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Chapter 10

Early radio in late colonial India

Historiography, geography, audiences

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Introduction

Previous scholarship on the radio in colonial India has largely focused on official and private papers such as policy documents, letters, and memoranda from sources such as the India Office Records and Private Papers in order to sketch an argument that positions the radio as technology *vis-à-vis* the colonial state.[1] Here, the radio is positioned both as an instrument of propaganda for the colonial government and the imperial project, and as an instrument of potential subversion and a platform of anti-colonial nationalism (Gupta 1995, 2002, 447–480; Pinkerton 2008; Zivin 1998, 1999); variously embraced or critically rejected by nationalist politicians such as Nehru (in favour) and public figures such as Gandhi (against). Appropriately, this scholarship predominantly focuses on the 1930s and, more specifically, on the second half of that decade, which saw the Government of India Act of 1935 and the consolidation of All India Radio (AIR) (1936) with Lionel Fielden (formerly of the BBC) at its helm. While the model for broadcasting in India pre-1935 markedly rejected radio's function in creating a national audience, culture, and politics in order to affront 'the legitimacy of Indian nationalism' (Zivin 1998, 717), the nationalising momentum that started with AIR pre-Independence was concluded in the postcolonial nation. By the 1950s, radio had become one of the central technologies through which, eventually, a 'national audience' and 'nation-as-audience' was fashioned (Lelyveld 1994, Punathambekar 2013).[2] Radio broadcasting is thus implicated in the narratives of nation-building through infrastructural consolidations, a standardised sense of clock time (especially leisure time), and linguistic and affective communities across territories.

In this chapter, we shift scholarly attention from the late 1930s to the early years of the radio in late colonial India, and from official and private papers by state and radio officials to reportage about the radio in the 'Wireless Notes'—a feature in *The Times of India*—and *The Indian Listener*, one of the earliest broadcasting trade publications in India. We are particularly interested in the years 1925 and 1935, as they both present pivotal points in time for the development of the radio and its audiences on the subcontinent. To tune in to the public's discourse about radio eleven years and one

year—respectively—before the official establishment of AIR in 1936 provides us with the opportunity to excavate the way radio as a then-new sound technology was received and explored by certain sets of audiences: the urban elite (1925) and rural audiences (1935), with sporadic overlaps. This difference between years and audiences can be attributed to the inherent skews/biases of the sources, the spread of radio enabling audiences outside of the urban centres to access the radio, and to the colonial government's investment in the radio as a mode of British propaganda. This will enable us to answer the following questions: How did the radio affect listening practices in the Indian subcontinent? More specifically, how did the radio as technology impact people's perception of space and place beyond the geopolitics of empire, including how it affected audiences along the rural-urban divide? Asking these questions focuses scholarly attention on the specificity of the experience of Indian sonic modernity via the radio; a modernity that was not only marked by the technological dimension of the radio, but also by the effect it had on audiences in opening up people's imagination of space and place. We explore this in detail below by engaging with the geographic imagination produced by the radio and by laying out the then-contemporary audiences' engagement with the device, its programming, and sonic forms. Further, we discuss radio as a sound event: both in the way in which it structured knowledge through sound and in ways that eventually produced the radio as a small-scale everyday media object and technology.

In doing so, we build on David Arnold's (2013) emphasis on 'small everyday technologies' such as sewing machines and bicycles as critical tools in Indian technological modernity, through their adaptation and use in the subcontinent. In this examination of the early years of the radio, we focus on the radio as a new technological object by analysing the urban audiences' engagement with radio as tinkerers, that is, as amateur radio enthusiasts with instances of late colonial *jugaad* (loosely: hack).[3] More broadly, this discussion positions the radio and radio sound alongside other similarly globally mobile and locally imbricated media such as cinema and the gramophone.[4] Further, an examination of rural audiences in the subcontinent also highlights various intermedial relations between gramophone records, the radio, and other media forms. Exploring these concerns allows us to cross-fertilise thought emerging from the field of media studies with South Asian studies and specifically, Indian radio history. This cross-fertilisation is particularly pertinent given the paucity of South Asian sound studies scholarship. In this way, our work draws on and is in conversation with recent scholarship in the field of sound studies that particularly addresses Indian sound cultures (Brueck et al. 2020, Raghunath 2020), the relationship between sound and power across Southeast Asia (Porath 2019), sonic modernities in the Global South (Steingo and Sykes 2019), and sonic modernity articulated in and through black cultures (Weheliye 2005). In positioning our essay alongside this scholarship, we do not try to argue that the experience of radio on the Indian subcontinent is wholly exceptional. Instead, we place radio experiences and Indian sound modernity on a continuum with elements from early

twentieth-century modernities around the world and especially in parts of Africa and Southeast Asia. Analysing popular radio discourse allows us to think through how the radio changed sonic experiences of listeners throughout India and how it affected the colonial soundscape itself. Sound, we interpret here in two ways: one, in the trace of sound found in writing (in this case, English-language reportage); and two, radio sound—whether heard or unheard by human ears—in its physical capacity to be potentially heard across landmasses, weather conditions, and media infrastructures of sending and receiving sound signals.

A brief history of radio historiography in colonial India

Early on in his *Report on the Progress of Broadcasting in India*, Lionel Fielden, the first Controller of Broadcasting of the Government of India (1935–1940), lists the 'Landmarks in Radio History' (1940, x). According to this list, the '[h]istory of organised broadcasting in India begins' on 23 July 1927. This day marks the opening of the Bombay Station of the Indian Broadcasting Company by His Excellency Lord Irwin, Viceroy of India. However, radio existed in India before 1927. Pinkerton (2008, 170) traces the start of radio on the subcontinent back to Giachand Motwane, one of the founding members of the Bombay Presidency Radio Club, 'who is widely credited with having made the first recorded (i.e. 'noted') radio transmission in India, during 1920' (170). This was followed by further experiments in Bombay (1921), Calcutta (1923; see Raghunath 2020, 93), Bangalore, and Hyderabad—all during the early 1920s. Soon after, radio clubs were established in Ceylon and Madras. Yet, the first entry on Fielden's list regarding radio clubs in India is 16 May 1924, the foundation of the Madras Presidency Radio Club; and neither the Bombay Radio Club—connected to, but not to be confused with the Bombay Station Fielden mentions—nor the Calcutta club are mentioned. In Chapter 1 of his report, titled 'Early History', Fielden also glosses over these early years of radio in India:

