

**Tinkering and Tethering: Children's MP3 Players as Material Culture.** A substantially revised version of this piece will appear in *The Oxford Handbook of Children's Musical Cultures*, edited by Patricia Shehan Campbell and Trevor Wiggins. Oxford: Oxford University Press

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MP3 players are iconic devices of “new” media, which privileges increasingly mobile and unrestricted communication and circulation, and children are iconic users of such technologies, commonly seen as “digital natives” socialized from birth into a digital world (Bull 2008; Palfrey and Gasser 2008). This chapter challenges a view of children's uses of MP3 players that emphasizes wireless connectivity, communication at a distance, and technological expertise. Instead, I consider MP3 players from a “material culture” perspective, working from ethnographic research with schoolchildren at Heartsboro Central School (HCS), a small public elementary and middle school in rural Vermont. This approach reveals that children emphasized the tangibility of their MP3 players as objects more than as devices for communication or data storage. At HCS music devices were ever-present throughout the school day, slipped into pockets, threaded under clothing, and handled until worn. When friends shared earbuds to listen together, the cables tethered them ear-to-ear, and they delighted in the bodily challenge of moving in tandem with earbuds balanced delicately between. Kids tinkered constantly with their MP3 players, decorating them with decals, markers, tape, and nail polish, trading unsalvageable ones to save for spare parts, and seeking out charged batteries, in a never ending process of “enlivening” (Skuse 2005; Appadurai 1986) their fragile devices. When they broke, as they often did, kids repaired them or lived with malfunctions. Stories about failed devices were told enthusiastically, and the reasons for their failure were often shrouded in mystery. In these ways, I argue, children's MP3 players have been thoroughly domesticated within a “childish” material

culture already characterized by playful physical interaction and portable objects such as toys, trading cards, and dolls that can be shared, manipulated, and held close. Children's emphasis and interest in the materiality of the devices as objects also informed their conceptions of sound, music, and circulation, as they treated circulating songs as resonating sound rather than digital files and swapped songs with each other using the earbuds of one person's device to record through the microphone of another's.

### **The community and the study**

Heartsboro is a town of fewer than 800 people in southern Vermont, about a thirty-minute drive from the nearest grocery store. (Note that all names, including that of the locality, are pseudonyms.) Children in pre-kindergarten through eighth grade (ages 3–14) attend Heartsboro Central School (HCS). While I was in residence there during the 2007–8 school year as a full-time researcher, HCS had fewer than seventy K–8 students. During that period I spent my days observing, talking, and playing with kids in and out of class, with the goal of understanding children's expressive practices and popular music consumption within the broader social context of everyday schooling. For part of the year I taught music classes one day a week, as the school had trouble finding someone to fill the position.

Heartsboro is relatively low-income. Many local families extend back multiple generations, and cousins and siblings from a few large extended families accounted for a substantial portion of the student body at HCS. Historically Heartsboro's economy has been dominated by small manufacture and some tourism, but little local industry remains, and a chair factory and ski-slope both closed in the last generation. Thus Heartsboro is a microcosm of a dramatic regional process of deindustrialization in the Northeast (cf. Kirsch 1998). Outdoor activities were common,

especially hunting, snowmobiling, and riding ATVs, and NASCAR auto racing was a favorite sport. In this chapter I wish to avoid too strongly suggesting that these regional characteristics determine kids' music or media habits. Rather, media and consumer practices can be powerfully deterritorializing forces, and even in a relatively isolated location like Heartsboro children can be remarkably cosmopolitan in their consumption. For instance, country music did not have a privileged place among adults' or kids' tastes, despite other common markers of white working-class U.S. culture, like hunting or NASCAR. Kids' musical tastes ranged widely, from Top-40 pop, rock, hip hop, and R&B, to more obscure recordings of "hard-core" metal or hip hop passed down from older siblings or friends, to popular music from the 1970s and 1980s, which many were introduced to by their parents. The uses of MP3 players I discuss in this chapter were widespread enough to be largely independent of musical preferences or taste, though they did, to some extent, vary by age, gender, and peer group.

