Envisioned, Ensounded, Enacted: Sacred Ecology and Indigenous Musical Experience in Yoreme Ceremonies of Northwest Mexico

Helena Simonett / Vanderbilt University

Abstract. This paper explores an ecological approach to the perception of musical meaning. Ethnographically informed by a Yoreme understanding of seeing and hearing as interrelated perceptual activities, this paper critically evaluates the concept of soundscape and the dichotomization and hierarchization of our (Western) perception faculties. It is a contribution to the growing number of publications with an integrative humanistic-scientific theoretical approach to ethnomusicology, based on insights gained from indigenous cosmovision, perception of sound, and human-animal-environment relationships.

What *is* sound? This question is a version of the old philosophical conundrum: does the tree falling in a storm make any sound if there is no creature present to hear it?
From *Being Alive*, by Tim Ingold, p. 137

One of the most puzzling statements that I have heard about the nature of sound during all my years of fieldwork in indigenous Northwest Mexico came from Bernardo Esquer López, a musician of the Yoreme community, who explained to me that indigenous songs have color and sound; and that in Yoreme one can sing the sound and the color; in Spanish on the other hand, one can only sing the color but not the sound (Interview, 3 May 2009, Los Ángeles del Triunfo, Guasave). Esquer López's view of what sound is has neither to do with the mental (what we register inside our heads) nor the material (mechanical vibrations in the medium). Rather, sound is a phenomenon of experience—as

anthropologist Tim Ingold puts it—"of our immersion in, and commingling with the world in which we find ourselves" (2011:137).

This approach to perception is thoroughly ecological, and I believe that by exploring an ecological approach to the perception of musical meaning we may avoid some of the shortfalls inherent in a purely linguistic or semiotic perspective (Blacking 1981; Turino 1999; see also Feld and Fox 1994). In light of some outstanding studies, notably Steven Feld's *Sound and Sentiment* ([1982] 1990), it would be shortsighted to underestimate the insights of semiotic analyses into musical meaning, but because of the limitations of language and of the inaccessibility of unconscious and non-conscious processes in musical experiences, the linguistic dimension of musical discourse continues to be a research area that is enormously difficult to come by, as Feld has noticed elsewhere (1981:44). Moreover, as Deborah Kapchan observed, an ethnomusicology "marked by the insights of linguistics and scholars who employ the vocabulary of generative grammar, deep structures, performance and competence" reorients a discipline concerned with sound to one concerned with sound and language (2009:82).

Nevertheless, Esquer López's comment that songs in his native language may express both color and sound suggests that attempts to translate idiosyncratic, native concepts into another language require a deeper understanding of the concepts and perceptions involved. The meaning of sound in general, and of musical sound in particular, is contextually constituted. Indeed, from an ecological as well as from a phenomenological perspective, sound has no substantial essence in itself; it only has a relational significance, one created through relations between peoples and their environment. It is my aim in this paper to approach indigenous (Yoreme) music-making and musical meaning in a humanistic-scientific integrative way that yields interpretations more attuned with an emic, culture-specific understanding of the Yoreme musical world. I would therefore like to invite the reader to attend to Ingold's call: "In order to understand the phenomenon of sound (as indeed those of light and feeling), we should therefore turn our attention skywards, to the realm of the birds, rather than towards the solid earth beneath our feet" (2011:138).

The Realm of the Birds: Yoreme Mythology and Ceremonial Practice

Unlike the well-documented mythologies of the Mesoamerican people,[1] the former hunters and gatherers that inhabited the vast territories of what is today northwestern Mexico, seem to have left little evidence of their mytho-historical past. No sacred narratives that explain how the world or humankind came to be in its present form were recorded in writing by these nomadic people and oral accounts remain scarce. Miguel Olmos Aguilera (2005) compiled a small

number of creation myths printed in various publications and private collections, mainly from the Seri, Tarahumara, Yaqui, and Mayo (Yoreme)[2] people and some smaller groups of the region. A few of the collected myths speak about the creation of music or about how man became musical, but unfortunately, we do not learn anything about the ethnographic context of these records.[3]

The only story related to me since I initiated my fieldwork a decade ago referred to baby Jesus as the giver of music to the Yoreme. The then eighty-year-old harpist (*alpaleero*), Lolis Valenzuela, insisted that the Yoreme people did not have any "music" up to that point in time (Interview, 25 February 2004, San Miguel Zapotitlán, Ahome). I recorded his story without giving it further thought, dismissing it as inconsequential for my research. In retrospect, however, I consider this episode my first of many lessons about the pitfalls of translation—the translation both of language and of concepts.

