Technology of Inclusion: Redefining and Gendering the ʻUkulele in Atlantic Canada

KATI SZEGO

Abstract: From the late 1960s to mid-1980s, 'ukulele was the spark plug of an extracurricular music program in the Halifax school system. Ignoring the instrument's novelty associations, the Supervisor of Music Education redefined its use value, calling on mostly female teachers and volunteer mothers to propagate it anew. The instrument itself was redesigned physically and acoustically as a technology of inclusion, attracting multitudes of women and girls in Atlantic Canada, but few boys. This article accounts for gendered differences in the uptake of 'ukulele during this period.

Résumé: À partir de la fin des années 1960 et jusqu'au milieu des années 1980, l'ukulélé fut l'étincelle qui déclencha un programme de musique extrascolaire dans le système scolaire d'Halifax. Ignorant les connotations de futilité associées à cet instrument, le directeur de l'enseignement musical a redéfini sa valeur d'usage, battant le rappel des enseignants, majoritairement des femmes, et des mères bénévoles, pour renouveler sa diffusion. L'instrument lui-même fut redessiné physiquement et acoustiquement pour en faire une technique d'inclusion servant à attirer des multitudes de femmes et de filles du Canada atlantique, mais très peu de garçons. Cet article tient compte des différences de genre dans le fait de se mettre à jouer du ukulélé pendant cette période.

"Musical instruments mean" (Qureshi 1997: 1). Human actors encode them with significance. The 'ukulele, modelled after instruments transplanted to Hawai'i by Portuguese labourers in 1879, is a technology that, upon entering global circuits of performance and consumption in the early 20th century, has enjoyed waves of popularity (Tranquada and King 2012).[1] It has meant different things in different hands, at different moments in history. In the hands of 1930s British stage and screen star, George Formby, the 'ukulele (or banjolele) was a vehicle for musical virtuosity and risqué humour. In Hawai'i-themed films from the 1960s,[2] Elvis Presley's characters used 'ukulele to "other" themselves and to seduce. In Tiny Tim's hands, it was

Szego, Kati. 2015. Technology of Inclusion: Redefining and Gendering the 'Ukulele in Atlantic Canada. *MUSICultures* 42 (1): 41-65.

kitsch. And in the hands of Israel Kamakawiwo'ole (aka IZ), whose 2004 cover of "Somewhere Over the Rainbow" anchored two Hollywood soundtracks, the 'ukulele came to represent simplicity and childlike innocence.

Most of these musicians—Formby, Presley, Tiny Tim, IZ—should be reasonably well known to readers. Had I invoked the name of May Singhi Breen, however, I expect recognition would be far more limited; this despite the fact that she wrote several 'ukulele method books between the 1920s and 1950s, released the first 'ukulele instructional record and was responsible for having the 'ukulele accepted as a "real" instrument by the American Federation of Musicians (Whitcomb 2012: 59-63). As a woman, Breen was rather alone in her celebrity as a uke player in the early 20th century, but behind her were literally millions of other women who played her chord tabs printed atop the popular sheet music of the day. Indeed, during this period, the 'ukulele lay largely in the hands of white, middle-class female amateurs living on the continental US (Tranquada and King 2012: 67). We might wonder what the instrument meant in their embrace. The passing of decades makes it difficult to recover their practices and voices, but there is another wave of female players whose historic efforts remain accessible to us.

From the late 1960s to mid-1980s, when the instrument was rather vulnerable to public derision outside of Hawai'i and Oceania generally, there was an unprecedented spike in 'ukulele performance in Atlantic Canada. This movement was centred in Halifax, Nova Scotia, spreading to other Atlantic provinces and beyond; it was powered largely by women with a male, J. Chalmers Doane, at the helm. Together they propagated the 'ukulele anew—an effort that rested on their investment in a redefinition of its use value. From an instrument largely associated with novelty songs or exotic locales, the 'ukulele was reconceptualized as a serviceable object that linked the ideals of well-rounded musicianship to an ethos of inclusion. While Doane's approach to the 'ukulele as an educational tool is well documented (see Wallace 1989 and Trowsdale 1977, 1978, among others), this article aims specifically to write women into the record. It also explores the gendered musical landscape in Atlantic Canadian 'ukulele programmes, which extended beyond the K-12 setting to include volunteer teachers and adult students.

The primary site of the late-20th century Atlantic Canadian 'ukulele movement was the public school, a site generally neglected by ethnomusicologists and popular music theorists, with few exceptions. Where school does comes into socio-musical play is in analyses of youth (meaning "teenage") cultures; here school has often been targeted for critique since its workings give tangible form to disciplinary regimes of the state, against which youth frequently dissent (see Shepherd and Vulliamy 1983). But school is as

much the domain of adults and younger children as it is resistive teenagers. Virginia Caputo argues that in anthropology the study of children has been devalued largely because of the way they have been regarded as "passive receptors" of adult-driven processes (1995: 22). Likewise, the study of school culture has been ghettoized because of a strong female presence in the teaching profession; in other words, school has been tied conceptually to women and children and their quotidian lives, rather than political economy (1995: 32). Extending these arguments, the general lack of study of school music or music in schools among ethnomusicologists stems from perceptions about the status and power of its primary subjects.

Music educators, of course, are committed almost exclusively to school-based inquiry. Most relevant to this study is an educational research agenda of some 30 years that has examined instruments and their gendered use in school music programs. Abeles and Porter (1978), Griswold and Chroback (1981) and Johnson and Stewart (2004), for example, each examine the ways that girls and boys have chosen or been assigned orchestral and band instruments. In sum, "instruments are imbued with gender connotations grounded in broader conceptions of gender difference. … [T]hese relate especially to the assumed polarities of masculine and feminine bodies—large versus small, low pitched versus high, strong versus weak" (Clawson 1999: 204). The music education literature focuses almost exclusively on K-12 students and rarely extends beyond school itself; the Atlantic Canadian scene I look at, however, is equally concerned with volunteer teachers and adult students, and the place of 'ukulele in the realm of their everyday lives.

A related strain of gendered instrument research emerged in popular music studies in the 1990s. For example, scholars have tried to account for the disproportionately greater numbers of women who played bass in alternative rock (Clawson 1999) and the relatively few women who played electric guitar in bands (Bayton 1997). In alternative rock's instrumental economy, Clawson argues, bass was considered less technically demanding than rhythm or lead guitar; with less symbolic capital to be gained, men were less attracted to the instrument, opening new pathways of participation for women. Pegley's reading of this gendered scene positions women more actively, as strategic "suppl[iers] of the ensemble's 'glue'," without "the psychosocial burden that accompanies playing lead electric guitar" (2008: 55). Of course the starting point for Clawson's and Bayton's studies was recognition that within the domain of popular music, "ensemble instrument playing is the musical activity from which women have been most fully excluded, in contrast to singing" (Clawson 1999: 194; cf. Bayton 1997: 37), an observation even more pertinent to the time period I examine.