### **Childish things: new media, technology, and children's material culture**

Media and communication technologies can seem radically disconnected from the material world of bodies, places, and objects. Hence, common narratives about portable music devices see private listening practices intruding upon and fragmenting public spaces, increasingly partitioning individuals within personalized musical soundscapes that detach listeners from their surroundings (Bull 2008; du Gay et al. 1997). To the extent that such narratives understand portable music listening to involve communication or interaction, it is separated from the immediate act of listening, and instead occurs across vast distances online, by sharing files or playlists, or tagging and rating songs. Anxious or nostalgic narratives of the spread of MP3

players emphasize the disappearance of physical recordings—LPs or CDs and their cover art—and regret the intangibility of digital files (Boyer 2007).

Challenging this view, recent scholarship argues for understanding new media specifically in terms of “materiality”—recognizing the unmistakable fact of embodied users interfacing with devices (Munster 2006) and the importance of face-to-face social networks in their use and significance (Miller 2010). Phillip Vannini points out that at in a fundamental sense technology and material culture are inseparably tied up with one another: that “technology is about doing, knowing, and using objects and . . . materiality is about the character of those objects or things” (2009:1). In reference to children, this perspective seems especially salient, as children’s own understanding of the meaning and role of new media music devices in their lives seemed to focus especially on the material characteristics and physical utility of such technology. We might even see children’s material practices appear as a more relevant context for understanding their adoption of particular music technologies than their “musical culture,” in the sense of the music they make or listen to, though my position here is that children’s musical culture is itself inextricably tied up in existing forms of children’s material culture.

This requires an assertion that there is such a thing as “children’s material culture.” It seems to me that there is, and that the category of “childish” things has real salience in the lives of children and adults.<sup>1</sup> Children’s movements are restricted to “islands” set off for them by adults (Gillis 2008), whether playgrounds (Kozlovsky 2008), stores or departments of stores (Cook

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<sup>1</sup> I use the term “childish” advisedly, and I am sensitive to Adora Svitak’s argument that “the traits the word ‘childish’ addresses are seen so often in adults that we should abolish this age-discriminatory word when it comes to criticizing behavior associated with irresponsibility and irrational thinking” (TED Talk, February 2010, Long Beach, CA, [http://www.ted.com/talks/adora\\_svitak.html](http://www.ted.com/talks/adora_svitak.html), accessed April 13, 2010). But to describe without criticism things identified by children and adults as marked for childhood, I find the adjective “childish” preferable to the now-common “children’s,” which carries a suggestion that children independently claim ownership rather than negotiate the boundaries of their lives with adults and others. Still, I recognize that the term retains valences of trivialness, irrationality, or irresponsibility. I think this usefully highlights the fact that children and childhood remain marginalized and disputed categories, and helps to avoid whitewashing the actual discourses and genealogies that come with notions of childhood or childishness.

2003), even media genres (Banet-Weiser 2007; Bickford 2008) and restricted Internet sites (Montgomery 2007). Within such islands, kids have relative freedom; for instance, the movements of kids' bodies in the playground—vertical and horizontal, swinging and climbing, running and crawling—contrast markedly from the restriction and regulation of movement in classrooms. This freedom of movement and activity within confined spaces is often understood in terms of “play”—an activity ideologically associated with children and childhood (Sutton-Smith 1997). Play, of course, is associated with a particular class of things—toys—and the link between play as an activity and toys as objects helps to define the broad outlines of children's spaces and children's things, as, for instance, in drawing boundaries around children's role as consumers (Cross 1997; Fleming 1996; Kline 1993; Sutton-Smith 1986). Children and adults articulate sophisticated taxonomies of “childish” things, as anthropologist Stephanie Melton finds in children's categorization of “kids' foods,” the boundaries of which are marked by complex intersections of healthfulness, color, packaging, processing, size, and ability to be handled and played with (2010).

Sharon Brookshaw points out that it can be difficult to distinguish the material culture of children from materials made for children (2009). In making this distinction, Brookshaw calls attention to “makeshift” toys that are “designed, made, named, remodeled, used, and reused solely by children; they represent the creativity and imagination of children and the way in which almost anything can be adapted for their amusement or entertainment” (2009:369). At HCS, for example, school supplies like masking tape, pencils, and paper clips became the substance for creative and never-ending creation, especially of medieval weapons like grappling hooks and ball-and-chains. So rather than distinguishing categorically between objects for and objects made by children, I would argue that the affordances of an object for manipulation and activity, and its

capacity to be repurposed for children's use may be a diagnostic of potential childishness.