We can see that Valenzuela's story is indeed not the outcome of an old man's clouded mind if we look closer into Yoreme's conceptual understanding of music and the deeper significance of Jesus' birth for the course of occidental history, particularly the Christianization of the Amerindians. In fact, Yoreme apply the concept of music as understood in a Western sense only to the *sones* (tunes) played on string instruments (harp and violin)—instruments that were brought to the remote northern regions of the Viceroyalty of New Spain by Jesuit missionaries in the early seventeenth century. Musical education was part of the missionary zeal to convert the indigenous peoples to Christianity (Schechter 1992:16). The Yoreme retained the harp, which is still modeled after the diatonic European Renaissance harp. Harps are crafted by musicians of the community. Violins—although locally made ones are still in use—are nowadays commonly store-bought and modified to meet the aesthetic criteria of Yoreme music making (see Figure 1, below).

It is the string ensemble that produces *la música*, and the men who play the string instruments are commonly referred to in Spanish language as *los músicos*.[4] It is striking that Yoreme distinguish linguistically between different sounds made by human and non-human constituents of the environment, but the concepts of music and musicking seem to have been introduced together with the new instruments the missionaries had brought.[5] Hence, even though the string instruments have been thoroughly indigenized, conceptually as well as in terms of playing techniques, the Jesus-as-the-giver story points to a native understanding of the concept of music rooted in colonial history.[6]

In addition to the stringed musicians, Yoreme ceremonial music includes two other types of ensembles: the *tampoleero,* where a single person plays a frame drum and an end-blown cane flute simultaneously, and the *maaso buicleerom,* a group of three singers who accompany themselves on a water drum and two wooden rasping sticks on gourd resonators. While the *maaso yi'ileero* (*venado,*

Figure 1. Yoreme harp and violin

or deer dancer) is part of the latter ensemble, the masked *pajco'olam* (pascolas) dance and supply additional percussion to the sones of the tampoleero (see Figure 2, below).

As was explained to me by several Yoreme *tampoleerom,* it was the mountain mouse (*juiya to'ori*) that taught humans to play the drum. This kind of mouse nests in the trees, and when it has eaten, it lies in the sun to digest, patting its full belly with its paw, making a "toc-toc" sound (Interview, Escalante Buitimea, 13 May 2011, El Añil, San Miguel Zapotitlán). And above the mouse, sitting on a branch, sings the bird: "tui-tui," "chiriti-chiriti" (Interview, Esquer López, 3 May 2009, Los Ángeles del Triunfo, Guasave). Inhabiting the same world as these animals, the tampoleero has learned to recreate their sounds and calls in his sones. Thus, from a simple cane flute with only three holes—two on the front of the lower part of the flute for the index and middle finger and one on the back for the thumb—emanate birdcalls that any ornithologically versed listener may easily discern.

Interestingly, it is not only the Yoreme who tell the mouse-bird myth to explain the origin of the musical human; a Yaqui version of this story was collected by Ruth Giddings in 1942 in a Yaqui settlement near Tucson and subsequently

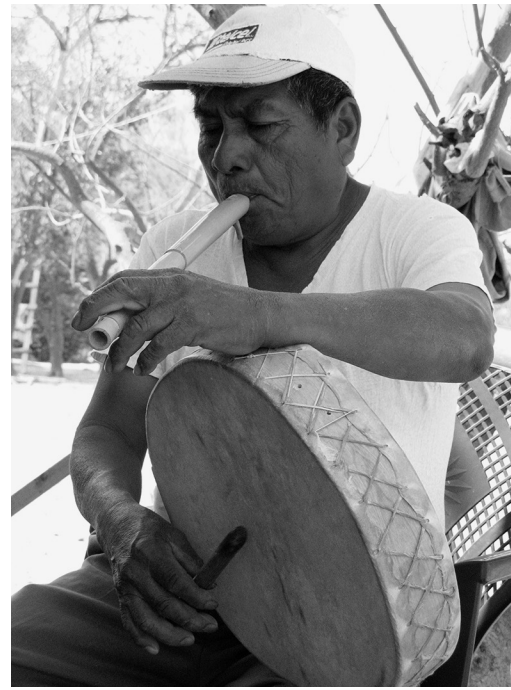

Figure 2. Yoreme tampoleero Ignacio Escalante Buitimea

published in *Yaqui Myths and Legends* (1959:58–59).[7] The existence of similar versions of this myth at such a large geographical and temporal distance supports the Yoreme belief in the ancientness of their musical practice. Moreover, the pascolas who dance to the sones of the tampoleero have also learned from birds how to shuffle their feet—the term *yi'igua,* dance, is derived from the pawing motion of bird feet. With their stiff upper bodies bent forward, their elbows cocked and towards the back, the pascola dancers look like birds scratching the soil for food. The intricate footwork, as seen below in Figure 3, makes their leg rattles (*tenabarim*), moth cocoons filled with pebbles, rustle rhythmically and the brass bells (*coyoolim*) dangling from their belts jingle randomly, much like the twittering of birds.

