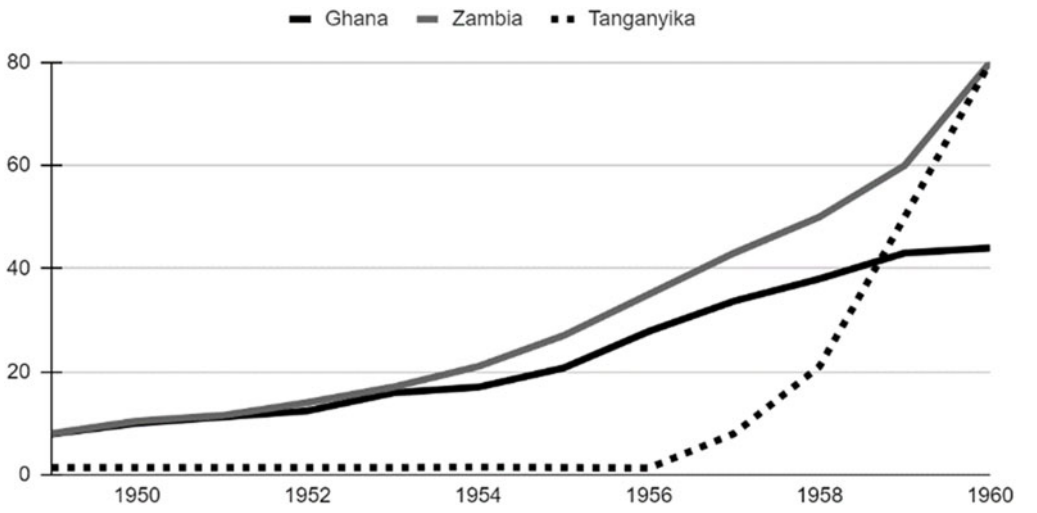

Figure 1. Radio sets (1000s) in Ghana (RDS loudspeakers only), Zambia and Tanganyika, 1949–60.
Sources: PRAAD; UNESCO; BBC WAC; Smyth.

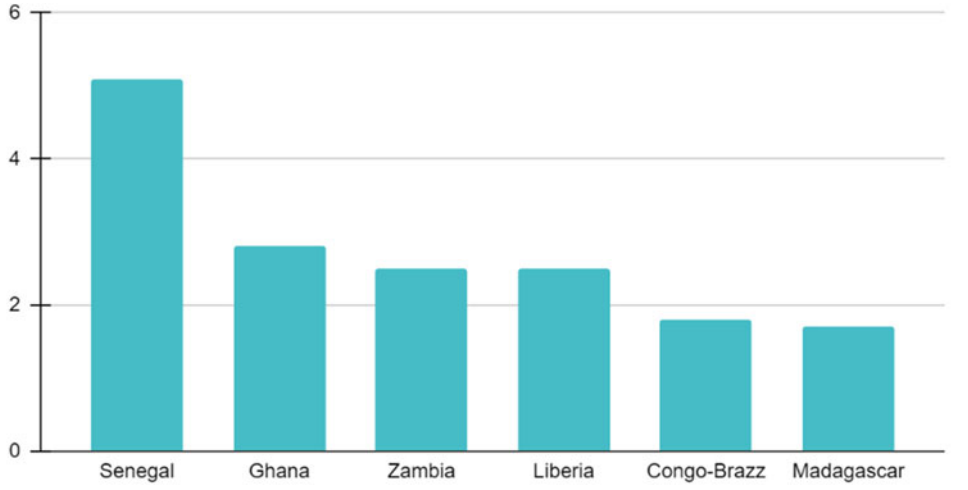

Figure 2. Radio sets per hundred population in countries with rates above the African average, 1959.
Source: BBC WAC.

ownership were those that hosted powerful transmitters installed by international stations, which gave unusually good local reception.[52] Translating set numbers into audience figures requires some guesswork but observers at the time found that collective listening was the norm with groups of

[52]WAC E3/1199/1, "WRTR: 1960," The other African countries with above-average rates of ownership were South Africa (8 sets per 100 population), Morocco (3.4), Algeria (3), Tunisia (2.6) and Southern Rhodesia (2) but here most sets were in white settler homes and do not reflect the African audience, although data is lacking. In South Africa, for instance, the rate of Black ownership was probably 2:100 if it is assumed that most white homes had a set. Listenership was high in Senegal, Congo Brazzaville, and Madagascar because they hosted relay masts for the French international broadcaster SORAFOM, and Liberia hosted Voice of America, although without schemes to promote set ownership radio listening was largely the preserve of social elites until the transistor boom of the 1960s: Mytton, *Mass Communication in Africa,* 52–53.

