Digital media allow for almost instantaneous communication across huge distances and thus render those distances seemingly insignificant. For Indigenous communities living in remote geographical contexts, digital media have enabled networking with wider Indigenous communities, drawing on global information resources and reaching global audiences in ways that overcome the challenges caused by their physical remoteness.[49] Landzelius has suggested that digital media can perform notions of "center" and "periphery," and thus subvert a center/periphery dichotomy.[50] But Indigenous people have also experienced histories of land dispossession through imposed national and colonial conceptions of place, exploitation of natural resources, and fixing of political borders. Castells's description of digital culture as bringing about "spaces of flows" is significant, considering the ways in which Indigenous people have striven to articulate alternative conceptions of place and belonging to land that call into question a world mapped according to an Enlightenment cartographic imagination.[51] Likewise, digital media have enabled the storage of data from different historical moments in databases from which users can retrieve information at unprecedented speed.[52] Digital databases have become crucial for empowering Indigenous communities by, for example, providing opportunities for local documentation and repatriation of cultural heritage.[53] Such a fluid relationship between the present and past in digital culture creates a certain "ahistoricity," in Castells's words, which puts into question notions of linear time in a modernist temporal imagination.[54] Such "ahistoricity" is pertinent, considering Indigenous attempts to resist the perception of their cultures as "premodern" and the fact that many Indigenous cosmologies conceptualize time in ways that are at odds with Enlightenment notions of historical linearity.[55]

Furthermore, digital culture has transformed notions of the self and body. Poster has argued that the digital era renders subjectivities fluid and scattered and blurs the boundaries between public and private, as well as between the body and technology.[56] Likewise, other scholars have noted the ability of digital technology to expand the possibilities of human body and agency.[57] Donna Haraway's famous proposal of the cyborg, a technologically enhanced human, as a feminist and postcolonial strategy, has generated debates about posthumanism.[58] On the one hand, such discourses might be at odds with the need to articulate unproblematic Indigenous subjectivities in the context of human rights disputes and international law, and overlook the ways in which Indigenous communities might have been victims of technological development and industrial expansion.[59] On the other hand, they might assist in Indigenous attempts to undermine modernist notions of subjectivity (for example, in the case of copyright law) and promote alternative models of human-nature-technology relations based on Indigenous cosmologies.[60]

Digital culture also allows for new possibilities of simulation and virtuality.[61] A negative take on simulation has been offered by Jean Baudrillard, who famously argued that we have entered the era of "simulacra" and a "hyperreal" order that conceals wider political truths.[62] But digital simulation can be beneficial by providing an escape for marginalized individuals, offering opportunities for political resistance, and rendering perceptible alternative visions of reality.[63] Digital simulation also enables the convergence of different communication forms (oral, written, audiovisual) and thus the supposed reunification of the senses upon which they rely.[64] That this overcomes the logocentrism of print media and brings about forms of orality and multisensorialism that might chime with Indigenous traditions had already been suggested by McLuhan.[65] Indeed, as Dyson, Hendriks, and Grant write, "the graphical, video and audio facilities of media speak directly to cultures which are principally rooted in spoken language, music, dance, ceremony and visual forms of artistic expression."[66] For Indigenous communities, thus, virtual reality can support cultural revival and bring about a new sense of holistic multisensorial experience and orality that was not possible with earlier media technologies, as Cocq has argued.[67] But how does music intersect with the politics of Indigeneity and digital media? In what ways have digital media reshaped Indigenous musical performance, production, and consumption? What does Indigenous music in a digital era tell us about global politics in the twenty-first century?

Music, Indigeneity, Digital Media

Technologies of communication were significant in early understandings of Indigenous music. The phonograph, invented in 1877 by Thomas Edison, was one of the first technologies capable of recording and reproducing sound and thus became a key tool for fieldwork in the study of oral and musical traditions from the 1890s.[68] Marveled at for its ability to capture musical performance into a tangible form, the phonograph enabled researchers to collect, catalog, and analyze musical traditions that were, according to the doctrine of salvage ethnography, threatened by modernity. Yet, at the same time, the technologies of mass reproduction and consumption, through their apparently globalizing and hegemonizing tendencies, epitomized the threat to cultural diversity.[69] The phonograph, like the bourgeoning ethnographic disciplines, was caught up in practices and discourses of colonialism.[70] Oral traditions, recorded by missionaries, colonial officials and ethnographers, were subjected to transcriptions and analyses that served outdated theories of universal musical evolution and racial difference.[71] As music scholars have noted, recording technologies have not only been key in attempting to "understand" other cultures; they have been fundamental to constructing notions of "difference" between "modern" Europeans and their "Others."[72]

and consumption.[93] Indeed, these studies reveal how the growing availability and affordability of digital recording technology has transformed the power relations between Indigenous communities, majority populations, and international recording industry. The proliferation of local studios, Indigenous record labels, and the marketing of Indigenous artists themselves via Internet platforms (YouTube, Facebook, SoundCloud), while fitting into and building upon existing social, institutional and economic networks, is certainly more than simply symbolic of cultural self-determination.

Musical production, mediation, and consumption can also assist the revival of Indigenous musical traditions and cosmologies. Such issues have been the focus of research by Diamond, who has elsewhere investigated how CD recording and production by Native Americans not only have aesthetic significance, but can also be "forms of social action" with regard to local community building, cultural transmission, and transnational activism.[94] In the present volume, Diamond argues that the studio is an important site for experimenting with Indigenous creativity and the production of multiple meanings for musicians, producers, and listeners. She focuses, in particular, on issues of genre and gender, temporality and space, as well as polyvalence, highlighting how the experiences of musicians, producers and listeners, and the meanings they associate with the mentioned examples of Sámi music, can both diverge and overlap in interesting ways. On the one hand, Diamond reveals that studio recording may still pose challenges to Sámi artists in terms of vocal technique, the dialogic nature of the vocal tradition *joik*, and the common practice of *joiking* outdoors. On the other hand, she argues that Sámi studio production can help nurture and emphasize facets of vocal technique and ontologies of *joik* while also alluding to wider aspects of Sámi cosmology. Such a study attests to the creative possibilities enabled in digital musical production, offering seemingly infinite ways to both restore and transform Indigenous musical traditions and cosmologies in the twenty-first century.

One particular way in which digital studio technologies can build on Indigenous cosmologies is through playing with conceptualizations of time and place. Historical recordings, for example, can be accessed, sampled, and remixed with ease in contemporary Indigenous music production, as noted by Diamond both elsewhere and in this volume.[95] One example is the *joik* "Čálkko-Niillas" on the album *Máttaráhku Askái* by *joiker* Ulla Pirttijärvi, which brings out temporal aspects of the ontologies of *joik*: "Sámi performers . . . see the archive sample as a means of bringing the liveness of the past into the present. A significant part of traditional *joik* performance in a community context is the fact that one *joik* may be 'answered' by another." Diamond interprets this particular example as collapsing time, thus undermining universal conceptions of history.[96] Likewise, the potentials of digital media in studio production have also been harnessed by Indigenous musicians to reaffirm and

expand Indigenous philosophies relating to place and environment. Drawing on Greene, Diamond also explores how Sámi CD production can "sound spatiality" by referencing places and spaces.[97] In particular, she notes the ways in which the mixing of field recordings can help in the construction of what *joiker* Wimme Saari calls "sound worlds." But these references are not necessarily simply to the Indigenous homeland; they also index other global locations encountered during travel and musical tours. Thus, Indigenous digital music production might indeed articulate attachments to place that reaffirm belonging to Indigenous land, but they can also articulate transnational belongings that bring into question essentialist notions of home.[98] In these ways, the fluid nature of space and time engendered by digital media can be harnessed by Indigenous musicians both to reaffirm Indigenous cosmologies and to articulate alternative temporalities and cosmopolitan cartographies that resist modernist categorization.

Yet we should not forget the experience of Indigenous musicians working in less wealthy parts of the globe where digital production might not reap the same level of cultural capital. This is Henry Stobart's warning at the opening of his contribution on music video production in Bolivia, a country famous for its poverty and large Indigenous population. He offers a study of the *originario* musician, producer and cultural activist Gregorio Mamani, focusing on the production of music videos on VCD (video compact disc), a commonplace format among low-income people in the global south, but little known in the global north. Following the production of three music videos, Stobart discusses issues of audiovisual aesthetics and the opportunities offered by Mamani's modest studio to take issue with hegemonic middle-class notions of "amateurish" production. Stobart is cautious of literature in music studies that has argued for the revolutionary potential of home studio technologies, suggesting we should take seriously a "low-tech aesthetic." Likewise, he is critical of literature within film studies on Indigenous film projects in Latin America that has the potential to essentialize and romanticize notions of "Indigenous aesthetics." Thus, drawing on Hutchby, Stobart proposes the notion of "creative pragmatism" to interrogate more closely both the local economics and aesthetics of Indigenous digital media production as well as the impact they have on wider Indigenous publics.[99] Such a study alerts us to the ways in which music and music video production, mediation, and consumption is enmeshed in entangled webs of technical affordances, economic wealth, local and national Indigenous imaginaries, as well as individual and collective aesthetics.

Archives, Transmission, Orality

The greater access to, distribution, and affordability of digital music technologies also allows for transforming relationships between Indigenous communities

and their musical heritages. As discussed above, many Indigenous oral traditions have been recorded and subjected to various types of documentation, collecting, and archiving within a paradigm of salvage ethnography. While this has meant that there is much audio documentation of Indigenous musical heritage, Indigenous communities have in most cases had little or no access to such documentation. Owing to the fragility and limited life spans of certain analog media formats, much documentation also risks being lost or becoming obsolete. Following pressure from certain Indigenous cultural activists, there has in the last two decades been a move to digitize and repatriate archive collections to source communities.[100] Issues of archives, digitization, and access are addressed by Barwick in the present collection, where she discusses her research on *djanba*, the ceremonial song of the Murriny Patha people, in the township of Wadeye, Northwest Australia. Barwick's work draws from a collaborative project between a number of national and local institutions that set out to digitize and document recordings in a database that has become an important tool by which communities can search, access, and employ recordings in community ceremonial events.[101] By focusing on local funeral songs, she analyzes a marked change afforded by digital media in funeral practice both in the ease of playback opportunities and the emergence of newly composed songs. Reflecting on creativity, social organization, and notions of democracy, Barwick surmises that these technologies have both strengthened existing predilections toward community autonomy and potentially jeopardized clan structures and funeral traditions. Her study, thus, testifies to the ways in which digital archives can provide significant resources for Indigenous communities that can both sustain as well as transform Indigenous musical traditions and cosmologies, often in surprising and unprecedented ways.

Likewise, digital technologies can help nurture the transmission and education of Indigenous musical traditions. Scholars have highlighted the malleability of digital technologies to suit the needs of users.[102] This malleability makes digital music technologies ripe for use in what Landzelius might call "inreach" contexts, such as in Indigenous education.[103] One aspect of digital culture, its ability to bring about a new sense of orality, might be commensurate with ontologies of Indigenous musical performance, as suggested in John-Carlos Perea's chapter. Perea examines his own transition from analog to digital technologies through an autoethnographic account of powwow learning, performing, and teaching in the San Francisco Bay Area. He first discusses how he learned powwow repertoire, technique, and philosophy in the mid-1990s using audiocassettes—cassettes that were later used as an archive for repertoire by members of Perea's new group, the Sweetwater Singers, even as certain digital recording devices become available in the early 2000s. As digital recording technology became more accessible and versatile, Perea began to experiment with vocal overdubbing in 2007 in his work with the Paul Winter Consort, which enabled

individual creativity to take place of group activity. Finally, Perea discusses his use of digital recording media to facilitate his teaching of American Indian music at San Francisco State University. Here, he highlights how the sociality involved in his earlier cassette recording practices means that they will always inform his contemporary practice and teaching. Thus, the cassettes form an "aural history archive" of local powwow song and "repositories of traditional knowledge" which, alongside other digital technologies and the flexibility they offer, continues to inform current practice. Moreover, Perea argues that the use of technologies in learning, performing and teaching, as well as the personal, social and aesthetic implications they have, are commensurate with the orality necessary for the transmission of Indigenous traditions. Indeed, he stresses the ever-transforming nature of his archives, necessary for the sociality and vitality of the ever-changing tradition of powwow. Elsewhere I have argued, drawing on Diana Taylor's notion of the archive and repertoire,[104] that the digitization and repatriation of sound archives to Indigenous communities can feed back into education and performance contexts that nurture new forms of orality commensurate with Indigenous musical ontologies.[105] This not only assists cultural revival but can also be a powerful articulation of Indigeneity in challenging logocentric notions of culture in modernity. What the examples in the present volume highlight, however, is more ambiguous. Firstly, they show how analog and digital technologies continue to have a complex mutual relationship that may indeed assist and transform notions of orality. Moreover, the ubiquity and legacy of the archive (both analog and digital) in global modernity suggest that new potentials for nurturing orality rest, uncomfortably or not, alongside archival ways of knowing, a dynamic which will continue to shape Indigenous musical performance.

Subjectivity, Ownership, Authorship

Concerns about the cultural heritage of Indigenous communities within a digital era have brought new understandings of subjectivity, ownership and intellectual property. The subject of Indigenous cultural heritage is politicized not only due to histories of cultural dispossession but also because Indigenous musical ontologies hold complex notions of ownership and customary law that often necessitate particular sensitivities regarding the performance and use of musical traditions. Recording technologies (both analog and digital), because they can reproduce and distribute sound in ways that complicate the relationship between composer, performer, and listener, can become politically charged when employed by musicians, producers, teachers, archivists, or ethnomusicologists. Over the last decades, the nonconsensual use of recordings of Indigenous music in global popular-music hits has led to accusations of musical "appropriation" and several high-profile court cases.[106] This has

How is musical activity turned into an object—and in the case of a YouTube video, ten minutes of audiovisual footage? Recording and music production—via digital and analog technologies—have no doubt had an impact on the oral transmission of song cultures. Correspondingly, new audiences—casually browsing world-music sites or accidentally clicking on a friend-of-a-friend's hyperlink on Facebook—have come to appreciate the nuances of ritual and performance in the proverbial field, now accessed through amateur tourist videos. Now that performances of indigenous music are available to anyone with an Internet connection—including many aborigines living in Taiwan's urban areas—the implications for copyright and cultural ownership of folk material are many, including how the aesthetics of aboriginal song may be altered by the pop industry.

As far as new media can be understood as separate from (but not replacing) older media, perhaps the most scene-changing developments are increased accessibility and representation. One might argue, quoting Marshall McLuhan, that "the medium is the message"—context is effectively content.[13] A demonstration of this can be found in examining how different kinds of aboriginal music are accessed on one of the world's most ubiquitous video-sharing platforms, YouTube.

Entering the English search terms "aboriginal music Taiwan" for example, yields as among its top results a home video based on a tourist's motorcycle road trip in Eastern Taiwan. It features an ambient track by Puyuma pop singer Samingad, who is credited not in the footage itself but in notes appended to the clip.[14] On the other hand, replacing the keyword "music" with "song" leads to an ethnographic track, "Elder's Drinking Song," by Amis singer Difang. It plays against the static cover of his pop-inspired album *Circle of Life*.[15] Altering the search framework a third time using the Chinese characters *yuanzhumin yinyue* (aboriginal/ indigenous music) brings a new-age music-fronted slideshow of Paiwan musician Sedar Chin collaborating with mixed Chinese orchestral and Western chamber ensembles.[16] And why stop at searches in Chinese—the language of the colonizer? Yet finding appropriate indigenous terms to feed Google's all-knowing engines would be problematic. Questions arise: How would Internet users have the specialist knowledge of spelling variations in romanized Amis for a range of indigenous genres, rituals, and festivals across all of Taiwan's fourteen officially recognized groups? Would (and why would) the budding anthropologist or ethnomusicologist—or indeed an aborigine of X ethnicity in Taiwan—be using YouTube (or Google, as opposed to Yam) in the first place?

Such questions do not simply show up the fallibility of mechanisms such as Internet tags, keyword searches in different languages, translations, or logarithms. They address larger asymmetries of information organization, power, access to technology, music production, and processes of recontextualization,

remediation and representation. Inherent meanings will be experienced in different ways by intended and unintended audiences—aboriginal, Han, and global. Just as it is erroneous to assume that Taiwan's aborigines have less access to digital technologies than people in more industrialized areas of the world, one cannot presume that aborigines use these technologies in the same ways, or indeed in only one way. In postdigital terms, it is also important to think about aboriginal communities who see (or fetishize) technology as a means of rehumanizing themselves and reclaiming political status as contemporary equals in Han-dominated Taiwan. In this respect, digital indigeneity enables less a construction of a new identity for aborigines than a relegitimization of their egalitarian existence. Yet even this process of relegitimization is dependent upon access to digital data—access that is not always equal.

Separate streams of musical information privileging different audiences show that the savvy searcher has to *know exactly* what he or she is searching for; that there are specific keywords which can unlock doors to niche websites. These feed back into "old" media, even as they network across hyperlinks, video recommendation lists, Facebook tags, newsfeeds, and Twitter posts; they also surface in the old-school format of e-mails, circulated by record companies, artists, bloggers, activists and music lovers.

Returning to my first demonstration of a YouTube inquiry, it can be shown that the video featuring music by a faceless Samingad accompanying a motorcycle ride is only five clicks and several scrolls away from footage of Bunun ritual declamations in Nantou.[17] On YouTube, pages expand into bigger menus, exponentially expanding the initial material. Clicking on usernames or particular channels, or copying and pasting search terms found in comments would also lead one beyond YouTube into aboriginal music blogs, artist pages, and chatrooms.

The bigger picture does not only concern "the search" itself, of course. Indeed, one might look at the quest in reverse and consider the originators of content. How do these individuals, communities, or institutions choose to represent aboriginal music on the Internet? What are their preferred platforms? What are their aims and who are their audiences? The next sections in this chapter consider specific processes of recontextualization, and investigate how different producers of content network with each other and media institutions within and outside Taiwan.