Melton, for instance, describes an 11-year-old girl "boxing" a pear as though it were a speed-bag, and possibilities for such playful uses suggest why fresh, but not cooked, fruits and vegetables were classified as "kids' food" by the children in her study.

Studies of musical toys produced for children suggest that music, too, needs to be materialized in bright colors, physical manipulability, and interactive potential to be suitably childish. Patricia Shehan Campbell describes the complex overlapping of visual and sonic stimuli in a large urban toy store, in which electronic sounds are integral (and intentionally designed) elements of the colorful and interactive commercial world of toys (1998). Multicolored and rocking-horse-themed instruments, singing dolls and dinosaurs, and even nonmusical toys that inspire or elicit musicking and movement from children all point toward deep connections between music, movement, and objects in children's culture. Similarly, in a study of the everyday home lives of young children in seven countries by Susan Young and Julia Gillen, electronic toys that make music appear to be incredibly common, and children's everyday activities include dancing to child-themed CDs and vocalizing along with music-making pinball toys (2007). Young writes that, "in contemporary media, music is interwoven with images, animations, texts, spoken words and sound effects, and these extend into the material items of musical toys and other equipment" (2008:43).

On the surface, MP3 players seem *not* to share in this "childish" potential of objects. They are small, yes, sometimes brightly colored, and increasingly they are marketed to children using recognizable visual cues: I have seen Hannah Montana-themed devices and Lego devices with removable pieces, and the toy company Hasbro has had success selling its iDog series of animal-shaped plastic speakers. But this remains an emerging market. At HCS there were only two

iDogs and none of the thematically decorated devices. Most of the MP3 players children had were monochrome, many black or grey, a few red, purple, or blue. The cheaper versions most students owned were lightweight, plastic, and uninteresting to look at; as objects they seem designed to disappear, to subsume themselves into the sort of transcendent, “non-space” listening Michael Bull describes (2005). But nonetheless children constantly saw in their MP3 players the childish potential for exactly the sort of manipulability, interactivity, and movement that characterizes the rest of their material culture, reimagining them not in terms of transcendent freedom *from* bodies, spaces, and sociality, but as tangible anchors *to* their material, embodied, and spatial surroundings, and especially to one another. In this they amply demonstrate Daniel Miller’s point that “possessions often remain profound and usually the closer our relationships are with objects, the closer our relationships are with people” (2008:1).

### **Tethering**

Alan Prout writes that children’s bodies “are inseparable from, produced in, represented by, and performed through their connections with other material objects” (2000:2). This point was prominently demonstrated by kids’ uses of MP3 players at HCS, as objects that were constantly present attached to kids’ bodies. A prominent example was sixth-grader Melissa, who got a purple iPod Shuffle for Easter along with a matching pair of squishy purple earbuds. Melissa wore jeans and a baggy sweatshirt to school almost everyday, and after she got the iPod it remained clipped to her sweatshirt all the time, except when teachers made her put it away during class (even then it would remain close, in a pocket). She kept it on even after school during the hockey program she attended, clipped to her sweatshirt with one earbud in her ear, the other dangling. The cables tossed around and kept getting tangled in hockey sticks, but even

though the coach and I repeatedly asked if she might want to put the device away while she was playing, she always declined. She kept it on even when the batteries died and she couldn't listen to music. Eighth-grader Amber, too, often kept an earbud in her ear even when not listening to music, and kids would keep their MP3 players on their bodies during school, rather than storing them in their bag or lockers. When they entered the classroom the devices would disappear into pockets and sleeves, snug and close, ready to reappear immediately upon leaving class.