The Realm of the Birds: A World that Opens Out to the Musical Human

Beyond the surface of myth, birdcalls, and the dancers' body postures and gestures we listen to and observe, lies a world of perception and cognition that is less accessible to our analysis. It is the past world of the Yoreme people as

Figure 3. The body posture of the pascola dancer

hunters and gatherers—a world that continues to inform their ceremonial life, worldview, and musical practice. By the time of Spanish encroachment on the vast territory of the northwestern frontier of Nueva Vizcaya in the sixteenth century, the population consisted of nomadic tribes as well as clusters of agrarian communities living upon the banks of five rivers that drop from the Sierra Madre range into the Gulf of California: the Sinaloa, Ocoroni, Fuerte, Mayo, and Yaqui rivers. The inhabitants of these settlement clusters, scattered over large territories and sometimes shifting locations, were linguistically and culturally related, but not all of them lived peacefully with their neighboring groups—a reality that the Spanish colonizers would use to their own advantage (see Radding 1997). Most native people depended on agriculture as well as on wild foods that they hunted and collected in the surrounding bush (see Spicer 1962).

At the opening of every Yoreme ceremonial function (*fiesta*), a supplication for the first man who died during hunting and gathering is enacted in a performance, telling the myth of the Yoreme people's search for sustenance in the wilderness. This myth, in effect, is given meaning through the narrativity of pascola music and dancing and the deer songs and dance, respectively. In the ritual, the tampoleero becomes the mouse-bird, hence reaching back toward the

consecrated pre-human beginnings, the Yoreme mythological past (Simonett 2009:55). Beating the frame drum serves as rhythmic entrainment and is purely mechanical—much as the mouse is patting its belly, unabsorbed by its activity. The pulse (or repeated short rhythm) may or may not correspond to the rhythm of the melody played on the flute; the bird on the branch is singing, unconcerned with the tapping from below. During his ritual trancing, the tampoleero fully concentrates on the singing of the particular bird of the *son* he plays and "gives the sound to the flute" (*da el sonido a la flauta*), Igancio Escalante Buitimea explained (Interview, 11 May 2010, El Añil, San Miguel Zapotitlán). He does not elicit the sound from the flute (*sacar el sonido de la flauta*), as one would say in Spanish. Despite the fact that the sixty-some-year-old bilingual Escalante Buitimea, whose first language is Yoreme, does not express himself very precisely in Spanish, our language of conversation, his distinction between *dar* (to give) and *sacar* (to take out) was not arbitrary: rather, I consider it crucial for understanding the concept of Yoreme music making. In fact, another musician once criticized a Mestizo aficionado, who spent years learning to play the drum and flute and who consistently showed up at musical occasions to assume the *oficio* (function) of the tampoleero, saying that he lacked vision: a necessary ability without which he simply "plays with his mouth instead of with the tones of the flute." Musical meaning does not emerge from notes, motives, melodies or rhythms that one can learn to recreate, but "from the experience of inhabiting (*convivir*) the world" (Interview, Esquer López, 3 May 2009, Los Ángeles del Triunfo, Guasave).

Ingold, whose main expertise lies in the anthropology of hunters and gathers, argues that "the difference between the activities of hunting and gathering, on the one hand, and singing, storytelling and the narration of myths on the other, cannot be accommodated within the terms of a dichotomy between the material and the mental, between ecological interactions *in* nature and cultural constructions *of* nature. [. . .] In hunting and gathering, as in singing and storytelling, the world 'opens out' to people" ([2000] 2011:57). In Yoreme cosmo*vision* (I prefer this term over cosmology), the world (*annia*) is revealed in manifold ways: as the world of the sun, the sea, the trees, the flowers, the mountains, the rocks, and so forth; together they constitute the sacred environment. Musical inspiration emerges from "visions of landscapes in the mountain," I was repeatedly told by Bernardo Esquer López. The visions, however, are not static pictures of landscapes, like paintings or photographs; they resemble places one has stridden through, one has inhabited, and that with which one is intimately "at home."