> Before this date [23 July 1927] a number of amateur radio associations had been permitted to broadcast on very low power in various parts of India and had been granted a proportion of the licence fees. It was not, however, until 1926 that the idea of a regular service took shape in the form of an agreement between the Government of India and the Indian Broadcasting Company Limited under which a licence for the construction of two stations at Bombay and Calcutta, respectively, was granted.[5]
>
> (1)

Although Fielden briefly mentions the early radio clubs, he does not consider them in any way significant to the development of radio in colonial India. Instead, he focuses on the involvement of the colonial government and on the strategically important locations of Calcutta as the old and Bombay as the new capital of colonial India to mark the beginning of broadcasting seven

years after the first radio transmissions on the subcontinent. In many ways, Fielden's historiography of early radio tells us more about the position of the colonial government *vis-à-visà* the radio than about the actual development of the radio as technology in India.[6]

To expand this historiography of radio scholarship in colonial India, we will accent the years 1925 and 1935. Both years pre-date significant steps taken by the Government of India (GoI) to consolidate radio on the subcontinent under government control: in 1926, the GoI made an agreement with the Indian Broadcasting Company (IBC), which had previously been established by the Bombay and Calcutta radio clubs as a commercial broadcasting venture. This agreement granted a licence 'for the construction of two stations at Bombay and Calcutta respectively' (Fielden, 1), which were then inaugurated the following year. 1926 thus saw a complete U-turn in the colonial government's attitude *vis-à-vis* the radio on the subcontinent. Before that, official government policy was 'to leave broadcasting to develop naturally under private enterprise', as Viceroy Lord Irwin wrote to the Secretary of State for India, Lord Birkenhead, on 9 September 1926 (qtd. in Pinkerton 2008, 172; original source: IOR/L/PO/3/1. Broadcasting in India; Private letter from Lord Irwin to Lord Birkenhead [9 September 1926]). However, Irwin's letter continues with the concession that the colonial government is 'fully alive to the fact that if progress in India is in any way to resemble that in the United Kingdom, it will have to be considered whether Government should take a more active part' (ibid.). The joint GoI-IBC agreement was signed four days later, on 13 September 1926. The year 1926 thus marked the official beginnings of the process that would eventually lead to state-sponsored radio in colonial India in 1932—a period of six years that saw the Indian Broadcasting Company go into liquidation in March 1930, coming under government control as the Indian State Broadcasting Service (ISBS) a month later, only to be closed down by the GoI in October 1931 and re-continued a month later, before the decision to definitely continue the ISBS under state management in May 1932 (Fielden, x–xi). Five years later, in 1936, the Delhi Station of the ISBS was inaugurated on 1 January, and the ISBS was renamed 'All India Radio' (AIR). And on 8 June that year, AIR became a regular Associate Member of the Union Internationale de Radiodiffusion in Geneva (Fielden 1940, xi–xii). As before, these dates mark significant developments of the radio *vis-à-vis* the GoI, and thus tell us more about the colonial government's attitudes towards the radio than about the radio itself. Focusing on the years 1925 and 1935 allows us to shift the emphasis from government policies about the radio to the radio itself, which will in turn expand the historiography of radio development in the colonial period.

The development of radio from the 1920s to the 1930s is often recorded in the 'Wireless Notes' (later: 'Wireless News') in *The Times of India*, the *Indian Listener*, and other publications of the time.[7] Throughout this chapter, we therefore tune our attention to the rhetoric that surrounded the radio in these publications. The first available issue of the 'Wireless Notes' dates back to 10 March 1922. It was part of the 'Indian Engineering Supplement', which was

distinct from *The Times of India* 'Engineering Supplement'. The former was designed to separately address Indian manufacturing interests as well as represent Indian businesses' advertisements that were of importance to the British Empire's interests. The latter on the other hand clearly announced itself as focusing on 'Industrial Development' and being 'A Page Devoted to the Interests of British Manufacturers'. Thus, radio broadcasting was, in the early period in India, discursively located along three vectors: (i) Indian manufacturing and business' interests; (ii) large infrastructure projects and development such as railways, electricity, dams and so on; (iii) science and engineering innovations and accomplishments. Reportage on nascent forms of the wireless in India straddled business, science, and governance, predominantly; sometimes, it also addressed education. In the early days, radio broadcasting and radio reportage did not, in fact, primarily position itself along with leisure technologies such as the cinema or the gramophone (Arnold, 12). Instead, as programming details and letters to the editor emphasise, the wireless cut across these various sites.

On 11 July 1924 'Wireless Notes' became a fortnightly column of *The Times of India* 'Indian Engineering Supplement', with the complete title being: 'Wireless Notes: A Weekly Review of Progress'. It started as a two-column feature of a series of short articles and ads as part of the supplement. By the mid-1930s, the 'Wireless Notes' had become the 'Wireless News' and were a weekly feature of the main newspaper—and not just a supplement—spanning a full page, sometimes two. Given our focus on the early years, and for the mid-1920s in particular, several trade publications were not yet available—but the 'Wireless Notes' were. The cross-section of articles, advertisements, programming bulletins, readers' letters, and sketches that form part of the 'Wireless Notes' by the late 1920s to the early 1930s thus allow for a unique perception of the popular consumption of and discussion about radio in the late colonial period. Along with the 'Wireless News', we also draw upon *The Indian Listener*, the official radio organ of the ISBS, which in turn allows us to understand the continuities in discourse around radio. This allows us to use local anglophone discourse to map the audiences of the period and understand the radio as a new media.