Beyond the individual intimacy of the object, MP3 players created close physical connections from one child to another. A near-universal practice was to share the earbuds of their devices, one-for-me, one-for-you, to listen together to music. Kids would move, play, eat, and talk while sharing earbuds like this. In groups pairs of children would be connected by cables hanging from one ear to another even as they looked at and talked to others in the group. Children enjoyed the challenge of moving together while connected like this, and they coordinated their bodies to walk, run, and swing while connected by earbuds dangling precariously from each other's ears. Earbud cables traced out social networks by physically tethering friends and intimates together in embodied connection (see Bickford Forthcoming for a detailed analysis of earbud-sharing practices).

## **Breaking**

Like a lot of objects sold to children, the generic MP3 players that most of the HCS kids had were cheap, even disposable. Devices regularly broke or were lost, and kids' use of them reflected Rudi Colloredo-Mansfield's point that "material practice revolves around loss more often than preservation—luster fades, things fall apart" (2003:246). The \$40 or \$50 that even the least expensive devices cost was significant enough that kids lived with partially broken devices,

scrounged around for replacement parts, and tried to repair cracked cases or wires when they could. And though they were aware of the possibility that the devices would break, they were not careful at all with their devices, keeping them around during active play or sports, and carelessly setting them down where they might forget them. Cranking the volume up to use their earbuds as miniature speakers, they often blew out headsets.

Though they worried about breakage, they also related stories about broken devices with bravado, revealing how “people stake prestige . . . on the techniques and materials of consumption and destruction” (Colloredo-Mansfield 2003:252). Sixth-grader Dan, for instance, told me, “I have [an MP3 player], but it’s broken. I can’t download songs onto it. I don’t have the cable, and I think it has a CD that you need. I got it from my cousin [eight-grader Erica], and she’s stupid. I think she lost the CD.” Dan never did get a working MP3 player during the year, and instead he used his portable CD player. But he also never got rid of his cousin’s hand-me-down device, even carrying it to and from school in his backpack, and its presence provided a relished opportunity to complain about his older cousin’s ineptness in losing the data cable and software disk.

On another occasion, I sat with seventh- and eight-graders Kathy, Alice, and Amber at breakfast, listening to Jordan Sparks and Taylor Swift on Kathy’s iDog. The dog bobbed its head in time to the music, and disco lights flashed on its face. The girls’ conversation revealed the delight taken in stories about the failure of devices, and also the detailed knowledge these friends had about one another’s devices. I asked Kathy if she was happy with the MP3 player she got for Christmas. She nodded, but my question prompted Alice to complain, “my MP3 player’s being retarded.”

Kathy elaborated for her, “it doesn’t turn on.”

I asked, “still? Did you try resetting it or whatever?”

Amber jumped in, incredulous: “it doesn’t have a reset button!”

Alice said, “my dad, literally, went and picked it up, like this, and went—” she mimed dropping the device, “like that, on the floor [to try to get it to work]. And I did it too! And it won’t turn on. I’ve had it for two weeks, and it’s already broken.”

Alice and her sister Megan, in sixth grade, had matching MP3 players. I asked Alice, “your sister’s works fine?”

Amber replied for her, “yeah, except she blew her earphones,” and then she bragged, “I’ve blown two pairs of earphones!”

“How do you do that?”

“It goes too loud and it overblows.”

“When you turn up the volume to use them as speakers?”

“No, just as earphones.”

“Do you put them real loud in your ear?”

Amber nodded. Alice joined in, “I told Megan not to have hers up cause she’s gonna blow them. And she’s using my headphones.” Since Megan’s earbuds were broken, and Alice’s device would not turn on, the sisters had consolidated their equipment.

Amber bragged, “I’ve blown my earphones, my iPod earphones, and my MP3 player earphones. And I traded my mom my dad’s earphones—he gave them to me—for my mom’s iPod earphones. So I had those, and hers are about to blow, so now I got these, so I have a second pair, my moms. I blow up earphones very easily,” she said with evident pride.

The discussion made Kathy nervous. She pointed to her new iDog and asked, “these could never blow up, right? Could these ever blow up?” Amber and I tried to assure her that the lightweight plastic device should be fine.

Several weeks later the story of the broken device had developed into a routine between Alice and Amber, with a mysterious malfunction providing the narrative lead-up to a ready punchline.

During an interview with both girls, Alice remembered, “I got a sucky MP3 player but—” Amber whispered, “it broke!”