Ethnomusicologists too have had an abiding interest in socially grounded organology. In a review essay devoted to gender and musical instruments, Veronica Doubleday raises two issues that have particular salience for the Atlantic Canadian scene: control over shared public and private spaces, and "the long-entrenched pattern of male control over technology" (2008: 18).[3] Men's jurisdiction over musics' technologies has played itself out in myriad ways, from greater access to training in electroacoustic music (Truax 2003) to the consumption of high fidelity home-audio equipment (Keightly 1996) to masculinist constructions of the recording studio in musicians' magazine ads (Théberge 1997). With regard to the guitar world in which the 'ukulele is marginally positioned, Waksman contends that while mechanical tinkering with the electrical guitar by such virtuosi as Eddie Van Halen has been motivated by aesthetic ideals, it has long been a male endeavour, "the end of which could be deemed the fortification of manhood" (2004: 676). The story of the 'ukulele's physical transformation in Atlantic Canada presented here both upholds and questions the notion of music technology as a male domain.

Halifax, Nova Scotia, the Hub of Canadian 'Ukulele Pegagogy

J. Chalmers Doane was appointed Supervisor of Music Education for the Halifax School Board in 1967, a position he held until 1984 (Porter 2005). His vigorous, inspiring leadership combined with a highly centralized administration created one of the most compelling moments in Canadian school music history. It was a moment that saw spectacular curricular growth in terms of orchestral and band music; yet it was a moment that attracted greatest interest for its extracurricular 'ukulele program. 'Ukulele was an unusual choice for school music, at least to those who saw the instrument as faddish or cute. Both because of the 'ukulele's unorthodoxy and the success of the Halifax program, Doane and his students garnered considerable media attention. The Canadian Broadcasting Corporation (CBC) took special notice and over the years, Doane was interviewed by such radio and TV luminaries as Peter Gzowski (*Morningside* 1985) and David Suzuki (*Quirks and Quarks* 1976). The depth of the 'ukulele's reach in Halifax schools was captured in TV footage produced by CBC Halifax in 1980. The occasion was the annual Spring Festival; the setting, the Halifax Metro Centre, a cavernous indoor stadium. The image captured by cameras shows "wall-to-wall ukuleles"—1,400 children and youth covering the vast centre floor, each holding an 'ukulele. A tuxedoed Doane counts in the massed ensemble from centre stage, Lawrence Welk-style: "ah-one, two, ah-one, two, three, four." Together, they play and

sing the early 1970s hit "I Believe in Music," girls mostly bunched together with other girls, boys with boys, only inches between them. Even as their faces depict varying degrees of enthusiasm and engagement, the children are, amazingly, in synch and in tune. Following the massed performance, the camera cuts to Doane proudly introducing the music teachers of the Halifax Music Department. This is the longest stationary shot, as an almost endless string of female teachers files onto the stage to unbroken applause from the 10,000-member audience.

Doane, a multi-instrumentalist who received a degree in music education from Boston University, came by his affection for 'ukulele honestly. It was a permanent fixture in his mother's musical life and thus his own youth (C. Doane, interview, October 27, 2007). While his championing of the instrument was therefore informed by deep familiarity, there were several factors that motivated Doane's instructional choice. As he explained:

> I was trying to build a student symphony orchestra and band program when I first started the Halifax job in 1967, as well as to establish a regular, meaningful elementary music program in every school. The instrumental classes required that parents demonstrate support, both by attending "interest" meetings in advance of the classes starting, and by purchasing instruments. After a few years, I realized that there were many kids who didn't have the parental support to ever get into a serious instrumental class, and I was going to have to find a way to introduce them to music-making on an instrument that could succeed with minimal parental involvement. My solution was the ukulele; any kid who was interested could get into the program and find his own way to success. The parents still had to buy instruments, but at that time, the price was under ten dollars—paltry compared to flutes, trombones, violins, etc. In some schools, the teachers pitched in to buy ukuleles for any kids whose parents were just too poor to do any financing. An interesting bonus of the uke program was that some children did so well on the uke that formerly reluctant parents noticed and eventually supported the child's interest in a serious instrument—making the uke the "gateway" instrument for that child (email communication, February 28, 2014).

The 'ukulele was, in Doane's estimation, the most accessible instrument for putting people on the path to both independent and participatory music-making. Learning to play chords provided students the principles of Western

music harmonic theory and voice-leading; picking melodies provided a pathway into note literacy, though playing by ear was equally encouraged; singing and improvising vocal harmonies helped to develop an acute ear. Physically and acoustically, the 'ukulele had a number of properties that lent itself to children's musical tuition especially. Its small size fit short arms and tiny hands comfortably (cf. Bayton 1997), and its pitch range was well-matched to young voices. The 'ukulele would serve students best, Doane believed, if they had effective guidance. His commitment, therefore, was not merely to the instrument, but to pedagogies that enabled any interested child or adult realize their musicality.[4] To that end, he developed method books and provided in-service training for music and classroom teachers in 1968, a year before offering 'ukulele as an extracurricular activity in the Halifax system. While Doane convinced many teachers to run lunchtime and after-school ensembles, many others could not take the instrument seriously (Munro interview, April 24, 2008). Perhaps this is not surprising, as the timing of Doane's initiative followed on the heels of the Elvis Presley films and coincided with the quirky celebrity of Tiny Tim and his falsetto-inflected uke playing. So Doane sought to broaden the 'ukulele's compass by planting trained volunteers in schools. After setting up his own class, Doane extended an open invitation to those children's parents to take free classes with him. With that he tapped into a ready and highly educable labour force: the young, white, Anglo, middle-class, (mostly) stay-at-home mothers of Halifax.[5] Conditions were ideal. Mothers wanted to assist their children's music-making and to make music with them; they were looking to expand their own capabilities, contribute to their community and importantly, they were available during hours of school operation. For several years, Doane spent evenings providing lessons and training a corps of about 20 women in 'ukulele pedagogy; he also created an ensemble for them to hone their skills.[6] He was eventually assisted in his endeavours by Jody Wood, a violinist who joined the Halifax teaching staff. Under Doane's tutelage, she rose to the top quite quickly and became the coordinator of the Halifax 'ukulele program.[7]

As city-wide 'ukulele bands proliferated, many volunteer women assumed their direction. And the most accomplished of them accompanied Doane's and Wood's annual tours to distant parts of Canada and the US, providing workshops to other teachers and enthusiasts (see Fig. 1). Volunteer and mother Joan Munro recalls that "Chalmers was the one that moved us on. … The adult uke group went [to Hawai'i] twice and I was a teacher there for one of the sessions. I went to Montreal and Toronto with him. He would take us—the ones who were doing the teaching—and he had confidence in us. We gained a respect for ourselves because he had respect enough for

us too" (interview, April 24, 2008). Classroom curricula, and national and regional workshops, were supported by an array of print materials: in the absence of published method books, Doane created his own, systematically outlining skills—including "ear work," singing and theory—to be achieved sequentially. He also founded an organization, Ukulele Yes, that published a monthly newsletter and an eponymous magazine (1976 to 1981), providing tips on method, extra repertoire, as well as encouragement and reports about 'ukulele programs throughout the country. Many of the women who assumed responsibility in the Halifax 'ukulele movement, such as Jody Wood, Karen Lilly and Jan Brown, contributed to *Ukulele Yes!,* writing articles not only on technique, but also on such practical matters as concert organization and equipment storage. And in Halifax alone, Doane and his female colleagues produced six LP recordings featuring the top Halifax school and adult groups.