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around seven or more listening to a single set.[53] This gives a conservative estimate for the national radio audiences as being around a fifth of the population in both countries in 1959. By 1970 perhaps half of Zambians and nearly all Ghanaians were listening regularly.[54] The most impressive local results were seen in urban areas. Half of the residents of Luanshya Township on Zambia's Copper Belt were regular listeners by 1952.[55] In 1955 around a fifth of the population of Accra listened to RDS boxes regularly (including children), and in 1960 a third of adults aged over 15 had an RDS box in the house and 50 percent of the population listened daily.[56] These figures are approximate but they reveal that colonial development schemes in Ghana and Zambia created a mass African listening culture in the 1950s about a decade before most other parts of the continent, where radio remained the preserve of social elites or white settlers until the arrival of transistors.

Gendering Audience

Figures 3 and 4, below, are rare examples of images of early radio listening which were published in promotional brochures by the Northern Rhodesia Information Department and the Ghanaian Ministry of Information.[57] Both locate the radio set at the heart of domestic family life, but while the focal point of Figure 3 is the husband's arm reaching down to tune the Saucepan, in Figure 4 neither adult is controlling the set and it is the RDS wire that leads the eye to the loudspeaker box. The fragmentary archives of early listenership reveal that these images typify the ways in which radio technologies were gendered.

Audience surveys are an obvious starting point for this enquiry. In 1955 the Gold Coast Broadcasting Service (GCBS) management admitted that it was "woefully ignorant of the audience and of their listening habits" since "no basic research had ever been done." J. W. B. Kpohanu, a recent economics graduate, was appointed as listener research officer to study RDS users in Accra and three nearby towns, Swedru, Winneba and Keta. Over eight months he and his assistant, Paulina Clark, interviewed 622 subscribers. Kpohanu and Clark found that although nearly all the subscribers were male, each RDS box had a large average audience of nine listeners which was "fairly evenly divided" between men and women.[58] This striking observation was echoed by larger surveys in the 1960s.[59]

Archival traces of audience in colonial Zambia give a very different picture to Ghana. In 1954 the Central African Broadcasting Service (CABS) observed that "when broadcasts to Africans first started… it was noticeable that the men were not very anxious for the women to touch their wireless sets."[60] There were no equivalent surveys to Kpohanu and Clark's research in the 1950s but when the Information Department asked 5000 listeners about their favourite programmes in 1952, only 850 of them chose women's programmes. Even if this group was entirely made up of women (and it is probable that some were men) this would suggest that women represented at most 17 percent

[53]WAC E3/1284/1, "Gold Coast Broadcasting Service Listener Research: A Survey of Listeners and of Listening Habits in the towns of Accra, Swedru, Winneba and Keta, March to October, 1955," 2, found an average of 9 listeners per set in urban areas; NAZ Box 170, Market Research Africa (Rhodesia) Ltd, "Radio Listenership Survey of Zambia: Main Urban Areas," Nov. 1965, 3, found seven per set.

[54]WAC E3/1201/1, "WRTR: 1971".

[55]Hortense Powdermaker, *Copper Town: Changing Africa, The Human Situation on the Rhodesian Copper Belt* (New York: Harper and Row, 1962), 277.

[56]WAC E3/1284/1, "Gold Coast Broadcasting Service Listener Research," 2; WAC E3/1284/1, BBC "Survey in Ghana," 1966, 3. In 1960 another third of residents had a wireless and a third had neither.

[57]PRAAD ADM, 5/4/229, *Wired Broadcasting Service in Ghana*, 2; UNZA, front cover of *The African Listener* 10 (1952).

[58]WAC E3/1284/1, "Gold Coast Broadcasting Service Listener Research," 1–2.

[59]WAC E3/1284/1, BBC "Survey in Ghana [1964]," 4, found that 62 percent of listeners were "very interested" in women's programmes; E3/1284/1, BBC "Survey in Ghana, March 1970," Aug. 1972, 7.

[60]*The African Listener*, "Programmes for Women," 9.

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Figure 3. Family with "Saucepan Special," 1952.
Source: UNZA.

Figure 4. "A family listen attentively to a Radio Ghana programme on a Wired Service loudspeaker Unit," 1964.
Source: PRAAD.

of the national radio audience.[61] In the same year, Hortense Powdermaker conducted a local survey in Luanshya as part of her ethnographic study of life on the Copper Belt. Female listening here was higher thanks to the wealthy, urban profile of the mining township's population, but Powdermaker found that only 35 percent of the radio audience was female while 65 percent was male.[62] By contrast, a

[61]UNZA ZAM.I3.(058), Northern Rhodesia Information Department, *Annual Report for the Year 1952* (Lusaka: Government Printer, 1953), 18.
[62]Powdermaker, *Copper Town,* 232.