“—it wound up breaking! It broke the first week I got it! Cause, what it was, I had the earphone in my ear, and I had the MP3 in my pocket. What was so weird was that the headphone fell out of my ear and I tried turning it back on and it didn’t work after that. After the earphone fell. I didn’t even drop it.”

Amber asked, apparently for my benefit, “where’d you get it?”

“A pharmacy,” Alice laughed. “CVS.”

Amber grinned and delivered the punchline she had set up: “Yeah, don’t buy electric things at a pharmacy.”

## **Enlivening**

As these stories reveal, breaking and loss did not end the social lives of these objects, but were rather the impetus for particular “enlivening” practices in which kids continually worked to maintain and enhance their devices’ social utility. Enlivenment, following Andrew Skuse, “is normatively equated both with the appropriation of commodities, but also with a more mundane practice of maintenance, in the sense that certain commodities such as portable radios require a

continual economic investment in the purchase of batteries if they are to remain enlivened in the socio-semantic sense” (2005:124–25; also Appadurai 1986). Enlivenment, therefore, continually resists entropy or dispossession, the failure, disposal, or transience of objects (Lucas 2002).

When Alice’s and Megan’s two device had different failures, the sisters consolidated them and shared. Amber found a seemingly inexhaustible supply of headphones in possession of her family members, and she saw her task as cajoling them into sharing or trading. Dan would later ask me for the USB cable his hand-me-down MP3 player needed to work, and we tried connecting it to one of the school computers, even though he still lacked the necessary software CD. Sometimes students would even break their devices on purpose, as when fourth graders Dave and Brian one morning aggressively snapped one earpiece off of an old pair of headband-style earphones, so they could each listen to one speaker at the same time. Just as the failure of Alice’s device was transformed into an occasion for shared storytelling with Amber, in Dave’s and Brian’s case enlivenment is the direct result of destruction, manifesting Coloredo-Mansfield’s suggestion that “exhausting commodities frequently opens up channels of connectivity, yet it also reduces individual control of them” (2003:251).

Batteries, which Skuse points to in a very different context, were central to HCS kids’ enlivenment of music devices. Economizing battery power was often mentioned as a reason to share the earbuds to one device between friends. Amber and Alice knew every detail of one another’s battery usage, because batteries affected how and when they could listen together. They talked about how they navigated different rules at home and the differences between their devices to listen together as much as possible. Amber told me that one of the reasons she and Alice listened together was because “I charge [my iPod] every day, and she likes to save her battery. I listen to mine a lot, so I have to charge it every day.”

Alice agreed, “‘cause I’m limited to so many batteries. My mom bought me a four-pack of batteries. And then I find batteries around the house.”

“My battery,” Amber continued, “as much as I listen to it, could last me about an hour or two. A full battery.”

“My battery can last me two, three weeks.”

“‘Cause she barely listens to hers, and I listen to mine a lot, like every day.”

Alice’s Samsung took a single AA battery, while Amber’s iPod had an internal battery that was easily charged at an outlet at home—without the need for any cash or purchase from her parents. While her dependence on batteries severely limited Alice’s ability to use her device, she and Amber collaborated to avoid Alice’s device ever going completely dead. That the girls had such minute knowledge testifies to their closeness and to the important role of these devices as mediators of the girls’ friendship. In fact, the MP3 player that Alice had to scrounge batteries for was actually Amber’s old Samsung, a device she had before she got her iPod. Alice received this device on indefinite loan from Amber after the player she got at Christmas had broken. So while Amber phrased her explanation in terms of her own frequent listening habits, her ability to listen more than Alice was also structured by her parents’ willingness to buy her an iPod and the particular affordances of that device’s rechargeable battery. But at school Alice probably listened to music as much as Amber, because Amber would always automatically pass her the second earbud when she took out her iPod.

## **Tinkering**

In addition to such attentive social mediations of battery power, the transience of these devices was tied up in practices of tinkering, repair, and decoration—activities that seemed in

most cases to go together—as though the material instability of MP3 players opened up possibilities for kids to interact with them in new ways. Their “cheapness,” in this sense, could be seen as a source of constant renewal and interest.