The perspective, though, shifts in the ritual: the mountain landscape is seen through the animal whose son or *canto* (song) is being ensounded. Mountain (*monte*) here does not simply refer to the rugged lower mountains along the

foot of the Sierra Madre, an arid area covered by deciduous forests and thorn scrub, it is a sacred and spiritual place, a place that is being recreated under the *enramada,* a shelter with a cover made of interwoven twigs and leaves, where the ceremonial fiestas are carried out. (See Figure 4 below.)

I would like to clarify here that the Yoreme musicians do not consume mescaline-containing cacti in their ceremonies, such as the Huichol do. Their visions are not induced by psychedelic substances that transform acoustic perceptions into optical perceptions. The ceremonies go on for nights and days, and the sleep-deprived participants consume a lot of over-sugared coffee; some smoke cigarettes or drink inexpensive alcohol. A ritually prepared alcoholic beverage made of fermented corn is no longer served.

The branches commonly used to adorn the enramada are cut from the huge cottonwood trees (*álamo*) that grow along the rivers—trees with healing powers that the Yoreme consider sacred. The bark of the álamo tree possesses properties that convert in the body into a substance that resembles synthetic aspirin. A bitter tea made from the bark relieves pain and inflammation and reduces fever and water retention. However, the use of álamo branches is more than merely ornamental: the leaves disseminate a strong, dizziness-causing odor, particularly

Figure 4. Enramada-monte

in hot climate. Thus, the scent of the álamo leaves contributes to a multisensory environment that stimulates trancing.[8]

Human-environmental Relationship: An Ecological Approach

With this focus on landscapes and on vision I do not intend to introduce a new ocularcentrism. After all, over the last three decades, valuable studies on sound have been made by scholars committed to the anthropology of the senses (see Samuels et al. 2010). I would argue, though, that with the (new) emphasis on sound and soundscapes we might have lost sight of what vision really is, i.e., a kind of knowing that depends on all our senses, not just our eyes. My following critique of the concept of soundscape and the dichotomization and hierarchization of our perception faculties, thus, is ethnographically informed by a Yoreme understanding of seeing and hearing as interrelated perceptual activities.

The term soundscape was first used in the field of urban planning with a focus on how the sounds of the built environment enhance people's perception of space and their relationship to the activities occurring within cities. Canadian composer R. Murray Schafer then introduced the term in acoustic ecology, a field he pioneered in the late 1960s. Sounds, he contended, are ecological properties of landscapes (Schafer [1977] 1994). His concept of soundscape, hence, refers to both the natural acoustic environment and environmental sounds created by humans. The general conceptual framework bases soundscape ecology on the same foundations as landscape ecology and draws from areas of coupled natural-human systems, with natural and human systems interacting to form spatial-temporal patterning of sound in landscapes (Pijanowski et al. 2011).[9] In fact, Schafer's soundscape concept "was somewhat analogous to landscape insofar as it attempted to contain everything to which the ear was exposed in a given sonic setting. Like 'landscape,' as well, the term contains the contradictory forces of the natural and the cultural, the fortuitous and the composed, the improvised and the deliberately produced. Similarly, as landscape is constituted by cultural histories, ideologies, and practices of seeing, soundscape implicates listening as a cultural practice" (Samuels et al. 2010:330). The term soundscape came to be used by ethnomusicologists very broadly, and maybe superficially, as "'the context in which music occurs' but without exploring the sonic aspects of that context that the soundscape concept can activate," Samuels et al. criticized (2010:331).

Among those studies that suggest that the natural environment conduces to the cultural shaping of a musical system are two early and seminal ethnographies on sound: Seeger's musical anthropology of the Suyá people of the Brazilian Amazon (1981, [1987] 2004) and Feld's sound ecology of the Kaluli of Papua

New Guinea ([1982] 1990). Both authors stress the priority of sound perception over vision for people living in the rainforest. Among the Suyá, "hearing and speaking are important modalities of the social person; vision is the important modality of the antisocial person"—the witch (Seeger 1981:87). The Suyá regard the witch as the most natural, but also dangerous, of their social leaders: he not only has powers of self-transformation, he has extraordinary vision (Seeger 1981:204). The Suyá's use of adorning ear- and lip-discs, Seeger argues, underscores the primacy of orality. Seeing, in fact, has not been symbolically elaborated to the same extent as hearing and speaking. While English-speakers stress an association between vision and cognition ("I see" as a substitute for "I understand"), the Suyá associate knowing with hearing. The ear "is the receiver and holder of social codes. A fully social person hears, understands, and knows clearly" (Seeger 1981:84).