In the neighbouring province of Newfoundland, the 'ukulele movement was headed by another handful of Doane protégés and volunteer teacher-mothers, who were frequent attendees of national and local clinics. One

FIFTH NATIONAL UKULELE WORKSHOP

JUNE 23, 24, 25, 1978

Music Department - 6199 Chebucto Rd.
HALIFAX, NOVA SCOTIA

The Fifth National Ukulele Workshop was held in Halifax on June 23-25. Participants attending the three day workshop took part in various sessions and workshops. These included:

Six skill sessions-all levels
Functional bass - three levels
Repair clinic

In addition, theses performances:

Halifax Adult Ukulele Ensemble
Halifax "A" Ukulele Group
Uke Trio: Karen Oxley, Lorne White & Chalmers Doane.
Halifax B-1 Ukulele Group.....
directed by Jody Wood.
Halifax B-2 Ukulele Group.....
directed by Janet Sobol.
MacDonald Drive Ukulele "A" Band from St. John's, Newfoundland...
directed by Carol Harris.

Directed by J. Chalmers Doane

Fig. 1. *Ukulele Yes!* magazine report on national workshops

volunteer teacher from the 1970s, Judy Northcott, recalls the effect of Doane's direct intervention:

> [As a youth] I was in this choir … and the teacher said "if you want to be in the choir, don't let any sound come out [of your mouth]." So I never sang after, till I went to this ukulele group and I was up there [in Halifax] with Chalmers Doane and he said "play this for me," and I could pick it by ear. And he said he'd never heard of anybody who could … pick by ear who couldn't sing. He said, "You've got to be able to sing; you just haven't [yet]." So after that I started. And I found that I really wasn't that far off. (interview, March 25, 2008).[8]

Unlike the Halifax set-up, 'ukulele instruction was integrated into the curriculum, with extracurricular performance opportunities. Still, Newfoundland did not attain the reach of the Halifax program, in part because of the structure of its school system. While there was a centralized provincial music curriculum in the 1970s, its implementation depended heavily on separate Christian denominational school boards: Catholic, Pentecostal, Seventh Day Adventist and Consolidated (or Integrated). The Consolidated school board represented the Salvation Army, Anglican and United churches. Significantly, the Catholic system specialized in instrumental, especially string programs,[9] and its success was due to capital investment by the church that went above and beyond provincial funding and teacher allocations. If you were a Newfoundlander and not Catholic, however, there was little chance of becoming a violist or cellist. As one student, Lori Clarke, told me, 'ukulele was the closest thing to a string program you could get in the 1970s if you were Protestant (interview, April 11, 2008).

'Ukulele as a Technology of Inclusion

As Doane's vision of broad participation was being realized, he faced a practical problem. The Harmony ukes used in Halifax in the 1970s quickly went out of tune, and constant retuning was frustratingly time consuming. Then the limited supply of Harmony ukes dried up altogether when a fire destroyed the Chicago-based factory. Doane recognized this gap as an opportunity for change; he had been wanting an instrument that could be made in Nova Scotia, that could stand up to children's casual treatment, that was sonically accurate and affordable (C. Doane email communication, January 27, 2013).

To these ends, Doane, his father and brother innovated and patented a "Tune-lok" system that kept tension on the strings, allowing players and teachers to maintain the flow of musical activity. The Doanes introduced other structural changes, such as a triangular shape, which made the instrument safely put-downable. The shape, they anticipated, would make production easier, thus cutting down costs (Wallace 1989: 56).

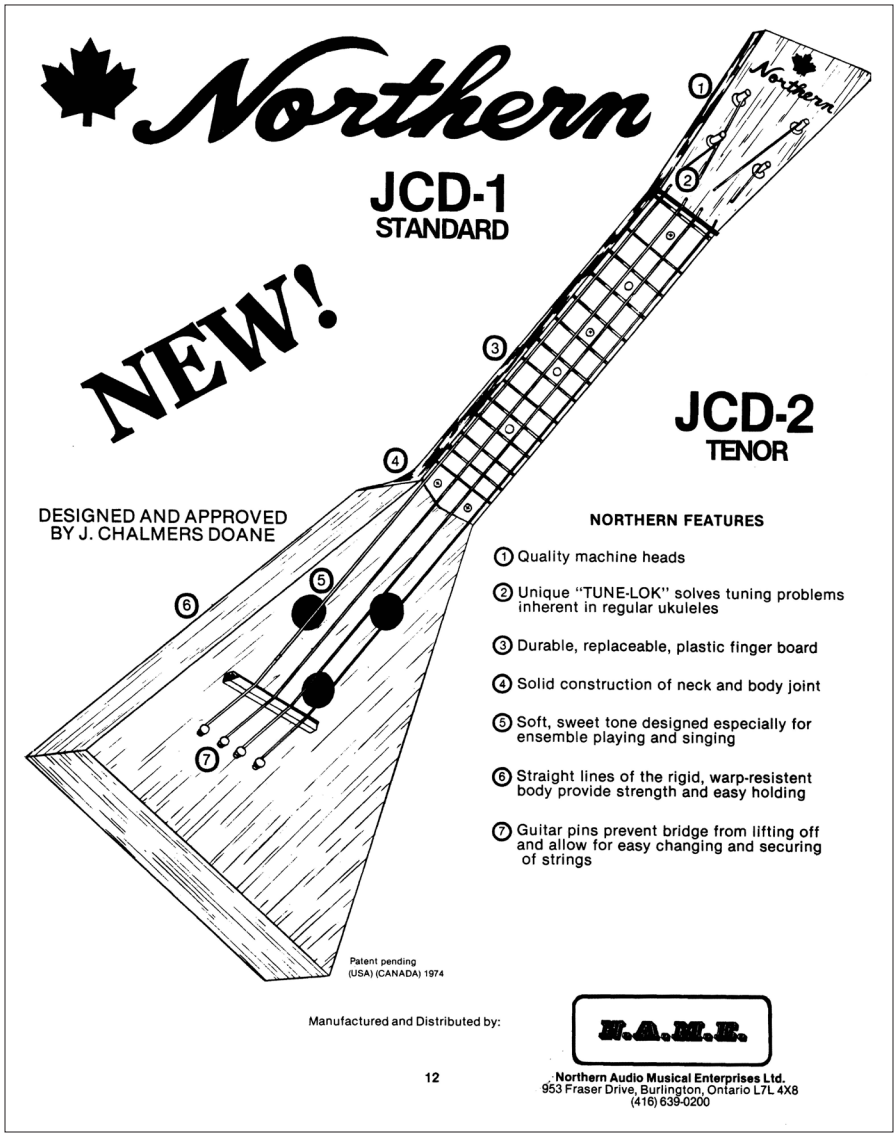

Fig. 2. JCD 'ukulele advertisement in *Ukulele Yes!* magazine, 1976.