Faye Ginsburg sees indigenous digital media as having

> raised important questions about the politics and circulation of knowledge at a number of levels; within communities this may be about who has had access to and understanding of media technologies, and who has the rights to know, tell, and circulate certain stories and images. Within nation-states, media are linked to larger battles over cultural citizenship, racism, sovereignty, and land rights, as well as struggles over funding, airspace, and satellites, networks of

> botany, about fishing and hunting. And then I write about all of this again on the Internet. And then people discover all this and come to find out more. (Interview, June 28 2011, Taipei)

Suming's social-enterprise approach to making music and networking can be thought of as part of a second wave of indigenous musical activism, built upon a history of aboriginal nationalism shaped by 1990s artists such as Kao Tzu-yang and the now inactive aboriginal collective Beiyuan Shanmao. Themes concerning land and hunting rights, the dumping of waste and sociopolitical marginalization continue to be explored by other contemporary aboriginal musicians directly in song or via new soapboxes emerging alongside musical spotlighting.

Faye Ginsburg points out that "the term *the digital age* stratifies media hierarchies for those who are out of power and are struggling to become producers of media representations of their lives. It is an issue that is particularly salient for indigenous people who, until recently, have been the object of other peoples' image-making practices."[47]

Often, digital remediation is key to reclaiming aboriginal artists' multiple identities as musicians consciously plugged into technological developments, urban life and politics. Kimbo, for example, has presented on "simple living" at the international Internet-hosted TedEx conference in Taiwan, taking control of his own image as an urbanite, tech-savvy naïf.[48] Panai, Samingad, Ilid Kaolo, Suming, Leo Chen, and Chen Chien-nien, among others, have spoken to newspapers, TV crews, and websites on behalf of their musical contributions while segueing into talk about politics, even as they sing about aboriginal issues. Their mainstream media appearances cross-reference web platforms. Aborigines rally to the cries of potent pan-aboriginal vocables such as "Hohayan!" in song.[49] Over the Internet, such musical utterances have also been directly incorporated into web domain names, as in the aboriginal community site hohayan.com.

A note on the issue of copyright can be made of this embracing of new media, otherwise in line with the ethics of Web 2.0's crowd-harnessing capabilities.[50] What is interesting is that two constructions of the "public" have emerged among different generations of aboriginal musicians. The first "public"—or rather, "people"—can be understood in Habermas' terms of the "public sphere," and constitute the anonymous masses of Internet users in Taiwan—and those beyond—working, playing and making connections over the web; they are the "everyone" and the "world" that Suming speaks of. A second "public" comprises government institutions and big record companies who play gatekeeper to funds behind social or cultural initiatives implemented in the name of good aboriginal policy-making. These include institutionally backed academic researchers who have attempted to negotiate with rights-conscious individuals over collecting songs for ethnographic archiving. Increasing

wariness of the second kind of "public" among older aborigines can in part be traced to fallout from the well-known copyright infringement lawsuit involving the 1993 dance hit "Return To Innocence," which featured, allegedly without authorization, the sampled voice of Amis aboriginal singer Difang. The original recording had been made by Han Taiwanese ethnomusicologist Hsu Tsang-hoei.[51] Fast-forwarding to 2013, increased safeguarding of cultural ownership from misappropriation has led to a rise in financial recompense for singers, complex legal transfers of intellectual property and the creation of limited-access Internet sites protected by passwords.

A second force behind this new vigilance has also been galvanized by larger, global movements which frame power shifts in national or international politics as the result of the technological enablement of the rising "anonymous" masses.[52] Through new media and networked infrastructures, these masses have come to possess louder political voices and the ability to self-organize on instant and large scales. Younger indigenous communities have been quick to harness this aspect of the Internet, turning to cyberactivism, which—as Ginsburg writes—offers "some other coordinates for understanding what such an interconnected world might be like outside a hegemonic order."[53] While the orchestrated robustness of web campaigns remain to be evaluated, pro-aboriginal discoursing of news and ideas is prevalent among subscribers of aboriginal news and music sites, as seen for example in the nearly 5,000 "friends" who post regularly on Suming's Facebook and YouTube profiles, leaving thoughtful comments on politics.

Returning to young Amis singers again, a final remark can be made on their digital musical indigeneities, which ultimately have to be understood as only one, postdigital aspect of their varied lifestyles. Pau-dull's YouTube channel, for example, features more than his own music; footage ranges from diving expeditions set to Keith Jarrett's music to scenes of flora and fauna. Suming takes new media for granted; they function as prosthetics for life at large. He also explains that his interaction with media is none too different from that any other contemporary urban Han person. Suming's stance echoes the larger concerns of postdigital thinkers in their consideration of technology's inroads into humanity.[54] On and off the Internet, he has been vocal about his duties to larger society via his loyalties to different communities, negotiating the multiple identities of son, brother, friend, teacher, client, employer, villager, and urbanite. His indigeneity exists within a larger ecosystem of culture and politics. Thus, his Facebook page and YouTube channel project diverse sounds and images from these different aspects of contemporary life, ranging from gig reviews to photos of friends' babies to articles on Pride marches in Taiwan and recipes for making rice wine. Collectively, these presentations reference symbols of stereotyped Amis "traditionality" but also offer a holistic picture of a contemporary, networked aboriginal musician's life beyond the notion of any

"authentic" or "ethnic" Amis-ness. The same can be argued for fans of Suming and aboriginal music communities at large. A casual glance at the playlists of some of the aboriginal-authored YouTube channels named above will showcase content beyond indigenous culture, reflecting the aboriginal music fan's wider contemporary lifestyle, tastes, pursuits, and responsibilities.

New Media, Old Media, Time Warps, and the Generation Gap

If the discussion so far has privileged the demographic of an under-50 Internet user, then a closer examination of the generation gap might be useful. The singer Suming might write about learning songs from his grandmother in his home village, but how has new media impacted his grandmother's generation?

My field experiences have shown that aborigines of a senior demographic, largely resident in outlying villages and pursuing semi-subsistence lifestyles while also dependent on income from offspring, do not (for now) seem greatly impacted by the Internet. To be sure, aboriginal communities have created multiple and symbiotic contexts for singing what they idealize as "traditional" or "folk" song, turning work songs which would have otherwise died out with the advent of farming technology into generic "leisure songs." Disappearing melodies are preserved through indigenized church hymnody and enter the electronic repertoire of communal karaoke sessions.[55] Aborigines of all ages continue to engage enthusiastically in seasonal festivities involving song and dance, keeping recontextualized rituals alive less for purely cosmological reasons than as acts of identity assertion.[56] However, many village-based aborigines over fifty do not seem particularly concerned if these examples of musical activity do not feature as popularly on YouTube, Facebook, and wretch.cc, etc.

Indeed, senior aborigines remain seemingly ambivalent about debates over Internet representation of their music and their own general access to the web. Unlike some younger, vocal members of the community, they also appear relatively phlegmatic about the loss of context and content when five-day-long festivals are reduced to a ten-minute collage of highlights on YouTube. For many, the format is far too much of an occasional novelty to be taken seriously as an instrument of practical value. To be sure, the Internet and wireless networks are widely available across the whole of Taiwan, including aboriginal villages. However, in the more remote villages, the senior aboriginal demographic rarely uses computers or smartphones. Instead, they communicate with friends and relatives through the simple act of walking across the street to talk in person, or using landlines or simple mobile phones. In a way, one could argue that this sector of the aboriginal population is practicing self-exclusion from certain processes of empowerment—particularly of interaboriginal and global indigenous nationalist movements networked through new media platforms.

This is not to say that elder generations are not technologically enabled. As in rural India, where Peter Manuel has found that cassettes served as a form of local cultural resistance,[57] an industry of regionally distributed CDs (and until recently also cassettes) has been in existence for a few decades. Pre-Suming aboriginal artists in their fifties and sixties have been releasing new albums based on popular song styles of the 1950s and 1960s. Featuring a trembly vocal style and wide vibrato, this time-warped genre of early aboriginal pop is inspired by the Japanese genre of *enka* and finds its origins in nostalgia for to the historical Japanese colonization of Taiwan from 1895—1945. Referred to as *shandige* (mountain songs) or *wuqu* (dancing songs), such aboriginal-language and Mandarin offerings are set to pentatonic melodies and layered over with electronic beats and synthesized accompaniments. However, due to the new media divide across the generation gap, the genre is primarily circulated through hard copies of individual CDs purchased in regional and niche shops and played on portable boomboxes, rather than as YouTube videos or streaming files. *Shandige* and *wuqu* are the staple musical diet of karaoke sessions, wedding banquets, village socials, and special performance items in ritual festivals. The covers of the CDs, featuring artists festooned in colorful ceremonial gear, are the mainstay of bus, truck, and taxi circuits between aboriginal villages.

Disjunctures emerging through this asymmetry between format, consumption, and listener demographics are interesting to consider. A case in point is veteran singer Hoceko Lu Jingzi, one of Taiwan's first aboriginal pop stars to achieve fame in the 1950s. Lu, who is in her seventies today, has become canonized as one of the founders of *shandige* aboriginal pop.[58] Her early albums first produced on crackling records and now remastered as CDs continue to be sung and danced to at karaoke and wedding celebrations, while album covers showcase her in time-warped glory as an eternally svelte seventeen-year-old. Lu took a break from singing and recording during the 1980s and married a Han businessman, eventually starting a family of her own. In recent years she has made small comeback as a guest star at contemporary aboriginal pop concerts and on aboriginal variety TV shows. Recordings of some of these later performances have found their way onto YouTube through younger singers rebroadcasting their shared platforms. In such contexts, Lu is usually presented next to her younger counterparts, shown in streetwear, wearing colorful aboriginal gear. Holding on to her doyenne status via a microphone, her thrice-remediated voice—on YouTube, on television, via a PA system—is today husky, matronly, and deep, in comparison to the high-pitched stridence of her youth, preserved on vinyls remade as CDs.

The two parallel presentations of Lu on different media present dissonances of time, production values, musical style, vocal quality, star image, and audience consumption. On the YouTube clip, cloned off an aboriginal TV variety show, Lu interacts with younger Amis singer and TV show host, Ado

Kaliting, who has interpreted the older singer's original song in the style of a blues improviser. The elder Lu is reintroduced to younger audiences as a "classic" and featured in juxtaposition with the sassy Ado as an "older" voice. However, outside of the TV show and Internet, an earlier version of Lu as a seventeen-year-old singer is remembered on CD by her earliest fans, who access an entirely different aspect of this same "classic" voice. The former situation is a performance of age; the latter is of time.

Lu's temporally phased representations on YouTube and CD reflect a particular kind of technological determinism at work. This in turn has to be understood in an environment where concepts such as "technological catchup," "backward," or "up-to-date" cannot be ruled only by the linear progression of time. If anything, there is a constant shifting, exchange, adaptation, and remaking of content and style across coexisting platforms. The delineations are never clear-cut: separate versions of Lu's mediated artistry coexist not only on the Internet and in regional CD distribution circuits, but also on the broad-capture medium of television, attesting to overlapping consumer habits. This crossover is achieved with different media formats telescoping into each other. Lu's original TV appearance itself incorporates film footage from a separate occasion when she is shown semi-improvising in folksong style without instrumental or electronic accompaniment. The same show further integrates historic excerpts from her early recordings, aptly demonstrating Jenkins's notion that different forms of media converge rather than replace or overtake each other.[59]

Not all the work is accomplished within the mediated world, however: alongside the possibilities of time-phasing, person-to-person contact and family ties play important roles in addressing the digital divide itself. Back to Lu again: while she maintains that she is far from a regular Internet user, she did own a blog during the late 2000s. The site was first set up by a young fan who was also a web designer, and later handed over to Lu's daughter. In an interview at her home in Taipei in 2011, Lu described organizing face-to-face meetings for the sole purpose of initiating online communications:

> It's not much of a site, I just wanted to have a presence on the Internet I could control. Everybody seems to have a website these days. It's helped me publicize and sell my rereleased albums. Occasionally fans write in. My daughter, who would come round and visit me anyway, would sit down with me in front of her laptop and I'd ask her to put up what I want to say, or change the pictures. She'd also advise me on how to blog. But then my daughter got busy with her own kids, and I didn't know what to do. It's gone dormant. (Interview, Taipei, June 27, 2011)

Lu is by no means a technophobe; her early experience in the record industry and her familiarity with studio work stand her in good stead handling

microphones and mixing desks when she sings and presents programs at radio stations. Like many Taipei residents of her age, she has also become proficient with mobile phones. She has configured her current ringtones and caller playback tunes to broadcast her own hit songs from the 1960s in addition to her favorite Mandopop tunes. More interestingly, Lu engages with the Internet in her own roundabout way, vicariously watching content downloaded by her daughter and her friends' children; calling on Internet-monitoring favors from visiting academics (including myself); and leaning on fans who bring their laptops into her home to show her streaming footage of herself on YouTube.

While Lu has not professed interest in listening to performers other than herself and a few friends on YouTube, nor shown the urge to engage in more adventurous surfing, my own field experiences have shown the elder generation of aborigines coming to treat computers and wide-screen smartphones as de facto television sets. Often, intergenerational groups of aborigines sit around a computer screen or a smartphone screen. These devices are often operated by visiting children and grandchildren, who provide ongoing commentaries on the videos. Most of these shared viewing sessions feature home footage or TV shows involving friends or relatives, sometimes in musical performance.

On one occasion in the village of Fafokod in Southeastern Taitung, I came across a fifty-something aboriginal man singing songs and sharing musical insights with his amateur musician son through Skype. Over the course of this conversation, the man also received a tutorial on how to use the Internet itself, with his son sending YouTube hyperlinks via Skype's chat function, and giving verbal instructions on how to type keyword searches into Google. The elder aborigine was clearly struggling to deal with both channels of video and chat communication. In the end, the preferred format of Internet messaging in Taiwan proved too much of a challenge for the new user, and wherever possible the older man would adopt the—ironically—even newer technology of voice-over Internet protocol. While such occasions of web-based bonding are relatively uncommon, cross-generational contact through new media itself has contributed interesting ways of sharing and experiencing music among aboriginal communities. Even as technology has polarized the generations, newer generations of technology have come to bridge some of the resulting schisms.

Postdigital Integrations into Aboriginal Ecosystems: "We're not *Just* Aborigines but All Human"

A caveat has to be made with regard to the generation gap I have so far indentified in the musical practice of digital indigeneity: this "gap" is also a function of intersectional factors. These include the relative willingness to adapt; varying access to different languages and input formats; the availability of Internet

many individuals whose combined efforts contribute to a global ethnomusicological discourse. This is not to say that different methods cannot coexist within that discourse. In fact, I believe that it is only through greater attention to these types of differences that a state of equilibrium will ever be achieved. To paraphrase artist Jimmie Durham (Cherokee), that process cannot begin with a longer list of facts.[27] Instead, I follow curator and author Paul Chaat Smith (Comanche), whose comments on art practice I find similarly applicable to ethnomusicological method and the present study: "At best, this is what serious art practice is about: choosing the right questions and finding ways—visually, intellectually, emotionally—to explore them with viewers. It is not really about answering them. Often a successful investigation will not answer a single one, and instead raise new questions."[28] It is hoped that by mobilizing the aforementioned concepts under the theoretical framing of "homework" gifted by Professor McAllester, other performers and scholars will consider the applicability of these ideas as a way of thinking about their own works in order to understand points of intersection and divergence between different cultures and their musical and media practices. The purpose of this work then is not to answer questions as much as it is to pose questions that will continue a long-lasting conversation as fluid as the practices under consideration.

Early Experiences

I was first introduced to powwows and powwow singing as a child, while attending local San Francisco Bay Area events with my mother and father. I did not have an opportunity to begin singing, however, until I began my undergraduate studies at SFSU, where I met Dr. Bernard Hoehner. Dr. Hoehner was a Lakȟóta (Húŋkpap'a and Sihásapa) powwow singer, Northern Traditional powwow dancer, powwow emcee, World War II veteran, and one of the first American Indians to graduate with a degree in veterinary medicine. By the time I met him in the early 1990s, Dr. Hoehner had been lecturing in American Indian Studies at San Francisco State for almost twenty years while maintaining a successful veterinary practice. He taught classes on religion and philosophy, science, the Lakȟóta language, and powwow music and dance. Dr. Hoehner and I met and began our relationship in the context of his AIS 220 American Indian Music class.

AIS 220 focused on the music and dance of the intertribal powwow. The class began by providing students with an introduction to the many histories informing contemporary powwow music and dance. With that foundation, Dr. Hoehner would then teach students how to make their own powwow drumsticks. At that point, in order to begin teaching the section of the class devoted to powwow music, students were invited to sit at Dr. Hoehner's powwow drum,

a bass drum adapted from a Slingerland drum kit. The unique opportunity to learn to drum and sing made AIS 220 a very popular class with both Native and non-Native students.

The powwow songs learned in AIS 220 came from a variety of sources. In some cases we learned songs that Dr. Hoehner had acquired through his many years attending, emceeing, dancing, and singing at powwows. In other cases the songs were originals made by Dr. Hoehner.[29] Dr. Hoehner stipulated that we would learn the songs aurally; we were not allowed to use Western musical notation to write them out. Lakȟóta lyrics were provided by Dr. Hoehner where appropriate but, due to the mechanics of powwow singing, it is fairly difficult to read music and sing at the same time, so those lyrics were only useful in a "homework" study capacity. Dr. Hoehner encouraged students to use their ears in the process of learning and memorizing powwow songs, as this was how he himself had learned to sing. He also allowed students to bring handheld audiocassette recorders to class and to record classes in which drum rehearsals were conducted. One of my earliest memories of singing with Dr. Hoehner involves going with him to the SFSU student store to purchase a handheld cassette recorder to take with me to class. I still have cassettes in my personal archive made during my first class meetings as a student in AIS 220.

