

Designing Public Radio in Canada

Michael Windover

Cet article examine une station de transmission de la Société Radio-Canada qui a ouvert ses portes à Watrous, en Saskatchewan, en 1939. Le bâtiment est vite devenu un phare de modernité, correspondant ainsi à la présence visuelle des postes de radio dans les maisons ou publicités. Notre étude met en lumière les différents registres matériels et spatiaux du système de radiocommunication—de l'espace intime de la maison à l'architecture institutionnelle. Notre analyse de la conception du bâtiment révèle ses liens avec le paysage (réel et représenté) ainsi qu'avec les notions complexes de lieu (matériel et immatériel). Nous soutenons que les études de design offrent une façon unique et significative d'aborder l'histoire des médias, dans laquelle ces derniers sont conceptualisés en termes de matérialité et comme éléments constitutifs de la société.

Michael Windover is Assistant Professor of Art History, teaching in the History and Theory of Architecture Program in the School for Studies in Art and Culture at Carleton University.

—Michael.Windover@carleton.ca

1. Ben Highmore makes an impassioned case for a broad definition of design studies—in fact, calling for the “rebranding of the cultural sciences as design studies”—in his “General Introduction: A Sidebar Manifesto: Design Culture in an Artificial World,” *The Design Culture Reader*, ed. Ben Highmore (London, 2009), 1–11. See also Kjetil Fallan, *Design History: Understanding Theory and Method* (Oxford, 2010), who likewise defines the term broadly.

2. For instance, in his path-breaking book *Objects of Desire: Design*

On 29 July 1939 a high-power radio transmission station designed and built by the Canadian Broadcasting Corporation (CBC) in Watrous, Saskatchewan, went on air. | fig. 1 | Situated on a plain of thousands of acres of flat land, the commanding tower marked the landscape dramatically and joined the network of three other recently constructed transmitters in Ontario, Quebec, and Nova Scotia, which altogether boosted radio coverage in Canada so that the majority of the population could now “listen in” to programs offered by the new crown corporation. The design and construction of the transmitter stations were essential to the mandate of the CBC to reach all Canadians. CBC, as the Watrous station is known, provided the power to broadcast on-air content over vast distances while generating an image of the public corporation: it became an icon of modernity representing the potential of the medium to enhance Canadian society.

CBC offers an instructive case of how the study of design—broadly defined as a dynamic field of interrelationships between things and people—can shed light on the creation of public institutions, as well as how media operate in the designed environment.¹ Design historians have discussed various facets of radio culture in the interwar years and beyond,² but in this essay I focus on the under-examined architecture of transmission in Canada as being an essential component in the production of “publics,” a term I borrow from French sociologist and historian of technology Bruno Latour.³ While historians have noted the place of radio in the urban landscape and its impact on public space,⁴ the Watrous site exposes a different aspect of radio. Located in a rural setting and built in the anxious months leading up to the Second World War, CBC emphasizes the geographical reach and materiality of the new medium, the impact of the transmitter on a locality, and the importance of places such as Watrous to the nationalizing narratives of interwar Canada. The transmission station was of strategic importance, not only to the CBC, but to the nation-state during wartime. For a dominantly aural medium, it was much more visible than we might imagine.

Focusing on CBC decentralizes the study of design in Canada, for it looks not to the major culture-producing (and urban) sites of the country, but to the vast spaces in between, a phenomenon that marks much of Canadian identity. It also underlines the significance of major centralizing powers—e.g., the federal government or, in this instance, crown corporations such as the CBC—to understanding the designed environment in Canada. In some ways, this

Figure 1. Main façade of CBC Watrous, 1945. Photo: Dwight Kornelsen.



and Society since 1750 (London, 1986), Adrian Forty uses the design of radio cabinets to introduce the design process (11–12).

3. Bruno Latour, "From Realpolitik to Dingpolitik or How to Make Things Public," *Making Things Public: Atmospheres of Democracy*, exh. cat., ZKM/Center for Art and Media in Karlsruhe, ed. Bruno Latour and Peter Weibel (Cambridge, MA, 2005), 4–31.

4. See for instance Christopher T. Goldie's discussion of the Post Office Tower ("Radio Campanile": Sixties Modernity, the Post Office Tower and Public Space," *Journal of Design History* 24, 3 (2011): 207–22) and Staffan Ericson's investigation of the BBC Broadcasting House ("The Interior of the Ubiquitous: Broadcasting House, London," *Media Houses: Architecture, Media, and the Production of Centrality*, ed. Staffan Ericson and Kristina Rieggert (New York, 2010), 19–57), both in London.

5. On airports, see Bernard Flaman, "When 'la Dolce Vita' Met True Canadianism": Canadian Airports in the Sixties," *Made in Canada: Craft and Design in the Sixties*, ed. Alan C. Elder (Montreal, 2005), 17–28.

6. Jilly Traganou, "Architectural and Spatial Design Studies: Inscripting Architecture in Design Studies," *Journal of Design History* 22, 2 (2009): 173–81.

7. Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Malden, MA, 1991).

8. Highmore, "General Introduction," 2. Highmore's example builds on Latour's consideration of "prescription" in the design process, as discussed in Bruno Latour, "Where are the Missing Masses? The

dichotomy highlights the challenge of writing design history in a country that is regionally oriented, spans diverse geographies and socio-political identities, yet is the product of (and shaped by) modern mass communications and transportation infrastructure. The built presence of the CBC in the designed environment, much like airports constructed in the postwar era,⁵ offers a framework for exploring the uniqueness of the Canadian experience as a massive design experiment.

Taking up Jilly Traganou's call for a design studies that incorporates architecture,⁶ this paper examines a number of spatial registers, from the wireless cabinet sold to a consumer public to the institutional architecture of the CBC, from the intimate time-space of reception to the broadcasting of nationalism, and from the small town of Watrous to the geographically immense polity of Canada. Whether or not, following Traganou, we call the field "architectural and spatial studies," we nonetheless are provided with a way to connect the different spaces of the medium of radio, which allows us to see radio as a space-making technology. If, as Henri Lefebvre posited, space is a social product,⁷ then in the context of this paper we will look at how publics of varying scales are formed (or transformed) in the spaces of radio.