In stages, the Doanes developed a number of prototypes that ended up in the hands of Northern Audio Musical Enterprises, a company in Burlington, ON. With little knowledge of stringed instrument construction, no less the subtleties of overtone manipulation, "when the ukulele turned out, because of its shape and small soundholes, to have quite a pleasant sound, it was both a bonus and a surprise" to the Doanes (C. Doane, email commnication, January 27, 2013). "The reduced volume was also a surprise, but turned out to be an advantage, since it enhanced, rather than overshadowed, the singing" (ibid.). A softer sound, everyone hoped, would also encourage home practice (Lilly 1976: 3). Northern capitalized on the timbral change, apparently achieved by eliminating "unwanted overtones" (Anonymous 1978: 15), such that the company's early marketing identified the JCD's "soft, sweet tone" as a selling feature (see Fig. 2).[10]

Coupled with the relatively quick decay of nylon strings, the timbral outcome was a sound that was "less muddy" when 'ukuleles were brought together in large ensembles, making voices more audible (Smith interview, February 3, 2008). It was an important consideration for school festivals like the one described earlier, where players and singers could number in the hundreds or thousands. The texture achieved by such numbers was dense—a sonic index, Thomas Turino would assert, of a participatory ethos (2008: 44-6); it was a texture made manageable by instrument redesign. For Wayne Rogers, one of the chief purveyors of 'ukulele in Newfoundland, playing en masse was key to its appeal: "that sound is just magical. Now it doesn't sound great by itself, but you multiply it and the best part of this, it's like a Newfoundland corned beef and cabbage dinner. … The bigger the dinner, the better the taste. The bigger the sound, the more players you have, the more magical it becomes. … That's the secret" (interview, July 14, 2008). What I'm suggesting here by invoking Rogers' voice is that the Doane 'ukulele (with its altered shape and overtone structure, and use in ensemble) was acquiring a newly "embodied acoustic identity" (Qureshi 1997: 4) in the Atlantic Canadian school scene—an identity of inclusion. Though the triangular shape of Doane 'ukuleles became iconic of the movement (see Fig. 2 and 3), many regard Doane's boldest move to be the adoption of D tuning with a low A string: A^3 – D^4 – $F\#^4$ – B^4.[11] (At the time, C tuning had become more popular in Hawai'i and most of the western United States and Canada.) Compared with C or regular D tunings, "low A" extended the uke's range and thus its repertoire, making the 'ukulele even more serviceable as an ensemble instrument.

Morphological innovations by Chalmers Doane, his father and brother reinforce the long-standing trend, identified by Doubleday (2008: 18), of men's mechanical mastery of instruments. There was, however, plenty of room

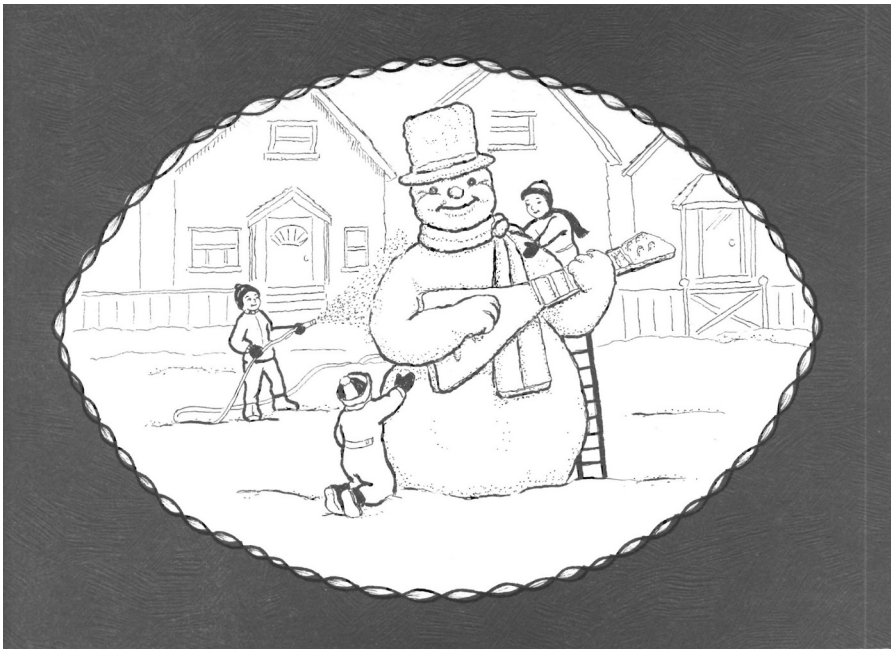

Fig. 3: Ukulele Yes Christmas card by Lee Gilmour. Used by permission.

Fig. 4. "Marion's Beautiful Cake" at house party in Corner Brook, Newfoundland, c. 1983; courtesy of Helen Coleman White.

for women to exercise technological skill. Teaching 'ukulele to schoolchildren put demands on teachers and volunteers to restring and repair instruments on a near constant basis, and before any class could begin, each instrument was tuned, a task that had to be carried out with efficiency and accuracy. When Northern went out of business in the late 1980s—roughly coinciding with Doane's move from the Halifax School Board to Nova Scotia Teachers' College—the supply of JCD 'ukuleles dried up. Doane then founded his own manufacturing company in Nova Scotia and appointed Diane Lutley as General Manager. An 'ukulele player herself, Lutley designed new JCDs, "[taking] different woods and creat[ing] different levels of quality" (Lutley interview, July 18, 2008) to respond to requests from players and teachers for improved acoustics and durability. Among other things, she dovetailed the necks to make them stronger, increased the size of sound holes and depth of the body, and tapered the back to create more volume. If Lutley was initially unfamiliar with the industrial world she entered—a world characterized by male luthiers' technological discourse—she soon set a trajectory that challenged both the adage that "men design systems and women use them" (Oldenziel 2001: 142) and the assumption of male technophilia.

While the triangular shape remained the same for its practicality, it had also come to symbolize the Ukulele Yes progamme and its earnest, domestic ethos of inclusion (see Fig. 3), as well as women's possession of the instrument. As first users of the new technology, in many ways they made it "theirs"; its unconventionality (perhaps redolent of the Flying V guitar) and sleek angularity lent the vintage instrument an air of manageable modernity, which women displayed self-consciously (see Fig. 4).

Where Did All the Boys Go?

While 'ukulele instruction targeted all students, the most receptive were girls and young women. While their attraction to 'ukulele requires explanation, so does the reduced presence of boys. As long as 'ukulele was a part of requisite classroom instruction, it was in the hands of an equal number of boys and girls. As soon as it became an extracurricular choice, girls far outnumbered boys, often by four to one (Harris interview, May 18, 2007). This may be attributed, in part, to there being fewer extracurricular opportunities for girls in the 1970s (C. Doane interview, October 27, 2007). Sport, for example, was not as democratized as it is in the 2010s. Furthermore, almost everyone I interviewed suggested that in the 1970s, music—at least school music—was considered a "girl thing." Unless you were an exceptional male player, there was little

social capital to be harnessed from participating in an extracurricular music ensemble, especially one that involved singing. Reinforcing the latter point, Doane's band and orchestra programmes enjoyed strong participation by young men, which speaks to the gendered associations of so many instruments in those ensembles. Jean Doane, wife of Chalmers and 'ukulele player in her own right, was a close observer of 'ukulele programs over the years. Of the Halifax school scene she recalls "that the boys who went for uke in a serious way had to overcome a lower-middle-class mentality which was essentially more sports-oriented … so that those who actually did make that choice [to play 'ukulele] were either more independent or more committed than the girls needed to be in order to live with that choice" (interview, October 27, 2007).