Like Alice, who emphasized the mysterious circumstances of her MP3 player’s failure, seventh grader Randy told me that his old earbuds “just melted! I felt some heat on my arm,” he said, “and I looked down, and they were melting up!”

I asked, “really? Just for no reason?”

“Yeah, really! So I tore them apart to see what’s inside.” Randy pulled them out of his bag to show me (figure 1)—he carried even such irreparably damaged items around in his bag, reconstituting them as objects for investigation rather than as deconstituted “trash” (Lucas 2002).



Figure 1: Randy tore apart his “melted” earbuds to see what’s inside.

Randy told me he got his current pair from the airplane on his family’s recent trip to Disneyland. But unlike his old ones, these weren’t marked “L” and “R” for left and right. So he

showed me how he would listen to Trace Atkins's "Honky Tonk Badonkadonk" to figure out which ear is which—the song starts with, "*left, left, left right left,*" with "left" and "right" panned to alternating channels. Then he went into the office to get a bandaid that he could rip up to mark the earbuds so he wouldn't have to keep checking them with the recording. But he couldn't rip the bandaid by hand, "because it's thicker than the ones I use at home." Instead he pulled a sheet of decals out of his Game Boy case and wrapped a confederate flag sticker around the left earbud. He marked the decal with an "L," using a Sharpie he also pulled out of his Game Boy case, and said with satisfaction, "That's a good redneck way to do it" (figure 2).<sup>2</sup>



Figure 2: "A good redneck way to do it." Randy marked the left earbud with a Confederate flag sticker.

Like MP3 players, portable gaming devices were also subject to such decoration, as, for instance, eighth-grader Nate cut strips of electrical tape to give his Game Boy Micro tiger stripes.

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<sup>2</sup> Randy's use of the term "redneck" was unique at the school or in the broader community, as far as I know, and stemmed in part from his interest in comedian Larry the Cable Guy. His interest in the confederate flag was always directly linked to the "General Lee," the hot-rod car with the flag on its roof from the television show and movie *Dukes of Hazard*. Rather than positioning him within the local sensibility of rusticity shared by his peers, Randy's identification as "redneck" and use of confederate iconography contributed to his relative social isolation.

Girls too decorated and toyed with their devices, like Kathy, who got an MP3 player for Christmas: by June the screen was held together with tape and she had painted the back case completely with red sparkly nail polish.



Figure 3: Kathy's Christmas MP3 player in June, taped up and covered in nail polish.

Randy was the only kid who even once mentioned the left and right channels of a recording. But, like the rest of the kids at Heartsboro, he never seemed concerned about listening to the full stereo soundscape—which the widespread practice of listening with just one ear, of course, completely devalued. For Randy a new pair of earbuds missing labels presented an opportunity for tinkering and design, more than a difficulty to faithful listening, and even the sonic organization of the audio track was put in service of the object and its decoration, rather than appreciated on its own.

### **Tinkering and tethering in the circulation of recordings**

Noting Randy's use of the stereo sound of a recording to organize his earbuds on his body, rather than to structure his listening as such, children's material orientations toward MP3 players can provide clues about their conceptions of music and sound. Common understandings of sound and music as uniquely ephemeral, even disembodied, suggest that hearing is especially susceptible to technological or schizophrenic mediations. Further, infinite reproducibility—that media files can be transferred and copied without any loss of information, unlike analog recordings or film photographs—is seen as a central feature linking postmodern technological and cultural configurations, the characteristic affordance of digital media. But kids at HCS often ignored or rejected such characteristically “digital” capacities of their devices, instead approaching the circulation of sound recordings in ways that located them within the material world, rather than as placeless and immaterial digital “files.” In particular, many used the built-in (and very low quality) microphones in their MP3 players to record and circulate music. They put the microphone up to their television or to computer speakers to record music from a music video, rather than searching for a song on the Internet, downloading it (possibly paying for it with a parent's credit card), and transferring it to their MP3 player. Or they placed an earbud to the microphone, to transfer music from one device to another.