My aim is not only to emphasize the spatial, material, and visual aspects of a seemingly aural and ephemeral medium, but to show how the CBC itself might be understood as a design proposition. By assembling and constructing the infrastructure and providing on-air content, the CBC could "design" Canadian publics. This idea is indebted in part to Ben Highmore's provocative assertion that a recipe is a design proposal, a kind of prescription of ingredients and instructions that assemble a variety of "bodies, tools, climates and physical resources" to produce a dish.⁸ In a way, the CBC is a recipe for making publics, with transmission stations as one of the key ingredients. But as in the preparation of a favourite dish, choices and pragmatic considerations do not guarantee identical outcomes. This way of thinking about design puts the emphasis on process rather than product and simultaneously highlights geographical reach within framing elements of local and historical specificity.

Sociology of a Few Mundane Artifacts," *Technology and Society, Building Our Sociotechnical Future*, ed. Deborah J. Johnson and Jameson M. Wetmore (Cambridge, MA, 2008), 151–80, esp. 157–59.

9. In his analysis of the role of "print capitalism" in the formation of nation states, Benedict Anderson coined the term "imagined communities." Newspapers and other print media were crucial to developing a sense of national consciousness for otherwise anonymous readers who could now envision themselves as part of a larger collective. See Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 2nd ed. (New York, 1991) as well as Mary Vipond, "The Mass Media in Canadian History: The Empire Day Broadcast of 1939," *Journal of the Canadian Historical Association/Revue de la Société historique du Canada* 14, 1 (2003): 1–21. Vipond points out that Anderson's ideas are indebted to earlier work by Canadian media theorists Harold Innis and Marshall McLuhan—e.g., Harold A. Innis, *Empire and Communications*, rev. ed. with general introduction by Alexander John Watson (Toronto, 2007) and Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man* (Toronto, 1962).

10. The Aird Commission called for the creation of a public company whose "immediate objective should be ... to provide good reception over the entire settled region of the country during daylight or dark under normal conditions on a five-tube receiving set." See "Document 10: Report of the Royal Commission on Radio Broadcasting, September 1929," in *Documents of Canadian Broadcasting*, ed. Roger Bird (Ottawa, 1988), 40–54.

11. The Aird Commission called for seven 50-kilowatt stations, one in the Maritimes and one centrally located in each of the other provinces from Quebec to British Columbia. The public system, as envisioned in the report, was to be paid for by licence fees (for radio receivers), rental of time on broadcasts for "indirect advertising," and a subsidy from the federal government. See "Document 10," 45–50.

12. Alan Plaunt, "Memorandum RE: Canadian Broadcasting Reorganization," p. 23, Alan Plaunt Papers, box 17, University of British Columbia Special Collections.

13. McKinstry was chief architect of the CBC beginning in 1933 and of the CBC from its inception until the 1960s and oversaw not only transmission buildings and

I begin with a consideration of the CBC as an institution that sought to design a national public by building a sense of imagined community while catering to a regional audience. Next, I turn from the national spatial register to the space of the home in order to discuss the intimacy of radio publics and how publics are formed through assemblages of people and things. I then move from the Canadian home to the place of Watrous, literally grounding the transmitter in the prairies. Here we encounter another scale of public with a distinct, local inflection. In the final section, I analyze the visual and spatial qualities of the building and how it operated as an icon for the CBC in the fraught years of the late 1930s. By examining the visual and material aspects of CBC, this paper demonstrates how a spatial design approach might enrich our understanding of how media make a variety of publics. Given its location, program, and aesthetic features, the transmitting station in Watrous is an apposite site for exploring how both public radio and radio publics were designed in this period.

Nations Imagined and Real

Radio is often envisaged as an instrument of nation building, as evocatively engendering "imagined communities."⁹ Indeed, proponents of public radio in Canada underlined this potential in the late 1920s and early 1930s. But of crucial concern as well were the spatiality and materiality of the medium. The first Royal Commission on Radio Broadcasting (known as the "Aird Commission" after its chairman, Sir John Aird), which was struck in December 1928 and submitted its report in September 1929, called for a public service model of radio broadcasting in part because the concentration of (commercial) stations in and around urban areas did not extend radio coverage to all citizens.¹⁰ While radio could help foster a sense of nation in a geographically vast state, its public-making potential lay in actually reaching a majority of citizens. As late as 1936, according to an engineering survey conducted by the CBC, only 75 % of Canadians had reasonable reception, with the basic network serving only 60 % (and only 49 % at night, due to interference). After the opening of CBC over 85 % of Canadians could tune into national broadcasts consistently. While all of the recommendations of the Aird Commission were not eventually adopted, the report became the foundation for the Canadian Radio Broadcasting Commission in 1932 and later, in 1936, the CBC. One of the recommendations taken up by the new crown corporation, with its ability to borrow up to \$500,000 for capital expenses, was the building of a chain of high power stations.¹¹ According to Alan Plaunt, a vocal lobbyist for public radio who would eventually become a member of the first Board of Governors of the CBC, the chain of stations "would be a national property as important to the continued existence of Canada as a nation as trans continental [sic] railways to its inception."¹² So important was the building of radio stations that from the outset the CBC retained its own architecture department. Its chief architect, David Gordon McKinstry,¹³ was an acknowledged acoustics specialist—acoustics, of course, being a key component to designing radio facilities. Perhaps it was the unique conditions of designing radio buildings that allowed for the establishment of an architecture department in the crown corporation. Interestingly, the CBC was the only broadcasting corporation in the Americas to

have one.¹⁴ This department, with its mandate to retrofit existing, or design anew, the spaces of broadcasting, transmission, and administration of the CBC, would be essential in designing the CBC's radio presence in the landscape.

CBC's inaugural broadcast linked the presence of radio on the ground to its imaginative potential on air. The program to mark the opening of the new transmitter included national, regional, and international representation and underscored the radio system's ability to bring together voices from afar: Federal Minister of Transport C.D. Howe from Ottawa, CBC Chairman Leonard Brockington and General Director of the BBC Frederick Wolff Ogilvie from London, President of CBS William S. Paley from New York, Premier of Saskatchewan William John Patterson from Watrous, Premier of Manitoba John Bracken from Winnipeg, and Premier of Alberta William Aberhart from Edmonton.¹⁵ This list is suggestive of the international importance of the new transmitter, which filled the clear channel 540 kc that had been dedicated to Canada at a recent international radio conference held in Havana.¹⁶ The participation of regional dignitaries also indicated the station's geographical reach, covering an area from the lake region of Manitoba to the foothills of the Rockies, and from the hinterlands of the North to the international border to the south and beyond. | fig. 2 |