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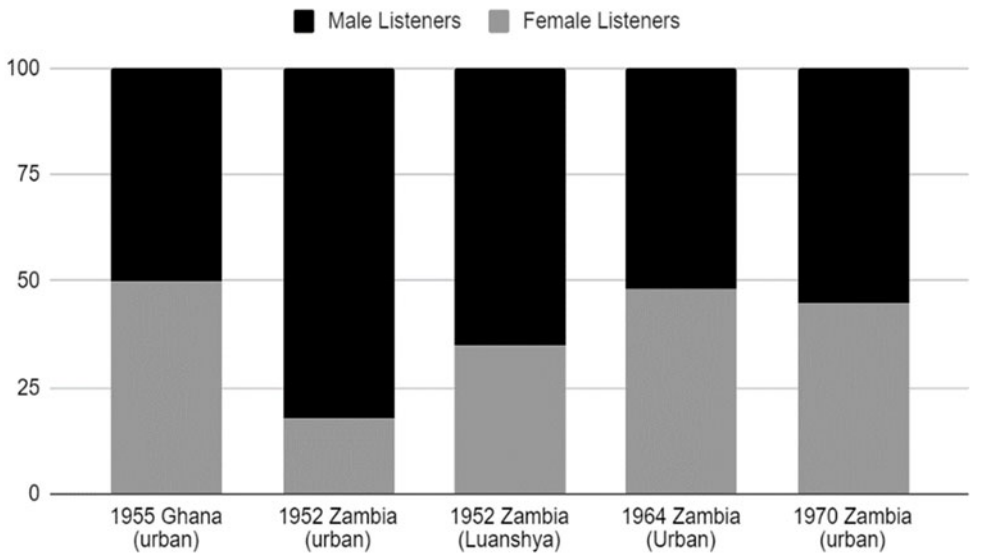

Figure 5. Gender balance of listenership (percentage of total audience) in Ghana and Zambia, 1950s and 1960s.
Sources: BBC WAC; Powdermaker, *Copper Town*; Northern Rhodesia Information Department.

survey of urban areas in 1965 found that total listening figures were similar for both genders, although daily listening revealed an ongoing inequality as men were 1.3 times more likely to listen on a daily basis than women.[63]

Accepting the limitations of the archive, survey data suggests that the urban radio audience in Ghana comprised equal numbers of men and women in the 1950s, while the urban Zambian audience was dominated by male listeners until the 1960s, as summarised by Figure 5, above. Unfortunately surveys in rural areas did not quantify female audiences in either country in this period. However surveys conducted in the 1980s and 1990s reveal that rural women were more likely to listen to the radio in Ghana than in Zambia and it is reasonable to surmise not only that this divergence was historic but also that the ongoing presence of rural RDS networks in Ghana were an important factor.[64]

Manly Machines and Homely Objects

It should not be assumed, however, that the growth of female audiences meant that women and men experienced radio technology in the same way. In this section I use oral histories to demonstrate that differences in radio technologies, patterns of ownership, and the ways in which sets were used in and around the home created and then perpetuated the gendered profile of early radio audiences long after numerical parity was achieved.

[63]NAZ Box 170, figure calculated from Market Research Africa (Rhodesia) Ltd, "Radio Listenership Survey of Zambia: Main Urban Areas," Nov. 1965, Tables 2 and 4. 42 percent of men listened daily, compared to 33 percent of women. The total occasional audience for radio was 84 percent of men and 78 percent of women.

[64]Kwesi Gaisie, Anne Cross, and Geoffrey Nsemukila, *Zambia Demographic and Health Survey 1992* (Lusaka: University of Zambia, 1993), 25; ICF Macro, *Trends in Demographic, Family Planning, and Health Indicators in Ghana, 1960–2008* (Calverton, MD: ICF Macro, 2010), 9. Urban women were twice as likely to listen to radio as rural women in Zambia while in Ghana the gap was only 1.5.

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The wonderment inspired by the new technology was a memory common to all the women that I interviewed in Zambia but so too was a sense of frustration that men usually controlled wireless radio sets. Rosemary Mumbi grew up in a remote village in Muchinga Province in the east of the country in the 1940s and early 1950s. She recalled that,

> we had those sets, we called them Saucepans, and the village gathered around this one hut which had a radio, mostly in the afternoons and in the evenings. The radio seemed to be a miracle, to listen to voices from so far away. Everybody believed everything they heard from the radio.