At eighth-grade gym class, held outdoors in June, several girls sat out because it was “too hot.” Amber listened to her iPod, while Sarah fiddled with her friend's MP3 player and her very new cell phone—a Motorola RAZR. Flipping open the RAZR, she looked at the screen for a bit and then played a song using the phone's speakers. I asked her where she got the music—off of the Internet? I imagined she was using one of the new music-downloading services the cell

phone companies had been aggressively advertising. She shook her head and held up the MP3 player. “Off of this.”

I was puzzled. MP3 players, I thought, did not connect from device to device—you had to use a computer to transfer files.

So Sarah demonstrated for me, holding one earbud up to the microphone on her phone. As she showed me, the music was interrupted by a loud girlish screech, and Sarah said, “Erica was being loud during that part. She ruined it.” But Sarah let the song play on despite being “ruined,” and she and her friends would continue to listen to this track on the phone over the rest of the school year.

During interviews kids would often place their earbuds up to my recorder to “show” me songs.<sup>3</sup> Notably, they only used their MP3 players to record or share music; they never used them to record one another. My audio recorder would elicit performative talk from kids of all ages, but the kids never seemed interested in listening to themselves later, even when I offered. Younger kids would do funny voices or sing when I took it out, and older kids would say swear words or insults, or call one another gay or stupid. But their own devices were just for songs.

Kids would also record music off of the Internet or television, including advertising jingles and TV theme songs. When I asked Randy in an interview, “would you say you like music?” his immediate response was, “well, my custom radio says so, yeah!” He went on to tell me about the seven speakers he had attached to an old boom box and wired around his room with strobe lights. When I asked Randy about what types of music he likes, he said “rock, heavy metal stuff, country. And the occasional anime shows. You know like—the show’s so awesome I can’t even remember the name of it. *Blood Plus* there. That’s a good show.”

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<sup>3</sup> This turned out to be tremendously useful documentation of what might have been playing on kids devices during recordings where otherwise the microphone would only pick up their talk.

“Yeah?”

“Yeah, they always have cool theme songs. Actually I got like ten of ’em on here,” he said, pulling out his MP3 player.

I noticed the white earbuds and asked, “what are these, iPod headphones?”

“No, I stole them from my brother.” Randy laughed.

“What’s this, like your fifth pair this year or something?”

“I used the ones from the airplane. They sucked.” Randy found his song. “This is one of those Japanese anime ones. It’s from *Final Fantasy Dirge of Cerberus*. It’s a cool song.” He held one of the earbuds up to the microphone on my recorder. He whispered to me, to avoid disrupting the recording he was making for me, “that’s how I got it on here—I recorded this off the Internet [i.e., from one of the speakers attached to a computer]. Off *Dirge of Cerberus*.” We both listened closely to the quiet recording being played on tiny headphones resting on the table. As he transferred music that he had originally recorded from computer speakers from his MP3 player onto my recorder, Randy was executing a fully analogue chain of transfers between digital devices, as though this were a completely normal way to move songs around.

Randy listed several other shows whose songs he liked. He described the theme to *Death Note* for me, and then remembered, “I still need to record that. I gotta write that down.” He told me that he would stay up to watch the shows when they came on late on Saturday night. He would set his TV’s timer to remind him, and then hold the MP3 player up to TV speakers and record the song. He picked up his MP3 player to show me how. “See that, that’s the mike. What you do is when you turn it on, it takes forever. Here we go. You go like this. And it says ‘recorder.’ Then it’ll be like that,” he pointed to a menu on the screen, “and you just go like this

and it's recording. See? And if you don't want to save it you'll see an X. You just swap over to that and go *tsiu*." Randy finished with a laser-gun sound effect for X'ing out the songs.

Earlier in the year Randy and a couple other boys rode with me on a field trip to hear the author Lois Lowry talk, and I let them pick songs on my iPod to play in the car. When "Stronger," the new Kanye West single, came on, Randy pulled his MP3 player out of his bag and stuck it down at the speaker in the door by his feet. Several months later, I was making a CD of songs for him and asked if he wanted that song. He said no, because he already had it—"don't you remember I got it when we were on that trip before?"

At our interview Randy continued through the songs on his MP3 player. He found "Party Like a Rockstar," and said, "that's one of the ones I got from music class"—he had recorded it during the music show-and-tell that was a regular part of my music class. He said, "you'll hear it stop, you'll hear Kathy's voice on there eventually."