Echoing comments made during the inaugural radio programs of the transmitters opened in Verchères, Quebec (CBF, near Montreal), and Hornby, Ontario (CBL, west of Toronto) in 1937, as well as in Sackville, New Brunswick (CBA) earlier in 1939, Howe purported that CBC, together with privately owned stations in the Prairie provinces, would "reflect the artistic resources and characteristics of region."¹⁷ The station thus was perceived not only as providing a link to the nation and wider world—musical programming was to include, for instance, broadcasts from the New York Metropolitan Opera House on Saturdays through NBC, the New York Philharmonic Orchestra on Sundays through CBS, "Prom" concerts from Varsity Arena in Toronto on Thursdays, as well as other Canadian symphonic events—but as speaking to and providing a voice for more local concerns.¹⁸ With a dominantly rural population, programming was produced to meet needs of farmers, with daily reports on grain, livestock, and produce markets, weather forecasts, as well as special programming dedicated to agricultural issues. And, given the presence of francophone communities in the region, bilingual programming was incorporated into the daily schedule. A two-person French department produced newscasts, prepared musical programs, and transcribed shows from the CBC's French department centred in Montreal from the Watrous station from 1940 until this operation moved to Winnipeg in 1948.¹⁹

At the opening of CBC much was made of how the new station would play a role in strengthening a sense of nation for the vast and sparsely populated dominion. Premier "Bible Bill" Aberhart of Alberta—who had proven to be a popular radio evangelist prior to leading the first Social Credit Government in 1935—announced that "[a]n important link has been forged in bringing us [the Western provinces] closer together, and I predict with confidence, that the results will prove of inestimable value, not only to the West, but to Canada as a whole."²⁰ Remarks made by Manitoba Premier Bracken are particularly illustrative. He noted that he had recently attended the seventy-fifth anniversary of

broadcast studios, but the elegant modernist headquarters (now Edward Drake Building), opened in 1964 in Ottawa and recognized as a National Historic Site (<http://www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=1865>).

14. On the uniqueness of the CBC's architectural department, see "From First Sketch to Finished Building," *CBC Times*, Prairie Region Schedule 4 (25 September 1953), 11, Canada Science and Technology Museum Trade Literature collection.

15. Text for the inaugural program is found in Library and Archives Canada, Canadian Broadcasting Corporation Fonds (hereafter LAC, CBC Fonds), RG41, vol. 109, file 3-19-28.

16. For more on the Havana treaty, see "New Radio Pact Clears Air for CBC," *Globe and Mail*, 23 December 1937, 3.

17. "Mr. Howe's Message of Opening for Service of CBC, July 29, 1939," LAC, CBC Fonds, RG41, vol. 109, file 3-19-28.

18. Promotional booklet for opening of CBC, LAC, CBC Fonds, RG41, vol. 103, file 3-18-18.

19. N.F. Micklewright, "This is the Canadian Broadcasting Corporation," *CBC Times* (May 1945): 8; Doug Squires, "CBC," in *Prairie Reflections: Watrous, Venn, Manitou Beach, Renown, Amazon, and Districts* (Regina, 1983), 390, available from <http://www.ourroots.ca/e/page.aspx?id=1075718>. For more on the context of radio in Saskatchewan and the role played by CBC, see Wayne Schmalz, *On Air: Radio in Saskatchewan* (Regina, 1990).

20. "Premier Aberhart's Speech at the Opening of CBC, Watrous," LAC, CBC Fonds, RG41, vol. 109, file 3-19-28. Aberhart's success with Social Credit in 1935 was attributed at the time to his popular radio broadcasts. See H.F. Angus, ed., *Canada and Her Great Neighbor: Sociological Surveys of Opinions and Attitudes in Canada Concerning the United States*, introduction by R. M. Maciver (Toronto, 1938), 150.

the meeting of the Fathers of Confederation in Charlottetown and explained that he “could not help reflecting upon the way in which radio is becoming in our land a vast and powerful medium for the advancement of national understanding.”²¹ After noting the time-space compressing effect of the recently opened Trans-Canada Air Lines, which had “shrunk our country to the space of a day’s travel,” | fig. 3 | he asserted that with the chain of high-powered stations, the CBC “serves to annihilate space and defeat the distances which have tended to separate and divide us.”²²

The idea of time-space compression in the interest of national unity was not particularly novel. But as the above comments suggest, the new station was cast not only in national but in regional terms. That is, while it would seem to eschew place in the interest of a unified sense of nation (akin to the imagined community discussed by Benedict Anderson and taken up subsequently by radio historians), the actual programming suggests a reinforcement of a regional place, catering to the perceived needs of the station’s listenership. The inaugural program highlighted a good number of geographical frames—a voice on the international, national, and regional stages. The multivalent nature of broadcasting from CBC thus indicates some of the complexity of association embedded in radio’s address. The inaugural broadcast also gestured to the physical addresses (i.e., the locations) of its listeners. Through the design of CBC publics, the abstract notion of “nation” was situated in material, regional locations.

Intimate Publics

“Situation” is crucial to a consideration of radio’s place in the designed environment. In his comments, Bracken once again illustrates a key spatial register: the home. Indeed, he explains how the new medium helped to compress space and create a public out of disparate listeners:

Through its instrumentality the neighbourliness of the human voice and the warmth of music will be enjoyed in lonely settlements and by many, particularly in the great mining areas of the North, who otherwise would be completely cut off from their fellows.²³

This comment suggests a sense of intimacy, connectivity, and proximity, one that, according to historian Len Kuffert, affected the form and content of radio programming in Canada from its inception.²⁴ Since radio audiences were recognized as being composed of small groups, listening in private homes (often pictured around a fireplace), the manner of address frequently took a “friendlier” and softer tone than would be appropriate for a town hall meeting, for instance, and particular attention was dedicated to censorship because of the medium’s penetration into the inner sanctum of the home.²⁵

The idea of intimacy speaks to the spatiality of radio, as well as to its sometimes overlooked materiality, which together are implicated in the creation of publics.²⁶ Kuffert importantly observes that, during the finalization of regulations for the CBC in 1937, the phrasing in drafts of Regulation 7 changed from “this *public* medium” to “this *intimate* medium,” a point that underlines the socio-spatial complexity of radio publics.²⁷ Radio is experienced as broadly reaching (regional, national, global, etc.) yet locally situated in a living room, for instance, next to a radio cabinet. This was highlighted by

21. Draft of remarks to be read by Premier Bracken, LAC, CBC Fonds, RG41, vol. 109, file 3-19-28. The letter dated 24 July 1939 from Edward A. Pickering to the premier outlines that the speech was composed to be the appropriate length to fit into the larger inaugural program. It was not unusual for the CBC program staff to provide draft remarks for dignitaries, including, for example, Minister Howe.