Feld similarly argues that people in an aurally minded society express their ideas of knowledge or understanding by drawing on metaphors from the realm of acoustic experience. In *Sound and Sentiment,* Feld develops a persuasive cultural cartography by establishing a system of metaphorical correspondence between the material realm of sensory experience and the ideal realm of mental representations. "The soundingness of hearing and voicing," Feld holds in a later essay, constitutes for the Kaluli "an embodied sense of presence and of memory" (2000:185). The most important rituals in Kaluli ceremonial life are sung and danced at night: "In the dark house, as in the forest, it is hearing, not vision that is the dominant sensory mode. While the audience is aware of the motion, color and demeanor of the [brightly clad] dancer, the nuances of meaning lie in the texts of the songs and the sounds of the voice, the instrumental pulse and the bodily motion. In the seances, where darkness prevails, sound is totally focused" ([1982] 1990:180, addition mine). Like the Suyá who learn their songs from the animals of their surrounding forest, the Kaluli learn from the birds.

While Feld praised Seeger's work for setting "a good portion of traditional ethnomusicology on its ear" (back cover of Seeger's 2004 edition), his own book was called "a milestone in ethnomusicology" that has implications for research on all types of music (endorsement of the second edition of *Sound and Sentiment,* 1990). Feld's rhetoric of antivisualism at that time resonated very strongly with ethnomusicologists.[10] Yet one of the unintended consequences of this new focus on the auditory sense was a further fragmentation of the sensory experience. The problem with this kind of dichotomization and hierachization of aural and visual perception modes lies in the long intellectual history of dualistic thinking within Western philosophical and scientific discourses. Anthropological thinking was for a long time influenced by Lévi-Strauss's insistence of the universal dichotomization of nature versus culture (Howell 1996:129), and, for that reason, body/mind and ear/eye—a view that also impacted Feld and Seeger's studies.[11] In

a critique of the anthropology of the senses, Ingold provocatively asked whether such oppositional "distinctions may reflect more upon the preconceptions of anthropological analyses than upon the actual sensory experience of the people among whom they have worked" ([2000] 2011:252).

Signe Howell, on the other hand, observes a new "interest in the comparative study of indigenous ideas concerning the environment, coupled with a new focus on questions pertaining to indigenous ideas of human nature, but from different starting points and with different ends in mind" (1996:129). Her work among Malaysian rainforest people is exemplary in the way it explores indigenous epistemologies. One of her findings asserts that the Chewong do not divide reality into binary oppositions, such as nature/culture, mind/body, or human/animal (I will return to the latter). Reality for them constitutes of "endlessly mutually interacting, and fluid beings and qualities" (1996:142). Thus, Chewong do not conceive of their environment as "nature" but as their immediate living space, that is, a cultural space.

Studies in neuropsychology have shown that in perceptual practice our senses cooperate so closely, and with such overlap of function, that their perceptive contributions are impossible to tease apart.[12] Seeing, then, is a kind of hearing and hearing a kind of seeing. Landscapes are perceived by all senses—vision, hearing, touch, taste, and smell. The senses interact with each other first, before they give us access to the world. Yet there are varieties of sensory experiences within as well as between cultures (see Howes 1991). Some cultures may be more visually oriented, others more aurally minded such as the Suyá and the Kaluli. Nonetheless, Ingold cautions: "We need to avoid the trap, analogous to thinking that the power of sight inheres in images, of supposing that the power of hearing inheres in recordings. The ears, just like the eyes, are organs of observation" (2011:137). When listening to our surroundings, we do not hear a soundscape because sound is not the object of our perception but the medium. "In resorting to the notion of soundscape, we run the risk of subjecting the ears, in studies of the aural, to the same fate as the eyes in visual studies" (ibid.). By modeling soundscape on the concept of landscape, we put an emphasis on the surfaces of the world in which we live, instead of on the world we experience from within.

Human-environment relationships are holistic, connective, and relational, and a product of direct perception and active engagement in the world. It thus makes sense that Yoreme musicians do not believe in the effectiveness of sound recordings in the learning of the musical repertory. "Sound is useless. One has to have vision; one has to visualize [the song] in sound, not in words [sentences]," Esquer López remarked when he observed a Mestizo apprentice record deer songs on his cellular phone in order to learn them (Interview, 6 May 2010, Los Ángeles del Triunfo, Guasave). In Yoreme ceremonial life it is the living images that one has—not the words or language—that are important for creating a song.