However Mumbi also remembered that in her village "the radio was controlled by the man because he owned the home and you did what he said," and the villagers "believed it was a man's world."[65]

Jennifer Chiwela recalled a similar situation in her village in Southern Province in the 1950s. Like Mumbi, she was "mesmerised by listening to a voice whose owner could not be seen; this was like magic" but she also saw that "women didn't have as much time to listen to the [Saucepan] radio as the men did, because if they went to the field and came back together with the men they went straight to preparing the food, while the men were sitting [elsewhere] listening to the radio programmes."[66] Elite, urban homes were the exceptions that proved the rule. Misael Kancheya was one of the first Black Zambians to graduate from the University of Zambia and went on to become a senior civil servant in the 1970s. He remembered that it was "common" for men to control sets but "in very few homes, those that were more enlightened it was much fairer." He told me with pride that he let his wife listen to whatever she wanted.[67]

Why was radio associated with patriarchy in Zambia? "We were just doormats" was Elizabeth Mwali's only comment on the subject in a group interview with women who lived in the southern town of Kafue. For these women the radio set was located in a general culture of patriarchal influence, not only in the 1950s but for decades after. Ides Kalebwenta recalled that male control of the set was non-negotiable in the 1960s and 1970s because "it is our tradition that the man is the head of the house, ours is just to follow what the man does." The main issue was that radio sets were typically bought by men as they had better access to formal employment and the cash economy, reflecting the legal and social structures of colonial urbanisation in Zambia which encouraged men to consider their earnings as personal rather than household income.[68] None of my interviewees could recall a woman buying a set before the 1970s. Lillian Lungu remembered that a gendered disparity in cash earnings still determined the ways that the wireless was used in her marital home in the 1990s. Lungu explained that "in those days the woman was [supposed] to be at home, nothing beyond managing a family." But "a man goes to school, he gets a job, he buys a radio, so in the home the man was in charge of it and it is the man who can choose which programme you listen to." The older women in the group agreed that Lungu's experience had been typical of Zambian homes since the early days of radio.[69] These comments echo the findings of later ethnographic research. A study of middle-income urban women in Lusaka, for instance, found that male control of sets was still the norm in 1972.[70] In the same way, Spitulnik's ethnographic study of rural villages in Northern Province in the late 1980s observed that men chose when the household radio was turned on or off, which programmes were

[65] Interview with Rosemary Mumbi, Lusaka, 9 Sep. 2022.

[66] Interview with Jennifer Chiwela, Lusaka, 9 Sep. 2022.

[67] Interview with Misael Kancheya, Lusaka, 9 Sep. 2022.

[68] Karen Tranberg Hansen, "Washing Dirty Laundry in Public: Local Courts, Custom and Gender Relations in Postcolonial Lusaka," in *Courtyards, Markets and City Streets: Urban Women in Africa*, ed. Kathleen Sheldon (Boulder: Westview Press, 1996), 108–9.

[69] *The African Listener*, "Programmes for Women," 9.

[70] Private Papers of Graham Mytton, Dorking (GM), Notes from Helene Freilem's interviews with participants Lusaka, Apr.– May 1972. I am grateful to Graham Mytton for sharing this document with me.

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listened to, and which channel it was tuned to. Spitulnik also came across women operating sets but only in an all-female setting and never when a man was present.[71]

If male set ownership was a major barrier to female listening in Zambia, so too was the lack of electrification and the reliance of wireless sets on batteries which, like sets, were typically bought by men. As early as 1950, Franklin observed that "African owners have generally used their batteries very sparingly and the batteries are in fact giving rather longer life than the manufacturers claim for them."[72] This was understandable in light of the excessive cost of early batteries, especially for power-hungry valve sets like the Saucepan in the pre-transistor era. While the Saucepan set was priced at only £5 in 1949, its battery cost £1 and 5 shillings so men exercised a residual control of the set even when they were out of the house.[73] This continued to be a problem for women as late as the 1990s. Lungu remembered that even then it was still the "man who used to buy the dry cells for the radio," so "mostly the radios were never turned on until when he is home [because] you were worried you would use up the battery."[74]

My Ghanian interviewees also recalled that wireless sets were controlled by men but, by contrast, all of them confirmed Kpohanu and Clark's observation that wired rediffusion boxes were used equally by men and women into the 1950s. With the advent of wireless transistor sets in the 1960s, the remaining RDS audience became increasingly dominated by women and children. Interviewees cited technical and social reasons for the gendered differences between wireless and wired audiences. For a start, RDS boxes could be left on permanently at no extra cost unlike Saucepans and other battery-powered sets. According to Kpohanu and Clark 70 percent of subscribers left their sets on all day in 1955.[75] Frances Ademola, now in her 90s, remembers walking through Accra from the late 1930s and hearing boxes "everywhere, from six o'clock in the morning when it came on automatically." Although "you could turn the [on/off] knob," subscribers in Accra "would never turn it" until "it went off in the night." For Ademola, the sound of the RDS swiftly became "part of our lives" in urban spaces and especially after 1939 because "a lot of people had relations fighting with the British Royal West Africa Frontier Force in Burma" and they would eagerly listen for news. Ademola remembered that some boxes were left on "because people claimed that burglars wouldn't come to the house when they heard a voice." And although the "burglars got used to the idea of the voice, they were confused" as they "didn't know if it was just the sound of the voice or whether there were other people there too, so it had a double purpose of giving security."[76]