22. *Ibid.*

23. *Ibid.*

24. Len Kuffert, “‘What Do You Expect of This Friend?’: Canadian Radio and the Intimacy of Broadcasting,” *Media History* 15, 3 (2009): 303–17.

25. The first General Manager of the CBC, W.E. Gladstone Murray, believed that, “Certain subjects, while meriting discussion elsewhere in the public interest are not necessarily suitable for this intimate medium.” Quoted in Kuffert, “What Do You Expect,” 308. This reminds us that unlike other radio systems in the United States or Australia, which both had commercial stations and networks, the CBC was cast as both producer and regulator of radio content until 1958.

26. See Jason Loviglio, *Radio’s Intimate Public: Network Broadcasting and Mass-Mediated Democracy* (Minneapolis, 2005) for an engaging discussion of this concept in the American interwar context.

27. Kuffert, “What Do You Expect,” 308. His emphasis.

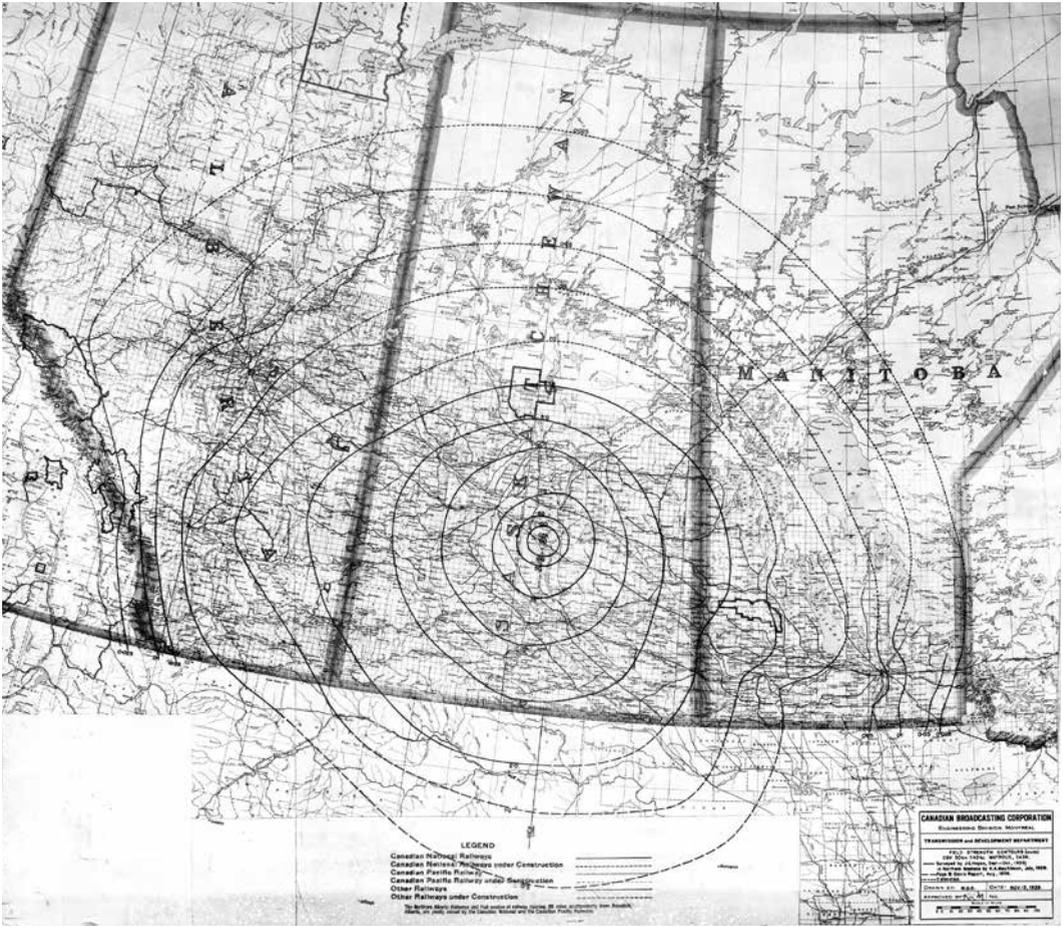


Figure 2. CBC Field Strength Coverage, 1939. Courtesy of Watrous Manitou Beach Heritage Centre and Dwight Kornelsen.

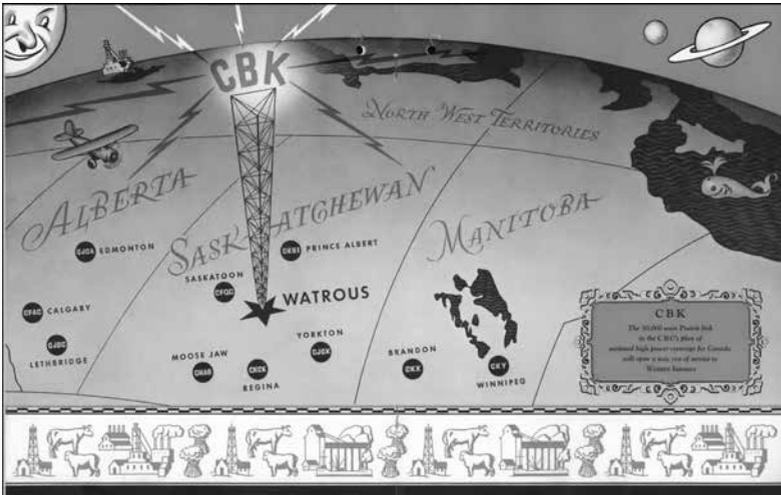


Figure 3. Map from booklet marking inauguration of CBC, 1939. Canadian Broadcasting Corporation Fonds, Library and Archives Canada (RG41, vol. 103, file 3-18-18, pages 4-5, reproduction copy number I-74925).