Teachers/volunteers also mentioned physiological challenges that the 'ukulele presented to boys at the grade 3 and 4 levels, where the instrument was typically introduced. Haligonian Isabel Petersen had to coax boys to stay in her lunchtime ensemble: girls could strum and pick with equal ease, but boys struggled to coordinate their fingers on the fretboard. This is hard to imagine today, given boys' engagements with technological interfaces that require exceptionally fine digital control. Petersen tried using conventional masculine tropes to encourage them: "'You boys are lucky because you've got such strong hands to do so well after you get going,'" she would say. But "it bothered them that the girls could do some of these things they couldn't do. And you know, little girls can be mean. They lorded it over them" (interview, April 23, 2008). The challenge to keep up with female peers and risk of humiliation made it difficult for many younger boys to buy into a utilitarian definition of the instrument. Carol E. Harris, who blazed the 'ukulele trail in St. John's, says that if she were to do it again, she would delay introducing 'ukulele to the elementary classroom because of gendered differences in manual dexterity at that age (interview, May 18, 2007).[12]

Repertoire may have been another disincentive to elementary and middle-school boys who were developing a gendered notion of "cool." Both Haligonian and Newfoundland instructors tried to keep apace with popular culture. St. John's audiences went crazy for an 'ukulele arrangement of the hit single, "Delta Dawn" in the mid-1970s. And Three Dog Night's "Joy to the World," Billboard's 1971 top single (better known by its incipit, "Jeremiah was a bullfrog"), was featured in Doane's second method book (1975), distributed across Canada. By public school standards of the day, these syncopated choices were rather progressive, even edgy. In the Canadian academy, sociomusicologists like John Shepherd were advocating a break with the classical canon in schools in favour of popular music, arguing that "it would make classes more relevant to the cultural capital that students brought with

them to the classroom, [and] would result inevitably in the teacher becoming more of a guide and less of an authority figure" (Shepherd and Vulliamy 1994: 29). On the ground, Doane and his teachers were doing just that. For boys developing an awareness of mediated male prowess, however, their popular choices did not always catch. Volunteer Petersen recalls that she asked children to suggest songs for arrangement, but was occasionally stumped: "The boys … would come up with something I never heard of. Some of them were more instrumental noises to my [ears] and impossible to sing and maybe no words. … It just wasn't conducive to ukulele playing as a class" (interview, April 23, 2008). "Noise" is key here, and speaks to the listening histories that boys brought with them to Petersen's ensemble. She describes distorted electric guitar breaks that valorized male solo work and risk-taking, but which were too fast and intricate for replication by a novice 'ukulele group; the boys' requests betrayed a taste culture at odds with the large-group, singalong pop and folk repertoire that she and other volunteer teachers were cultivating.[13] The instrument's new timbral identity, furthermore, would have also rendered any such solos on the acoustic triangular instruments flat by comparison. Boys, or some boys at least, had already developed their own timbral affinities based on exposure to guitar rock.[14]

Solos certainly had a place in elementary 'ukulele bands, both in Halifax and St. John's, but the pedagogical ideal was to distribute them as evenly as possible, in a sequentially participatory mode (see Turino 2008: 48). While the corps of female volunteers in Halifax and music teachers in Newfoundland were highly competent players, most of them were, by their own estimation, rarely virtuosic.[15] Chalmers Doane, on the other hand, was, and his visits to the Halifax volunteers' ensembles enticed would-be 'ukulele heroes with technical brilliance. Boys' models of gendered virtuosic musical behaviour served the sequentially participatory mode, but uncomfortably. Lori Clarke, for example, recalled that everyone in her St. John's elementary group "play[ed] the solo, 'Blues for Uke'; everybody played it. Everybody learned it. [The teacher] didn't often have a 'star' pupil and I think that was very healthy" (interview, April 11, 2008). While soloing this way equalized players, it also reduced the powerful attraction of risk-taking, which has "a gender valence. Boys are taught to react to risks positively, to view them as an opportunity to expand their knowledge and skill" (Turkle 1988: 48). As René Lysloff and Leslie Gay assert, "technologies become saturated with social meaning as they acquire a history of use" (2003: 8). Morphologically, the 'ukulele was sufficiently like the (electric) guitar that boys—especially those approaching adolescence—mapped 1970s male rock practices and their attendant material, emotional resonances onto the smaller instruments.

I would also argue that in rejecting or marginalizing the 'ukulele, boys actively positioned themselves in a gender binary, not only reproducing constructions of normative adult maleness—through timbral preference, for example—but also contesting their own "childhood." In other words, they exercised their ability and desire to be understood as something other than children—as competent young men, perhaps (see Caputo 2001: 181). What I found interesting in my discussions with female students some 30 years later is that they actually took little notice of boys' absence; while their teachers sought gender equality and integration, girls and young women were content with the near exclusivity of their groups. I have no reason to believe that girls in grades 4, 5 and 6 were any less competitive than boys or that they were less desirous of attention and approval. My argument is that in 1970s popular culture, boys had a specifically gendered model of virtuosic musical behaviour that they sought to emulate through 'ukulele. Where those opportunities were limited or non-existent, many voted with their feet.

At the junior high level, young women were also conspicuous by their numbers and young men by their disproportionate absence, though reasons for the latter were different. Here 'ukulele was perhaps too intimately tied to singing—a particular point of challenge for changing male voices. For Newfoundlanders in their "tweens," MacPherson was the only junior high school in St. John's where 'ukulele was offered as an extracurricular activity in the 1970s. The Ukulele-Guitar Club attracted few young men, and those it did usually played double bass, guitar or drums by choice. Indeed, a gendered division of musical labour emerged here if not at the elementary level.

In discussing boys and young men at length, I don't want to give the impression that girls' and young women's participation was a kind of dispassionate, default position. It would also be hazardous to assume that all girls and young women, or those who inhabited other positions along the gender spectrum, were attracted to 'ukulele. Some may have been repelled by the feminization implied by or enacted in 'ukulele school programmes; others yet may have sought more masculinized expressions of musicality. Still, the women that I spoke with were earnest and proactive in their pursuit of 'ukulele-playing. By way of example, there is Deborah Collis, who went to MacPherson, a tough "inner-city" school that bussed in a great many rural students like herself. For an academically inclined young woman from "around the bay" like Collis, the 'ukulele club was a desirably "different" pursuit that distinguished her edgier city experience from quotidian rural life (interview, April 25, 2008). The club was also a comfortable gathering for active and engaged "good girls" like herself, who were neither rebellious nor geeky. They knew that playing an unconventional instrument pushed

them to the margins of certain social groups, but they were happy to occupy a socio-academic middle ground with like-minded others—a place made distinctive by the 'ukulele.

For many young women like Collis, 'ukulele was a terminal instrument, but there were others, like Kathi Petersen (daughter of volunteer Isabel), who was in Doane's first "guinea pig" class, and who continues to play 'ukulele and many other instruments. As a grade 6 student, she caught on quickly, so Doane placed her with another class, acting as assistant to an adult teacher who didn't play the instrument. The next year, Kathi taught 'ukulele independently, including advanced level classes at Tupper elementary school, and continued teaching there until she was about 20 years of age (interview, September 10, 2011). Like it did for Kathi, 'ukulele opened a path to comprehensive musicianship and a wider field of musical participation for Lori Clarke of St. John's. Clarke went on to play piano, classical guitar and cello. As she explained to me, "… it's a feeling of 'if I can play this ['ukulele] and learn it, then I have competence, and I can approach another instrument and bring what I know to it.' I'm not a virtuoso in any of the instruments I play, but there's a transferrable skill that I learned in a concrete way … and I've used that a lot. … There's a certain fearlessness … and I think that the ukulele had a large role in that" (interview, April 11, 2008). Clarke's words reveal the rhetoric of pragmatic idealism used by many students and most of the volunteer teachers I spoke with, some of whom had experienced similar transformations. Haligonian Isabel Petersen told me that "I learned to play the organ on the ukulele. … [As a singer] thinking in chords was a new thing for me, and that made me brave enough to think chords and play pedals …" (interview, April 23, 2008). Fearlessness. Bravery. Lori Clarke is now a composer for TV and film, and 35 years later, Isabel Petersen still plays organ at her church every Sunday. These examples suggest that the uptake of 'ukulele by teachers and their female students was predicated not just on ideals of participation, but on how they could shape independent musical lives.