In addition to encouraging students to make use of handheld cassette recorders in class, Dr. Hoehner also created tapes of listening examples and made them available to students through the school reserve library. These tapes were made from a variety of LP and other cassette sources, as well as from original recordings of Dr. Hoehner's voice. By the time I took AIS 220 with Dr. Hoehner in the early 1990s and later began serving as his teaching assistant, the listening tapes were primarily live recordings of Dr. Hoehner singing the songs that were to be assigned and learned for that particular term. Dr. Hoehner and I would sit in his office with a cassette tape recorder between us in order to learn, sing, and record the songs for a given semester's class. I have copies of these cassettes in my archive, as well.

These early cassettes form the archival basis of my understanding of powwow music and were/are consumed in a variety of contexts. As a student in AIS 220, I used Dr. Hoehner's listening example tapes to study for listening quizzes that were given as part of the class. These tapes, however, although good for learning to identify a song, were not always the best to use for learning to sing a song. Since the listening example tapes usually contained shortened versions of the powwow songs taught in class, I often made use of in-class rehearsals to record Dr. Hoehner singing a longer version of a particular powwow song I wanted to learn. I would then create mix tapes of my favorite powwow songs. My own powwow practice regimen involved repeatedly singing and drumming along with those mix tapes until I could commit a song to memory. Given the immediate need in class to use listening example and rehearsal tapes as study

as my software interface. My reason for recording direct to hard drive was to make the process of eventually uploading the mp3 files to iLearn more expedient.

Sweetwater Singers rehearsals still take place as needed before events. Interestingly enough, where once we used to try to record every rehearsal and listen regularly to tapes, we now rely more on singers' memories to shape the course of a given rehearsal. We begin with drum "standards" that are familiar to the group in order to warm up and focus. Once we are warmed up, either Dirk or I will begin remembering older songs and rehearse them with younger drum members. At least one digital recorder is always on, and rehearsal recordings are edited afterwards and made available to the group for download by private cloud storage.

Implications

In their description of traditional ecological knowledge, Marie Battiste (Mi'kmaq) and James (Sa'ke'j) Youngblood Henderson (Chickasaw, Cheyenne) state: "What is traditional about traditional ecological knowledge is not its antiquity, but the way it is acquired and used. In other words, the social processes of learning and sharing knowledge . . . lies at the heart of its traditionality."[36] If one extends their understanding of traditional knowledge to the realm of music, then the music archives created by Dr. Hoehner and his students and singers stand as repositories of traditional knowledge defined not by their age but by the circumstances that created the conditions of possibility for their existence. I would further argue that the social experience of different recording technologies might be situated as part of traditional Native music knowledge in both urban and rural contexts. It is therefore vital to consider the implications of my reflections, as they can guide future investigation into both my students' and my own experience of the intersections between musicking and technology.

Primary among these is that a recording of Dr. Hoehner in 1993 does not sound the same when played in 2014. I hear and interpret Dr. Hoehner differently today than I did eighteen years ago. In this way, I find that my own traditioning—my sonic sense of identity as a powwow singer—must be understood as a fluid process, since the social experience of playing those tapes is unique each time I press the play button. My archives are not static entities of unchanging information; they are in fact dynamic, given the fact that the classroom interpretation of the material contained on those cassettes must change over time in order to remain relevant to those who wish to learn. I may return to a given tape because it features a particular song, but I have to teach that song to students who are traditioned by digital technology and other generational factors.

If my traditioning is fluid, then I must also assume at this point that the traditioning of my students is similarly fluid. I require that my students find ways to make what they learn in AIS 320 relevant to their own lives. In some cases this entails representing the songs through different perspectives or even making new songs to specifically address a context or need for which there is no precedent. At one time in my career I saw this change as dangerous to the maintenance of these ways and worked to try and minimize any differences. Now I hear those changes as part of the continued health of these musical practices. Powwows are not practiced the same way today as they were fifty years ago. Part of the beauty of powwows is that they change every weekend in response to the needs of the people who attend them in a manner that could be thought of as "strategic traditionalism."[37] If the event can change, then it follows, in my interpretation, that the songs must also be allowed room to change, grow, and remain healthy. Referring back to Battiste and Henderson, this type of musical knowledge is important not because it is preserved and reenacted, but because it is continually remade.

The foundation of that health lies in the social activity of powwow musicking. When I first recorded powwow listening examples for my Stanford class by overdubbing myself, I gave very little thought to the changes I was making. When I presented those mp3s to my students, I remember a large number of them remarking that the sound seemed strange and that it was odd to hear me singing with myself. I realize now that my students were reacting to the fact that I had taken a social activity they were first exposed to as involving multiple voices through analog traditioning and changed it to something that I made individual through digital traditioning. While every musician's response to technology is unique to their lived experience, I find that for myself, it is possible to combine the convenience of digital technology with the social character I associate with analog technology. I would further argue that innovations in Native American musicking, such as the harmonized powwow singing of Alex E. Smith (Pawnee/Sauk & Fox) and Cheevers Toppah (Kiowa/Diné) or the peyote singing of Louie Gonnie (Diné), are but two examples of how others have come to find technological and musical balance in their own performance practices through the use of overdubbing and other studio technology to communicate their own traditional musical knowledges.[38] I hope, through future explorations into this topic, to better understand the ways in which I and other musicians negotiate these balances between technology and musicking, since those skills will remain essential to singers and listeners as technologies continue to change in the future. It is certainly a balance I will continue to teach, study, perform, and advocate for in my own life.

group). These teachings have helped me form my own views of music and philosophically inform my compositions. I grew up in Vancouver in the Mount Pleasant area, which back in those days was a diverse working-class neighborhood. I was exposed to a variety of songs from different musical cultures. I also started in radio at a young age (through the high school I was attending), which further broadened my musical exposure.

When I speak of my education, many things have contributed to it that were not necessarily academic. I started at a community radio station called Vancouver CO-OP Radio and that had many music programs that specialized in many music forms (electro-acoustic, experimental, reggae, punk, and many other forms). At that time (1982–83), I was also part of the first wave of Indigenous radio shows in Vancouver, which made me realize that there were very few recordings of Indigenous music.

The lack of Indigenous recordings would inspire me to explore new things. As a teenager, I went through the usual voice-altering experiences, which made me self-conscious and retreat to the safe corners of technology. I took to the recording, editing, and airing of protests and political events that were part of Indigenous life in Vancouver—events like the Constitution Express of the early '80s, where Aboriginal leaders such as George Manuel led people to Ottawa to press the government to include Aboriginal rights in the proposed Canadian Constitution or the discussion of Bill C-31 of the Indian Act (which changed how status Indian women were defined by the Indian Act). The airing of such events with interviews from people involved in these movements helped give voice to that which was missing or distorted in the mainstream media. Those were the days of real-to-reel life.

I tended to fall into opportunities and not recognize them until much later. After radio I went into print journalism, where I learned how to elicit responses from people I interviewed and think about a broader and somewhat objective perspective of what was going on. From there I attended Spirit Song Theatre School and developed my voice, which I had missed for so long, and became comfortable with my inner bass. This is where I started doing music for theater. I had been playing guitar since I was seven years old but it was not a serious pursuit at that time. I loved running the guitar through effects and that sound and exploration opened doors for me, as the music fit well with the theater and dance presentations. I learned how to converse with directors and choreographers, since I understood some of the theater terminologies.

How would you describe your role in the transmission of Salish expressive culture, particularly music?

I have been told to share and pass on the songs. Indigenous people in Canada were not so free to share songs, language, and culture for many years because

of laws and policies. My mother was beaten for speaking and singing in her own language. Her resistance to the church and government ensured that the songs and language would survive.

She said, as with anything we try to hide, if we hide the songs we will lose them, and if we want to be proud of our heritage, then we need to share the songs proudly and not feel any shame or fear in singing or sharing them.

Now that she is gone, it is up to me to share the songs in the family along with my brothers and sisters and teach our children and grandchildren those songs.

What do digital media bring to or how do they threaten Indigennous musical performance, composition, and transmission?

Intent is key to how a technology is used by a cultural or linguistic group. If the intent is to document a language, a song, or a dance, then the use of digital media is very good for its intention. If the intent is to construct a new work based on traditional forms then, again, the use of digital media is good. If, however, the intention is to appropriate or to exploit a cultural or linguistic aspect of a group, then the use of digital media is not so good.

How did you learn Salish song, and what role did musical media play in this process?

I learned the songs from my mother, who sang everyday. She would teach us the songs and tell us to accompany her at social and community gatherings.

There was very little access to any recordings of our songs. In fact, there was so little documentation of Lil'wat songs or Salish songs in Canada that I did not hear any recordings until 2004, when I came across an archival recording from 1911, when St'at'imc chiefs went to Ottawa to present the 1911 Declaration of the Lillooet Tribe. Historically, British Columbia (BC) did not have very many treaties negotiated with First Nations communities. British Columbia was a British colony until 1871, when it joined the Canadian Federation. So many lands were being occupied and seized by settlers with no intervention by Canada. The Lillooet People needed a way to address this and so put together the declaration in order to save what little they had left of their territories. To this day, no acknowledgment has been made by Canada to address this issue, and the modern treaty process does not work in the best interest of First Nations communities.

My family group was the first to record and release the songs to the public in CD form in May 2000. The CD was an important step in Salish music because, first, it documented songs my mother learned; second, it put a contemporary spin on the songs with the arrangement of harmonies; and last, it included new songs created by members of the group which followed the traditional Salish

It is hard to say what impact my work has had, since I am usually not present when it is played on TV or on the radio. People have come up to me and said that the music I composed for a certain film moved them and that is really nice to hear. In terms of other Indigenous artists it is nice to make a connection through the work and have collaborations spring up through different projects. Working with Inuit artists such as Eva Adams, Donna Bernhardt, and Sylvia Cloutier, who come from different parts of the North in Canada, in creating new works based on those traditions have made me look at my own traditions in a more focused way. Traditions such as those which incorporate voice in relationship to drum, breath, sounds of the land, and narrative made me connect to both Inuit and Salish musics at the same time.

In North America there is still an entrenched mindset that anything Indigenous is inferior. In music we still find that traditional music is thought of as folk music and academic institutions have little or no representation of local musics. The lack of formal Western music training affects traditional singers and composers in grant opportunities, in teaching, and in working on productions that would represent our own culture (awards shows, national/provincial celebrations, and in cultural institutions like theater, dance, and opera productions). So, my feeling is that there is a cultural mindset that will take generations to change; however, with greater access to these traditions through social media, people are connecting. My video poem for "The Snows" was part of a university literature class in Alberta, and my work in AIDS awareness was part of an exhibit in New York simply because the people involved had seen the work on the Internet.

How do debates concerning access and ownership of Indigennous cultural heritage impact your use of digital media in your work as a singer, composer, producer, and pedagogue?

In 2000, our family group finished recording our first CD. I called up to our band office and asked about correct spellings of some of our songs and was told at that point we were not allowed to release the CD without permission from the chief and council. I spoke with my mother about this, and her response was that she did not need to get permission when she had learned these songs from her aunts or in-laws; she did not need to get permission to be beaten at school for singing these songs and keeping them alive; and she did not need to get permission to keep singing them from an elected council consisting of people who were not even born when she learned them. "Why would I learn something that I am not allowed to share?"—a sentiment that informs my own work.

I understand the importance of protecting our songs, but what is the price of doing so when so few know the songs? We copyrighted the recording and the arrangement of the songs and listed them as traditional compositions. By doing

this we protect the song through the arrangements. As traditional music is public domain, the copyright of the arrangement helps protect the songs in small ways. We have never been asked by the reserve to perform since then, but the community still supports the group through CD purchases and coming to shows outside of the community. Chief and councils are unstable and there are always shifts in power, but the people still support the music in its different forms.

We recorded songs the way my mother recalls them or have taken them and put new arrangements to them to reflect our singing style, and we share them with the community. We have created new songs based on the old forms using the language and have also arranged the songs to have Western instrumentation and have recorded them. Technology should be a tool of culture. That is, we must use technology to advance our culture (songs, language, dance, and art). When culture becomes a tool of technology (that is, when music is mined for source material to utilize in TV or film and put in a completely different context without anyone knowing it), that is when the gray areas begin to appear and our understanding of the culture can become distorted. Technology needs an informed, consensual, and contextual agreement with cultural practitioners. I, as a traditional singer, need to know that the music I share will not be used to sell beer or put into any other context that might bring harm to the songs.

The importation of technology for the sake of technology can have devastating effects on the culture and language. If you think of food technology and how that has been widely imported by many different cultural groups, we can see the physical effects through obesity, diabetes, and cancer where there was none before.

If we look at it from a cultural or arts perspective we can lose a worldview (present in language or songs) that comes directly from the land. One example would be asking someone's age: in English you would ask, "How old are you?" as in "How many years are you?" In St'at'imc you would say, "How many snows are you?" as in "How many winters have you survived?" This question brings up the fact that winters are hard, and if we are not prepared we may perish during the winter months. The question asks for a fact, but is also a poetic way to get information.

Another example of the importance of language and its revelation of worldview would be the words in St'at'imc that mean "to sing" and "to eat." Both sound very similar: ílhen (roughly sounding like "eet'lin") means "to eat" and ít'em (sounding like "eet' lum") means "to sing." One means to nourish your body by having something go in your mouth and the other means nourishing your body by having something come out of your mouth. We cannot go through life without eating, so why would we go through life without singing?

As an individual I do not own the songs, but I am part of a larger community that collectively owns the songs. Some would say that the songs are part of

music industry, and their distinctive sounds can generate financial return for local artists or communities.[10] Because recording studio processes are often hidden from public view, the tension between the cultural and economic meanings alluded to by Jameson is germane. This paper reports on an experiment that begins to bring those practices into view by comparing cross-cultural production aesthetics.

Since the late 1980s, I have been working (off and on) with contemporary Native American and Sámi recording artists in an attempt to better understand how digital technologies function in their creative practice and social networks. My motivation is strongly influenced by the fact that technological processes are hidden, and by my desire to demystify technologies of the ear (which are every bit as important as other "technologies of the self").[11] At times, this work has involved studio ethnography, interviews with sound engineers, recording artists, and others involved with Indigenous CD production; investigations of intellectual property; and feedback listening. It has been readily apparent that Indigenous producers often have unique approaches to studio production—approaches in which cultural values are embedded, rearticulated, and resignified in the recording/mixing processes.[12] I wrote about Sámi musicians' and producers' approaches in a 2007 article, focusing on the ways Indigenous concepts are articulated in the recording studio, especially in the hands of two very skilled musician/producers, Frode Fjellheim and Wimme Saari. I often wondered how non-Indigenous producers and sound engineers who know industry conventions might respond to the Sámi studio work. In this paper, I report on a small step in the direction of finding out by comparing two recording producers' responses about production processes in a wide range of Sámi recordings. The two producers are Anglo-Canadian Spencer Crewe and Norwegian Sámi Frode Fjellheim. I also draw on earlier interviews with Sámi performers and producers.

I worked through a number of Sámi audio tracks with Spencer Crewe, a talented engineer who works in the Research Centre for Music, Media and Place at Memorial University of Newfoundland, asking what he hears and how he would "read" various production decisions. Crewe enjoys "deconstructive listening," in which he identifies audible production and postproduction techniques, and he is patient and generous in response to my sometimes ill-informed questions. In his own words, he likes "talking nerd." Crewe has recorded, mixed, mastered, or produced recordings by a number of bands that have considerable regional and national success and one that has a large measure of international renown.[13] Furthermore, he has worked in diverse genres including rock, traditional Celtic, blues, country, world music and, to a lesser extent, classical. Like any listener, he brings both personal taste and learned experience to this exercise. He clearly doesn't "represent" North American studio producers, but he is aware of certain norms and conventions. Sámi

producers are, of course, also aware of mainstream norms and conventions, but they are arguably disinclined to regard them as normative. The rest of this article will elaborate how conventions may at times be adopted but at other times ignored or resignified.

Trondheim-based Fjellheim is a remarkably adept collaborator, since he is thoughtful and generous about explaining both traditional *joik* production and the ways he uses traditional *joiks* in modern live and recording projects. As a "crossover" musician with traditional, jazz, and classical training, he has worked with musicians in many genres, and created intercultural works, among them an opera, *Skuvle Nejla*, and an Arctic Mass. As a postsecondary instructor and curriculum designer, he also understands academia.[14]

Like most producers whom I have met, both Crewe and Fjellheim regard recording and audio production as a distinct art form not an imitative one.[15] Fjellheim expressed this as follows: "I always consider the recording format as an artistic expression on its own, rather than a recreation of a 'reality.'"[16] His use of the word "reality" in quotes is noteworthy, since it recognizes that recording and mixing never simply replicate acoustic sound, but always mediate the sound source. Fjellheim's comment further implies some skepticism about interpretations that read social nuances into studio production. He asserts that the imaginative spheres evoked in the artistic processes of recording are neither determined nor limited by conventional codes.[17]

Sámi Cultural Identities in the Recording Studio

Phase one of this work began about twenty years after the boom in the Sámi recording industry had kicked off. As Hilder (2015) describes at more length, Sámi music of many kinds (live performances, exhibitions, recordings, festivals) have become powerful means of negotiating the politics of Indigeneity in Arctic Europe in recent decades. Furthermore, most of the recording production was in the hands of Sámi themselves, first through the companies DAT and Iđut and later joined by Rieban and Vuelie (Fjellheim's company). By 2010 approximately 380 CDs had been produced, with eight to ten emerging each year.[18] As in many parts of the world, Indigenous audio and video production flourished in the digital era. In Sápmi (the region of northern Scandinavia where Sámi reside), music production was tied to local developments, central among them challenges to Indigenous land rights relating, in part, to hydroelectric development. It was enabled by the expansion of arts subsidies within oil-rich Norway, albeit with conditions that the traditional genre known as *joik* be featured in all productions.[19]

Audio recording was not without its challenges. The live tradition of subtly altering a *joik* to reflect a specific situation or of responding to a person's *joik* by

Genre and Gender

The organization of music industries around "genre cultures," as Keith Negus has labeled the phenomenon, which "inform the organization of music companies, the creative practices of musicians and the perceptions of audiences" is well proven by now but not often tested cross-culturally.[35] While a label such as "world music" attempted to define and homogenize a new genre culture in the 1980s, the diverse nature of the music encompassed in such a catch-all category often defied categorization or, as is the case with much Indigenous music, was generally placed outside of the category altogether. Furthermore, as Tom Porcello notes about the ethnographic studies in the anthology that he coedited,[36] media theory has often ignored the "everyday *uses* of technology by social actors in crafting sonic artifacts and environments. Here the value of ethnography as the principal methodology of anthropology and ethnomusicology bears fruit by providing a window into how people deploy technology to engineer (whether by making, listening to, or circulating) their musical and sonic lives."[37] Indigenous producers and Spencer Crewe tended to place different emphases on genre, on the one hand, and social functionality, on the other. Where their interpretations of production strategies were more often coincident was in the imaginative spatialities of some of the most innovative Sámi work.