Ademola's household also kept the RDS box turned on permanently because it was used as a communal alarm clock: "this thing in the courtyard came on at 6 o'clock, and if you weren't already awake it was a good time to know that you have to get up as the news would come on."[77] Other listeners used their boxes in this way and also as a household clock through the day. Robert Ofori grew up in a village in Eastern Region in the 1960s and although his home was 10 kilometres from the nearest town of Nkawkaw his family had an RDS box. He recalled that

> at six o'clock [am] it would announce "kon-kon-konkaro" [cockerel noise] and it would come. Then at that time it would change to English, they would do the news, then later they on they would translate it into Akan. So when you hear "Ghana Muntie, Ghana Muntie, Ghana Muntie"

[71]Deborah Spitulnik, "Radio Culture in Zambia: Audiences, Public Words, and the Nation-State" (PhD dissertation, University of Chicago, 1994), 75.

[72]Franklin, *Report on "The Saucepan Special,"* 25.

[73]Ibid., 18–26.

[74]Group interview with Elizabeth Mwali, Patricia Mwanza, Kristine Tembo, Ides Kalebwenta, and Lilian Lungu, Kafue, 4 Sep. 2022.

[75]WAC E3/1284/1, "Gold Coast Broadcasting Service Listener Research," 3.

[76]Interview with Frances Ademola.

[77]Ibid.

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> [call sign], that means it's time, at six or seven and every hour they would announce "kon-kon-konkaro." So if you are going to school you can check, ah it's seven o'clock, it's time to go to school…. The radio was on all the time except when it was closed so there was no need to off it.[78]

On all the time and with only one available station, wired box technology offered subscribers few choices and were used as inanimate objects. As Beatrice Clottey put it, "we had access to only one station so no one really controlled it" in her childhood home in the small town of Obomeng in Eastern Region in the mid-1950s.[79] By contrast, Saucepans were machines that required operation and negotiation between their male owners and other family members. Not only did they have to be used sparingly because of the cost of batteries but, like most other early wirelesses in Zambia, Saucepans had short wave capacity and could easily pick up foreign stations, adding another element of choice. In fact the tuning dial of the Saucepan was designed to encourage transnational listening as it marked the frequencies of broadcasts from Lourenço Marques, Johannesburg, Dakar, and London, among others.[80] Although most RDS subscribers were male, the limited nature of the technology meant that they did not have the opportunity to exercise the gendered agency that wireless set owners enjoyed in Zambia.

Women also had better access to radios in Ghana thanks to their fixed presence in the home. Boxes were typically installed in the living room or in the central yard of larger compound, in part for ease of listening but also to comply with the terms of RDS subscription contracts which stated that government agents "must be allowed to enter premises at all reasonable times for the purposes of inspecting and testing the installation."[81] Radio technology has been widely credited with blurring the boundaries between the public and private sphere and the physically invasive requirements of Ghana's RDS are an extreme example.[82] But as a result, boxes were commonly located where women performed the labour of the house and they could easily be heard throughout the day by a heterogenous, homely audience. By contrast, Saucepans were mobile and could be carried away by their owners for an audience that was more private and select, as Spitulnik later noted of transistor sets.[83]

Ghanaian listeners remembered the social impact of the location of RDS boxes. Kwame Karikari, who later became director general of the Ghana Broadcasting Corporation (GBC), was a child in Akyem Awisa in Eastern Region during the 1950s. In 1952 his family had a box installed on an external wall in the central courtyard of the house, which was a compound with eighteen rooms and multiple families. At 6 p.m. the men of the house would come and sit in the courtyard to listen to the evening news in Twi but otherwise the audience was usually women and children. Karikari did "not remember them sitting down to listen to radio but as they went about their chores they would listen" and "some of the women would hum along to the music" when they were cooking or sweeping.

By contrast, wireless sets were seen as manly machines as in Zambia. When Karikari's father, a construction technician for the Public Works Department, bought a battery powered short-wave transistor set in 1960, the household audience became more gendered. Karikari had no memory of the women being allowed to listen to "my father's wireless set." Of an evening his father and the other men of the house would sit and listen to the news on the BBC, Nigerian music, or football in the sitting room or on the verandah, while the women and children listened to the RDS in the courtyard. When the men were out at work during the day the wireless set was kept off.[84]

[78]Interview with Robert Ofori, Accra, 13 Jan. 2024.