Space and place: From the local to the global

What is remarkable about the early editions of the 'Wireless Notes' is the geographical emphasis, which is at the same time local and global. The reporting is subdivided into 'The Week in India', which also covers the UK, and 'World Wireless News', which can be taken literally, as it includes radio-related news from the USA, Australia, and Canada—in one issue alone (30 January 1925). The 'Wireless Notes' column in *The Times of India* from 20 March 1925, for example, ends with a summary of the latest in wireless broadcasting, aptly entitled 'News in Brief', and reads as follows:

2 L.O. (London) broadcasting has been picked up in Madras, a distance of about 5,500 miles. Bournemouth has been tuned in at Bulawayo (Africa) on a 2-valve Unidyne. The latter is a circuit that employs 4-electrode 5-pin valves and dispenses with a high tension [sic] battery. Harry, [sic] Tate, that stage-master of satire whose 'Motoring' sketch has become famous throughout the world, has developed a 'Wireless' playlet in which the 'transmitting apparatus' consists of an old umbrella, a bucket, a typewriter, a frying pan, a gas meter and a wheel-barrow. The description sounds atmosphericus!

(17)

This report is as brief as it is significant because it touches upon some of the core themes that we explore in this chapter. The fact that it is newsworthy which station (here: 2. L.O. London and Bournemouth) is being picked up where (here: in Madras and Bulawayo) and often by whom (although these details are not included here) indicates the crucial role of place and space, and how radio altered people's perception of both. Given the ethereal nature of sound, wireless communication (whether via radio or telephone) covered great distances, crossed borders, connected people, and thus expanded people's imagination of place and space. In these particular examples, the London-Madras and Bournemouth-Bulawayo connections also map onto the pathways of empire from the metropole to the colonies (UK-India and UK-Southern Rhodesia, respectively). This links the colonial politics of space to the development of the colonial politics of the radio. However, the spatial connections that early radio allowed for and that were hence considered newsworthy were often along geographical lines that had little to nothing to do with the empire, such as in a report about a rural Frenchman who managed to tune into a Japanese radio station (see below).

The Bournemouth-Bulawayo report also includes technical details about the receiving set: 'a circuit that employs 4-electrode 5-pin valves and dispenses with a high tension [sic] battery'. As with the details about specific places, many 'Wireless Notes' reports include these highly technical and very specific descriptions of wireless sets, which suggests that 'Wireless Notes' readers were familiar with and could make sense of early radio technology. This further suggests that early radio in India was very much an amateurs' project with a distinctive DIY character, which can be confirmed throughout the 1925 issues of 'Wireless Notes'. Several reports also point towards an active community of listeners and readers that engage in three-way conversations— editor to reader, reader to editor, reader to reader as mediated by the editor— throughout the pages of the 'Wireless Notes'. The network thus established within the pages of a newspaper column curiously mirrors the network established the moment that sound waves were first used to communicate across great distance. The 'News in Brief' report from 20 March 1925 then concludes with a brief description of a comedy sketch that is in and of itself a commentary on that presumed technical expertise of the reader, pointing out that to a layperson, the complex construction of a radio set and the technical

vocabulary seem as likely and miraculous in achieving the aim of spanning half the globe as commonplace household items.

Another brief 'Wireless Notes' report in the 20 March 1925 issue exemplifies how the radio, particularly in the early days, impacted people's geographical imagining. Titled 'Wireless Seeks Explorers', the report summarises how radio was being used to broadcast a call for missing people from an arctic exploration:

> Radio's greatest attempt to locate missing persons was started when KDKA, operated by the Westinghouse Electric and Manufacturing Company in company with its three sister stations[,] broadcast messages destined to be picked up by [a] member, or those knowing the whereabouts of the ill-fated Nutting expedition now swallowed in the Arctic wastes. Immediately following their regular programs KDKA at East Pittsburgh, Pa., WBZ at Springfield, Mass., U.S.A., and KYW at Chicago U.S.A. sent out the first messages into the northland asking any who might have heard, particularly those living on the eastern coast of Baffinland, to send in information regarding the expedition.
>
> (17)

A couple of things are significant here: the three radio stations that broadcast the missing persons' report are named as 'KDKA at East Pittsburgh, Pa., WBZ at Springfield, Mass., U.S.A., and KYW at Chicago U.S.A.', when they could have been summarised as 'three radio stations in the U.S.A.'. This would have saved a total of 56 characters, or roughly two lines. In 1925, the weekly 'Wireless Notes' feature was limited to about a column and a half. Hence, space was scarce and every line and every word counted. Nevertheless, most reports include details about precise locations: where people, who are often named, are listening to what radio station broadcasting from where. As is reported, for example, in the 23 October issue, 'Colombo seems to be coming through exceptionally well in Bombay at something less than 2 F.V.s strength on the headphones' (13). Beyond India, there is also often a sense of how radio connects even the most far-flung and remote places on earth. Radio is thus implicated in the imperial project of exploring and developing presumably previously empty land. As the report on the Arctic expedition continues: 'It should be explained that last year the lonely trading posts of the Hudson's Bay Company fringing the Arctic Ocean were supplied with wireless sets' (20 March 1925, 17).

The technology of the radio expands people's imagination of places both within and beyond the imperial networks of communication. In the 'Wireless Notes' from 16 January 1925, we find reports that 'an amateur wireless station in Nova Scotia has established two-way communication with New Zealand' (15); and that 'an amateur wireless enthusiast living in the department of the Basses-Pyrenes, M. Menars, states that he has picked up the JFWA station at Tokio [sic] on a 90-metre wave length', and that this station 'was heard clearly for ten minutes' (15). This insistence on spatial

specificity—M. Menars lives in 'the department of the Basses-Pyrenes', we are told, not just 'in France'—in the context of global communication is in and of itself remarkable; and it is particularly interesting in connection with the radio due to the nature of radio waves as sound. Sound, of course, has often been related to territory: as marking the limits of the territory but also as that which can erase territorial bounds, often sounding across such boundaries (Deleuze and Guattari 1987, 310–323). In other words, sound easily transcends national borders. Restrictions in terms of coverage and reception are geographical and atmospheric—distance, weather, time of day—not political. Although secondary political restrictions such as censorship and taxes can, of course, be introduced, these do not affect the nature of sound waves as such.