Figure 5. Yoreme trying to identify a bird by visual means

Among the Yoreme, there are no musicians that are blind from birth because a blind person does not have any images he can sing. He only has sounds to imitate—sounds without color. It is indeed impossible for a congenitally blind person to experience synesthetic color from sound (or touch) (Ward 2008:18). Whether Yoreme musicians have a propensity to experience sound-color synesthesia, caused by a heightened awareness of sensory perception during ritual musicking, would have to be tested with neuroimaging techniques. Clinical testing, though, may not produce conclusive results in this case because the ritual settings, so crucial for an effective performance of Yoreme music, cannot be reproduced outside its context.

More relevant here is the scientific finding that synesthetic perceptions are not unique, individual phenomena. Rather, sensory mixing is an important feature of all brains. However, the conventional view that synesthesia is a phenomenon with a purely biological basis and as such is not inherited culturally, has recently been contested by cognitive scientists who acknowledge that brain development and culture cannot be separated (Hunt 2005; Sagiv 2005). Consequently, they hold that research into the relation between external and internal concepts must involve cognition as well as perception, and lifestyle as well as biology.

From the moment we are born, our perception skills become progressively differentiated as we start to explore our surroundings. This continual perceptual learning is largely passive, but "there is also directed perceptual learning—the differentiation of attention that goes on when one person points out a distinction to another, or deliberately puts an individual in a situation designed to elicit perceptual learning" (Clarke 2005:23–24). Attention is a mechanism that determines which aspects of our senses become consciously perceived, a way of filtering and selecting between the various sensory inputs that our brain receives. Perceptual learning is shaped by living in a certain environment: an individual dwelling in the rainforest, for example, will likely be more conscious of his or her auditory sense than a person who lives in the semi-desert. Information from different senses, pulled together by the brain, is linked with our previous experiences of sensing the world. This ecological approach to perception is further explained by Eric Clarke: "Perceptual systems become attuned to the environment through continual exposure, both as the result of species adaptation on an evolutionary time scale, and as the consequence of perceptual learning within the lifetime of an individual" (2005:25).

Human-animal Relationship: A Sentient Approach

Like any other members of a rather close community, the Yoreme pass on accumulated knowledge to the next generation in the rituals, songs, dances, and music of their ceremonial fiestas. But given that musicking is based on intuitive sensorial perceptions that result from ontological experiences of dwelling in the *monte*, there is no formal system of teaching this knowledge to the next generation. Based on his research on circumpolar reindeer herding and hunting, Ingold describes the intuitive space of knowledge where humans live as being based in feeling ([2000] 2011:25). It consists of the skills, sensitivities, and orientations that have developed through experiencing life with the movements, sounds, and gestures of animals. Although the majority of Yoreme people no longer depend on hunting and gathering for sustenance, this intuitive space of knowledge remains alive in their rituals. It is a kind of sensitivity and responsiveness that has developed in a historically specific environment. David Anderson (2000), who has studied reindeer herders and hunters in northern Siberia, termed this intuitive interaction between humans and non-human constituents of the environment as "*sentient ecology*" (Ingold [2000] 2011:25). Sentient ecology brings humans into communicative relationships with the ecological world and extends the concept of personhood to animals, and ultimately to all ecological life.

Thus, Malaysian rainforest people's understanding of (human and animal) species as "fluid beings," mentioned above, is deeply rooted in their worldview—

one that is based on equality, not hierarchy. Like the Kaluli, the Chewong have a whole series of named species, but they do not classify them as bird, snake, flower, or tree (Howell 1996:131). Conscious beings have "personage" (an expression Howell prefers over "human") no matter of one's outer shape. Everything in the Temiar universe is capable of having personhood (Roseman 1998:110). Thus, Malaysian rainforest people "do not set humans uniquely apart from other beings, which they regard as sentient, be they spirits, animals, plants, or things" (Howell 1996:128). The Yoreme call themselves *yoreme* or *yoleme,* derived from the verb *yoore* (to be born), but an animal or a flower may also have the attribute of yoleme because they are sentient beings as well. Bernardo Esquer López often assured me, while patting his dog's head, that he is a person too. Such ecological worldviews are not uncommon among indigenous peoples around the world, as evidenced by a large body of anthropological writings that challenge the nature-culture opposition by proposing alternative models (see Descola and Pálsson 1996).