[79]Interview with Beatrice Clottey, Teshie Penny, Accra, 3 Aug. 2024.

[80]Saucepan Special J-A3F, online image, Radiomuseum.org, https://www.radiomuseum.org/r/berec_saucepan_special_j_a3f.html, accessed 19 Feb. 2024.

[81]WAC E3/1284/1, "Gold Coast Broadcasting Service Listener Research," Appendix B; PRAAD CSO 7/5/39, 72B, "Gold Coast Colony: Broadcasting Department," subscriber contract, 1934.

[82]See Kate Lacey *Listening Publics: The Politics and Experience of Listening in the Media Age* (Cambridge: Polity Press, 2013).

[83]Spitulnik, "Mobile Machines," 337.

[84]Interview (remote) with Kwame Karikari, Accra, 6 Feb. 2024.

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Mike Eghan, a famous Ghanaian radio personality and DJ from the 1970s, grew up in a more elite social setting in Sekondi-Takoradi in the 1940s but he remembered a similar techno-gendered division. "We had a rediffusion box," Eghan remembered, "but my father had an electronic [wireless] radio." The RDS box was always "turned on but he wouldn't listen to it, it was meant for the rest of the family," as his father, a civil servant, "would rather listen to the BBC news and cricket and football" privately.[85] Frances Ademola also grew up in an elite household, although her home was a compound like Karikari's, with a "courtyard, a communal place, and tenants on the ground floor and our family lived upstairs." Her father had his own wireless that he listened to in his study but from 1936 there was also an RDS box "downstairs in the compound." Ademola's relationship with the two technologies was totally different. Wireless listening was rare and by invitation only of her father but the RDS was a "unifying factor" for all the compound. If she heard a shout of "Eh, it's news time, let's go and hear" or "it's this choir, let's go and hear," she would run downstairs to listen to the box in the courtyard and "maybe there would be a bit of dancing around it."[86]

Gender, Advertising, and Voice

Advertisements for radio sets and the voice of broadcasts also reveal traces of the gendered nature of audiences which, in turn, they served to reinforce. While advertisements for radios in Ghanaian newspapers targeted both women and men from the 1950s, Zambian advertisements ignored female consumers until the 1970s. Figure 6, below, contrasts two typical promotional images of sets from Ghana and Zambia in 1959/1960. RDS boxes had such popularity that they were not advertised so the Ghanaian advertisement for a Japanese transistor is taken to be representative of Ghanaian listening culture at the time. Aside from the racist stylisation of the Saucepan cartoon, which I have discussed elsewhere, the main difference between the images is that the Zambian woman is presented as a passive listener while her Ghanaian counterpart is shown operating a radio set that she has bought herself. These images typified advertising for radios in the two countries. Women were regularly shown listening on their own in Ghanian newspapers from the late 1950s but in Zambia they were either depicted listening in the company of men or, more commonly, not at all until the early 1970s.[87]

The gendered nature of audience was also reflected in the sound of radio in Ghana and Zambia in the 1950s and beyond. Admittedly, the content of programmes in both countries was male-dominated as women rarely featured in the news and almost never in sports coverage, while soaps, dramas, and popular music lyrics typically portrayed women as girlfriends, wives, or mothers, often shown in a critical light, and sometimes they were openly misogynistic.[88] In the early 1950s both services launched regular women's programmes that ostensibly sought to empower women, but broadcasters who worked on the programmes remembered that they were dominated by features about homecraft and child-care.[89]

[85]Interview with Mike Eghan, Accra, 13 Jan. 2024.

[86]Interview with Frances Ademola.

[87]For a more detailed discussion of advertising in the Zambian press see Peter Brooke, "Looking at Listening: Gender and Race in Commercial Advertising for Radio Sets in Southern Africa from the 1950s to the 1970s," *Journal of African Cultural Studies* 36, no. 1 (2023): 74–93.

[88]For instance Zambia's long-running and highly popular Bemba soap "Malikopo," see Peter Fraenkel, *Wayaleshi* (London: Weidenfeld and Nicholson, 1959), 157–58; David Kerr, "African Broadcasting Pioneers and the Origins of Radio Drama at Central African Broadcasting Services," *Critical Arts* 9, no. 1 (1995): 30–56. For discussion of music see Powdermaker, *Copper Town,* 235–41; Sarah Longwe and Beatrice Chileshe, *NGO Shadow Report: The Situation of Women in Zambia During the Decade 1985–1994* (Lusaka: NGOCC, 1994); Nimrod Asante-Darko and Sjaak Van der Geest, "Male Chauvinism: Men and Women in Ghanaian Highlife Songs," in *Female and Male in West Africa*, ed. Christine Oppong (London: Routledge, 1983), 242–55.