I asked, "does the fuzziness bother you at all?"

"No not really. I know how far to keep them away from the speakers, and sometimes the fuzziness doesn't affect 'em at all. Like this one, this is from *King of Hearts*. This one I need to redo. I mean, it's good, but it's kind of weird."

I suggested, "you might be able to find the actual songs on the Internet."

But Randy dismissed this out of hand: "I don't even know the names of them."

Sarah and Randy were from opposite ends of the social hierarchy. Sarah had a large and close group of friends that was widely acknowledged as high-status. Randy, on the other hand, had no close friends, and few people even to hang out with. He was widely acknowledged to be a social maladroitness. Sarah and Randy had very different taste in music. Randy represented an extreme version of this do-it-yourself, tinkering ethos of music listening, and he loved to repair

and retrofit his old and broken stereo and his old and broken MP3 player. Sarah and her friends were early adopters of shiny new technology, like Sarah's RAZR phone and Michelle's portable Sirius Radio receiver. Nonetheless, they both moved music around in this remarkable way, from earbud to microphone. My own first reaction to Sarah recording music directly from an earbud was disbelief, and I suggested to Randy that these recorded copies Randy passed from device to device were somehow less real than digital sound files, the "actual songs." It would never occur to me to move songs around like this. The layers of *infidelity* to high quality digital reproduction represented by such a practice were stacked upon one another: MP3 encoding already represents concessions of quality to portability; cheap earbuds hardly produce decent playback, and with only one earbud transferring music to the microphone, half the original track is lost; the microphones on MP3 players and cell phones are barely suitable even for casual voice recording; and the audio from the microphone is then subjected to further degradation from another round of low bitrate MP3 encoding.

But these practices certainly were faithful to an alternate conception of music, in which sound, songs, and recordings were integrated into the physical, spatial, and embodied world that children and their music devices occupy. Sarah and Randy both transferred music by connecting one physically present device to another with the umbilicus of their earbud cables. As they held the earbuds up to the microphones, they transferred sound from one vibrating membrane to another, in real time. If anything, the recordings they made were composed more of "actual" sounds and music than digitally encoded representations. On the Internet songs would be found by searching for meta-data—titles, artist names, dates, etc.—but as Randy points out, he did not know the names of many songs on his device. He did, on the other, hand, know very clearly how the songs sounded. So, just as MP3 players themselves existed as objects as much as media, it

seems as though songs and music existed for HCS kids as sounds more than as files, and so to move music from device to device the song had to actually resound in physical space.

## Conclusion

Stephen Connor writes that sound “strikes us as at once intensely corporeal—sound literally moves, shakes, and touches us—and mysteriously immaterial” (2004:157). In the face of powerful and pervasive discourses of immateriality that surround new media, weighing in forcefully on the latter conception of sound, it takes a certain ingenuity for children to envision the corporeality of sound, and to see in MP3 players—these iconic objects of new media—material affordances for circulation, movement, embodiment, and sharing. But these practices fit perfectly within the clear and present demands of kids’ social and material environment, in which objects and bodies constantly circulate and interact in immediate, face-to-face settings. To seek out some digital file on the Internet would require turning attention away from this rich and solid social world. Sound “constitutes a form of material action” (Witmore 2006:276), and it is this potential for material action—for play, manipulation, tinkering, investigation—that I argued at the outset is central to the identification of some thing as “childish.” The devices stuck in their clothes and tangling among their bodies, and the sounds those devices produced, were thus available to be toyed with, using the sort of immediate agency kids cultivate as they climb in and around their environment and put objects in physical contact. Connor writes about “a restoration of . . . equilibrium in the face of the extreme disembodiment of hearing, a reclaiming of the proximal tactility of the here-and-now body” (2004:171). But it appears that children need not “reclaim” anything at all. Their cultures of hearing have retained the “proximal tactility” of their cultures of materiality, grounded among practices that include boxing a pear, climbing on a

jungle gym, collecting and trading cards, or building medieval weapons out of pencils, masking tape, and chains of paper clips.

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