Anthropologists and ethnomusicologists have long recognized the widespread practice of animal songs, but not many of them have questioned their own dualistic conceptualizations that hinder them from understanding that the people they studied may have operated in a monist, or a more fluid, framework. In a comparative study of various circumpolar practices of animal impersonation songs, Richard Keeling (2012) refers to a number of such studies: George Herzog (1935), for example, described the prototypic North American animal songs as: "At times the entire song *is merely an imitation* (although not necessarily very naturalistic) of the animal's cries, the song always being sung by an animal in the story" (quoted in Keeling 2012:242, emphasis mine). Recently, Jean-Jacques Nattiez (1999) held that among the Inuit "the *gestic and sonorous imitations* of elements of nature, including the animals, have (had) a religious function" (quoted in Keeling 2012:252, emphasis mine). Both Herzog and Nattiez presume that the performers of the songs they witnessed simply assumed or acted the character of animals. The expression "impersonator songs," thus, is deceiving because the concept of impersonation reflects an outsider's view only. For many indigenous people—particularly the hunters and gatherers referred to in Keeling's article—tend not to conceptualize humans as different from animal beings, as pointed out above. I do not consider this merely a question of wording.

Addressing the hunting songs of Alaskan groups, Lorraine D. Koranda (1972), for example, recognized that "In many of the songs the animal speaks; often the animal takes human form. There are also instances of *man becoming animal*" (quoted in Keeling 2012:248, emphasis mine). Barbara Myerhoff pointed out in her conclusions about the sacred journey of the Huichol, an indigenous group of west-central Mexico, linguistically related to the Yoreme, that there is "no place of 'as if 's' in the ritual; the participants had been transformed,

and for them the experience was immediate and direct, not symbolic. [. . .] Wirikuta [the Yoreme equivalent of *juiya annia,* the enchanted world] is not an imaginary place" (1974:21, 263). For a scholar who was deeply influenced by leading symbolic anthropologists of her time, this latter insight is quite astonishing, and it brings us back to the idea of landscape as sentient ecology—as a phenomenon of experience.

Performing in the ceremonial fiesta is a way of being-in-the-world, not a way of thinking about the world. Ceremonial musicking is based on a sentient knowledge that makes it all the more difficult to speak about it; indeed, it is a challenge for the ethnographer whose analysis relies so much on verbal communication. Among the Yoreme practitioners it is no secret (although sometimes contested) who has acquired sentient knowledge, who is able to transcend the human state of being by entering mythological time. I was told that certain musicians and dancers go to the mountains at night to learn their repertoires by making a pact with the dark force, the *móriac* or witch, who can transform into an animal with red eyes. This is a quick way of learning but not a moral one. There is also some disagreement about the musical exchange that happens when Yoreme are engaged for the (increasingly more numerous) intertribal events in the neighboring state of Sonora: some see it as enrichment, others as loss of one's own creational capacities. Plácido Bacasegua Flores, regarded as one of the best tampoleerom, cautioned that, particularly in still forming musicians, these musical exchanges might encourage imitation for the sake of impressing the audience with new styles or repertoires. "One has to develop from within; true inspiration is inherent in oneself," he empathically said (Interview, 5 May 2011, Ejido Cinco de Mayo, Los Mochis).

Surely, singing, musicking, and dancing are practices of lifelong learning. Unlike the revolving offices with civil-religious responsibilities that community members are expected to take on, musicians and dancers have committed their whole lives to assisting in the ceremonial fiesta. Fulfilling one's ritual and social obligations to others is a fundamental ethical aspect of Yoreme life, thus of Yoreme selfhood. In ritual song and dance, the deer singers, the musicians and the dancers, merge with the world around them: they transform into the animals with whom they co-inhabit the monte. Because of a consensual view of what makes up their sacred reality, based on a shared visualization of the landscapes in the mountain, the performers also share their affections and thoughts from where the songs emerge. But not all Yoreme musicians and dancers have vision, since musical sound is not "an unchanged stimulus that transmits immanent meaning and standard effects regardless of occasion or who is experiencing it" (Herbert 2011: 17). Trancing, Judith Becker (2004) asserts, is learned behavior: the body has taught itself to react within a culturally pre-given religious narrative.