Even for far less accomplished musicians than Lori Clarke or Kathi and Isabel Petersen, the effect on quotidian lives could be profound. In 1977, Wayne Rogers moved from St. John's, where he had taught K-12 music, to Corner Brook, Newfoundland, where he introduced 'ukulele to children and adults through Grenfell College's community outreach program. The adult group consisted of women and as it grew, it developed a life of its own: "All the women would bring their spouses and we'd go to somebody's house and have a real night of food. And then there was the singing and the spouses would join in. It became a closely knit entity" (Rogers interview, April 17, 2008). The scenario Rogers describes inverts the gendered socio-musical

processes typically associated with informal Newfoundland house parties, better known as "kitchen parties" or "times" (Wareham 1982). Kitchen parties were historically dominated by individual men who took the musical spotlight with a signature repertoire of traditional songs (Pocius 1976; Kodish 1983); instruments used to accompany songs became increasingly familiar in the 1970s only (Rosenberg, email communication, February 5, 2014). In the early 1980s, however, the same musical spaces were being shared or led by women 'ukulele players possessing a common, singalong repertoire, perhaps more akin to piano-led parlour practices of the 19th and early 20th centuries. Through the 'ukulele group, women shaped domestic spaces to meet their own musical and collaborative aspirations. Fig. 5, of a Corner Brook house party c. 1983, shows women (playing 'ukulele) outnumbering men (playing guitar and bass) in a comfortable, well-attired living room. Doane's emphasis on playing and singing simultaneously, enacting a populist or folk revival aesthetic, is evident here, as is the importance of literacy: almost everyone is reading words or music from the printed page. The setting, the décor, the music stands, the women's participation all seem to signal a genteel if not privileged (upper) middle-class, "mainstream" sensibility.[16]

Fig. 5. House party in Corner Brook, Newfoundland, c. 1983; courtesy of Helen Coleman White.

Once the ‘ukulele was comfortably in women’s hands, it spread rhizonomically through their own personal and institutional networks. For volunteer-mothers Myrtle Sturge and Judy Northcott associated with Holloway School in St. John’s, the Salvation Army was the centre of non-school community life. They convened ‘ukulele classes with the Army’s (mostly female) crafts group and were asked to play for church services on special occasions, supplementing the brass band. ‘Ukulele was particularly suited, they thought, for “any kind of religious music that has more rhythm. . . . The more upbeat. And the Army music was really good for that because you had the really catchy tunes, right?” (Sturge and Northcott interview, March 25, 2008). On those occasions, ‘ukulele was paired with violin and bass to fill out the sound. The notion that ‘ukulele naturally lent itself to “catchy tunes” speaks to the tight cognitive connection created between the instrument and pop songs propagated through school; school-‘ukulele’s social history was relatively shallow, but in the space of a few years, affective associations with the instrument had already been forged. Sturge and Northcott became so adept at playing and teaching that they were able to fashion part-time careers, instructing seniors at local St. John’s community centers.

The ability to create and manage shared socio-acoustic spaces was facilitated, in many respects, by the ‘ukulele’s size and portability. For female students like Deborah Collis, wishing to be present, but conscious of making themselves small in public, ‘ukuleles could be easily stowed on the school bus and stuffed into lockers, and just as easily brought to hand for jam sessions in the school stairwell (interview, April 25, 2008). For the busy mothers who served as volunteers, it was eminently portable: “I suppose for 20 years I never went anywhere without it,” Judy Northcott told me. “Wherever I went, uke went too” (interview, March 25, 2008). Mother-volunteers played ‘ukulele, usually with their daughters, to break the tedium of evening dishwashing routines or long road trips; in Sturge’s family car, there was enough room for her and her two daughters to play ‘ukulele together while her husband drove and young son listened. And, as countless women pointed out, it was possible to tuck an ‘ukulele case under one arm and hold two children by the hand.

It’s important to note, however, that despite the advantages that small size and light weight offered, and despite its role in childhood education, the women I spoke with never engaged an aesthetic of “cute” when speaking about the ‘ukulele. Size mattered, but it was not a source of sentimentality, and women rejected images of the ‘ukulele as a toy or “little guitar.” Completely persuaded by the ‘ukulele’s instructional value and accessibility, every teacher and student I spoke with could itemize its pedagogical merits in detail.

Conclusion

School tends to attract musicological attention, as I earlier suggested, where there is struggle (e.g., Pillay 1994). Adam Krims has observed that in cultural studies, notions of musical resistance depend on "a great, looming, normalizing mainstream," which, he laments, is rarely identified (Krims 2007: 129). At first glance, Atlantic Canada's 'ukulele scene might simply be regarded as a minor tributary of that mainstream, and in many respects it was. But "mainstream" is a moving target, a relational term; its contents vary from place to place, from moment to moment. Thus anything labelled "mainstream" also has the potential to be resistive. Such is the case in the Atlantic Canadian 'ukulele scene. On the one hand, girls and women who bought into school-based 'ukulele also invested in the music that Doane introduced to the informal curriculum—a choice not favoured by the music education establishment. Many educators either saw little value in popular music or felt that Doane's arrangements of classical music were too tokenistic and simple (Wallace 1989: 83-4).[17] Women's and girls' participation in and propagation of 'ukulele performance also rubbed against notions of who could and should make music. Doane's and the women volunteer teachers' pedagogical philosophy was not ability-based, but interest-based; they wanted to reach as many as possible rather than a "talented" few. On the other hand, many boys who rejected the mainstream pop repertoire that filled students' method books would have been happy to swap it for another mainstream music: guitar rock.

In the immediate post-Tiny Tim era, when few Canadians wanted to claim ownership of the 'ukulele, female volunteer-teachers, teachers and students in Atlantic Canada celebrated Chalmers Doane's physical and acoustical redesign of the instrument. More importantly, they cultivated a definition of the 'ukulele, together with Doane, as an ensemble-based technology of inclusion and a means to comprehensive musicianship. But no definition of an object can ever be imposed without interpretive variance or fallout. For many young boys in the pre-video game era, 'ukulele techniques presented a physical hurdle; for those who did triumph, the rewards probably came too late or were negated by presentational practices that emphasized group rather than individual accomplishment. The triangular uke's new sonic identity, achieved by timbral tinkering, as well as teachers' pedagogy and repertoire choices, conspired to suppress the kind of distinction associated with heavily mediated, popular male music-making. We can interpret many boys' refusal of the 'ukulele, though, as acts of self-positioning within a gender binary and as straining against the restrictions of "childhood" and its perceived sonic and visual markers—that is, high pitch, clear timbre and small size.

The benefits of 'ukulele were greatest for girls and women; in fact, it exceeded its pedagogical promise. In often rather subtle ways, players used the instrument to manage space in new ways. In private, domestic interiors like the family car and kitchen, playing 'ukulele was another method of integrating a markedly artistic activity into everyday routines and practices. And where living spaces had often been controlled by men—Newfoundland kitchen parties in particular—women took the musical reins. The practicalities of teaching 'ukulele to a group of youngsters also allowed women to exercise their technological prowess, and the material, morphological qualities of the instrument—smallness and lightness especially—gave them the ease of movement required to take care of children at the same time.