The range and variety of recording and mixing techniques used by experienced Sámi producers such as Johan Sara Jr., Wimme Saari, and Frode Fjellheim led Crewe to describe some of the production values as "anti-pop" in one session and "informed by classical music" in another. He thought Mathis Oskal (#1) sounded "traditional," the recent recordings of Angelit (#6) "commercial pop," and Per Tor Turi (#9) "very electronica." In spite of the sheer variety, then, there was a constant pull in Crewe's experience toward genre definitions. The strength of genre expectations often influences the circulation of Indigenous recordings. Peter Dunbar-Hall and Chris Gibson quote the veteran Murri recording artist Kev Carmody about the fact that mainstream radio "has an obsession with 'radio friendly' music. They won't even touch anything that's not 'safe' to play. They don't like anything or anybody that's singing from outside the system and communicating messages that criticize that system."[38] While the "system" is described in terms of the political content of the lyrics, it is likely that part of "radio-friendly" is the genre expectations of radio's clientele since most "format" radio is so defined.

In Sápmi, on the other hand, Indigenous radio stations broadcasting in the Sámi language were open to playing a wide variety of styles.[39] Most musicians with whom I have spoken regarded radio airplay as less restrictive than CD production due largely to the funding mechanisms. CD production has relied extensively on government grants, initially through national programs,

but after the founding of the Sámi Parliament in 1989,[40] through a Sámi Culture Fund to which artists, writers, and musicians as well as organizations could apply.[41] Since 2001, funds continue to be distributed through the Sámi Parliament, but the administrative structures have changed. I was told that there were expectations that elements of "traditional" sound—*joik*—would be part of Indigenous production, an expectation that Australian musicians also encountered.

On the other hand, Sámi musicians and producers often ignore or challenge the relevance of genre boundaries, or the need to sound traditional, using at times a strategy that Tim Taylor has labeled "strategic inauthenticity."[42] Even the lengths of songs or the track boundaries that separate them might be regarded as part of this strategy. Wimme Saari, for instance, often continues one electronic element from one track to the next so that there is no silence between tracks. In this way, he adjusts the time between vocalizations, since "some pieces can be such that another cannot begin straight after, but there has to be calm water before the next one begins. And some pieces require that the next one must begin at once."[43] For the most part, though, Saari encourages listeners to respond independently: "I don't want to direct or guide or lead the feelings they get." On the other hand, producer Magnus Vuolab explained that he often lays down bed tracks to create a groove and then records and overdubs the vocal lines (that usually involve *joiking*) quite separately, a process similar to that of Crewe and many other North American popular music producers.[44]

In addition to genre references, gender constructions were frequently mentioned in conversations with both the Sámi producers and in earlier interviews with performers. The earliest recording technologies were often said to reproduce male voices better than female voices.[45] Techniques for moderating any harshness in female vocals are still part of some sound engineering training. The *joik* sound, on the other hand, is consistently said not to be gendered. The "colors" of every range are savored. Sámi women, then, who perform popular music (*joik*-derived or not) have encountered problems in mainstream recording studios when they used a variety of timbres. Some were told to sing more lightly and were further "feminized" in the mixing process. Sofia Jannok, who describes herself as "bicultural" (Sámi and Swedish), and who was one of the new solo stars on the Sámi scene in 2007, commented on the instructions of her producer to sing only with a light tone quality that she calls her "small" voice:

> On stage I like the dynamic of a very, very small voice to a very, very big voice; so it was hard for me to only use the small voice. It was a little bit frustrating sometimes, but in the studio it is hard to get the feeling of the big kind of voice. . . . You get a very close, almost whispering feeling in the studio which you can't really bring on stage.[46]

From a non-Indigenous engineer's perspective, "Ija Salas" from Jannok's debut album (#7) was standard pop production. Crewe described that mode of production as follows:

> Very close to the microphone, intimate with the microphone (there's a sweet spot). But you kind of have to sing like that. Give a sense of closeness. They have the air going, using a Neumann 87 or [some other microphone that has a] sweet high-end response, smooth sounding, tube technology as opposed to solid-state stuff. It starts with mic choice and they accentuate that with EQ and over-easy compression. But it takes a particular voice to do that. You can hear the compression on the high notes where she makes a bit more effort. She is playing with the microphone, turning away from time to time.

Sofia responded to this vocal containment by adding a hidden (unlisted) track at the end of her debut CD. The "naturalness" of this track is reinforced, since, at the beginning, she is rehearsing and warming up off-mic, then seeming to walk toward the microphone where she *joiks* unaccompanied, on mic, with a voice that is closer to her "big voice." Crewe described it as a "happy accident" that the mic was still turned on to capture this informal moment.

Other female artists have had similar experiences. Ulla Pirttijarvi told of the experience of recording one track for her first CD that "perhaps wasn't so peaceful as the other pieces" and it was left out of the track list.[47] The first attempts to record for her first album were furthermore not to her liking. "It was too much like pop music," she says. "It didn't have a soul." Annuka Hirvasvuopio confided that she didn't like the way the *joiks* sound on her own first album, *Vilddás*.[48] All of these artists have assumed more control over the sound of their voices in subsequent recording projects.

Sounding Temporality

Both live *joik* performance and recordings can become a sonic trace of lineage at times, when a singer could hear a family relationship through voices four or five generations removed, regardless of gender differences. As mentioned earlier, Wimme Saari feels the memory and the existence of past generations when he performs: "So sometimes when I *joik*, I have this feeling that I am not alone, or only with my band, but that there are bigger forces with me, the past generations. And all these, they move in my surroundings and I am one factor in that flow."[49]

Old recordings can also evoke similar memories and feelings. Ulla Pirttijarvi recognized a sonic connection in an archival recording of a man she subsequently learned was her relative, a *noaidi* (shaman) of note. She incorporated the recording into a song about him, "Čalkko Niillas" (They said he was a shaman) (#8). In conversation, we agreed that the timbre of her lowest notes was similar to her relative's, and thought Fjellheim had digitally enhanced this similarity. As Fjellheim reflected, he said: "I don't remember if I intended Ulla's voice to sound like the archival sample. Most likely my choices were based on aesthetic preferences. But of course those preferences might have come from somewhere."[50] He did intentionally bridge their voices by performing the call-and-response part himself: the part from around 2:18 up to the synth solo is "put together using the archive recording (a small part—now pitch transposed) and my voice, not Ulla's."

Crewe heard contrasts, not similarities, between the voices, especially in the middle section:

> They still kept a great contrast between the older and newer sound. Still [it is] more matched than if they could just treat it as a pop song. They wanted to keep that contrast. [The drum sound] could be just a sample or a drum [recording] with a whole pile of reverb and they kept the beater sound lopped off—cut the high-end frequencies out. I've done that a lot with bodhran, especially to get that heartbeat feel. . . . It's still a fairly warm and intimate sound as opposed to the overdone typical pop sound. [In the middle call-and-response section, they] tried to create the intimacy of the recording. That's what we call "ear candy"—moved her [voice] back, rolled back the high frequencies to give a very narrow bandwidth. In North America we call it the AM radio mix, the car stereo. It's just a way to break it up a bit and give the listener something different, just to give it a bit of contrast. [It's] another way to differentiate which is the call and which the answer.

Crewe notes the drum sound in the quotation above and Fjellheim responded to this, saying: "The drum track is Snorre [Bjerck, purcussionist and frequent collaborator with Fjellheim] playing in a big staircase. We wanted it *big*." The warmth that Crewe perceived, then, was the natural acoustic of the space in which the recording was made.

It is not surprising that Crewe's concept of sonic temporality would be oriented differently from that of the Sámi musicians, nor that his comments are often related to technological change. This is one of seven or eight places where he cast old sounds as the "AM radio" sound and saw it as a means of creating contrast by harkening back to an older sound aesthetic.[51] This perception is quite different from that of the Sámi performers, who see the "old sound" of the archive sample as a means of bringing the liveness of the past into the present.

A significant part of traditional *joik* performance in a community context is the fact that one *joik* may be "answered" by another. Of course, stage performance has lessened the tendency for this to happen, as I have discussed elsewhere.[52] As Chris Scales has noted with respect to Native American powwow

references his awareness of two worlds when he worked in Helsinki as a sound engineer at the Finnish Broadcasting Company (Yleisradio, often abbreviated to YLE). "Iđitidja" (5:00 a.m.) describes his morning routine and his bike ride to work in the early hours. It includes a reference to the train tracks that lead to his northern home, and finally to a difficult steep hill at the end of the route. It's a personal narrative that audiences cannot share unless he chooses to explain it.

While Crewe could not possibly have known the hidden meaning of such a private narrative, he was very attuned to contrasts that he described as "urban" and "organic." Perhaps the distinction that Saari felt between Helsinki, where he resided, and Karesuando, where he felt at home, was evident even without explanation. Crewe used a similar description of another track, "Rock of the Thunder God" (#13): "That [part] is processed. That [other part] is nice and organic. The processed stuff is living . . . left of center, and the organic stuff is right of center. He's keeping a very clear separation. Vocals very clean. Electronica drumbeat is very much in-your-face. Responsive. This guy's really good. Whoa. . . . Those little shots of electronica; dark at that. If that's not painting a picture—"

Conclusion

This study represents a small step toward an intercultural dialogue about the meanings of technological processes. How other Sámi producers respond to some of Crewe's hearings would be an interesting further step, perhaps best accomplished by getting not one but a number of Indigenous and non-Indigenous producers, mixers, and arrangers together. In this case study, however, a number of differences were arguably "unmasked" through a comparison of production techniques and interpretations. Crewe's distance from the culture sometimes allowed him to see the influences of changing technologies. He often thinks historically about technologies. He emphasized and often referred to generic patterns where Sámi producers attempted to defy or resignify them. In some cases, archival recordings are transformed in the process, reinforcing and reinterpreting cultural memory.

Such strategies often disrupt expectations about "genre." Genres have been identified as epistomologies of purification that govern expectations about how groups of people or places should sound.[63] Genres, similarly, have often been described as structures of listening or, to refer again to Jameson, as "the modes and forms of thought in which we inescapably have to think things through" but, he continues, "which have a logic of their own to which we ourselves fall victim if we are unaware of their existence and their in-forming influence on us."[64] The fluidity of traditional *joik* improvisation, for instance, is both

maintained and transformed by electronic manipulation, layering of other sounds, and postproduction. Crewe referenced genre more often than any of the Sámi musicians. Comparative perspectives exposed both the existence of and resistance to such structures of listening. They also revealed distinct Sámi concepts of relationality (socially, and across the categories of human/other species or human/machine), spatiality (in Sápmi, internationally, and imaginatively)—themes that are theorized in the introduction and emerge in other chapters of this anthology.

Crewe's casting of some techniques as "old" when Sámi producers saw them as reciprocity, alive in the present, was another interesting difference among the comments. In this regard, the views of Sámi musicians reflect a unique cosmological imaginary—one of the themes that has emerged in this anthology. What Crewe described as an industrial/organic divide contrasted with descriptions of the ways mixing could blur the boundaries between species, humans and machines. The amazing spatial imagination that Westerners cast so often as magical or sacred, was more often described by Crewe as fantasy. Is this a trace of exoticization? Perhaps. But, given that this is a young man whose office is filled with characters from Transformer movies and a Homer Simpson clock, I'm inclined to say that fantasy may be pretty close to real life for him.

The sonic associations we make and the conceptual frames we read onto sound, are indeed power laden. They constitute one of the potentially dangerous aspects of the separation of recorded sound from its sources, as Murray Schafer first taught us and as Steven Feld, among others, has so usefully elaborated. The ways in which studio producers shape listening experience, then, and the way they speak about their studio decisions constitute rich discursive fields that may be initially hidden from view but can nonetheless be revealed through reflective and reflexive conversations. While, as the anthology editors discuss in the introduction, the digital world is a global public sphere, its structuring and reception are still clearly shaped by both group and individual cultural engagements, among them Indigenous histories, spatialities, and relationships as well as cosmopolitan artistic careers and intercultural experiences. If we study these processes through an intercultural dialogue, some of the globalization processes—and localized alternatives—that Jameson speaks of may be unmasked.

Appendix: Audio Tracks Referenced

1. Mathis A. Oscal, "Ruvaš nieiddat ja buolaš bártnit"
2. Inga Juuso, "Jonsána"
3. Anders P. Bongo, "Nášša"
4. Wimme Saari, "Háldeduottar/The Mountain Háldi"

59. There are similar beliefs in many First Nations traditions.
60. Saari has created "Havana," "Paris," Calcutta," and others.
61. Harald Gaski, "The Secretive Text: Yoik Lyrics as Literature and Tradition," in *Sámi Folkloristics*, ed. Juha Pentikäinen et al. (Turku, FI: Nordic Network of Folklore, 2000), 196.
62. Hilder, "Sámi Musical Performance," 140.
63. Ana Maria Ochoa Gautier, "Sonic Transculturation, Epistemologies of Purification and the Aural Public Sphere in Latin America," *Social Identities* 12, no. 6 (2006): 805–25.
64. Jameson, "Notes on Globalization as a Philosophical Issue," 75.

Chapter Six

Creative Pragmatism

Competency and Aesthetics in Bolivian Indigenous Music Video (VCD) Production

Henry Stobart

Although several of the case stswudies in this book feature indigenous people based in countries with strong economies, it is important to stress that a disproportionate number of the world's indigenous people live in poverty.[1] A particularly notable aspect of the so-called digital revolution is the way it has provided low-income consumers and creators with access to cheap audio-visual technologies. Massive reductions in prices alongside exponential growth in unlicensed copying (so-called media piracy) have given rise to an abundance of new media consumers and producers among the world's poorer populations, especially in parts of the global south. In such regions, the Internet is often available only in larger towns and cities, primarily accessed in public Internet cafés.[2] In these rapidly transforming technological environments, the number of home computers has risen exponentially, but a large proportion of them remain offline. Meanwhile, in smaller towns and rural areas, television reception is often poor; thus, where electricity is available, audiovisual entertainment often takes the form of videos.

Arguably, the most ubiquitous form of digital hardware in low-income homes of the global south[3]—especially during the first decade of the twenty-first century—was the VCD (Video Compact Disc) player.[4] Such machines were usually found alongside a stack of (mostly "pirated") VCD discs of films and music videos. The VCD format, which is almost unknown in the global

north and a kind of low-tech version of the DVD, enables video to be copied onto CD discs and played, on low-cost players, through a television.[5] Originally launched in China, this technology rapidly spread to many areas of the global south, escalating both the creation of massive new markets for audiovisual entertainment among low-income groups and rampant "media piracy."[6] It also motivated indigenous musicians—often with negligible technical training or financial resources—to grasp the entrepreneurial opportunities offered by this cheap audiovisual technology to create music videos for these new low-income local and regional markets. Here we might make a distinction between outwardly orientated indigenous media created for a global stage or international indigenous community[7]—as featured in certain chapters of this book—and media created with more local or regional audiences in mind—the primary focus here.

In this chapter I examine the VCD music video production processes of Gregorio Mamani Villacorta (1960–2011), an *originario* (indigenous) musician and cultural activist who grew up and lived well into adulthood in the rural community of Tomaykuri in northern Potosí, highland Bolivia. Along with my long-term familiarity with the rural music of this region,[8] I draw on eleven months of ethnographic research based in the city of Sucre (September 2007–July 2008), where Mamani lived with his family and created a home studio. This provided me with the opportunity to participate, as a technologically unskilled assistant, in the production of three *originario* VCD music videos. Mamani's productions proved hugely popular among the low-income indigenous rural and urban migrant consumers for whom they were intended. However, for outside viewers accustomed to the high technical standards of mainstream television and film, they might appear "amateurish." Indeed, I heard Mamani's—and other similar *originario* music videos—disparaged by Bolivian middle-class media professionals for their low standards of production and technical inadequacies. But how should we understand such comments? How much should production values and notions of technical competency be viewed as normative, enabling them to be judged objectively? Alternatively, to what degree do such judgments reflect convention and the viewer-listener's aesthetic values, which are necessarily subjective and culturally contingent? What is the relationship between production techniques and aesthetics, and to what extent are these interdependent or separable?

In this chapter I attempt to navigate some of the complex terrain between notions of technical competency and aesthetics. Firstly I explore these issues in the context of the rich scholarship on indigenous film and video production, which I then relate to the relatively understudied but locally and regionally influential genre of *originario* (indigenous) music video. This focus on production competencies and aesthetics is then briefly placed into wider debates about "low-tech" aesthetics and amateur/professional distinctions in media

production. The second half of the chapter is ethnographic in approach and dedicated to the *originario* music video production work of Gregorio Mamani. It examines his working practices and aesthetic priorities in the light of negative evaluations from Bolivian media professionals, arguing ultimately that such practices and priorities might usefully be understood in terms of what I call "creative pragmatism." This expression, which stresses local realities and praxis, benefits from avoiding the dangers of, on the one hand, essentializing or romanticizing indigenous media aesthetics and, on the other, devaluing so-called professional media practices.