Figure 4. Eaton's Radio Catalogue, 1936–37.
 Canada Science and Technology Museum Trade Literature Collection, L40867. Used with the permission of Sears Canada Inc.



radio manufacturers and retailers such as the T. Eaton Company, one of the world's largest retailers at the time, that produced a catalogue dedicated to the sale of radio equipment for Western Canada.²⁸ A cover of one of these catalogues from 1936–37 illustrates the potential of radio to bring diverse groups of listeners, each pictured around a radio receiver, together into a public: one “small world” facilitated by the purchase and use of an Eaton Super Radio. | fig. 4 | Silhouetted on the bottom is an orchestra, presumably playing the show transmitted by the tower, set against a depiction of the “small world,” and being heard above in the individual vignettes. We might see the cover of the catalogue as alluding to the form of a radio cabinet, with the antenna set against the globe representing a radio dial. The public (of different people in different spaces but simultaneously “listening in” to the program) is pictured as enclosed within the radio itself, underlining how the material set makes a public (or small world) possible. Not surprising for an advertisement for radio products, then, the materiality of the radio system is highlighted. So too is the medium’s unique spatiality.

In considering the element of proximity in radio publics—proximity to other listeners making up an imagined community as well as the intimate proximity to a radio cabinet and to a station transmitting content—we are reminded of the importance of the seemingly immaterial and ephemeral medium’s material aspects to making these publics. In her discussion of the foundation of public radio as an important spatial narrative in Canada, cultural theorist Jody Berland asserts that the nation-defining institution “required only proximity, hardware [i.e., radio equipment], and the willingness to listen as constituents of citizenry. Citizenship arose then from the imbrication of space and hardware, locked in an indissoluble embrace.”²⁹ Likewise recognizing the importance of objects or “non-humans” in social entities, Bruno

28. While there is a good deal of literature on the T. Eaton Company, including its extremely successful catalogue, scholars have paid the radio catalogues scant attention—perhaps due to their relative obscurity today. A nearly complete run from 1923 to 1940 is housed in the Canada Science and Technology Museum Trade Literature collection in Ottawa.

29. Jody Berland, “After the Fact: Spatial Narratives in the Canadian Imaginary,” *New Formations* 57 (Winter 2005–06): 43.

Latour argues that “things” play a central role in the formation of publics, providing the *res* (things) of the *res publica* (republic/commonwealth).³⁰ The root of the word “thing” (*ding*) refers to a site where people would assemble to discuss matters of concern, and is present still in Norwegian and Icelandic words for their parliaments, *Storting* and *Althing* respectively.³¹ Things—as both ideas and material objects or sites—are at the heart of publics, gathering people together (although often not in consensus).³²

We can imagine how things bring people together to form publics: listeners gather around wireless equipment (material things) at certain times to engage with matters of concern or interest (immaterial or issue-things). While broadcast content is crucial to the formation of publics—providing the issue-things—the radio system is dependent on a material infrastructure that includes not only the hardware of the home, but the architecture of transmission sites. This imbues radio infrastructure with political valence, in addition to socio-cultural significance.³³

Locating Radio

One “thing” that is essential to radio transmission is the physical property of conductivity. CBC engineers carried out exhaustive surveys to determine the best sites for the regional transmitters. Watrous is located on the Canadian National Railway line (an important factor when transmissions were carried by telegraph line) and on a great plain of hundreds of miles of virtually flat land. Situated near the resort Manitou Beach—the so-called “Carlsbad of the North”—with its mineral lake, the soil in the Watrous area is very high in mineral content, making ground conductivity particularly strong. | fig. 5 | The signal from CBK could be heard as far away as New Zealand and Australia and was easily tuned into by Canadians from Winnipeg to Calgary and Edmonton, as well as to Americans in northern Montana and North Dakota.

A letter written by Acting Regional Representative of the CBC Dick Claringbull to General Program Supervisor Ernie Bushnell discusses the coverage of CBK and gives some insight into how the new station was incorporated into everyday life.³⁴ Claringbull describes driving some 2,826 miles across the region from 13 August to 2 September 1939, tuning into CBK with a Victor Imperial Automobile radio, a fact that reminds us of the creation of automobile radio publics in this period. | fig. 2 | He reports only one day, driving through the mountains between Banff and Lake Louise, when he could not receive the signal. He notes that in the badlands of northern Montana and North Dakota, CBK was the only station for miles that was available during the daytime, and that “[n]umerous people, such as service-station attendants and hotel people, told me that CBK is the station to which their sets are tuned continuously during daytime operation.”³⁵ He then includes in his letter a brief description of a scene played out in a hotel lobby in Williston, ND, where at least two dozen people gathered to listen to news of the war in Europe on 1 September 1939. Claringbull’s report not only highlights the great reach of the 50-kilowatt station (even across international borders, complicating the notion of national radio publics), but underlines the importance of radio transmission to the reception of the Second World War, which was experienced very much on the home front through radio sets.

30. Latour, “From Realpolitik to Dingpolitik,” 6. For more on the role of nonhumans in social entities, see his *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford, 2005).

31. Latour, “From Realpolitik to Dingpolitik,” 12–13.

32. There is a burgeoning literature developing around “things,” “objects,” and “artefacts” in material culture studies, the history of science and technology, visual culture, and other related fields. For a snapshot of the state of “things,” see Bill Brown, ed., *Things* (Chicago, 2004), Alan Costall and Ole Dreier, eds., *Doing Things with Things: The Design and Use of Everyday Objects* (Aldershot, UK; Burlington, VT, 2006), Fiona Candlin and Raiford Guins, eds., *The Object Reader* (London, 2009).

33. Interestingly one of the issues popularly discussed in the UK was modern design and architecture, as Shundana Yusuf has examined in her recent book *Broadcasting Buildings: Architecture on the Wireless, 1927–1945* (Cambridge, MA, 2014).

34. Letter from Dick Claringbull to Ernie Bushnell, 23 September 1939, LAC, CBC Fonds, RG41, vol. 103, file 3-18-18.

35. *Ibid.*

Sending the signal to these sets was the 465-foot antenna tower. The other three CBC transmission sites built in the 1930s included a similar design, with a single antenna held in place by four guys and with underground wires (120 in the case of CBK) radiating out like spokes of a wheel for 500 feet to provide the proper ground system. The tower tapers like a needle, resting above a concrete foundation on “a porcelain cone about 3½ feet long with a base about the size of a saucer,” as described by former CBC operator at CBK Doug Squires.³⁶ Near the base of the station sits the tuning house, which—despite being utilitarian and largely unseen—is nevertheless decorated with a *moderne* play of rectilinear planes around the portal, enlivening the surface and resonating with the scheme of the main building. | fig. 6 | The tower, together with the transmission station (both illuminated by floodlights and thus seen for miles on the flat prairie landscape), became a tourist attraction. Logbooks indicate that, with the exception of the war years when the station was closed to the public, CBK was consistently toured (sometimes by dozens of visitors) right up to the mid-1980s, when operations began to be carried out remotely from Regina. While the logbooks do not contain many comments, the sheer number of visitors indicates a great interest in the site.