The kinds of musicking resulting from their uptake of 'ukulele extended well beyond the instrument itself. Some women became singers where singing had been beyond their reach; many took up keyboard and other instruments and achieved active performing lives well beyond school—in churches, community centres and recording studios. And more than a few were able to craft independent musical careers or supplement their incomes from their productive relationships with the 'ukulele. So much of this depended on a particular understanding of the 'ukulele's use value. This understanding was rooted in a pedagogy that made musicking accessible, participatory, and which opened up the instrument's aesthetic possibilities. Where adult women and girls could buy into this definition and its realization through a particular repertoire—and many boys could not—gendered approaches to the 'ukulele demonstrate, once again, how the meaning of objects lie in their use.

Notes

1. As a scholar of Hawaiian musics, I have chosen to honour the Hawaiian pronunciation and spelling of the instrument—'ukulele (with an initial gottal stop)—unless quoting a written source or aural source that does not make use of Hawaiian phonetics.

2. *Blue Hawaii* (1961), *Girls! Girls! Girls!* (1962) and *Paradise, Hawaiian Style* (1966).

3. Observing that there are (or were) few women computer hackers, Turkle's late-1980s psychological reading of young men's turn to "formal systems" is that "mastery of technology … can become a way of masking fears about the self and the complexities of the world beyond" (1988: 43).

4. In *Teacher's Guide to Classroom Ukulele*, Doane claimed that "given two factors, musical ability and interest, taken separately in an 'either-or' situation, the students with interest will win everytime. I recommend a little interest test

in the early stages, therefore, rather than a musical test. A musical test measures a child's experience or past, but an interest test examines the present and indicates the future potential" (Doane 1977: 35).

5. Some women I spoke with had part-time employment, successfully blending work and school schedules.

6. Administration of the 'ukulele program was a bit complex. Offered on an elective basis, it was introduced in Grade 3 (when children are about 8 years old) and continued in Grade 4 outside regular school hours. Students were required to purchase their own instruments and books. After Grade 4, students could audition for city-wide performance groups that met once a week after school. There was one "A" group and four "B" groups, each with an added rhythm section (drums and bass), and each with about 50 members. Alternatively, students could join an advanced class in their school up until the completion of high school. Upon graduation, there was "a large adult ukulele program under the auspices of the Continuing Education Department, with classes for beginning, second-year, intermediate and advanced students, as well as a special solo class, pedagogy class, and adult performance ensemble" (Wood 1981: 19). At all grades and levels, classes were taught by a general music teacher, itinerant 'ukulele teacher or volunteer. Despite the extracurricular nature of the program, participants in the program numbered c. 1,600 in 1981 (18).

7. I regret that I was unable to interview Jody Wood. She passed away before this project came to fruition.

8. Doane's leadership has been described as "charismatic" (Harris interview, May 18, 2007), but that descriptor does little to explain the 'ukulele's success. When I observed Doane at the 2007 International Ukulele Ceilidh, conducting a workshop made up of eighteen women and seven men, he was still patiently persuading players of their innate musicality and providing them with strategies to join in with other more accomplished players at jam sessions. Doane continues to live his message.

9. This was in keeping with the nuns' convent-based private teaching tradition.

10. Over time, four models of the JCD 'ukulele were developed. The JCD-1 was a soprano model, made with plastic fingerboard, that cost $15 in 1976. The tenor JCD-2 was probably most popular and cost $35. The JCD-3, of thinner construction, was of better quality and the JCD-4 was handmade, featuring a rosewood back and tortoise-shell inlays (Wallace 1989: 56-7).

11. For a detailed description of the features and merits of different tunings, as articulated by James Hill and J. Chalmers Doane, visit their instructional website: http://www.ukuleleintheclassroom.com/faq.htm#D6_C6. All the Halifax and Newfoundland teachers I spoke with were wedded to what was then called "low A" tuning and what Hill and Doane now call "D6 with low 4th string" tuning. Wayne Rogers recalls that "[In C tuning] you were restricted. And now suddenly you could go down to an A. I mean it's like the voice. You're going into

your lower chest voice if you're … a soprano…. [And] If you listen to DF#A instead of ADF#. It puts it in that inversion, and it just gives a grounding to the sound" (Rogers interview, July 14, 2008).

12. Conflicted, Harris "tried to balance that gender thing so that the girls would not outshine the boys. What I actually found was that you would have a few exceptionally talented, physiologically developed boys who would be excellent on ukulele, and many girls who were [exceptional]. … Now the exceptional boy … just is *truly* exceptional and speeds ahead. But that doesn't justify [putting them in the spotlight]. … That goes on all through life. One or two boys are the stars and the girls are actually doing the work behind it" (interview, May 18, 2007).

13. Boys' general lack of participation creates a methodological problem in gathering evidence. How does a researcher find and query those who dropped out of 'ukulele classes or simply refused to participate?

14. Perhaps this is true of the 'ukulele generally. In the course of research, I was able to interview an older gentleman, Bob Boland, who studied 'ukulele with Judy Northcott and Myrtle Sturge through a seniors program in St. John's. Boland took up 'ukulele because it was there. He regarded it as a lesser instrument—lesser to the guitar and the banjo 'ukulele played by George Formby whose music he heard while serving overseas. Mr. Boland's assessment was aesthetically grounded: "It sounds a little bit dull. There are only four strings on it. I thought the sound of the strings wasn't as zingy … as the guitar, for instance. … The ukulele seems to be a shorter, cut-off sound… It is good, but probably not *so* good as the sound of a good guitar" (interview, April 21, 2008).

15. According to Wallace, "After the mid 1970s, solo playing was included in the skill levels as one of the objectives of the ukulele method. As well a suitable repertoire of ukulele solos was organized into appropriate skill levels. … Consequently, much of the teaching (after level 2) at ukulele workshops was directed toward the instruction of skills and techniques required to play solos. … The decision to emphasize solo playing was met with some surprise and opposition as workshop participants had been used to an approach that was geared to teaching classes and ensembles" (1989:75). Doane's move in this direction was a recognition of the high level of playing that had emerged among some teachers and students, and the need to inspire others. Practically speaking, technically skilled performances also enhanced the reputation of the instrument (75).

16. I am grateful for Janice E. Tulk's help in interpreting photos of Corner Brook home interiors.

17. There were other detractors, of course. Some were critical of Halifax Music Department's exclusive use of Doane's method books and self-designed 'ukuleles, citing conflict of interest (Wallace 1989: 57).

References

Abeles, Harold F. and Susan Yank Porter. 1978. The Sex-stereotyping of Musical Instruments. *Journal of Research in Music Education* 26 (2): 65-75.

Anonymous. 1978. Care and Tuning of Your 'JCD' Ukulele. *Ukulele Yes!* 3 (1): 15-17.

Bayton, Mavis. 1997. Women and the Electric Guitar. In *Sexing the Groove: Popular Music and Gender*, 37-49. Ed. Sheila Whiteley. London: Routledge.

Caputo, Virginia. 1995. Anthropology's Silent "Others": A Consideration of Some Conceptual and Methodological Issues for the Study of Youth and Children's Cultures. In *Youth Cultures: A Cross-cultural Perspective*, 19-42. Ed. V. Amit-Talai and H. Wulff. London: Routledge.

———. 2001. Telling Stories from the Field: Children and the Politics of Ethnographic Representation. *Anthropologica* 43 (2): 179-89.