Bolivian Indigeneities

Bolivia is regularly presented as among the poorest, most economically informal, and most indigenous countries of South America. It made international news in late 2005 with the election of its first indigenous president, Evo Morales, who was reelected in both 2009 and 2014. Together with the creation of a new constitution, ratified by a national referendum in 2009, the official name for the country was changed to The Plurinational State of Bolivia, largely in recognition of its diversity of indigenous peoples. Discourses of indigeneity have been fundamental to Bolivian politics over the past decade, yet while lowland groups are happy to refer to themselves as *indigena* ("indigenous"), highland groups have tended to distance themselves from this term, preferring the label *originario* ("originary"). While from the global perspective of this volume, *originario* is essentially interchangeable with "indigenous," out of respect for this preference and given my focus on highland Bolivia—I use the term *originario* in this chapter.

While physiognomy suggests a notably indigenous aspect to the majority highland population, formal identification of indigeneity is steeped in historical complexity, and measures such as blood quantum are irrelevant to the Andean context. In the colonial Andes, indigenous ("Indian") and nonindigenous people were separated into distinct populations and parishes, with *originario* status and usufruct land rights dependent upon the payment of tax and labor—what Platt has called the "pact of reciprocity."[9] The burden of tribute, among other factors, led many indigenous people to move away from the land into *mestizo* status and occupations, thereby avoiding taxation. Such migration and changes in fiscal status was usually accompanied by cultural—even if not racial—mixing (*mestizaje*) and the incorporation of aspects of the hegemonic European-derived or *criollo* culture. Thus, while *originario* status was associated with indigenous claims to land, *mestizaje* often became connected with perceptions of superior cultural status linked to exogenous knowledge and power. Indeed, *mestizo* is often understood to mean "nonindigenous." The tribute

system was abolished long ago and rural-to-urban migration has escalated for many other reasons. Arguably, however, vestiges of the historical rights connected with *originario* status resurfaced with the rise of indigenous politics in the 1990s[10] and the social movements opposing global capitalism in the early 2000s that swept Evo Morales to power.[11]

The fluid nature of indigenous identity in Bolivia has been especially notable in the two most recent national censuses. While for the 2001 census, 62% of the population (over 15 years of age) self-identified as "indigenous,"[12] in the 2012 census, only 48% self-identified as such. In 2001, most of those registered were urban dwellers—20% not speaking an indigenous language—and no option was included for identifying oneself as *mestizo*.[13] Similar urban predominance in registration probably applied in 2012, when again—controversially—no *mestizo* option was included. Andrew Canessa suggests that the high number of people self-identifying as indigenous in 2001 was not about an intimate attachment to the land or genealogical descent from preconquest populations, but rather about claims to difference, rights, and possibly "moral authority in the face of encroaching globalisation."[14] In 2012, after six years with an indigenous president, a pro-indigenous government, and a relatively buoyant economy (aided by the nationalization of the country's rich natural gas reserves)—alongside cynicism about indigenous privileges—it would seem that fewer people felt the need to assert indigeneity. This suggests a tension between a kind of fluctuating urban indigeneity, often linked to rights and perceptions of exclusion, and a more rural indigeneity that may include the maintenance of close connections with the land, indigenous languages, and distinctive cultural traditions.

This distinction is played out in some of the *originario* music videos I helped Gregorio Mamani produce. Two of these featured music, dance, and festive dress associated with rural feasts from his region of origin, where video of the artists was interspersed with footage from actual feasts—Carnival (February/March) and the Feast of the Holy Cross (May). These kinds of productions of rural music are referred to by vendors as *cultura* (culture) and aim to represent indigenous rural traditions and practices. However, a more fluctuating indigeneity was evident in the case of *huayño:* popular Spanish or Quechua language dance songs, accompanied by the charango and Spanish guitar, associated with the *cholo* (or *mestizo*) town dwellers of the Northern Potosí region of Bolivia.[15] It was by performing *huayño* that Gregorio first made a name for himself as an artist; but unlike most other leading exponents of the genre, he had grown up in a rural peasant community. This led certain artists to refer to him pejoratively as *indio* (Indian), distancing themselves from an indigenous heritage they perceived as being connected with shame. However, with the 2006 presidency of Evo Morales, many of these same *huayño* artists began to embrace *originario* identity and to group themselves into organizations such as the Cultural

Association of Indigenous and Originario Artists of Bolivia (ASCARIOBOL)—partly in opposition to more cosmopolitan middle-class musicians who tour internationally. Thus, in certain respects, the discourse of indigeneity acquired political capital—while still potentially marginalizing rural indigenous people[16]—and certain genres, such as *huayño,* came to be presented and perceived as more indigenous.

Indigenous Media Making: Aesthetics and Audiences

Although the indigenous music video (VCD) has attracted relatively little critical attention to date, a useful counterpoint to its study is provided by the rich vein of scholarship on indigenous film and video making dating back to the 1970s. This latter work has stressed the political agency and empowerment offered to indigenous people by producing their own media as a form of "cultural activism"[17] and as a means of "decolonizing the mind" and countering discrimination and misrepresentation.[18] It has also, for the most part, focused on projects facilitated or funded by outsiders, such as anthropologists and NGOs, who provide equipment, training, and technical support. Often evident in such anthropologically motivated work has been the expectation that distinctive aesthetics or styles of media production will result when indigenous people have access to the means to create their own films or videos. Allied to this is sometimes a concern to avoid imposing standardized Euro-American media practices and techniques. Accordingly, some levels of technical training may be intentionally limited. For example, in the case of the Amazonian Kayapo (who have been involved in video making since 1985), Terence Turner observes that he and his collaborators "sought to limit training both in camera work and editing to the essential minimum to allow the maximum room for Kayapo camerapersons to develop their own culturally and individually specific styles."[19] For some commentators, such as James Weiner,[20] the acquisition of even basic filming and editing skills inevitably entails entry into the language, culture, and values of "Western" audiovisual media. Media anthropologists, by contrast, tend to stress how indigenous people adapt media technologies to their own sociocultural environments and political exigencies.[21] For example, Pace and Shepard have identified some of the aesthetic choices made by Kayapo videographers and editors.[22] Lines of dancers are filmed using long-pan medium-distance shots that feature all participants, whereas panoramic shots (in which body ornaments would become indistinct) or close-ups (that "amputate" body parts or show body ornaments out of context) are largely avoided. Complete sequences (which outsiders might find long and repetitive) are preferred over synopsis, and narration, commentary, and subtitles are rarely employed. And, in the case of a soccer game video, as much footage is

dedicated to the audience as to the game itself, in a filming style—Pace and Shepherd suggest—that pulls the viewer into the scene as a participant, rather than remaining an outsider observing an exotic spectacle.

These characteristics are perhaps hardly surprising for a community-based video, whose primary audience is the community itself and where it is likely to be important that each participant—and his or her body ornaments—is included and easily recognizable. Similarly, commentary and subtitles may be deemed unnecessary when, as in home movies elsewhere, the subject matter and participants are already familiar to most viewers. Indeed, we might even characterize this kind of video as "participatory style media" to distinguish it from "presentational style media"—adapting Thomas Turino's useful distinction between participatory and presentational styles of music performance.[23] This helps us appreciate how—in the kind of Kayapo video described above—greater priority is afforded to social inclusion and group participation than to technical competency and cultural mediation for outside audiences. When Turner observes that the Kayapo are just as happy to watch an unedited "home movie" as one of the beautifully edited works being created by certain Kayapo video makers,[24] it should be remembered that we all enjoy watching inexpertly produced home movies or other forms of low-tech media when we, our family, or friends are featured as participants; in short, when we experience a sense of close connection or empathy with the subject matter. However, we quickly lose interest if such media are not directly related or relevant to us, or if the content is not captivating for other reasons (such as extraordinary feats or phenomena). In sum, many aspects of Kayapo video aesthetics discussed above might be attributed to a participatory media style, rather than indigeneity per se.[25] However, much indigenous video is more outwardly oriented and presentational in approach, screened not only within the home communities but also at international film festivals. Indeed, according to Juan Salazar, indigenous media "occupies an intermediate and hybrid space between global mass media and local interpersonal uses of communication technologies."[26]

Certain indigenous video makers, including members of Bolivia's CEFREC-CAIB,[27] incorporate a range of stock codes from Hollywood and dominant industry techniques and formats. Yet, rather than seeing this adoption of dominant film language as running counter to Bolivia's decolonization project (as presumably Weiner would have it),[28] Freya Schiwy interprets this as "Indianizing film" (the title of her book).[29] Here, she invokes the revolutionary Aymara politician Felipe Quispe, who called upon indigenous Andeans to reject the discourse of *mestizaje*—i.e., the project of the 1952 national revolution, to unify Bolivians as mixed-race citizens—and instead to "indianise the white man."[30] This, she observes, reflects "a long Andean tradition of integrating what is foreign into traditional cultural and economic forms"[31]—what Brooke Larson has called "adaptive vitality."[32] This leads us to wonder whether,

beyond subject matter, it might be possible to recognize aesthetically distinctive aspects of Andean indigenous film and video. Are there culturally characteristic ways of seeing or hearing? This is hazardous territory, where it would be easy to fall into generalization and essentialisms, as highlighted by Steven Leuthold for the case of Native American documentary film.[33] While identifying the aesthetic importance of the themes of nature and religion/spirituality in such film, he is careful to stress the dangers of generalizing an indigenous aesthetic sensibility:

> There is no one set of formal characteristics that comprises an Indian way of seeing. The problem with searching for such a key to unlock the secrets of a group's outlook is that it tends to lead to a minimization of the variation within the group. . . . There is not enough formal consistency in visual style or narrative structures to clearly define a single indigenous documentary genre based on formal considerations alone.[34]

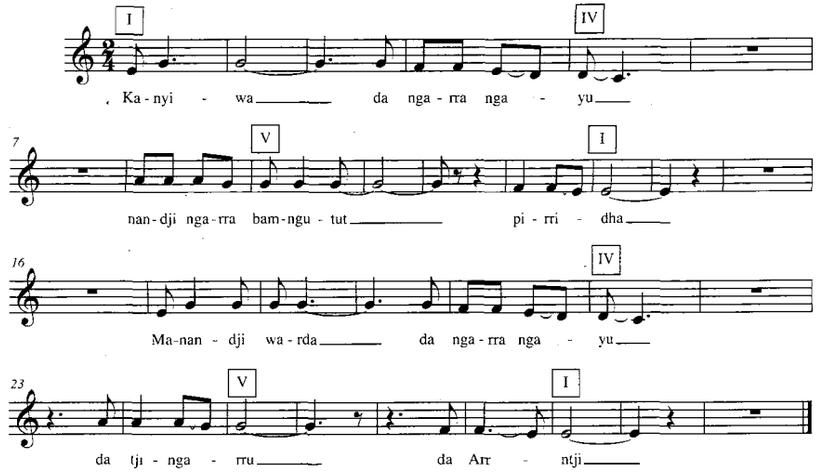
Might it thus be more productive to focus, with an ethnographic eye, on the ways that —in given contexts of such media making—the diverse actors creatively and pragmatically explore the affordances of the technology?

Indigenous Video Projects and *Originario* Music Videos

Many notable contrasts are evident when comparing the indigenous video projects discussed above and *originario* music videos. These include, for example, aesthetics, cultural value, economics, circulation, politics, representation, and technical competencies. First, most indigenous video projects are community-based and facilitated by outsiders, whereas music video tends to be commercially motivated and produced by entrepreneurial individuals. Similarly, whereas community-based video projects usually actively downplay individual authorship, "star" filmmakers, and financial motivation,[35] a primary function of the music video genre (inherited from its Anglo-American ancestry) is precisely to showcase and promote the "star."[36] Indeed, Gregorio Mamani explicitly presented his motivation for creating the music videos on which we worked together as a means to increase his "fame." Having recently resigned from a position in the Culture Department of the Prefecture, he was concerned with returning to the public eye as an "artist," rebuilding his audience, and attracting bookings for live performances. In short, the associations of music video with individualism and commercial motivations fit uneasily with stereotypical constructions of indigenous people.

Second, a striking disparity is evident in the relative cultural value attached to these genres and their respective modes and levels of circulation. On the

Example 7.2. Musical transcription of two verses of the Kungarlbarl song composed by the deceased woman's sisters KL, PL, and CL, as performed at Wadeye, June 29, 2009. Recording and transcription by Linda Barwick. Also singing were family members RL, LP, LK, accompanied by JP playing electric piano. Transcription by Linda Barwick.



was a Kungarlbarl clan woman. In this way the songs prepared for the funeral acknowledged the relationship of relatives from both sides of the family.

We made several takes of some parts of the songs, and the next morning, before the funeral, I got together with my friends again, who directed some editing of the recording on my computer. Once satisfied, we burned the recordings to a CD, which was then given to the person in charge of the PA system at the church.

Family members, identified by t-shirts that had been screen-printed by the sisters with the image of the Kungarlbarl clan totem *ku kanandurturt* (crocodile) and the clan name Ma Thawurr (meaning "people of the tree" in Marri Ngarr language), were, as is usual in funerals at Wadeye, active participants in the service. Male relatives carried the coffin, covered with a large cloth bearing clan-specific designs, into the church at the beginning of the service, and at the end of the service carried it out again to the truck that would proceed at walking pace to the cemetery, followed by a procession of mourners. As has become the custom at funeral services in Wadeye, after the reading, family members took turns to approach the coffin, each bearing a plastic flower to leave on top of it (the flowers would eventually be replaced to ornament the grave). During these activities, and while the congregation lined up to take Holy Communion, the funeral songs recorded in advance were played. In addition to the three

songs I had recorded, two other songs, composed and recorded by another relative on similar themes, were also played, one of which had been edited so that the recorded roar of the clan totem, the crocodile (the recording of which had been found in the music database), was mixed in as part of the song's introduction. Toward the end of the service, two hymns in Murriny Patha on conventional (non-clan-based) religious themes, were performed live.

The day after the funeral, I was approached by the deceased woman's brothers to record a fourth funeral song in her memory, even though the funeral was by now over. These men had not been able to participate in the original recording session because of the presence there of their sisters (a strong brother–sister avoidance is practiced at Wadeye). Brother–sister avoidance had also been evident in performance of the two song texts composed and performed by their sisters two days previously. On that previous occasion, whenever the song mentioned the name of a site that was also the given name of one of the brothers of the deceased woman, all the sisters omitted singing that word, and instead called on other relatives (nieces and nephews) to pronounce the name. Brother–sister avoidance was also practiced in the handling of the song recordings: when I subsequently prepared CDs of all the recordings for distribution to family members as keepsakes, I was asked to burn the song composed by the brothers onto separate CDs from those used for songs composed by the sisters, showing that the brother–sister avoidance continues into the digital realm. In the several years since this funeral, I have been contacted regularly to send additional copies of the CDs.[22]

In these funeral songs we can see a strong assertion of continuity with traditional clan-based social organization. Although composed to be heard as part of a church service, the songs make almost no mention of Christian themes; rather, they foreground the places and totems that signal traditional clan identity. Traditional modes of social organization and behavior (such as brother-sister avoidance, and acknowledgment of relationship to the clan country of one's mother) are also integrated into the performance and management of the recordings.

Nevertheless, there are also some quite striking divergences from traditional practice, and not just in musical style. The most important innovation is the creation and performance of songs by the same clan group as the deceased person. In ceremonial practice at Wadeye in at least the preceding forty years, this would never have happened. To explain why this innovation is so significant, we need to understand the history and function of the traditional tripartite ceremonial system.

The Tripartite Ceremonial System

As the Wadeye community grew in the 1950s and 1960s, a strategy was agreed upon among the elders of the various clans to increase social cohesion among

This song, in Marri Ngarr language, mentions the significant sites Yenmura and Altjama and the clan name (also a site) Wurdipuli, and refers to the activity there of the important clan totem *pulimi* (white-breasted sea eagle). In a parallel fashion, songs in the other two repertories include frequent references to the specific sites and totems of the clans of their own composers. Reflecting the common function of all three repertories—inducing the spirit of the deceased person to return to its home country—the songs frequently include expressions of homesickness or longing for home: in this song, the Marri Ngarr term *wuyi ngina* "my own dear country!" is used, but in *djanba*, the Murriny Patha cognate term *da tjingarru*[34] is used, and in *wangga*, the Marri Tjevin term *nidin ngina*.

It is important to note here that while the composer is usually the lead singer for the relevant mob, other members of the mob are active participants in the performance as dancers and secondary members of the musical ensemble (backup singers, and in the case of *wangga* and *lirrga*, didjeridu players). For mob members from clans other than those of the composer, the places, totems, and spirit beings celebrated in the songs are not their own. For example, members of the Kungarlbarl clan, who belong to the Lirrga mob, would dance to *lirrga* songs celebrating the Wurdipuli clan place Altjama and clan totem *pulimi* rather than their own clan places and totems, such as Kungarlbarl and *bamngutut*. Here we can observe a similar displacement to that we observed earlier, when *djanba* songs and dances celebrating Dimirnin clan sites, totems, and ancestors were performed to conduct the ghosts of the *lirrga*-owning deceased to their own clan country. In both cases, the clan sites and totems of the song composer stand in for those of the dancers and the group that commissioned the performance. The functional equivalence of the different clan groups is asserted, even while the particularity of each is celebrated.

Functional Innovation in the Funeral Songs

The situation with these new funeral songs is very different. The time displacement allowed by recording technology (a form of "schizophonia")[35] allows the family of the deceased to present their own songs and their own clan totems and places at the funeral. This would be impossible with live performance, not only because of the traditional reliance on the songs of another mob, but also because of the other duties that the family of the deceased have to perform in leading the mourning at the church service. New digital music technologies have allowed a fundamental shift in the musical practices around funerals at Wadeye, including the adoption of portable recorders to record new songs in advance of the funeral, the editing and production of CDs to use in the church or for distribution to family members, and the use of the computer database to search for previously recorded songs or sounds relating to the relevant clan to include in the mix.