Marking the prairie skyline, CBK had a substantial impact on the sense of place for local residents. For example, Joyce (Mackie) Edison, who grew up in Watrous, recalls that on summer vacations during the Second World War she searched the night sky for the light atop the tower. She remembers

looking for that elusive light. Was it not there because of what she [her aunt] had called weather conditions, (she was a teacher and knew about such things) or had the bomber blown it off the prairie skyline? No radio—batteries dead: and on the trip home, we strained our eyes to see through the grimy windows of the train, looking for that beacon. And there it was! On the horizon, safe, and we were almost home.³⁷

Edison’s memory reminds us that while CBK broadcast into homes across the prairies, gathering strangers together in publics and perhaps even effecting a sense of imagined community, it also visually transmitted a sense of place and home for local residents.

Not surprisingly, the CBC and the transmitter building in particular had an especially large impact on the small community of Watrous. This is evinced, for example, in a recent postage cancellation stamp and in a CBK float built by CBC employees for the Watrous Coronation Parade in 1953. But the CBC had a more permanent presence in the town as well. The crown corporation’s architects designed three duplexes and one single residence to accommodate seven families. | fig. 7 | The two-storey single residence was reserved for the engineer-in-charge; other staff lived either in the duplexes or rented houses in town. The staff grew from nine to fourteen and included the engineer-in-charge, a supervisor, stenographer, caretaker, two members in the French department, six operators, and one announcer-operator, but shrunk to seven after French broadcast services were moved to Winnipeg in 1948.³⁸ The broader, built presence of the CBC here highlights another, local scale of public formed through the radio system, which should be considered alongside the transmitter’s regional presence, national and international reach, and intimate spatial formations. My contention is that the design of the houses reinforced the image desired and fashioned by the CBC. The residences were

36. Squires, “CBK,” 390. This rather delicate insulator was protected from potential sabotage sniper fire during the war with a sandbox.

37. Joyce (Mackie) Edison, “C. B. Kelsey and Me,” in *Prairie Reflections*, 393.

38. Squires, “CBK,” 391.



Figure 5. View from antenna toward **cbc** transmission station, ca. 1939. Canadian Broadcasting Corporation Fonds, Library and Archives Canada, RG41, vol. 109, file 3-19-28, photograph, copy no. E011157770.



Figure 6. Tuning House, **cbc** Watrous, 1945. Photo: Dwight Kornelsen.



Figure 7. **cbc** staff Housing, ca. 1945. Photo: Orin McIntosh.

described in *The CBC Times* as “the most modern in Watrous—white with green roofs and trim ... the only houses in town with ‘inside plumbing’.”³⁹ The houses were located in a block of land east of Joyce Edison’s, who marvelled at the site of “those beautiful, new homes.” She babysat for several CBC staff members, enthralled with the opportunity “to spend an evening in a house that must be at least as grand as those of our movie star idols, and [to] earn the usual sitting fee of twenty-five cents, too, was a privilege, not a job.”⁴⁰ Edison’s comments not only attest to the prominence and prestige of the CBC in the town of Watrous, but even hint at the glamour of the mass medium.

Broadcasting the Image of the CBC

The sense of modernity expressed in the houses was even more pronounced in the transmission station. | fig. 1 | Saskatchewan Provincial Heritage Architect Bernard Flaman cites the CBC transmitter building, along with the Mainline Ford Building (Railton Motors) in Indian Head (1937) and the Regina Airport (1939), as one of the earliest examples of modern architecture in the province.⁴¹ For Flaman, the cubic forms and ribbon layout of the fenestration reference Le Corbusier’s residential architecture of the 1920s.⁴² However, it is perhaps best to read CBC as a transitional, but still Art Deco, building, before the erection of the postwar edifices designed in a more International Style by the crown corporation. I employ here the definition of Art Deco adopted by Charlotte and Tim Benton for their 2003 Victoria and Albert Museum exhibition catalogue essay.⁴³ For them, Art Deco can be used to discuss a fairly broad range of modern material designed primarily in the interwar years in a user-friendly manner. Art Deco—a term coined in the 1960s, and which, in the period, was known under a series of monikers, from “*moderne*” and “modernistic” to “streamline”—represented modernity and did so often in a popular (sometimes populist) manner. For the CBC in the 1930s, Art Deco was the best choice for its new buildings: it gave them a modern appearance that resonated with the popular image of modernity seen in other media, such as magazines and Hollywood films, not to mention the design of some radio sets. Described in a 1945 issue of *CBC Times* as a “large white building rising like a modernistic castle from the prairie,” the white with blue trim radio station certainly made an impression on locals who had not seen much building activity since the onset of the Great Depression.⁴⁴ The reporter with the *Regina Star* Andy McDermott speculated in 1939 that “[y]ou could pick up that building, stucco and all, and drop it right down in the middle of Toronto or New York and the natives would still say ‘Oh’ and ‘Ah’ over the modernity and superb finish of it.”⁴⁵ McDermott went on to describe some of the technical aspects of the building, including its innovative (but later dysfunctional) cooling system.⁴⁶ Importantly the look of the building seemed to reinforce the modernity of the technical features: the appearance of the transmission station was a significant factor in its reception by the public (just as the clear reception of CBC on the airwaves was central to the “visibility” of the CBC within the broader region).

In addition to the state-of-the-art equipment used to cool the RCA transmitter, the CBC station included what McDermott described as “small but extremely comfortable and richly furnished living quarters for emergency purposes. Swanky bunks, swanky breakfast nook and kitchen and an even swan-

39. Micklewright, “This is the CBC,” 9.

40. Edison, “C.B. Kelsey and Me,” 393.

41. Bernard Flaman, *Character and Controversy: The Mendel Art Gallery and Modernist Architecture in Saskatchewan* (Saskatoon, 2004), 37–39.

42. *Ibid.*, 39.