These reception reports (see Figure 10.1) of the Bombay broadcasting station tell us that, as radio stabilised by 1936, Indian cities were not only receivers, but also transmitters of programming around the globe. Such programming was regularly listed in *The Indian Listener*, and it included broadcasts from the cities of Bombay, Calcutta, Daventry, Ceylon, and Peshawar. Across the pages of the 'Wireless News' and *The Indian Listener*, and across advertising, radio propagation, trade in radio parts, and listening, the metropole and the colony came together; whether the metropole and settler colonies (Canada, Australia, South Africa among others), or the metropole and subjugated colonies (India, Burma, Ceylon, and so on). Crucially, the empire also generated sonic traffic amongst the colonies themselves, for instance, (i) by having broadcasts from India relayed to South-East Asian territories including Singapore and vice-versa, and (ii) through the reportage in *The Times of India* in the 1930s that featured news about broadcasting in Ceylon, in Burma, and Malaya, as for instance in a report on 5 February 1935 about Malaya listeners' radio licences. The 'empire' was thus stitched together in time and space through sound. As Alexander Weheliye (2005) argues *vis-à-vis* the phonograph and the dissemination of black music culture, the phonograph enabled 'disparate

RECEPTION REPORTS

The Station Director (Bombay) of the Indian State Broadcasting Service acknowledges with thanks reception reports of this station broadcasting on 31.36 metres, 9565 kc/s, power 4.5 kw:—

F. Green, Esq., 24, Wood Terrace, Gainsborough, Lincs, England.
A. Skipworth, Esq., 26, Farthing Avenue, Crosby, Scunthorpe, Lincolnshire, England.
E. Hughes, 49, Grove Road, Fenton, Stoke-on-Trent, England.
A. I. Green, Esq., 58, Pine Hill Terrace Dalmore, Dunedin, N.E. 1.
L. E. Hansen, Esq., 61, Nordic Court, Broad Street, Durban, Natal (South Africa).
P. I. Ogilvie, Esq., Ponoka, Alberta, Canada.
E. H. Page, Esq., 121, Hollyshaw Lane, Whitkirk, Leeds, England.

D. Denholm, Esq., Harriet Cottage, Blairgowrie, Perthshire, Scotland.
J. N. Street, Esq., 42, Tufenel Park Road, London (England).
L. E. Thoreson, Esq., Ponoka, Alberta, Canada.
F. Leith, Esq., 18, Roland Road, Handsworth, Birmingham 19. (England).
W. N. Craig, Esq., The Manse, Fortrose, Ross-Shire, Scotland.
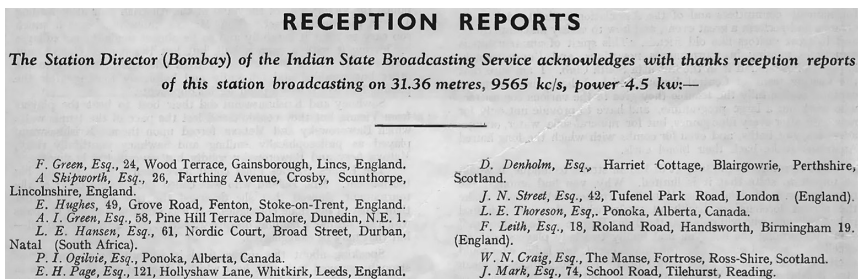J. Mark, Esq., 74, School Road, Tilehurst, Reading.

Figure 10.1 Reception reports of the ISBS indicating transmission received across various part of the British Empire in Africa, North America, England, and Scotland.

(*The Indian Listener* 1(3), 22 January 1936, 146.)

audiences in a variety of locations to consume black music' (21). This 'recalibration of locality', Weheliye argues, 'effected changes in its [the phonograph's] relation to other vicinities rather than erasing the local altogether' (21). Our analysis so far has shown how the radio similarly created multiple yet interrelated localities across and beyond the empire. Radio thus placed the empire on the same sonic plane in terms of (i) the possible reception of sounds across these vast geo-physical areas, and (ii) through the above-noted reportage of sound. Thus, radio sound-as-empire drew into its fold radio infrastructures across the colonies and the imperial metropole; programming, whether local to the metropole or produced by the BBC especially for the colonies;[8] and elite English-speaking audiences across these spaces, including newspaper readers. In these ways, the empire was sonically produced through the multiple sonic flows of the radio.

By its nature, sound—particularly in the early days of the radio—thus expanded the spatial imaginary of listeners. Hence, it suddenly became noteworthy for an English-language newspaper in India to write about a rural Frenchman receiving a radio station based in Tokyo, Japan. News from all around the world, and not just from within the British Empire, became important because of a common shared interest in a new technology that enabled communication between these places. And faced with a technology that allowed for the potential of covering great distances and thus enabled listeners to imagine far-away places, it became important to specify those places, both in terms of one's own location and in terms of the other's location. In other words: confronted with a technology that allows for easy displacement—if only imaginary—there is a desire to hold on to a sense of physical place and specific location. Moreover, reports such as the ones mentioned above go against the established geopolitics of the British Empire. The achievements of an amateur radio enthusiast in rural France would not be newsworthy to a colonial institution like *The Times of India*, were it not for the subject of the radio as new technology. The radio thus gave the sense that the colony is cosmopolitan, global, and transnational, rather than following the colonial narrative of centre and periphery.

The technology of the radio and its roughly simultaneous global development also contributed to this sense of the global. Appadurai's technoscapes can help us understand this global flow of technology; at least amongst elite urban listeners that could afford the equipment. Appadurai also theorises the radio in its ability to be both global and local (1996, 64). But, as we have seen, it is not only the technology that travels globally; it is also the listeners' imagination. Here, Potter's (2020) concepts of 'wireless internationalism' and 'distant listening' are useful. In its ability to cross borders and travel large distances, Potter argues, radio at the same time echoed and projected the utopian optimism of the internationalist movement in the 1920s. Radio, so the hope was, could contribute 'to international understanding and world peace' (48). Distant listening played a crucial role in this process, as it 'carried many ordinary people, in their minds and in the privacy of their own homes, to far-off places' (5). Tracing 'the history of distant listening in, and to,

Britain' (8), Potter's 'distant listeners' are mainly located on a geographical axis that points from the world to Britain and from Britain to the world—in other words, a geographical axis that, where it connects to the colonies, goes from the imperial centre to the periphery and back again. While some of the examples quoted above also follow along this geographical binary, many do not. Instead, our analysis shows that 'wireless internationalism' and 'distant listening' also happened well before the inauguration of the BBC Empire Service in 1932—which Potter discusses in detail—and well beyond the geographical binary of imperial centre and periphery. In all these ways, between the early experimental years of 1924–1936, radio produced a near-cosmopolitan sense of empire, especially for urban audiences. Rural audiences were another matter as Zivin (1998) and Biswas (2012) demonstrate, and which we discuss in the next section. It is for these audiences that arguably, 'empire' came to mean not multiple flows but sounds of 'civic uplift'.