Another notable innovation in the funeral songs is the prominence of women in composing and leading the singing of songs. In traditional *lirrga* and *wangga* performances, women never form part of the musical ensemble, though they may compose songs, which are then passed to their husbands or other kin to sing in ceremony, and they have a prominent role in the dancing. In *djanba* songs, the singing ensemble is normally led by men (though in the absence of male singers, senior women may take on this role), and the participation of a chorus of women is an integral part of the ensemble.[36] In newer Western-influenced song styles, there are clear gender differences according to music genre. Rock bands, especially heavy-metal bands, like the Nangu Band,[37] are made up almost exclusively of men, though there is at least one all-women group, the Emu Sisters, who compose and perform songs that are more pop-influenced.[38] Women are also prominent in the performance of hymns and church songs, both in Wadeye and elsewhere in Aboriginal Australia.[39]

The funeral songs, with their association with church music, and the use of soft pop style tunes and instrumentation, are clearly aligned with other modern genres dominated by women performers. Interestingly, in all the performances I recorded and observed, keyboards were played by men, with women (and some men) singing. In two cases at least, the keyboardists were the husbands of the women composers (and thus belonged to another clan). It is possible that this pattern reflects a reluctance of non-clan members to sing about Kungarlbarl totems and sites, but equally it may reflect local gender-specific musical practices, such as men-only use of didjeridu in ceremony.[40] Certainly the division of labor between the spouses mirrors a pattern common to the *djanba* and *wangga* traditions, where the wife of the song leader might be actively involved in supporting performances through composing songs, organizing the dancers, and (in the case of *djanba*) singing alongside her husband.

Producing the songs of one's own clan for these funeral ceremonies reduces reliance on other groups in the community, and arguably contributes to a weakening of the social networks of mutual obligation that the old tripartite ceremonial system had been designed to support. We have also seen how some new complications can arise through the practice of singing one's own clan songs, specifically in singing about sites that happen to be the name of an opposite-sex sibling. I have also observed the development of new practices around the recorded artefacts—the duplication of CDs as keepsakes for family members, and the addition of the recordings to the computer database. With live performances, such questions would rarely have arisen. Although live performances were frequently recorded and archived in the community's cultural collections, their efficacy and power lay in the moment of the ceremonial performance.

Repeated requests I have received to send copies of the recordings indicate that the traditional function of the funeral and postfuneral ceremonies like the now-waning practice of rag-burning—to allow the spirit of the deceased person to return to their ancestral country, and to free the family from grief—may be changing. Further unequivocal evidence of the transfer of focus from the ceremonial event itself to the recorded artefacts can be found in the request by the brothers of the deceased to record their own song in memory of their sister several days after the funeral itself. It is also likely that the recordings are being reused in funerals as other members of the clan pass away.

It seems, too, that recordings are being used as a resource for the composition of new songs. When working in the library to help maintain the music database, on several occasions I observed a noticeable increase in use of the database in the days before a funeral. Relatives come to listen to songs there, but mainly to get new copies of songs to take away. The database workstation provides a way for people to find and access appropriate songs independently for private study, providing musical and textual models and ideas to be reused in new songs. Once again, we may contrast this practice with the traditional public, embodied modes of learning songs through witnessing and dancing to live performance.

Among many other songs, the music database holds a number of recordings of songs by local Wadeye band formed in the 1980s named "Hot Wheels," which included a number of Kungarlbarl clan members. One of the songs in the computer database is their song "Kardu Thay," composed by Desmond Longmair and George Cumaiyi in about 1986, set to a tune based on the ABBA song "I have a dream."[41]

Even though the tune, musical setting, and genre of "Kardu Thay" are quite different from the Kungarlbarl funeral songs I recorded some twenty-three years later in 2009, parallels with the texts quoted above are clear, celebrating the same sites and totems, and even using the same turns of phrase (e.g., *niyerr pangu-re* "look over there," found in ex. 7.1). It seems quite likely that renewed circulation of this song and other pop-influenced band songs of the 1980s and 1990s (due to Alberto Furlan's digitization of the recordings in 2002–3 as part of his doctoral research, and subsequent placement in the music database) could have had an effect on the increasing activity in creating and performing funeral songs in the mid-to-late 2000s. More specifically, if the Kungarlbarl funeral songs I recorded in 2009 had indeed been directly influenced by Hot Wheels band songs accessed via the database, we could see this, too, as a continuation of traditional practices, since the repetition, borrowing or recasting of textual formulae from the cultural creations of previous generations has been an integral and highly valued part of the composition process. We might remember in this respect that new traditional songs are received via witnessing in dream the performances of ancestral ghosts.

Although in the case study reported here, members of the deceased's own family created the songs, it seems that there may be an emerging demand for specialist music production services to create clan songs for funerals in Wadeye. In 2010 I was told that nowadays the main activity of the Emu Sisters lies in composing and recording songs for funerals. Even though most of the women in this group belong to the Wurdipuli clan (part of the Lirrga mob, see table 7.1 above), they have composed songs on commission for various other clans to use in funerals, incorporating the names of the relevant totems and sites for the commissioning family. It may be no coincidence that several members of the Emu Sisters work in the Library and Knowledge Centre, with access to the music database as well as to other staff with expertise in musical instruments, digital recorders, digital sound-editing facilities, and the means to reproduce and distribute the CDs.

In contrast to the traditional songs, which required no technological infrastructure other than the ability to source or manufacture wooden instruments (clapsticks and didjeridu), the funeral songs as currently practiced at Wadeye have multiple dependencies: electricity; programmable electric pianos; recording, editing and playback equipment; the expertise to use a computer database to select CDs; the media (CD, DVD) and devices for playback (mp3 player, or since 2009, mobile phone)—the list goes on. Many homes in Wadeye lack the facilities to keep equipment or even a CD collection safe from dust, heat, humidity, and children. Consequently, most people rely on the community's cultural institutions (the library, museum, church, youth center and school) to house and maintain instruments, recording equipment, computer facilities, and so on. This institutional environment therefore provides the essential infrastructure enabling the production and development of funeral songs, and those clans that have better access to the institutions are in a better position to produce this repertoire. In a sense, the music technology infrastructure of these institutions has been hijacked, or diverted, from its ostensible purpose (education, training, collection maintenance) by the composers and performers of funeral songs.

Conclusion

In this chapter I have outlined some of the ways in which the practices of composition, performance, use, and dissemination of funeral songs have led to a loosening of social ties between mobs (through replacement of the inter-mob reciprocity of the tripartite ceremonial system), and even to loosening dependency on other clans within one's own mob (who formerly were needed to sing on behalf of your own clan). Music technologies have allowed a democratization of the means of making music, even a dispersal of the original social

Chapter Eight

The Politics of Virtuality

Sámi Cultural Simulation through Digital Musical Media

Thomas R. Hilder

The virtual is something that is almost, but not quite, "real," as Rob Shields writes in his study of virtuality.[1] Etymologically related to the term *virtue*, he elucidates, it has in various cultural and historical contexts been linked to dreams, rituals, and the visual arts. In the digital era, virtuality has come to be associated almost exclusively with online communities and simulating technologies. Today, virtuality is often considered negatively, as a form of escapism that deceives and deludes, amplified by a larger trope of the apparent alienating, antihuman, dystopian facets of technology.[2] This sentiment has most famously been articulated by Jean Baudrillard, who writes in *Simulacra and Simulation* that we have entered the age of "simulacra," a "hyperreal order" in which the perceived world is simply a vast assemblage of simulations that obscure deeper political and social realities.[3] However, contemporary anxieties about simulation are part of a longer history of a disdain for the "virtual," fueled by the legacy of Enlightenment thought, colonial practice, and nineteenth-century empiricism, fixated on the observable, tangible, and measurable world.[4]

Baudrillard's theory itself rests upon a problematic notion of Indigenous people as passive victims of a world obsessed with the authentic and "real" and denies the possibility of Indigenous people adopting media technologies for their own cultural and political purposes.[5] Moreover, it overlooks how notions of realms beyond the visible human world are common within many cultures,

including numerous Indigenous cosmologies.[6] Following the literature of virtuality,[7] this chapter takes issue with Baudrillard's *Simulacra and Simulation* by exploring how digitally assisted cultural simulation can enable powerful means of Indigenous cultural revival, musical transmission, and political articulation. I focus on the Sámi, the Indigenous people of Northern Europe, and investigate how digital technology—in museums, educational software, and CD production—has become part of the complex and dynamic fabric of Indigenous cultures, in turn transforming notions of Indigenous subjectivity, cultural belonging, and political activism. In particular, I inspect how digital cultural simulation can help to revive a Sámi Indigenous cosmology, within which the human world exists alongside the realms of the spirits and the dead. How do Indigenous artists and activists resist notions of a world subsumed by the "hyperreal order"? In what ways are Indigenous traditions and digital media complementary and mutually constitutive, capable of transforming notions of human embodiment, imagination, and cultural signification? How might digital Indigenous music point beyond hegemonic understandings of the "real" and "virtual"?

At its core, my chapter highlights the importance of virtual worlds and the contemporary technologies that help make them perceivable as a fundamental and powerful element in Indigenous expressive culture, in what I term the *politics of the virtual*. In particular, I draw on Michelle Raheja's notion of the "virtual reservation" in her book *Reservation Reelism: Redfacing, Visual Sovereignty, and Representations of Native Americans*, a notion that denotes the creative space forged by Native American filmmaking for resisting cultural erasure, asserting Indigenous agency, and articulating alternative concepts of time, space and spirituality.[8] Critical of "technological dystopianism" but wary of adopting a narrative of "technological utopianism," my chapter seeks a more nuanced account of different ways of understanding digital media and thus revealing alternative modes of experiencing and living in global modernity.

Media have long provided a tool for political disempowerment of the Sámi by the emerging Nordic states, from the dissemination of the Bible in the seventeenth century to the emergence of national Nordic broadcasting corporations in the twentieth century. At the same time, transcriptions of oral traditions from the seventeenth century, ethnographic writing from the nineteenth century, and technologies of sound recording from the early twentieth century have served the means of cultural activists, folklorists, and linguists (both Sámi and non-Sámi) in their attempt to preserve what they perceived as a threatened culture.[9] Writing and printing also became tools with which Sámi activists in the early twentieth century could express and disseminate their political beliefs.[10] In the post–World War II era, state modernization and welfare provisions, which aimed to homogenize national communities, enabled a wider Nordic public to access and utilize media for their own cultural mobilization.[11]

filmmaking is like a "virtual reservation," "a field onto which an alternative vision of the world can be projected; as a meeting space for tribal intellectuals and scholars to workshop, debate, and define new projects for sustaining Indigenous knowledges; and as a network of computer-assisted transnational Indigenous communities who exchange and create information."[27] Within the field of virtuality studies, Shields writes, "digital virtualities offer themselves as *deterritorialized* spaces of escape from norms" that provide "a haven for those who are otherwise labelled deviant or who feel the restriction of social and moral discipline too strongly."[28] Virtual reality, he continues, "is a training ground not only in particular ways of seeing but in ways of imagining fictional, distant and alternative realities."[29] Likewise, the anthropologist Tom Boellstorff, drawing on his ethnographic fieldwork in Second Life, posits, "in virtual worlds we can be virtually human, because in them humans . . . discover new possibilities for human being."[30] These perspectives highlight the potential for technologies of virtuality for Indigenous resistance to global modernities, reviving Indigenous cosmologies, and for proposing alternative ways of being human in a digital age.

The "World as Simulation": Exhibiting Sámi Culture

Sápmi Park is located in Norway's Sámi administrative capital, Karasjok, in the county of Finnmark. Drawing on and challenging classic representations of "Sámi-ness," Sápmi Park offers an entertaining and interactive introduction to Sámi culture by Sámi for international visitors to the Norwegian Arctic tundra.[31] One part of the park is an outdoor exhibition of Sámi tents (*lávvu*) and turf huts (*guohti*) where Sámi dressed in traditional costumes (*gákti*) teach visitors how to throw a lasso over reindeer antlers, recount traditional stories, and perform *joiks* over cups of freshly boiled coffee. A *lávvu*-shaped main building houses the rest of the park's attractions: an exhibition of contemporary Sámi art; a souvenir shop with an on-site silversmith; and the Karasjok tourist information office. The highlight of the park is the multimedia and multisensorial exhibition, Sápmi Magic Theatre, in a small auditorium located at the end of a corridor.[32] Here, visitors are treated to a three-dimensional presentation, *Stalubákti* (Mountain of the spirits), accompanied by a Sámi *noaidi*, or shaman, whose face is seen as an apparition through a fireplace simulated before them. Above a drum that sounds like a heartbeat, a drone, and a chorus of *joiks*, he recounts a story of another side of Sápmi "that you can only see with your heart."[33] The presentation is a simulation of the myth of creation and the realms of the human, dead, and spirits, according to a Sámi cosmology, as collected from oral sources by the exhibition's main producer, the Swedish Sámi artist Åsa Simma.[34] The beating drum is revealed to be the sound of a

reindeer's heart buried in the ground at the beginning of time to provide sustainance to the earth. Further *joiking* heralds an introduction to the Sámi oral tradition of *joik*. The Sámi "songs of life," he explains, are like "magical books," some of which express different emotions and are comparable to images of humans and animals, while others allow you to travel into the landscape and dreams. As the fire fades, the audience is asked about the possibility of life after death. Rising vocal lines depict the Northern Lights, the ancestors, who dance on the ceiling above the audience. The presentation concludes with the drum rhythm once again, the heartbeat in the earth which, we are told, will offer guidance in times of need. As a simulation of Sámi culture, Sápmi Park provides my own point of departure for discussing Sámi virtuality.

The digital exhibition—employing strategies of representation, simulation, and multisensorial immersion common in digital virtuality—invites an analysis within a longer history of modes of representation and simulation in Sámi and wider (post)colonial contexts.[35] In *Colonising Egypt*, Timothy Mitchell provides a compelling argument, drawing on Said (*Orientalism*) and Heidegger ("The Age of the World View") about the ways in which imperial discourses and practices were characterized by a particular notion of what he terms the "world-as-exhibition."[36] Tracing the growing number of attempts to recreate the "Orient" through exhibitions since the nineteenth century, Mitchell proposes that the striving for verisimilitude in exhibits was central in the construction of the modern detached subject, the rendering of the world as a constellation of objects, which in turn gave the semblance of an external reality—society, culture, and political order. Just as the very simulation of reality within the exhibition often left visitors with confusion about what was representation and what was reality, Europeans who traveled to the Middle East experienced reality as though it were an exhibition, set up to index a larger if unobtainable truth.[37] From Mitchell's texts, we thus learn how, through imperial practices such as exhibitions, a gap was created in the eyes of the modern subject between the signifier and signified, the object world and some external reality, and thus how the lived-in world seemed to adopt the appearance of a mere simulation.[38] While Mitchell bases his study on particular cases from the Middle East and North Africa, his theoretical observations into wider imperial phenomena can offer insights into Sámi and other Indigenous contexts.

Inspecting a longer history of exhibitions of Sámi culture reveals how this notion of "world as exhibition," or rather, "world as simulation" might have emerged. A history of exhibiting Sámi culture extends back to the early nineteenth century, when Sámi were invited to perform at so-called live-people exhibitions (*Volkerschau*) in European and North American urban centers, as has been explored by Cathrine Baglo.[39] As part of these exhibitions, Sámi were asked to act as if they were living their everyday lives in their natural environment. Often a *lávvu* would be erected on site, reindeer would be included as

display of cultural exotica and its tourist shop, simply provide a site for the mass consumption of an imagined Sámi culture? Or conversely, does it challenge our own sense of reality and virtuality? Drawing on Baudrillard, Mitchell, and Vizenor, I question what it means for Indigenous cultural expression if, for the (post)modern subject, the lived-in, mass-mediated, and consumerist world is a mere simulacrum, an all-encompassing simulation that is somehow falsifying and potentially dangerous. If we take seriously the words of the Sámi *noaidi* in the Mountain of the Spirits, what might it mean to perceive a Sápmi "that you can only see with your heart?" Before offering answers to these questions, I now inspect further ways in which digital simulations have been used by Sámi artists and cultural activists for purposes of cultural revival and transmission. I build, in particular, on discussions by Cocq about revitalization, place, representation, simulation, interactivity, and orality in Sámi Internet platforms for language learning, storytelling, and educational websites.

Digitally Simulating Culture: *Joik* Education

Juoiggas! is a computer program that assists in learning how to *joik*. Launched in 2008, the software is available both on CD-ROM and on the Internet. Produced by *joiker*, composer, producer, and pedagogue Johan Sara Jr. and his brother, graphic designer and computer programmer Mikkel Sara, *Juoiggas!* features the *joiks* of nine respected *joikers* from North Sápmi. The software is marketed through the Karasjok-based Sámi online platform *E-Skuvla* (literally, e-school), which offers Internet pedagogical material and distance education packages, mainly for Sámi language learning for children of all ages. On opening the *Juoiggas!* software, the user can choose between three languages (North Sámi, Norwegian, English) and is given an introduction to *joik*, music theory, and each of the nine *joikers* through textual descriptions, transcriptions, and photos. Using the menu bar at the bottom of the page (in the form of notes on a staff), one can go through twenty-five different *joiks* (some from Sara's own compositions) arranged in increasing complexity. On each page, one is presented with a transcription of the *joik* in Western notation as well as a short description of the *joik*. By pressing the play function, one can then listen to the *joik* sung with accompanying instruments and a metronome, while a vertical line on the transcriptions moves horizontally along the staff, following the notes. It is intended that the user imitate the voice of the *joiker* while playing back the melody. Other functions allow one to mute the metronome, instruments, and vocal parts individually or in combination. This allows users to attempt to replicate the *joiker*'s voice, following the transcription without the other accompanying aids. Another function enables any section of the *joik* to be repeated over and over again, thus allowing for more focused practice. In

these ways, *Juioggas!* attempts to exploit many features of digital technologies in order to simulate "traditional" forms of *joik* transmission. As traditional contexts for *joik* transmission are fragile, and examples of *joik* within school curricula are limited, the software allows for new possibilities of *joik* education.