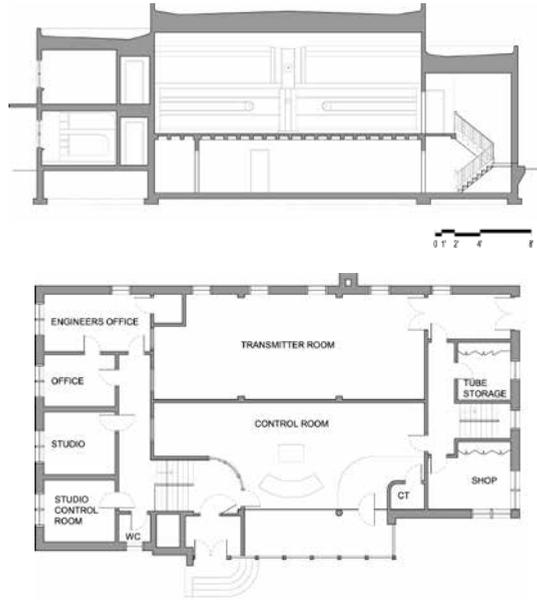
43. Charlotte Benton and Tim Benton, “The Style and the Age,” *Art Deco, 1910–1939*, ed. Charlotte Benton, Tim Benton, and Ghislaine Wood (London, 2003), 12–27, 430–31.

44. Micklewright, “This is the CBC,” 8.

45. Andy McDermott, “New CBC Is Swell Station and Cost Plenty of ‘Dough,’” *Regina Star*, 31 July 1939, 241. RG41 109, 3-19-28, IAC.

46. McDermott describes how water was routed to the copper roof of the building in the summer. The evaporation would provide extra cooling—a point that reminds us of the extreme heat produced in converting the huge quantities of A/C power to the D/C necessary for operating the transmitter.

Figures 8, 9. Section and floor plan, **cbk Watrous, 1939**. Drawings by Frederika Eiler based on CBC blueprint.



kier tiny living room would make any householder green with envy.”⁴⁷ Also on the lower level of the west side of the split-level building is a lobby and locker hallway, and access to a heated, two-car garage.⁴⁸ | fig. 8, left side | On the east side there is a workshop, tube storage room, and a freight entrance with chain hoist for large objects. | fig. 9 | The upper floor, seen on the left side of the plan and section, contains two studios (used primarily by the French Department), a stenographer’s office, a main office, and a half-bath. The CBC’s architecture department designed down to the last detail, creating a unified, *moderne* atmosphere. | fig. 10 | The design of the light fixture in the studio control room, for instance, illustrates the CBC’s desire to produce forms evocative of modernity.

The *Regina Star* reporter describes the building as “an engineering homestead done up in Christmas paper.”⁴⁹ This comment links the station to the built history of the region, suggesting as well a kind of modern take on pioneers. The allusion to a homestead also conjures associations with the intimate reception of radio in actual homesteads across the region. Even the call letters **cbk** attempt to ground the building in the history of the West, with the “K” referring to the Hudson Bay Company explorer and fur trader Henry Kelsey, who was supposedly the first white man to see a buffalo hunt, somewhere in the vicinity of Watrous. The reference to “Christmas paper,” while perhaps suggesting that this transmitter was a great gift to the Canadian people, might also gesture toward a reading of the building as superficially decorated and theatrical. This would be in keeping with Flaman’s contention that the control room was “composed like a Modernist theatre.”⁵⁰ The building was designed to house, and, importantly, display the RCA transmitter, whose streamlined decoration evokes the speed and modernity of radio transmission. | fig. 11 | The panelling, which faced onto the control room, concealed the high power vacuum and rectifier tubes and other equipment in the transmitter room. | fig. 9 | The section illustrates the prominent place of the transmitter façade and control room in

47. McDermott, “New **cbk**.”
 48. Squires, “**cbk**,” 390.
 49. McDermott, “New **cbk**.”
 50. Flaman, *Character and Contrivery*, 39.



the building, located in a one and a half storey volume in the centre, and with the studios and other support services flanking it. | fig. 8 | The control room could be seen from the upper level, looking down from above a railing. | fig. 12, far right | With the visitor's gallery facing the façade of the RCA transmitter, the station was most certainly designed to aestheticize if not dramatize the performance of radio transmission.

CBK and the other transmitters were designed to provide a modern progressive face for the new crown corporation. Just as radio entered Canadian homes, so too could Canadians enter the "home" of the CBC. They would be struck by the self-conscious vision of modernity presented by the Art Deco design. The curved glass foyer, | fig. 12 | control board, and exterior steps mirrored the curved forms of the tubes, while the horizontal thrust of the fenestration, railing, and decoration on the façade of the transmitter suggested speed and movement. The forty-foot, red-and-chrome transmitter façade was likely designed by John Vassos, who worked for RCA at this time where he designed radio cabinets and transmission equipment among other products.⁵¹ Danielle Schwartz's research on Vassos indicates that he also designed transmitter buildings, evocative edifices that were, in his words, to "express the tempo and spirit of the most modern invention of the age—the radio."⁵² For Schwartz, Vassos's sketches of radio stations allude to the shape of an RCA radio tube, a design idea that may apply as well to the contemporary stations designed by the CBC's architects including CBL in Hornby, Ontario, and CBK.⁵³ That the transmission station (including its equipment) was representative of the medium

51. For a summary of this somewhat overlooked industrial designer's career, see Danielle Schwartz, "Modernism for the Masses: The Industrial Design of John Vassos," *Archives of American Art Journal* 46, 1–2 (2006): 4–23.

52. Quoted in Danielle Schwartz, "From Turnstile to Transmitter: John Vassos, Industrial Designer, 1927–1941" (PhD diss., Dept. of Art History and Communication Studies, McGill University, 2005), 234.

53. See Michael Windover, "Transmitting Nation: 'Bordering' and the Architecture of the CBC in the 1930s," *Journal of the Society for the Study of Architecture in Canada* 36, 2 (2011): 5–12.

Facing page, clockwise from top left.
Figure 10. View into studio control room with light fixture designed by CBC Engineering Department, CBK Watrous, as it appeared in 2011. Photo: Larry Easton Photography.

Figure 11. RCA Transmitter casing, CBK Watrous, ca. 1975. Notice the partially obscured map of Canada on the floor. Photo: Wayne Bjorndahl.

Figure 12. View from control room floor toward stairs, CBK Watrous, as it appeared in 2011. Visitor viewing area is to the left. Photo: Larry Easton Photography.