Imagining radio audiences

By the mid-1930s, British India was on the brink of launching All India Radio with Lionel Fielden appointed to take charge in 1935. The ten years before Fielden's arrival in India had ensured that the radio had become a talking point, part of the electronic consumer goods traffic, and otherwise also part of experiments in transforming leisure and other cultural practices not only in the cities but also in the villages. In this section, we discuss different figures that would have comprised this audience: the individuated, privately listening amateur, and the groups of villagers tuning in publicly—in crowds and in open spaces—that required special governmental schemes. The amateur and the village crowd represent two ends of the spectrum of radio-listening audiences in the late colonial period. Our use of the word 'figure' functions to highlight the sociological and historical located-ness of these disparate audience members, but also that they are imagined in and through the sources we use. In other words, on the one hand, we note that the diversity of the audience was also echoed in the spread of radio in formal capacities—governmental efforts, radio traders, manufacturers/businesses—and informal ones, such as amateur listeners and amateur leagues. On the other hand, as scholars like Zivin (1998) point out, colonial government officials would write about rural broadcasting with an idealised Indian peasant in mind. Our exploration of this imagined audience allows us to unpack the way in which a new sound technology both maps and reconfigures the colonial soundscape.

A unique perspective on the history of the radio emerges through a first-person anecdotal narrative titled 'Looking Backwards: A Radio Enthusiast's Recollections' ('Wireless News', 8 October 1935, 14). The article refers to a current standardised textbook (first edition, 1921) and the author speaks of his first encounter with the radio as a college student in 1912. Ten years later, and after his military service in Northern Ireland during World War 1, this radio enthusiast acquired a Marconiphone set. In

spite of the poor conditions of Indian broadcasting infrastructure at the time, he claims to have been optimistic about receiving results in India, especially in the mid- to late 1920s when the old experimental station started working. He says that he was able to hear 'a few words and some music' (14) from Bombay. Spurred on by this success, he proceeded to purchase a six-valve set on which he could hear England, Rome, and Bombay. Thereafter, rather than purchasing the next set, he built it himself, and he provides the reader with tremendous technical detail including information about valves, condensers, aerial circuits, and so on. He carried on using his own set until 1934. However, with the arrival of shortwave broadcasting, the author says it was difficult to make a set, since parts were either too expensive or not available at all in India and therefore had to be improvised. This, then, is an early version of *jugaad*. The article indicates to us how the amateur radio enthusiast is figured in the Indian context, including the tools, devices, and objects available to him (and it is almost always exclusively him). This radio enthusiast is undoubtedly an affluent gentleman of either elite Anglophone Indian or European origin. These men carried out experiments in radio broadcasting, which led to the formation of urban radio amateur leagues such as the Indian Radio Amateurs League,[9] of which we find mention in the mid-1930s.

However, the integration of amateur broadcasting was not straightforward. An article on 7 May 1935 notes the absence of published material for Indian listeners: '[f]or Indian residents the Overseas Stations Lists are only useful to a degree, as what they need is […] a list of the *actual* stations heard in India at entertainment value' (11, original emphasis). Thus, it appears that as much as the rhetoric of and desire to bring the 'world' sonically 'home' exists, there are nevertheless the physical limits of propagation that radio sound rubs up against. Radio listening ends up being predominantly focused on cities and towns, including major trading centres such as Ludhiana, Lahore, Bombay, Surat, and Sholapur. These urban areas would form part of the radio-licence acquiring populace as well as part of the letter traffic to the Editor. 'Wireless News' readers would write in to request help with tackling problems in radio reception, set construction, and clarifications about radio programming. As part of the weekly 'Wireless News' column, page and two-page fold, the readers' responses/letters to the Editor are most illustrative of disturbances in the reception of radio waves such as interferences (whether from local stations in Bombay or ships or weather conditions) as well as specific questions regarding valves, aerial, loudspeaker, and wiring requirements. In other words, the radio was a new, wondrous *objet du désir* for display; but equally it was to be understood as an object that participated in popular scientific discourses, such as those found on the pages of *The Times of India*, Bombay edition in the 1920s and 1930s and as an object to tinker with.

The radio produced different registers of pleasure, interest, and excitement for rural audiences. For instance, consider this description given by the Delhi

station about programming for villagers at the Delhi Province Rural Exhibition at Mehrauli:

> the two receiving sets and loudspeakers which were installed at the Exhibition proved exceedingly popular, and the interest manifested both by villagers and rural uplift workers augurs well for the time in the very near future when the Delhi station will begin its scheme for the provision of special programmes and special items for villagers.
>
> (*The Indian Listener*, 22 February 1936, 255)