[89]UNZA, 'Lusaka Calling', *The African Listener* 9, Sep. 1952, 8; interview with Doris Mulenga, Lusaka, 9 Sep. 2022; interview with Lucy Banini, Accra, 13 Jan. 2023.

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Figure 6. Visual framing of listenership. Left: Detail from "Specialist for West African Trade!," *Daily Graphic*, 26 May 1960, 30; Right: Cartoon promoting the "Saucepan Special" in "Nkhani zamu Wailesi za December" (radio listings), *Nkhani za Kum'mawa*, Northern Rhodesia Information Department, Dec. 1959, 11.
Sources: PRAAD and British Library, respectively.

However, the voice of radio was markedly different in the two countries. In Zambia female broadcasters were few in number and had second-class status during the colonial period and beyond. After independence women continued to be absent from the flagship English-language General Service and they remained a minority on the less-prestigious vernacular Home Service. In 1975, for instance, the Home Service could still only number five women on its team of announcers, compared to ten men.[90] In the 1950s Agnes Morton was a prominent exception as the host of the popular music requests programme "Zimene Mwatifunsa," and other female voices could be heard on women's programmes and in dramas, such as the soap opera "Malikopo" which ran from 1947.[91] Otherwise the voice of Zambian broadcasting remained overwhelmingly male until the 1970s when Emelda Yumbe became the first woman to read the news.[92] All of the women that I interviewed in Zambia remembered their frustration with the dominant presence of male voices into the 1990s and a sense that female listeners were generally ignored. As Monde Sifuniso put it, "there was a time for women, a time for children but the rest of the time was for men."[93]

In Ghana the voice of radio was more feminine and the female listeners that I interviewed did not remember the alienation that my Zambian participants experienced. Women were regular presenters and producers of current affairs programmes from the early 1950s, such as Sunday Magazine which was presented by Frances Ademola from 1954. Betty Quashie-Idun read the English news from 1956, two decades before Yumbe was granted the privilege in Zambia, and Ademola recalled that nearly half of her colleagues at GCBS were female when she joined in the mid-1950s.[94] Ghana radio had

[90]NAZ Box 170, Ministry of Information and Broadcasting, *Annual Report for 1973* (Lusaka: Government Printer, 1975), 24.
[91]Kasoma, *Community Radio,* 13; Kerr, "African Broadcasting Pioneers," 46.
[92]"Emelda Yumbe Laid to Rest," *Daily Mail Zambia*, 15 Aug. 2012, archived online at https://zamwa.wordpress.com/2012/08/15/emelda-yumbe-laid-to-rest00/, accessed 13 Apr. 2023.
[93]Interview with Monde Sifuniso, Avondale, Lusaka, 2 Sep. 2022.
[94]Interview with Frances Ademola; Bernard Gadzekpo "Ghana Muntie," unpublished memoir, 67, courtesy of Audrey Gadzekpo.

https://doi.org/10.1017/S0021853725000143 Published online by Cambridge University Press

also been directing broadcasts to an explicitly female audience long before Zambian radio, including public health talks from 1936, Hodson's speech of 1937 quoted in the introduction, and, at the time of the Accra riots of 1948, a lengthy appeal to women for their loyalty from Comfort Peregrino-Aryee, the founder of a local women's club.[95] Nkrumah's appointment of Shirley Graham Du Bois and Genoveva Marais, respectively, as director of television and head of programmes at GBC in 1964 was extraordinary in global terms and reflected the status of female broadcasters in Ghana.[96]

The difference in voice between Ghanaian and Zambian radio can be attributed, in part, to Ghana's unusual history of colonial secondary and tertiary education for girls from elite coastal families at a time when it was practically unheard of in Zambia.[97] Frances Ademola, for instance, was the daughter of Ghana's chief justice and was educated at the elite Achimota School and the University of Exeter in the 1940s. Before she was recruited to work for the GCBS she was employed by the BBC West Africa Service in London.[98] But the voice of Ghana radio was also shaped by technology as the RDS' success in attracting such a broad listenership gave early radio managers an added incentive to recruit female presenters. By contrast, the Ghanaian press had a predominantly male readership and, as mentioned earlier, gave female writers few opportunities beyond women's columns.[99]

Conclusion

Colonial development schemes to promote affordable radio sets in Ghana and Zambia created mass African audiences a decade before the arrival of cheap transistor sets created comparable levels of listening in most other African countries. By popularising radio technology so early the schemes also had a long-term impact on audiences in Ghana and Zambia, which continued to be unusually large by continental standards for decades afterwards. The success of these radio projects therefore gives an alternative perspective on the history of development as they were small but significant exceptions to the general rule that state-led projects benefited few Africans in the colonial era.