Figure 13. Map showing location of radio stations, control room floor, CBK Watrous, as it appeared in 2011. Photo: Larry Easton Photography.

of radio through its Art Deco styling resonates with the logic of much contemporary radio cabinet design by figures like Vassos, and in essence links these differently scaled material registers of the radio system.⁵⁴ More “traditional” or historicizing radio cabinets, I believe, could suggest a somewhat theatrical framing of the experience of radio listening, hiding the tubes and wiring while presenting a “refined” image of the electronic instrument, which in a way harmonized with some of the socially conservative aspects of the programming of the period.⁵⁵ Radio cabinets in homes were material sites of great imaginative force (not only in terms of modern design, in some cases, but in the virtual potential they unlocked for listeners), and so was CBK. Together they represented the modern radio system in Canada. CBK participated in both the creation of and provided an image for radio publics, designed through the assemblage of studios, transmitters, and receivers, not to mention listeners, technicians, broadcasters, and so on.

Just as the speeches marking the inauguration of CBK positioned the new station as a crucial component within a national framework—underlining the connection between the communication system and the country as a geographical entity—so, too, was the nation represented in the decorative program of the station. As at CBL, CBK displays a map of the country on the control room floor, visible from the viewing gallery and upper level hallway.⁵⁶ | fig. 13 | The forty-by-seventeen-foot floor of inlaid battleship linoleum marks the location of all radio stations in the country with CBK near the middle, in essence placing the visitor to the prairie transmission station at the heart of the national service. The virtual connection between radio listeners from across the country was given a visual form that followed a representation technique sometimes adopted in railway stations. For instance, the decorative program of the Great Hall of Union Station in Toronto (1914–27) includes in the entablature the names of Canadian cities with terminals, while the concourse of Montreal’s Central Station (1943) features Art Deco bas-reliefs designed by Charles Comfort that represent the nation. That CBK included an image of nation as well suggests that the new medium and public corporation had the same legitimacy as a nation builder as had the great railway systems in the past. CBK was marked as modern—like the nation and the publics of which it was a sign and a source.

Conclusion

A consideration of the history of the design of radio reveals not only the technological and representational imperatives of the CBC in its early years, but also the strategic importance of radio at a time of heightened international tension and conflict. Once war was declared CBK was closed to the public. Four guards were posted (until 1943) at the transmitter in rural Saskatchewan, a chain-link fence and powerful floodlights were installed, and the CBC’s architecture department even designed a guardhouse.⁵⁷ A barricade filled with sand was constructed around the fragile base of the tower antenna to protect it from potential sniper attack. Similar precautions were taken at other transmission sites, including CBA in Sackville. During the Cold War, fallout shelters were added to the buildings. The two-person fallout shelter built at CBK in the mid-1960s was added to the southeast portion of the building with access from the

54. See Michael Windover, “Listening to Deco: Sound Design in Canada,” *Art Deco: A Mode of Mobility* (Quebec, 2012), 203–58.

55. On the conservative nature of radio content, see Kate Lacey, “Radio in the Great Depression: Promotional Culture, Public Service, and Propaganda,” *Radio Reader: Essays in the Cultural History of Radio*, ed. Michele Hilmes and Jason Loviglio (London, 2002), 33. See also Windover, “Listening to Deco.”

56. See Windover, “Transmitting Nation,” 10, figure 8.

57. Squires, “CBK,” 390. Radio infrastructure was strategically significant during the war. Only a month after CBK was officially on air, Nazis staged the capture of a radio station in Gleiwitz and broadcast anti-German rhetoric in Polish to command support and justification for the invasion of Poland. Known as Operation Himmler, SS troops staged the attack in Polish uniforms and even left corpses from the Dachau concentration camp dressed in Polish uniforms as “evidence” of the struggle. For more on the event, see Christopher J. Ailsby, *The Third Reich Day by Day* (St. Paul, MN, 2001), 112, and Bradley Lightbody, *The Second World War: Ambitions to Nemesis* (London, 2004), 39.

basement, while a generator building of concrete blocks was erected north of the station. That fallout shelters and generators were installed at the transmission stations indicates the material importance of radio communication as part of the emergency measures. The transmitters thus continued to provide an image of the CBC as an essential part of Canadian society.

The case of CBK draws attention to the spatial, material, and visual presence of radio in the designed environment. With its far-reaching coverage, it exemplifies the potential of the medium to create widely dispersed publics, yet at the same time it also signals a sense of place at the local level. Situating the transmission station within the broader radio system, we see how useful design and spatial studies is to a consideration of radio culture, the history of medium (including the development of public institutions), and its socio-cultural and political import. Design studies can allow us to paint a more nuanced picture of the radio system by taking us through its diverse spatial registers. The transmitting stations built by the CBC in the 1930s were crucial to the corporation's objective of reaching the majority of Canadians, a factor that became particularly important during the war years. As "things" they were especially significant in the making of publics. Despite their somewhat remote locations, CBK and its sister stations were designed to represent the CBC to the public, providing an image of the new institution with its nation-building agenda. Indeed, the stations captured the imagination of the general public and had particular resonance in local communities. Just as the corporation's news coverage framed events for Canadian (and other) publics, so, too, did the building frame transmission and offer a material icon for a seemingly immaterial medium. By examining the architecture of radio, this paper indicates the importance of transmission stations not only as harbingers of modernism in some parts of Canada, but as public-making places.

Postscript

Given changes in radio transmission technology, the CBC closed the CBK site in Watrous in 2007, building a smaller facility to house the new transmitter. Since then the Art Deco building languished and fell into disrepair. While a local heritage group expressed interest in the former transmission site, the \$500,000 to \$1.5 million required to bring the building up to code and open it again to the public was too expensive. The building's demolition began on 20 July 2015, as finishing touches were put on this essay. Although parts of the building were salvaged by a local heritage committee, apparently with the intent of being displayed elsewhere or perhaps recreating the space,⁵⁸ the loss of the building marks an important moment in the history of the CBC and the role it has played in designing publics in Canada. As I have argued here, the CBK station, like its sister shortwave station built in Sackville, NB, whose towers were recently felled,⁵⁹ was a key part of the space of public radio. The lack of heritage protection leaves places such as these in a critically vulnerable position. ¶

58. Nichole Huck, "Historic CBK Transmitter Building in Watrous To Be Demolished," *CBC News Saskatchewan*, 20 July 2015, <http://www.cbc.ca/news/canada/saskatchewan/historic-cbk-transmitter-building-in-watrous-to-be-demolished-1.3158268>. For an excellent source of primary material on CBK Watrous, see the website of the Watrous-Manitou Beach Heritage Centre, <http://watrousheritage.ca/cbkRadio.php>.

59. "RCI Towers Near Sackville Coming Down," *CBC News New Brunswick*, 10 March 2014.

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