Not only does the imagination of tinkering disappear, but there is a different understanding of programming ('special') laid forth. The possibility of the radio sets' popularity reported might be imagined further by paying attention to a photograph (Figure 10.2). The photograph indexes communal listening in open, public spaces, a feature that marked listening in village India. Placing the male subject gazing at the camera at the centre of the frame, the photo highlights the act of listening, with a hand cupped behind the ear, leaning towards the radio set. Such an arrangement of the radio and the human body is a visual trope that speaks to the wonder of and attention to this new technological object, which gathers its audience close, inviting them to participate in a new sonic, technological experience and to participate in modernity. Inviting the viewer of the photograph to imagine the sounds being heard, the photograph
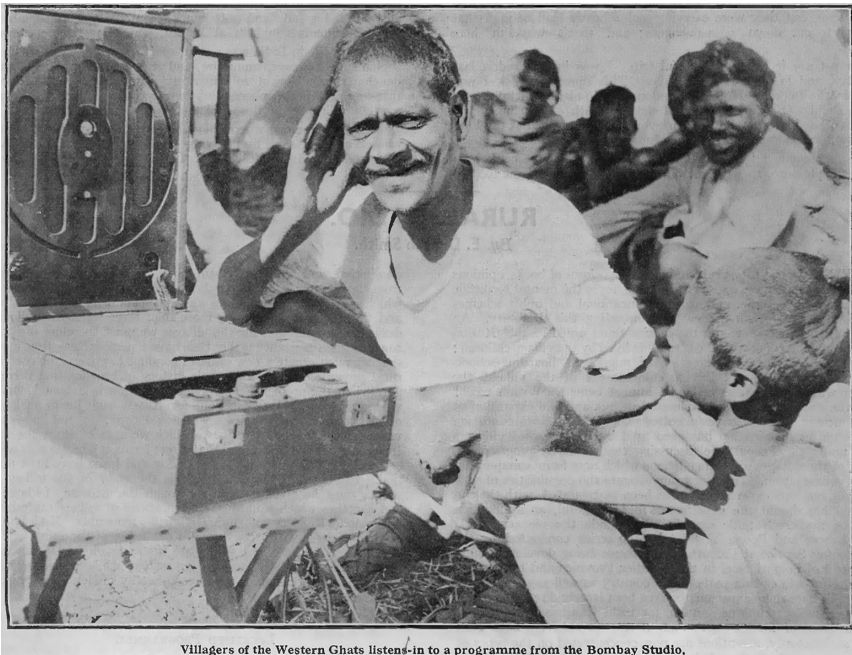
Villagers of the Western Ghats listens-in to a programme from the Bombay Studio.

Figure 10.2 Mid-shot of village men listening together to a radio set in the mid-1930s.

(*The Indian Listener* 1(3), 22 January 1936, 144).

foregrounds the village listener in a manner that is, arguably, a graphic reflection of the written discourse on rural broadcasting.

Across the 1935 'Wireless News' issues, we note several articles on the subject. These often take the form of specialist columns by Prof. E. Duncan Smith, an expert with the Poona Wireless Experimental Centre, who also wrote articles on the same topic for *The Indian Listener* as well as broader general interest articles for *The Times of India*. Some of the observations that emerge from these articles include an attention to alternative modes of providing broadcast through parallel infrastructures, and comments on existing schemes, programming changes, and so on. These columns on village broadcasting are important for their emphasis on 'India' as well as the reportage on the development of indigenous radio. Zivin (1998) in her evaluation of village broadcasting schemes notes that these were rendered possible only because of the curiosities and interests of a few select British bureaucrats, oft-described as 'guardians', such as Frank Lugard Brayne, Lieutenant Colonel Hardinge, and C. F. Strickland. Both Hardinge and Strickland were writing on broadcasting for rural areas for *The Asiatic Review*,[10] whereas F. L. Brayne and Duncan Smith reflected upon experiments with rural broadcasting that they put into effect in Lahore and Poona, respectively. They were aware of each other's work, with Strickland referencing both Brayne and Duncan Smith in his writing, and Brayne's schemes on 'village uplift' (1927) finding mention in Smith's columns. Some key terms of the discourse on rural broadcasting schemes emerge across this writing: education, community, and civic uplift married with entertainment. Rural broadcasting schemes were to allow, as F. L. Brayne suggested, 'all sorts of news, information, and advice, and all the hundred and one things one wants to tell the villagers' to be spread (Brayne, 183; quoted in Zivin 1998, 717–718).[11] In so far as radio technology was intended to promote modernity and development, especially for the villagers, it may be said to represent one of the two modes of the colonial sublime. The colonial sublime, Brian Larkin (2008) argues, is a way of thinking the relationship between technology and representation, particularly in the context of colonialism. For Larkin, the colonial sublime is a relation of power produced between coloniser and colonised through two modes: (i) evoking feelings of fear and awe, as in large-scale infrastructure, namely, bridges, railways, factories, etc.; and (ii) an invitation to become modern through participation in new technology for development. Crucially, for Larkin, the experience of the sublime does not reside in the technological object but rather in the perceiving subject's judgement—as may be seen in the representations of rural broadcasting, both visual (see Figure 10.2) and verbal.

The discussions of the radio's civic pedagogic impulse, we argue, produced the radio as part of the colonial sublime in the British officials' comments on the perceiving subject and his relationship with the new sound technology. This was done, we propose, not only through British officials' descriptions of the wonder of radio as a modern technology but through their understanding of the ways in which the village listener would hear (and perceive and judge) the radio as sound and as technology. For instance, the rural listener was constructed by the 'guardians' as being (i) seemingly unconcerned with

liveness, or the real-time relay of broadcasts, whether speeches or song, over the radio waves, (ii) preferring both a repetition of content and repetitive content, and (iii) demanding clarity and ease of listening. C. F. Strickland (1934) comments:

> If the voice is irregular and 'fades', the Indian peasant will soon refuse to listen or will fail to understand. Whatever is given to him must be clear and easy, and this means a short range of transmission with no 'fading.' […] peasants prefer what they know, and they like it twice over; any man who has heard rural music or seen a rustic buffoonery play will bear me out. […] The Indian peasant will not insist on hearing a speaker or artist at the exact moment of the speech or performance; he will be quite content with a reproduction of it in the evening, when he is free from work and is accustomed to sit down and listen.
>
> (7–8)

Strickland's imagination of the rural listener is undoubtedly stereotypical and derisive. Nevertheless, across the comments, we note an attention to practices of programming and transmission and the way new technologies transform what constitutes sound and listening for the village listener. Thus, rural broadcasting is not only about 'civic uplift'—it is also about a material and sensual transformation in practices, which construct the listening subject and his (and the sources always refer to 'his') relationship with new sound technology.