The visual imagery of *Juoiggas!* itself plays with notions of visual simulation. On launching the program, we are drawn into the world of *Juoiggas!* via a graphic sequence before we arrive at the language menu. This sequence follows a sparkling, silver, but somehow unidentifiable form as it moves swiftly across a translucent silvery-blue surface covered with musical notation. Through the curves of the notation, and the increasingly unsteady movement of the shape, the surface takes on the appearance of a rolling infinite digital landscape, alluding to notions of an assemblage. The written notes become in this digital universe raw numerical data, mere representations forming a larger simulated sonic and visual space. In this way, the user is made to feel as if they are surfing on a digital landscape of sonic and visual dimensions that will enable them to explore at their will the endless possibilities of *joik* expression. Indeed, these references to familiar digital imagery capitalize on common tropes of digital freedom and limitlessness. Like all digital media imagery, nonetheless, the celebration of its digital nature is only part of its aim. The silvery-blue color scheme and the rolling glistening surface suggests a landscape reminiscent of an expansive North Sápmi tundra. The moving object therefore takes on the semblance of a snowmobile, used by contemporary Sámi in inner-Finnmark areas as both a reindeer herding vehicle and a sport vehicle. As the object gathers speed, it begins to bounce around until, on reaching the end of the assemblage, it is launched up into a black sky and splinters into ice particles. The displaced particles circle in slow motion until they finally explode apart in real time. This explosion reveals, above what looks like a night seascape, the title of the program written in a font that appears, in its 3D form and shining surface, to have been carved out of blocks of ice. The digital and traditional setting presented by *Juoiggas!* is accompanied by a musical soundscape consisting of disembodied, haunting, electronic synthesized sounds and *joik* vocals on high reverb that pan in and out of the sonic texture. That *Juoiggas!* foregrounds both its electronic and its natural qualities highlights the desire for digital simulation to blur the boundaries between the real and the virtual.

Cocq has discussed how Sámi digital environments have been key to contemporary articulations of Indigenous place and imagining a Sámi homeland.[54] By emphasizing classic images of North Sámi tundra landscapes, she argues, these websites often construct an idealized, "remote" and "exoticized" Sápmi landscape.[55] The tundra has long symbolized in the wider Nordic imagination the homeland of the Sámi, not only because it provides the expansive terrain needed for reindeer herding. When Sámi reindeer-herding rights to land on the tundra are threatened, there are often hard-fought protests and

older digitized recordings, with a wider public. The tracks on *Sacred Stone* provide commentary on Sámi oppression, call for pan-Indigenous solidarity, and revive a Sámi Indigenous religion. Somby's impassioned and exploratory vocals, the folksy and plaintive violin lines played by Mellem, and the intricate and polished electronics of Johansen create a unique soundscape that explores acoustic and electronic aesthetics. Listening to *Sacred Stone* is almost like entering a virtual world where one encounters animals, aspects of the climate, and *noaidi* in the Sápmi environment. Ramnarine has discussed this CD in relation to issues of shamanism, spirituality and ecology; and in her analyses of the use of *joik* and acoustic sounds in electronically mediated compositions by Nils Aslak Valkeapää and the Sámi film *Ofelaš*, she argues for the significance of contemporary Sámi media productions to articulate issues concerning the sacred, the environment, and postcoloniality.[79] As the media theorist Mark Post has argued, CD recordings are copies of sounds that never existed as an original, thus creating a sonic simulacra.[80] In relation to Indigenous cultural production, Raheja posits Native American film as "a supplemental arena of the possible that initiates and maintains a dialectical relationship between multiple layers of Indigenous knowledge systems—from the dream world to the topography of real and imagined landscapes."[81] In a similar vein, I elucidate how Vajas's digital manipulation of acoustic sounds and their simulation of natural sounds through digital technologies revives aspects of a Sámi Indigenous cosmology and causes us to question the difference between the virtual and the real.

Right from the beginning of *Sacred Stone*, the listener is led into a simulated environment. The opening track is entitled "Boršsáš" (North Sámi for "Sparkling Creek") and is a *joik* to a small stream. At first we hear synthesized sounds on one note that feels like a steady pulse and tonal center, though the note gradually changes in timbre. Shortly after these synthesized sounds begin, we hear the acoustic sounds of water flowing gently in the background, suggesting the creek itself. Other layers of synthesized patterns emerge in the musical texture in higher and lower registers, forming different rhythmic patterns and suggesting alternative pulses, and panning back and forth, from left to right. These synthesized notes, although distinctly electronic in timbre, come to suggest the sparkling of the creek in the sun, as the title of the track suggests. Meanwhile, longer synthesized notes offer both a sense of harmony around the tonal center (in the mixolydian mode) and a sense of physical space. This sense of space is reinforced through undistinguishable sounds in high reverb in the background of the sonic texture that might be birds twittering or water dripping in some sort of water cavern. It is at this moment that Somby's vocals enter, performing into being the sparkling creek itself through his playful *joik* poetry.[82] His voice, while giving a human dimension to the musical texture, nonetheless, also plays sonic tricks. There appears to be added reverb on his voice, which adds to the sense of an expansive space, and his voice becomes multiplied at the end of lines where he simply sings vocables, giving the impression that he is surrounded by a choir of *joikers*. At the same time, there are sporadic motives played on a bass that add to the feeling of spontaneity and motion. As Somby vocalizes each stanza of the *joik*, drums and cymbals break into the musical texture and later develop a steady rhythm to give the overall track a sense of momentum, alluding to the increasing pace of the flow of water. Meanwhile the synthesized notes emerge and recede in and out of the musical texture to enhance the effect of glistening water. This glistening water is not only suggested sonically but is itself featured on the graphics of the album cover and sleeve, where bluish-gray and white formations appear like ice above small rocks and a dark bluish stream. The vitality of this stream is further evoked through the *joik* text ("bubbles," "wells," "caressing"). As the musical textures fade, we are left with the splashing sound of water as it continues down the creek.

One of the potentials of digital media musical production as utilized by Vajas is creating a sense of environment. Through evoking the sounds of a stream, the *joik* "Boršsáš" brings the stream to life and transports the listener to a sonic world in nature. Nature is also evoked on several other tracks on *Sacred Stone*. Sounds of a crow open the second track, entitled "Pubbagarjá" (Pub-Crow), thus rendering sonically the protagonist of the *joik*. Meanwhile, the third and title track of the album, "Sieidi Geađgi" (Sacred stone), immediately sets the scene of a harsh Sápmi landscape by incorporating the sounds of swirling wind. In his study of the use of recording technologies, Paul Greene discusses how studio production can be used to create a sense of place that can localize musical sounds in the face of globalizing technologies.[83] The challenges and potentials of studio work and CD production have been discussed by Beverley Diamond, who notes the strong predilection by Sámi artists to incorporate recordings of everyday soundscapes in their music.[84] Indeed, Vaja's technique is by no means new in the repertoire of Sámi music. Nils-Aslak Valkeapää's *Goase Dušše* (The bird symphony), as Ramnarine has discussed, and *Eanan, Eallima Eatni* (The earth, mother of life) both incorporate the sounds of birdcalls from Sápmi.[85] Likewise, the digital manipulation of sounds of water and ice in recent CD projects by Johan Sara Jr. mentioned in the previous section can be seen as a continuation of such a tradition.[86] Ramnarine has argued that this turn to acoustic environments in Nils Aslak Valkeapää's compositions can reveal much about issues of human agency, environmentalism, and human–nature relations, but these examples can also be interpreted in terms of virtuality.[87] They suggest the enactment of "telepresence," whereby the listener is transported to a Sámi environment through sonic simulation. The apparent increasing opportunities of sonic verisimilitude offered by digital technologies enhances listeners' experience of these virtual soundscapes.

possibilities of technology for the human, Somby alludes to the posthumanist discourse of Haraway's technologically enhanced human, the cyborg.[97] The cyborg was a way for Haraway to highlight how technologies have always been part of human bodies and endeavors and how technologies can be a way of subverting patriarchy and colonialism. She writes, "Cyborg writing is about the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other." "Feminist cyborg stories," she explains, "have the task of recoding communication and intelligence to subvert and control."[98] She continues, "These machine/organism relationships are obsolete, unnecessary. For us, in imagination and in other practice, machines can be prosthetic devices, intimate components, friendly selves."[99] For Somby, the computer itself becomes one such "friendly self" in his attempt to explore new possibilities of *joik* expression. Indeed, as the musical examples by Vajas highlight, digital technologies have already assisted in Somby's attempt to overcome the problematic division of humans and technology, of the real and of the virtual.

The Politics of Virtuality: Concluding Thoughts

Notions of the real and virtual are significant when considering the Sámi, not simply because of current opportunities for Sámi digital simulation, but also because such notions intersect with understandings of alternative realms beyond the lived-in, material world of a Sámi Indigenous cosmology. While theories concerning the beliefs and practices within a Sámi Indigenous religion differ, a Sámi cosmology is often thought to consist of three realms—the living (middle world), the dead (underworld), and the gods (upper world)[100]—though it has also been argued that there were simply two, the visible and the invisible world.[101] The realms, while distinct, were also related, since Sámi gods were often linked to phenomena in a Sámi environment and astrology (the sun, wind, and thunder) and the landscape was considered sacred.[102] Indeed, it was believed that the realms of the dead and the gods could be accessed through particular liminal places within the physical landscape.[103] Specific sacred mountains were an entrance point into the world of gods, rivers carried the souls of humans to the realm of the dead, and springs allowed for dead ancestors to reenter the material world as spirits.[104] Also important were special rock formations that became sacred sites, known as *sieidi*, which served as gateways to the other realms.[105] Rituals were enacted at these sites, including animal sacrifices, to engage the world of gods in acts of reciprocity with the human realm.[106] A key figure in Sámi society was the *noaidi*, who acted as a mediator between the distinct realms.[107] Through trance-inducing rituals, a *noaidi* could travel into the realm of the dead, in order to free the captured

souls of the living to heal illness, in other times of crisis, and to prophesy the future.[108] It is believed that the Sámi drum played a crucial role in *noaidi* rituals, helping the *noaidi* fall into trance.[109] The different illustrations on the skins of the few surviving drums often resemble representations of the realms of the living, dead and gods, thus providing a kind of "cognitive map" for the *noaidi*'s spirit during trance.[110] Meanwhile, sources suggest that *joik* was a means to induce trance and to communicate with the spiritual realm.[111] It is this cosmology that the presentation at Sápmi Park simulated. As Shields reminds us, the virtual—as embodied in memories, dreams, visions—has in numerous cultures played an important role in understanding the real, and could be made tangible through ritual.[112] In reference to the ancient Greeks as well as Siberian shamanism, Bittarello posits that invisible and visible worlds "co-exist," mutually affect one another, and thus are equally real.[113] Thus, we could consider a Sámi Indigenous cosmology as consisting of invisible (virtual) and visible (actual) realms that together formed a lived reality. The virtual could manifest itself in and influence the actual world, while humans could also perceive and, through shamanism, shape aspects of the virtual world. Thus, the actual world existed side-by-side with, and was mutually dependent upon, the virtual world.

Such a cosmology could offer alternative perspectives for considering forms of simulation and virtuality within contemporary Sámi expressive culture. This is especially so considering the revival of certain aspects of Indigenous Sámi cosmology within contemporary Sámi cultural performance. *Sacred Stone* is littered with references to a Sámi cosmology and itself utilizes many aspects of Sámi traditional culture. As we have seen, the track "Boršš*á*š" (Sparkling creek) simulates, through the text, the vocals, and the intricate digital production, the sounds and images of a trickling stream. Listening to the track can be a way of presencing the creek in front of us, just as live *joik* performance might.[114] At the same time, the bubbling water hints at its source, a spring, where, in a Sámi Indigenous cosmology, souls of the dead could reenter the physical world as spirits. Likewise, the *sieidi* that is brought to life on the track "Sieidi Geađgi" (Sacred stone) is also the site at which humans attempt to communicate with the invisible world through sacrificial ceremonies and trance. Allusions to another world are also plentiful within the text (e.g., "The home from the ones from the other side"; "She could give pieces of images"). Meanwhile, simulations of a Sámi landscape, with snow and ice, feature prominently on *Juoiggas!* Water also becomes thematized through the *joiks* to a lake and river ("Virdnejávri" and "Johka"), both of which, as their accompanying text highlights, remind us of the fragility of life on earth and the connection between humans and sacred nature. On the one hand, these examples elucidate the importance of digital media for enabling simulation in order to support the revival of Sámi traditional practices and cosmologies. On the other, they also play with notions of alternate realities central to a Sámi Indigenous cosmology,

thus transforming "traditional" practice. This is most evident at Sápmi Park, where the presentation *Stalubákti* (The mountain of the spirits) takes the visitor on a journey into Sámi traditional beliefs, mythology, and shamanism. What we experience, however, is not simply a simulation of a virtual world. The *noaidi* in the fire asks us to suspend our disbelief and imagine, just for a short while, how the world through a Sámi cosmology might appear. Rivers are the veins of a reindeer, forests the fur, and stars the eyes. Likewise, the sonorous Northern Lights are the ancestors, and *joiking* enables one to travel into alternative realities. Bitarello has written about the importance of imagination and spirituality (e.g., myths) for helping us not only to make meaning out of perceived reality but also to envision better realities.[115] And Shields has written about the importance for digital virtual technologies to assist the imagination in perceiving aspects of the world which positivist empirical science have made redundant.[116] As such, *Stalubákti* and the other examples show how uses of digital media have the potential, through immersive, embodied and multisensorial simulation, to remind us what is missing in empirical accounts of the world and to render aspects of imaginary and utopian worlds visually and sonically perceptible within the actual world. In particular, *Stalubákti* asks us, through a Sámi cosmology, to perceive Sápmi beyond what it may appear like in the actual physical world, indeed urging us to the look at a world "that you can only see with your heart." It is these aspects of Sámi expressive culture that Vizenor might call simulations of "shadows, memories, and visions" that articulate resistance to a hyperreal erasure of Indigenous people.[117]

These ideas also have implications for how we might more generally reconsider pessimistic views and theories of digital media, especially virtuality and simulation. Boellstorff, drawing on Massumi, writes that the virtual emerges from "a perceived gap between experience and 'the actual.' . . . This gap between virtual and actual is critical: were it to be filled in, there would be no virtual worlds, and in a sense no actual world either."[118] Here, Boellstorff renders the gap between the "virtual" and the "actual" as a utopian space. This is in stark contrast to Baudrillard's lamentation of the loss of the "real" in an era of simulacrum. Although Boellstorff denies that the attempt to approach the real through virtuality is a sign of Baudrillardian nostalgia, he believes that this gap is a prerequisite for human perception of our world.[119] Vizenor, however, questions the assumption of semiotic theory and subject-object distinctions in accounts of Indigenous culture.[120] And according to a Sámi philosophy, such a gap may not be so necessary at all. As we have seen, according to ontologies of *joik*, one does not *joik* about someone, one *joiks* someone.[121] Through the act of *joiking*, the person, animal, or place who is *joiked* is made present. According to some commentators, this is an act of memory; according to the *noaidi* in *Stalubákti joiks* are "pictures of people."[122] Thus, as Ramnarine has argued, semiotic theory, whereby an arbitrary sign (a construct of the human

imagination) stands for something signified (a part of lived reality), no longer holds.[123] Within a *joik* philosophy, the sign (in this case the *joik*) *is* the signified (person, animal, or place, etc.). Moreover, as Nils Aslak Valkeapää and Ánde Somby have described, *joiks* have no beginning or end, but continue to resonate in nature whether someone vocalizes them or not, and whether we can perceive them or not.[124] Ramnarine has interpreted these aspects of *joik* performance as highlighting the interconnection of humans and environment.[125] Such an ontology also highlights the idea that there are other ways of evaluating digital technologies and simulation. It raises important questions about notions of experienced and imagined realities, problematizes standard distinctions between subjects and objects, and opens up new ways of thinking about embodiment. In these ways, a Sámi cosmology could provide a model for reconsidering totalizing and dystopian theories of contemporary digital culture and simulation. Indeed, it shows that, despite the increasing ubiquity of digital technologies around the world, there are alternative ways of thinking about, experiencing, and utilizing global digital culture.