Clawson, Mary Ann. 1999. When Women Play the Bass: Instrument Specialization and Gender Interpretation in Alternative Rock Music. *Gender and Society* 13 (2): 193-210.

Cohen, Sarah. 2001. Popular Music, Gender and Sexuality. In *The Cambridge Companion to Pop and Rock*, 226-42. Ed. Simon Frith, Will Straw and John Street. Cambridge: Cambridge University Press.

Doane, J. Chalmers. 1971. *Ukulele Method for Classroom Teaching.* Waterloo, ON: Waterloo Music Co.

———. 1975. *Ukulele Encore: Songs and Arrangements for the Ukulele.* Waterloo, ON: Waterloo Music Co.

———. 1977. *The Teacher's Guide to Classroom Ukulele.* Waterloo, ON: Waterloo Music Co.

Doubleday, Veronica. 2008. Sounds of Power: An Overview of Musical Instruments and Gender. *Ethnomusicology Forum* 17 (1): 3-39.

Farrell, D. M. 1986. Under the Supersilium: Observations on the Ukulele and Interim Instruction in Musical Harmony. *British Columbia Music Educators' Journal* 29 (2): 17-25.

Griswold, Philip A. and Denise A. Chroback. 1981. Sex-role Associations of Music Instruments and Occupations by Gender and Major. *Journal of Research in Music Education* 29 (1): 57-62.

Johnson, Christopher M. and Erin E. Stewart. 2004. Effect of Sex Identification on Instrument Assignment by Band Directors. *Journal of Research in Music Education* 52 (2): 130-140.

Kimber, Stephen. 1980. Pied Piper of Halifax. *Today Magazine, The Toronto Star*. August 16, 14-15.

Keightly, Keir. 1996. "Turn it down!" She Shrieked: Gender, Domestic Space, and High Fidelity, 1948–59. *Popular Music* 15 (2): 149-77.

Kodish, Debora. 1983. Fair Young Ladies and Bonnie Irish Boys: Pattern in Vernacular Poetics. *Journal of American Folklore* 96: 131-50.

Krims, Adam. 2007. *Music and Urban Geography*. New York: Routledge.

Lilly, Karen. 1976. The New Ukuleles: JCD Series. *Ukulele Yes!* 1 (1): 3.
———. 1977. Stand Up … and be Counted! *Ukulele Yes!* 2 (1): 6-7.
Oldenziel, Ruth. 2001. Boys and Their Toys: The Fisher Body Craftsman's Guild, 1930-1968, and the Making of a Male Technical Domain. In *Boys and their Toys? Masculinity, Class, and Technology in America*, 139-68. Ed. Roger Horowitz. New York: Routledge.
Pegley, Kip. 2008. *Coming to You Wherever You Are: MuchMusic, MTV, and Youth Identities*. Middletown, CT: Wesleyan University Press.
Pillay, Jay. 1994. Indian Music in the Indian School in South Africa: The Use of Cultural Forms as a Political Tool. *Ethnomusicology* 38 (2): 281-301.
Pocius, Gerald L. 1976. "The First Day I Thought of it Since I Got Wed": Role Expectations and Singer Status in a Newfoundland Outport. *Western Folklore* 35: 109-122.
Porter, Brenda. 2005. Chalmers Doane. In *Notes from a Musical Garden*, 113-39. Sydney, NS: Cape Breton University Press.
Qureshi, Regula. 1997. The Indian Sarangi: Sound of Affect, Site of Contest. *Yearbook for Traditional Music* 29: 1-38.
Shepherd, John and Graham Vulliamy. 1983. A Comparative Sociology of School Knowledge. *British Journal of Sociology of Education* 4 (1): 3-18.
———. 1994. The Struggle for Culture: A Sociological Case Study of the Development of a National Music Curriculum. *British Journal of Sociology of Education* 15 (1): 27-40.
Stewart, Sue. 1981. Community Volunteers: A Halifax Volunteer Looks Back. *Ukulele Yes!* 6: 24-26.
Théberge, Paul. 1997. *Any Sound You Can Imagine: Making Music / Consuming Technology*. Wesleyan University Press.
Tranquada, Jim and John King. 2012. *The 'Ukulele: A History*. Honolulu: University of Hawai'i Press.
Trowsdale, G. Campbell. 1977. Innovation and Excellence: The Music Education System of Halifax, 1967-1976, Part I. *Canadian Music Educator* 19 (1): 34-43.
———. 1978. Innovation and Excellence: The Music Education System of Halifax, 1967-1976, Part II. *Canadian Music Educator* 19(4): 25-37.
Truax, Barry. 2003. Homoeroticism and Electroacoustic Music: Absence and Personal Voice. *Organised Sound* 8 (1): 117-24.
Turino, Thomas. 2008. *Music as Social Life: The Politics of Participation*. Chicago: University of Chicago Press.
Turkle, Sherry. 1988. Computational Reticence: Why Women Fear the Intimate Machine. In *Technology and Women's Voices: Keeping in Touch,* 41-61. Ed. Cheris Kramrae. New York and London: Routledge & Kegan Paul.
Waksman, Steve. 2004. California Noise: Tinkering with Hardcore and Heavy Metal in Southern California. *Social Studies of Science* 34 (5): 675-702.
Wallace, William W. 1989. A History of the Doane Ukulele Method 1961-1989: A Performance Based Approach to Music Education. MA thesis, University of Victoria.

Wareham, Wilfred W. 1982. Aspects of Socializing and Partying in Outport Newfoundland. *Material History Bulletin* 15: 23-26.
Whitcomb, Ian. 2012. *Ukulele Heroes: The Golden Age*. Milwaukee, WI: Hal Leonard Books.
Wood, Jody. 1981. Urban: The Ukulele in Halifax. *UkuleleYes!* 6: 18-19.

Interviews and Personal Communication

Boland, Bob. 2008. Telephone conversation. 21 April.
Brown, Jan. 2008. Telephone conversation. 24 April.
Clarke, Lori. 2008. St. John's, Newfoundland. 11 April.
Collis, Deborah. 2008. Interview. St. John's, Newfoundland. 25 April.
Doane, J. Chalmers and Jean Doane. 2007. Interview. Liverpool, Nova Scotia. 27 October.
Doane, J. Chalmers. 2013. Email correspondence via Jean Doane, with author. 27 January.
———. 2014. Email correspondence via Jean Doane, with author. 28 February.
Harris, Carol E. 2007. Interview. St. John's, Newfoundland. 18 May.
Lutley, Diane. 2008. Telephone interview. 18 July.
McKee, Riva (Perlmutter). 2008. Interview. St. John's, Newfoundland. 20 March.
Munro, Joan. 2008. Telephone conversation. 24 April.
Northcott, Judy and Myrtle Sturge. 2008. Interview. St. John's, Newfoundland. 25 March.
Petersen, Isabel. 2008a. Telephone conversation. 23 April.
———. 2008b. Telephone conversation. 25 April.
———. 2011. Telephone conversation. 10 September.
Petersen, Kathi. 2011. Telephone conversation. 10 September.
Rogers, Wayne. 2008a. Telephone conversation. 17 April.
———. 2008b. Telephone conversation. 14 July.
Rosenberg, Neil V. 2014. Email correspondence with author. 5 February.
Smith, Bonnie. 2008. Telephone interview. 3 February.
White, Helen Coleman. 2014. Telephone conversation. 17 March.