This can be further demonstrated by considering Duncan Smith's writing as he describes a possible programme in a 15 October 1935 article titled 'Broadcasting for Rural Areas: Necessity for Special Programmes' to warn against 'indiscriminate public spitting' as follows:

> A teachalogue covering this topic would be prefaced by the noise department producing the noise of a train entering a station—on this the entry of the *charwallah* [sic] and *paniwallah* would be superimposed and of course the station-master abusing his clerk.
>
> This would then be faded out and give place to two villagers exchanging salutations in village patois. […] Social questions are the subject of discussion by a mythical *Panchayat* or village court and the chiefs of the noise department have been known to drink gallons of water after producing yawning, coughings and throat clearing noises peculiar to members of a *Panch* [*Panchayat*] without which the illusion would not be complete.
>
> (15)

The programme that Duncan Smith suggests brings together a concatenation of sounds: on the one hand, voices of the 'station master' and 'clerk', the cries of the *chaiwallah* (tea-seller) and *paniwallah* (water-seller), the 'noises peculiar to' Panchayat members and the villagers' voices and, on the other

hand, the sounds of the train. In other words, the human and the non-human mingle sonically. These, then, are also the sounds of modernity: mechanical and technological sounds wedded in equal measure with accent-driven dialogues, hawkers' cries and throaty—perhaps guttural—non-verbal sounds. They are placed on the same sonic plane, courtesy of the noise department, sound mixing possibilities, and broadcasting. Technologically created and disseminated, the construction of such a rural railway-driven soundscape allows for another element to be foregrounded: the social. The civic uplift (not spitting in public places) embedded in casual conversation serves to sonically produce human and professional categories of the station master, clerk, *chaiwallah*, and *paniwallah*, marking their cries of vending their respective wares. This is also done through the description of Panchayat members' vocal exercises including the onomatopoeia of 'yawning' and the villagers exchanging notes. It uses these voices to create rural accents, sounds, and tones. Each of these sounds functions to sonically present identity (caste) and place (rural/semi-urban/mofussil location) to a knowledgeable listener. Thus, Duncan Smith's description works at multiple levels: it attempts to produce the sonic 'civic uplift' of the empire and presents us with a description of the soundscape of colonised India. In the process, it also registers sound, language, and identity working inseparably from each other.

The programme 'teachologue' described by Duncan Smith forms the template for much governmental and public service messaging by colonial and subsequent postcolonial governments as well. Indeed, in the decades following Indian Independence, in half-hour programmes on All India Radio dedicated to the farming community and campaigns around public health, the model of programming offered by Duncan Smith in the 1930s would be most readily heard; sometimes interspersed with advertisements, film songs, or folk songs.[12] Apart from the model offered for future civic propaganda of successive postcolonial governments, Smith's articles produced, critically, a template for sonic realism ('illusion') on the radio for such governmental programming. This is rendered perhaps best through a description of the soundscape of a (possibly) semi-urban or mofussil train station through the teachologue. In the absence of sound recordings of radio programming for the period, the programme's description can function as a source for the construction of a historically contingent soundscape for colonised India in the 1930s. The formal choice of realism in such radio programmes indicates the medium's attempts to establish itself in a dis/continuity with other forms circulating at the time: *nautankis* (local dance-drama forms), the travelling cinema, and popular musical forms.

However, in a rural population that remains deeply splintered socially, it is impossible to determine how such soundings-out would have been received in the 1930s. We may also suggest that such a socially splintered reality is what prompted Smith to write that, 'in village work we deal with the *mass mind* and in consequence have to study *mass action* in relationships to labour and time, *mass thought* and its reactions to programmes, and adopt *mass methods* to propagate the programme' (15; emphasis added). The figure of the village

mass as a listening subject, structured as it is through the body (labour), practice (time), cognition (mind), and action becomes pertinent when considered in the face of extreme social divisions such as that of class, caste, and gender. Smith's writing suggests that there is a perceived sense of homogeneity bringing together the community-driven and -oriented village folk, as opposed to the individualised 'ordinary listener' of the 'established forms of radio'; presumably the kind of amateur listener described earlier in this section. Thus, Duncan Smith's writing and the discourse developing around rural radio broadcasting allows us to place the urban and rural listeners in two different relations to the idea of a 'mass'. While the elite, possibly affluent, urban radio listener was to be addressed as an individual, the rural listener was to be addressed already as part of a community.

Community formation through sound—whether local, regional, national, or transnational—was not merely a question of programming, but also a question of infrastructure. Indeed, infrastructural questions of broadcasting determined community-listening, urban or rural. For instance, in an article dated 15 January 1935 titled 'Village Broadcasting—An Alternative: The Possibilities of Recorded Programmes for Rural Uplift' (17), Smith presents a comparison between radio broadcasting experiments conducted in Bombay Presidency and the North-West Frontier Province (NWFP). In the course of this article, he specifically points to an alternative model of broadcasting to be deployed in rural areas. By borrowing from the critical vocabulary of digital media, the model of broadcasting he proposes may be described as being an off-line mode of transmission. He suggests that village broadcasting— particularly for the purpose of 'rural uplift'—is to be constructed not through signal relay across stations and transmitters, or across short-wave or medium-wave, but instead on records through a combination of (i) trucks, (ii) two-stage amplifiers and horn-type loudspeakers, (iii) dual turntables, and (iv) oral transmission of media content. Smith proposes that two special records of 11 minutes duration each be produced and be played in order, one side after another, to create about 45 minutes' worth of total programming. These records would be played in the village without the bother of interference, atmospherics, fading, and distortion that plagued radiating broadcasts, or what we may call online broadcasting, in rural areas of the Bombay Presidency. Village broadcasting relied, fundamentally, on loudness as a principle for listening, with the use of loudspeakers and public spaces. The audience listening in the village, Smith suggests, would hear the broadcast together and then orally relay the information and programme to others in the village who did not attend the programme. Using a network of trucks and roadways, the records themselves would then be passed on from one village to another, enabling the creation of local listening networks. This model of broadcasting based on gramophone records was, Smith argued, considerably cheaper and more cost-effective.

From transmission and programming to financing broadcasting, and distinguishing between rural and urban audiences, radio in India starts building communities of listeners in the colonial period. Further, as evidenced above,

we argue that there is a reconfiguration of the soundscape and the structures of listening. The radio audience that we construct in this section is one that is engaging variously with a new technology and learning new sounds of the empire in the form of 'civic uplift'. Radio sound for urban audiences may have meant multiple geographical flows and the creation and dissolution of territories, whereas for rural audiences, radio sound often took the form of propaganda, as demonstrated above. The experience of listening to the radio was here communal rather than individual and intensely localised rather than sweepingly global. Mapping the diverse audiences then allows us to indicate different modes of engagement with the radio as sound technology and demonstrates how varied experiences of Indian sonic modernity can be situated geographically.