Refashioning digital media and reconsidering virtuality is, I emphasize, a political exercise. As we have seen, the emergence of a "world as simulation" was created through practices and processes central to imperialism. Likewise, the binary real/virtual within which the virtual was considered negatively was a product of Enlightenment science. Uses of digital technologies for simulation in Sámi cultural and musical contexts have been utilized to revive Sámi Indigenous cosmologies and Sámi cultural traditions, including *joik*. The experimental uses of technology should not be seen as somehow being a "less real" simulation of culture, as nostalgic ethnographic accounts might have us believe. As Somby's vocal vision elucidates, they can be seen as both intrinsic to, and transformative aspects of tradition. Indeed, as Haraway has argued, the humanization of technologies can be a way of resisting patriarchy and colonialism.[126] Moreover, forms of simulation employed within Sámi expressive culture themselves question and play with the distinction between the real and the virtual, and this in itself draws on a Sámi cosmology in which notions of invisible realms were central to understanding lived reality in the physical world. The virtual, scholars have argued, does not necessarily have to be seen as distinct from reality, but rather as existing alongside, permeable with, and dependent upon the lived-in world. It is in the sphere of the virtual that humans can adopt new ways of relating to the object world, develop alternative understandings of embodiment and orality, and explore diverse ways of imagining and perceiving reality. Raheja argues for the importance of filmic virtuality for Indigenous resistance and cultural revival: "The virtual reservation does not stand in opposition to or as a substitute for the material world, but creates a dialogue with it. It helps us see things in the material world in a different dimensionality, thus enhancing our understanding of online and virtual as well as off-line and

off-screen communities."[127] Moreover, as Shields contends, "the virtual troubles any simple negation because it introduces multiplicity into the otherwise fixed category of the real. As such the tangible, actually real phenomena cease to be the sole, hegemonic examples of 'reality.'"[128] Such a view gives space to new ways of thinking about the contemporary digital world. The politicized nature of virtual technologies is also recognized by Boellstorff, who urges us to advance "a politics that sees virtual worlds as one site for social struggle and justice."[129] A deeper study of Sámi and other Indigenous understandings of virtuality and uses of digital technology would not only enable us to appreciate complex ways of resisting totalizing notions of reality in the contemporary digital world, but also lead to understand better different ways of living and experiencing global modernities.[130]

Notes

1. Rob Shields, *The Virtual* (London: Routledge, 2003).
2. Tom Boellstorff, *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human* (Princeton, NJ: Princeton University Press, 2008), 26–27, 32.
3. Jean Baudrillard, *Simulacra and Simulation* (Ann Arbor: University of Michigan Press, 1994), 1–42.
4. Shields, *The Virtual*, 37, 44.
5. Michael Meadows, "Re-claiming a Cultural Identity: Indigenous Media Production in Australia and Canada," *Continuum* 8, no. 2 (1994): 270–92.
6. Shields, *The Virtual*, 37; Bittarello, "Another Time, Another Space: Virtual Worlds, Myths and Imagination," *Journal For Virtual Worlds Research* 1, no. 1 (2008): 13–14; Bittarello, "Mythologies of Virtuality: 'Other Space' and 'Other Dimension' from Ancient Myths to Cyberspace," in *The Oxford Handbook of Virtuality*, ed. Mark Grimshaw (Oxford: Oxford University Press, 2014), 97.
7. Shields, *The Virtual*; Boellstorff, *Coming of Age in Second Life* Bittarello, "Another Time, Another Space" and "Mythologies of Virtuality.
8. Michelle H. Raheja, *Reservation Reelism: Redfacing, Visual Sovereignty, and Representations of Native Americans in Film* (Lincoln: University of Nebraska Press, 2010), 203.
9. See Richard Jones-Bamman, "'As Long as We Continue to Joik, We'll Remember Who We Are': Negotiating Identity and the Performance of Culture: The Saami Joik" (PhD diss., University of Washington, 1993), 235–63.
10. See Vuokko Hirvonen, *Voices from Sápmi: Sámi Women's Path to Authorship*, trans. Kaija Anttonen (Kautokeino, NO: DAT, 2008), 66–80.
11. For an overview of this history, see Sari Pietikäinen, "'To Breathe Two Airs': Empowering Indigenous Sámi Media," in *Global Indigenous Media: Cultures, Poetics, and Politics*, ed. Pamela Wilson and Michelle Stewart (Durham, NC: Duke University Press, 2008), 200–201.

12. See Odd Mathis Hætta, *Dá Lea Sámi Radio: Nrk Sámegiel Sáddagat 1946–1980* (Karasjok, NO: Davvi Girji, 2003).
13. John T. Solbakk, "Sami Mass Media: Their Role in a Minority Society," in *Sami Culture in a New Era: The Norwegian Sami Experience*, ed. Harald Gaski (Karasjok, NO: Davvi Girji, 1997), 172–98.
14. Thomas R. Hilder, *Sámi Musical Performance and the Politics of Indigeneity in Northern Europe* (Lanham, MD: Rowman & Littlefield, 2015), 164–67.
15. Sari Pietikäinen, "Sami in the Media: Questions of Language Vitality and Cultural Hybridisation," *Journal of Multicultural Discourses* 3, no. 1 (2008): 26.
16. Ibid., 28; Pietikäinen, "'To Breathe Two Airs,'" 199; See also Pamela Wilson and Michelle Stewart, "Indigeneity and Indigenous Media on the Global Stage," in *Global Indigenous Media: Cultures, Poetics, and Politics*, ed. Pamela Wilson and Michelle Stewart (Durham NC: Duke University Press, 2008), 3.
17. Coppélie Cocq, "Anthropological Places, Digital Spaces, and Imaginary Scapes: Packaging a Digital Sámiland," *Folklore* 124, no. 1 (2013): 1–14; Coppélie Cocq, "From the Árran to the Internet: Sami Storytelling in Digital Environments," *Oral Tradition* 28, no. 1 (2013): 125–42.
18. Hilder, *Sámi Musical Performance and the Politics of Indigeneity*.
19. Jones-Bamman, "'As Long as We Continue to Joik, We'll Remember Who We Are'"; Richard Jones-Bamman, "From 'I'm a Lapp' to 'I Am Saami': Popular Music and Changing Images of Indigenous Ethnicity in Scandinavia," in *Ethnomusicology: A Contemporary Reader*, ed. Jennifer C. Post (London: Routledge, 2006), 351–67; Hilder, *Sámi Musical Performance and the Politics of Indigeneity*.
20. For more on revival, see Tamara E. Livingston, "Music Revivals: Towards a General Theory," *Ethnomusicology* 43, no. 1 (1999): 66–85.
21. See also Jones-Bamman, "'As Long as We Continue to Joik, We'll Remember Who We Are,'" 388–90.
22. Donna J. Haraway, "The Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in *Simians, Cyborgs and Women: The Reinvention of Nature*, ed. Donna J. Haraway (New York: Routledge, 1991), 149–81.
23. See also Tina K. Ramnarine, "Acoustemology, Indigeneity, and Joik in Valkeapää's Symphonic Activism: Views from Europe's Arctic Fringes for Environmental Ethnomusicology," *Ethnomusicology* 53, no. 2 (2009): 190–92.
24. For an introduction to the topic of music and virtuality (which was published in the final phases of editing of this book), see Sheila Whiteley and Shara Rambarran, eds. *The Oxford Handbook of Music and Virtuality* (Oxford: Oxford University Press, 2016).
25. Gerald Vizenor, *Manifest Manners: Postindian Warriors of Survivance* (Hanover, NH: Wesleyan University Press, 1994).
26. Ibid., 55; See also Raheja, *Reservation Reelism*, 252.
27. Raheja, *Reservation Reelism*, 153. In this book, Raheja also draws on Vizenor.
28. Shields, *The Virtual*, 60.
29. Ibid., 65.
30. Boellstorff, *Coming of Age in Second Life*, 238.

31. I discuss Sápmi Park to open up a discussion on tradition and modernity in Hilder, *Sámi Musical Performance and the Politics of Indigeneity in Northern Europe*, 71–72.
32. This exhibition was produced and created by Sápmi KS and BRC Imagination Arts, with Åsa Simma as writer and cultural advisor and Nils Gaup as media consultant.
33. Åsa Simma wrote the narration for this simulation.
34. Åsa Simma, personal communication, Berlin, February 11, 2015.
35. There are numerous other examples of online Sámi exhibitions, which employ aspects of virtuality, hyperlink, and the convergence of visual, sonic and textual culture, such as Sápmi—Becoming a Nation, at Tromsø University Museum, accessed September 2, 2016, http://sapmi.uit.no/.
36. Timothy Mitchell, *Colonising Egypt* (Cambridge: Cambridge University Press, 1988), 13.
37. Ibid., 21.
38. Ibid., 62.
39. Cathrine Baglo, "På Ville Veger: Levende Utstillinger Av Samer I Europa Og Amerika" (PhD diss., University of Tromsø, 2011). For a critical discussion of museum histories in Scandinavia, see Mark B. Sandberg, *Living Pictures, Missing Persons: Mannequins, Museums, and Modernity* (Princeton, NJ: Princeton University Press, 2003).
40. See Susanne Ziegler, "Wax Cylinder Recordings of Sami Music in the Berlin Phonogramm-Archiv," *European Meetings in Ethnomusicology* 12 (2007): 213–16.
41. Baglo, "På Ville Veger," 22–23.
42. Ibid., 202–42.
43. Ibid., 170–201; Ziegler, "Wax Cylinder Recordings of Sami Music."
44. Mitchell, *Colonising Egypt*, 10.
45. Ibid., 11.
46. Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment*, trans. John Cumming (London: Verso, 1997), 120–67.
47. Baudrillard, *Simulacra and Simulation*, 12.
48. Ibid., 23.
49. Ibid., 6–7.
50. Mahdi Teimouri, "On the Question of Overlap between the Post-colonial and the Postmodern," *Sarjana* 27, no. 2 (2012): 2/3; Mitchell, *Colonising Egypt*, 31.
51. Mitchell, *Colonising Egypt*, 60.
52. Ibid., 10.
53. Alcida Rita Ramos, "The Hyperreal Indian," *Série Antropologia*, no. 135 (1992): 1–17; Vizenor, *Manifest Manners: Postindian Warriors of Survivance*; Raheja, *Reservation Reelism: Redfacing, Visual Sovereignty, and Representations of Native Americans in Film.*
54. Cocq, "Anthropological Places, Digital Spaces, and Imaginary Scapes: Packaging a Digital Sámiland."
55. Ibid., 9–10.
56. See Odd Terje Brantenberg, "The Alta-Kautokeino Conflict: Saami Reindeer Herding and Ethnopolitics," in *Native Power: The Quest for Autonomy and Nationhood of Indigenous Peoples*, ed. Jens Brøsted et al. (Bergen, NO: Universitetsforlaget, 1985), 23–48.

57. Ola Graff, "Samisk Joik: Viddas Egen Musikk? Ei Betrakning over Joikens Forhold Til Naturen," [Sámi joik: The tundra's own music? A consideration of joik's relation to nature.] *Musikk Fokus* 1991, no. 7 (1991): 18–22.
58. Ánde Somby, "Joik and the Theory of Knowledge," accessed September 2, 2016, http://www.stavacademy.co.uk/mimir/joik.htm. For further discussion of this phenomenon, see Ramnarine, "Acoustemology, Indigeneity, and Joik," 190–92.
59. For further discussion of this CD, see Hilder, *Sámi Musical Performance and the Politics of Indigeneity*, 135–41.
60. For discussion of acoustic ecologies in Sámi compositions by Nils Aslak Valkeapää, see Ramnarine, "Acoustemology, Indigeneity, and Joik,"
61. Cocq, "From the Árran to the Internet: Sami Storytelling in Digital Environments," 127–28; See also Paddy Scannell, *Media and Communication* (Los Angeles, CA; London: SAGE, 2007), 135–36.
62. See, for example, Ulla Pirttijärvi, *Hoŋkoŋ Dohkká* [The Hong Kong doll] (Kautokeino, NO: DAT, 1996).
63. Frode Fjellheim, *Med Joik Som Utgangspunkt* [With joik as a point of departure] (Trondheim, NO: Vuelie, 2004).
64. See also Cocq, "From the Árran to the Internet," 132.
65. Ibid., 133.
66. See also Thomas R. Hilder, "Repatriation, Revival and Transmission: The Politics of a Sámi Cultural Heritage," *Ethnomusicology Forum* 21, no. 2 (2012): 161–79.
67. Cocq, "Anthropological Places, Digital Spaces, and Imaginary Scapes," 11.
68. Ibid.
69. Baudrillard, *Simulacra and Simulation*, 23.
70. Ibid., 8–9.
71. Ibid., 7–11.
72. Ibid., 8. Italics in original.
73. See Ramos, "The Hyperreal Indian"; Vizenor, *Manifest Manners* 4–5; Raheja, *Reservation Reelism*, 36, 53, 136–38; Teresa Strong-Wilson, "Turtles All the Way: Simulacra and Resistance to Simulacra in Indigenous Teachers' Discussion of Indigenous Children's Literature," *Children's Literature in Education* 39, no. 1 (2008): 53–74; Colin Perrin, "Approaching Anxiety: The Insistence of the Postcolonial in the Declaration on the Rights of Indigenous Peoples," *Law and Critique* 6, no. 1 (1995): 55–74; Stephen Muecke, "Cultural Activism: Indigenous Australia 1972–94," in *Trajectories: Inter-Asia Cultural Studies*, ed. Kuan-Hsing Chen (1998): 299–313. For a critique of notions of Indigenous "authenticity," see also Gareth Griffiths, "The Myth of Authenticity," in *De-Scribing Empire*, ed. Chris Tiffin and Alan Lawson (London: Routledge, 1994), 70–85. Baudrillard articulates his stance on Indigeneity more explicitly in Richard G. Smith, "The Catastrophe of Paradox Questions and Answers on Hyperreal America with Jean Baudrillard," *Space and Culture* 5, no. 2 (2002): 96–102.
74. Vizenor, *Manifest Manners*, 5.

75. See Meadows, "Re-claiming a Cultural Identity." For another critique of Baudrillard's notion of the simulacra with regard to TV advertisements, see Mark Poster, *The Mode of Information: Poststructuralism and Social Context* (Cambridge: Polity Press, 1990), 61–68.
76. Vizenor, *Manifest Manners*.
77. Raheja, *Reservation Reelism*, 145–89.
78. The Kven are a Finnish-speaking national minority in Northern Norway.
79. Tina K. Ramnarine, "Singing Sacred Stones: Music, Spirituality, and Ecology in Europe's Arctic Fringes," presented at the Society for Ethnomusicology Annual Conference (Middletown, CT, 2008); Ramnarine, "Acoustemology, Indigeneity, and Joik in Valkeapää's Symphonic Activism"; Tina K. Ramnarine, "Sonic Images of the Sacred in Sámi Cinema: From Finno-Ugric Rituals to Fanon in an Interpretation of Ofelaš (Pathfinder)," *Interventions* 15, no. 2 (2013): 239–54.
80. Poster, *The Mode of Information*, 9.
81. Raheja, *Reservation Reelism*, 153.
82. For further discussion of Somby and issues of presencing that which is *joiked* through *joik* performance, see Ramnarine, "Acoustemology, Indigeneity, and Joik," 191.
83. Paul D. Greene and Thomas Porcello, *Wired for Sound: Engineering and Technologies in Sonic Cultures* (Middletown, CT: Wesleyan University Press, 2005), 8–9.
84. Beverley Diamond, "'Allowing the Listener to Fly as They Want to': Sámi Perspectives on Indigenous CD Production in Northern Europe," *World of Music* 49, no. 1 (2007): 23–48. See also Diamond's chapter in this volume.
85. See Ramnarine, "Acoustemology, Indigeneity, and Joik."
86. Hilder, *Sámi Musical Performance and the Politics of Indigeneity*, 135–41.
87. Ramnarine, "Acoustemology, Indigeneity, and Joik."
88. Shields, *The Virtual*, 46.
89. Bittarello, "Mythologies of Virtuality," 108.
90. Shields, *The Virtual*, 37.
91. Boellstorff, *Coming of Age in Second Life*, 20.
92. Ibid., 5.
93. Shields, *The Virtual*, 41.
94. Ibid., 13.
95. Ánde Somby, personal interview, March 12, 2008, Tromsø.
96. Ramnarine, "Acoustemology, Indigeneity, and Joik," 210.
97. Donna J. Haraway, *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991).
98. Haraway, "The Cyborg Manifesto," 175.
99. Ibid., 178.
100. Åke Hultkrantz, "Religion and Environment among the Saami: An Ecological Study," in *Circumpolar Religion and Ecology: An Anthropology of the North*, ed. Takahashi Irimoto and Takako Yamada (Tokyo: University of Tokyo Press, 1994), 354–55.

101. Håkan Rydving, "Synliga Och Osyngliga Lanskap: Några Samiska Eksempel," in *Ting Og Tekst*, ed. Elsè Mundal and Anne Ågotnes (Bergen, NO: Bryggens Museum, 2002), 65–77.
102. Hultkrantz, "Religion and Environment among the Saami," 354–56.
103. Inga-Maria Mulk and Tim Bayliss-Smith, "Liminality, Rock Art and the Sami Sacred Landscape," *Journal of Northern Studies* 2007, no. 1/2 (2007): 91–118.
104. Ibid., 105–8.
105. Ibid.
106. Ibid., 98.
107. Ibid., 95–96.
108. Louise Bäckman, "The Dead as Helpers?: Conceptions of Death amongst the Saamit (Lapps)," *Temenos: Nordic Journal of Comparative Religion* 14 (1978): 25–52.
109. Bo Sommarström, "Pointers and Clues to Some Saami Drum Problems," in *Saami Pre-Christian Religion: Studies on the Oldest Traces of Religion among the Saamis*, ed. Louise Bäckman and Åke Hultkrantz (Uppsala, SE: Almqvist & Wiksell, 1985), 139–56.
110. Juha Pentikäinen, "The Shamanic Drum as a Conitive Map: The Historical and Semiotic Study of the Saami Drum in Rome," in *Mythology and Cosmic Order*, ed. René Gothoni and Juha Pentikäinen (Pieksämäki, FI: Studia fennica, 1987), 17–36.
111. Ola Graff, "Joik Og Runebomme. Hvilken Betydning Hadde Joikinga I De Før-Kristne Seremoniene?" (Tromsø, NO: Universitetsmuseet i Tromsø, 1996).
112. Shields, *The Virtual*, 37.
113. Bittarello, "Mythologies of Virtuality," 97.
114. Ramnarine, "Acoustemology, Indigeneity, and Joik," 191.
115. Bittarello, "Another Time, Another Space," 13–14.
116. Shields, *The Virtual*, 37–38.
117. Vizenor, *Manifest Manners*, 63.
118. Boellstorff, *Coming of Age in Second Life*, 19; Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham, NC: Duke University Press, 2002), 30.
119. Boellstorff, *Coming of Age in Second Life*, 238, 243.
120. Vizenor, *Manifest Manners*, 74–78.
121. Somby, "Joik and the Theory of Knowledge."
122. Johan Turi, (*Turi's*) *Book of Lappland*, trans. E. G. Nash (London: Cape, 1931), 202.
123. See Ramnarine, "Acoustemology, Indigeneity, and Joik," 190–91.
124. Elina Helander and Kaarina Kailo, eds., *No Beginning, No End: The Sami Speak Up* (Edmonton: Canadian Circumpolar Institute Press, 1998), 87; Somby, "Joik and the Theory of Knowledge"
125. Ramnarine, "Acoustemology, Indigeneity, and Joik," 190–92.
126. Haraway, "The Cyborg Manifesto," 155.
127. Raheja, *Reservation Reelism*, 153.
128. Shields, *The Virtual*, 21.
129. Boellstorff, *Coming of Age in Second Life*, 248.