However the social impact of the projects was uneven thanks to the seemingly-technical choice to promote wired or wireless sets. Audiences left few traces in the early days of mass broadcasting but by using fragments from a range of archives it is possible to reconstruct a gendered profile of early listenership. Audience research, oral histories, commercial advertising, and the voice of broadcasts reveal that the Saucepan became a manly machine and created a male-dominated audience in Zambia while in Ghana the RDS box was a homely object that was heard equally by men and women. This technological divergence reflected and reinforced a deeper history of gendered difference in the practice of colonial rule in Black colonies like Ghana and settler colonies like Zambia, where the exclusion of women from the public sphere had been pursued with greater vigour.

Colonial radio development schemes had their limits and their achievements were modest compared to the impact of the transistor from the 1960s. The affordability of this new technology made it easier for women to own or at least to hear a radio and from the mid-1960s the social profile of audiences across Africa was defined less by gender than by youth, education, and urban living.[100] Male and female audiences have been fairly equal in a numerical sense ever since but this study has

[95]PRAAD CSO 7/5/120, "Quinine and Malaria: A Short Talk to African Mothers," GCBS transcript, 1 July 1936, 8 p.m.; CSO 7/5/154/671-674, untitled GCBS English news transcript, 14 Mar. 1948, 5:35 p.m.

[96]Jennifer Blaylock, "The Mother, the Mistress, and the Cover Girls: Ghana Broadcasting Corporation and the Coloniality of Gender," *Feminist Media Histories* 8, no. 1 (2022): 102–33.

[97]Erin Hern, "Colonial Education and Women's Political Behaviour in Ghana and Senegal," *African Studies Review* 64, no. 1 (2021): 222–28; Faye Gadsden, "Education and Society in Colonial Zambia," in *Guardians in Their Time: Experiences of Zambians Under Colonial Rule, 1890–1964*, ed. Samuel Chipungu (London: Macmillan, 1992), 119–21; see also Shimwaayi Muntemba, *Beyond the Horizons: Chipembi School Blazes the Trail for Girls' Education and Empowerment in Zambia* (Lusaka: Gadsden, 2023).

[98]Interview with Frances Ademola.

[99]Skinner, Salifu, and Adomako Ampofo, "Edited and Approved by Women," 1–17.

[100]Bourgault, *Mass Media,* 99–102.

https://doi.org/10.1017/S0021853725000143 Published online by Cambridge University Press

demonstrated that quantitative audience surveys should not be allowed to obscure gendered inequalities in the experience of listeners. The frustrations felt by female listeners in Zambia lasted long after the colonial period and were probably shared by women across the continent where battery-operated wireless sets and male dominance of the airwaves remained the norm in the twentieth century, although more research is needed in this field.[101] The experience of Zambian women was symptomatic of a much broader social landscape of gendered inequality but I have argued here that the choices made by the colonial architects of Africa's radio systems were not only reflective but also constitutive of that landscape. The comparison between Zambia and Ghana reveals that the association between radio and patriarchy was not inevitable and that the now-forgotten technology of wired wireless created an unusually large female audience in Ghana and a radio culture that was exceptionally egalitarian.

Acknowledgements. I am grateful to the British Academy/Leverhulme Trust and the John Fell Fund for funding my research in Ghana and Zambia. Archivists at the National Archives of Ghana and Zambia, the University of Zambia Library, and the BBC Written Archives Centre gave me invaluable help and guidance, as did Abibah Sumana, Elikem and Max Logan in Accra, Shimwaayi Muntemba in Lusaka, and Zaccheus Zulu in Kafue. I am also indebted to Audrey Gadzekpo, Victoria-Ellen Smith, the JAH editors, and two anonymous reviewers for their comments on my research and earlier versions of this article. Most of all I would like to thank my interview participants for giving generously of their time and sharing their rich memories.

[101] WAC E3/1100-1300 reveal that these are standard themes in audience surveys across the continent. See also Tanja Bosch, "Women as radio Audiences in Africa," in *The Routledge Companion to Media and Gender*, eds. Cynthia Carter, Linda Steiner, and Lisa McLaughlin (London: Routledge, 2014), 514–22.

Cite this article: Brooke P (2025). Manly Machines and Homely Objects: Gender, Development and Divergent Radio Technologies in Late-Colonial Ghana and Zambia. *The Journal of African History* 1–19. https://doi.org/10.1017/S0021853725000143