Conclusion

Tracing the institutional history of the radio allowed scholars in the past to analyse the radio as an instrument of the colonial government in India and to show, for example, how the radio in the Indian subcontinent was deployed as part of the British Empire's propaganda in the colony. As Gupta (1995), Zivin (1998), and Pinkerton (2008) argue, during the 1930s, the colonial government used the radio to address a fractured, local set of audiences so that it did not produce a national audience. Indeed, despite the British government's efforts and Gandhi's disagreement, and because of the efforts of Fielden, Nehru, and others, the radio was not only deployed by the Indian National Congress and later the Indian government; but by the 1950s, it became seemingly synonymous with the national project. Stepping away from this concern, we asked what did radio as a new sound technology mean in colonial India? In other words, what imaginaries and practices did it bring into effect?

In answer, we have demonstrated that early radio in late colonial India transformed sonic imaginings, that is the imagination of sound itself and imaginations through sound—of spaces, territories, and figures. We further argue that radio effects the above in three ways: (i) by re-structuring the geographies of 'home', 'world', and 'empire'; (ii) by allowing for variegated audiences that were learning to listen in different ways and lastly, (iii) by re-configuring standards, taste, and programming, variously for rural and urban audiences. Taken together this transformation has a specificity that produces an Indian sonic modernity that is born of conversations with technologies, capitalism, and colonialism.

Acknowledgements

Notes

1 For foundational work on the politics of the radio in colonial India, see Brayne (1929), Fielden (1940, 1960), Gupta (1995), Kaul (2014), Pinkerton (2008), Potter (2012), Zivin (1994, 1998, 1999). On the cultural, linguistic, and literary debates regarding the use of Hindi, Urdu, and Hindustani on All India Radio (AIR), see Nijhawan (2016). See Asthana (2019) on the role of A.S. Bukhari, who contributed to drafting the language policy for AIR. Lelyveld (1994) discusses the policies of broadcasting music on AIR, amongst other topics, as well as the decentralisation of broadcasting in colonial India and initial distributions of radio sets.

2 The postcolonial radio's relationship with the formation of a national listening public/national audience has been complicated by several scholars in recent years (Sharma 2015, Duggal 2018). It is also necessary to note the fact that radio and radio programming was indeed not available to most parts of the country, or large portions of the population. Hence, the oft-deployed rhetoric of the nation is one that is suspect.

3 *Jugaad* is a Hindi/Punjabi word that roughly translates to a hack or an act of making do. It has been theorised as belonging to the world of offline, working class, and pirate media practices across the Indian subcontinent and other countries in Asia (Sundaram 2010). Scholarship has indicated parallels with the Portuguese term *gambiarra*, particularly with similar pirate media practices dominating the favelas of Brazil and other states in Latin America. The phenomenon is more widely spread, encompassing several regions of the Global South. It is thus understood to be a subaltern resistance practice of everyday resistance which depends upon illegal means of accessing state resources, forced into yielding new configurations of space, time, jobs, media objects, and practices. In these ways, *jugaad* as practice deploys the assemblage as its *sine qua non*. What was deployed as a mode of subaltern resistance has been adopted since by neoliberal capitalist regimes in India, especially as seen in the context of the mobile phone (Rai 2019). Similarly, in the case noted above, *jugaad* is not used by the working class but by an elite Indian or British or European resident of India.

4 Cinema and the gramophone have been variously discussed and theorised in the Indian context. For instance, cinema in early twentieth century India has been positioned in relation to questions of the urban, industrial, and other media ecologies (Mukherjee 2020), as well as part of intermedial networks of photography, the gramophone, and the radio (Mahadevan 2015). The intermedial legacy is not limited to cinema alone but encompasses sound technologies such as the gramophone by being positioned alongside theatres and cinema in histories of music circulation and consumption in late colonial Madras (Hughes 2007).

5 In fact, and as Pinkerton points out, the idea of a nation-wide broadcasting service in India was not new: 'John Reith, General Manager of British Broadcasting Company, lobbied the India Office on the issue as early as March 1924 by advocating the potential benefits of the burgeoning "British model" (i.e. centralised, licensed monopoly) in transforming the Indian subcontinent' (170). See Gupta (1995) on some of the reasons—both personal and political—of why this was without effect at the time.

6 In the political context of broadcasting in colonial India, Fielden is an interesting character, who had sympathies with the nationalist movement in colonial India. Zivin (1999) describes Fielden as a 'colonial subversive' (195) and an 'anti-colonial aesthete' (196) who 'came to be viewed as the founder of Indian broadcasting by his Indian successors' (196).

7 For instance, a fortnightly programme magazine of the Indian Broadcasting Company, *The Indian Radio Times* (renamed the *The Indian Listener* in December 1935), was started around the time the Bombay station went on air in 1927, and the Bengali publication *Betar Jagat*, which covered the Calcutta station, was first published in 1929. By the mid 1930s, just before the launch of AIR, there was significantly more writing.

8 For more on the BBC Empire Service, see, for example, Potter (2012, 2020) and Johnston and Robertson (2019).

9 There is a reference to a reception report being received from Sergeant H. J. Dent, Vice-President, Indian Radio Amateurs League by the editor of *The Indian Listener* (7 February 1936, 205). It is not clear from the available information whether this was European or Indian in origin and membership, or when it was formed. Speculatively, however, it is possible that Dent was a British officer serving in India at the time.

10 The *Asiatic Review* began its life as the *Asiatic Quarterly Review* in 1885 as a publication of the East India Association. From 1914, it included proceedings of the East India Association, as well as book reviews and articles on the politics, economics, international, and cultural affairs of several parts of Asia that were part of the British Empire including India, Ceylon, Southeast Asia, and the Middle East.

11 FL Brayne envisioned a central role for the radio in *The Remaking of Village India* (1929), drawing upon his experiments with the medium in Lahore. He fantasised, Zivin (1998) argues, about 'community listening' and an immediacy of contact through radio transmission.

12 Zivin (1998) notes that there was a half-hour of radio programming addressing farming communities or the rural listeners on several regional All India Radio stations during the 1930s. Apart from this, it is necessary to note the continuity between the colonial and the contemporary, wherein the dominant format of this programme for rural/farming continues with minor variations.

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