Such underlying narrative may easily be misinterpreted by outside observers, like Spicer (1962:103–4), who applied his predefined concepts of sacredness and profanity to judge the performance of the Yaqui *pascola* dancers as profane. His view of the pascolas as clowns, whose primary function is to entertain the crowd at the rituals, is not only based on a poorly informed observation, but it does not do justice to the deep mythological nature and narrative significance of these dances.[13] It is true that pascola dancers entertain the audience with their play, but when they dance, they transform into birds and other animals to fulfill their ritual obligations. Dance steps void of meaning are recognized by a knowing audience and commented upon unfavorably, as *bailar a rumbo* (to dance aimlessly) or *bailar acepillado,* Rosario Anguamea Valenzuela commented grinningly, while pointing at a chicken moving around us, scratching the soil in search of food (the adverb *acepillado* is derived from *cepillo,* brush, and is usually used to describe the chicken's scratching gesture). (Interview, 12 May 2010, El Bajío, San Miguel Zapotitlán). He recalled that in 1959 ethnomusicologist, E. Thomas Stanford, visited El Bajío, a section of San Miguel Zapotitlán, a town historically inhabited by indigenous people, to record deer songs for the Mexican National Institute of Anthropology and History. The then adolescent Anguamea Valenzuela acted as deer dancer for the recording session, dancing "a rumbo."[14]

The initiated deer dancers did not deem it worthwhile to perform outside a ceremonial fiesta, an attitude still common today: when a union, or some governmental agency, enlists dancers for an event, the Yoreme often send off their uninitiated youngsters to do the show. For many years, Anguamea Valenzuela has taught dance workshops organized by DIFOCUR, the Directorate of Research and Development of Regional Culture. What he teaches the Mestizo participants of these workshops is, of course, the acepillado version of the dances (personal communication, 12 May 2010, El Bajío, San Miguel Zapotitlán). An outsider watching the ceremonial fiesta can hardly distinguish between the levels of artistic skills. In fact, an outside observer may be impressed by the energetic and acrobatic performance of a young deer dancer or the rhythmically intricate steps of a pascola dancer. It is not uncommon to see indigenous performances at festivals, and even conferences organized by anthropologists or ethnomusicologists, in which a number of Mestizo performers are featured. (See Figure 6, below.)[15]

Concluding Remarks

As is apparent from my discussion above, the kind of sentient ecological knowledge necessary for meaningful musicking and dancing does not manifest itself in outward appearance alone. This leads us to consider Ingold's question

Figure 6. A young deer dancer showing off his acrobatic skills at a ceremonial fiesta in Sonora

in the epigraph: "What *is* sound? [. . .] Is it a phenomenon of the material world or of the mind? Is it 'out there' or 'in here'?" (2011:137). To perceive sound is not merely to receive mechanical vibrations that exist "out there." It is to have sensory stimulation one is able to understand. Taking the ecological approach to perception further by proposing an enactive approach, Noë (2004) argues that perception is not a process in the brain, but a kind of skillful activity of the body as a whole. "The root of our ability to think about the world is our ability to experience it; but experience is a mode of skillful encounter"—it is something we do, not something that happens in us (Noë 2004:208).

Similarly, landscapes are not spread out before us at a distance and independent of us. Rather, "a landscape unfolds or unravels before an observer [. . .]. The kinetic activities of human beings orientate apprehension of the landscape and create it as human" (Tilley 1994:31, 13). Esquer López's emphasis on the visual aspects of sound is related to this understanding of landscape as something given only in relation to its inhabitants. The deer dancer, who no longer sees through his own eyes but through the eyes of his deer headgear, has changed his positional relation to the world; so have the singers, musicians, and other dancers of the

Yoreme fiesta. Visual experience extends out into the world: vision is active and, much like touch and hearing, explores the world in a temporal manner. Thus, for Yoreme, seeing is a source of insight into musicking and dancing.

Although Feld and Seeger's studies were at the time important reminders of the centrality of sound in our discipline, their arguments for aurality and orality are not fully convincing: the colorful feathered birds of the rainforest and the brightly clad Kaluli dancers capture first and foremost the eye, and the Suyá's ear elongations and elaborate lip-discs are visual representations of their symbolic meaning. To rethink sound as a multisensory experience is to recognize the human-environment relationships as holistic, connective, and relational. It is to not overhear important explanations of those who share their musical experiences with us. For instance, when Theodore Levin asked a Tuva singer to give an example of how sound represented the natural world in his particular vocal style, the singer gave him more than a "sonic sketching of landscapes." Sitting in his city apartment, the singer first visualized the mountains, recalled the atmospheric smell, felt the wind, and heard the silence. "It's wonderful," the singer explained, "when you capture that sensation of nature with your feelings. When you climb up on top of a ridge where you can see everything—the mountains, the distant forests—that's what gives rise to melodies, to words" (quoted in Levin 2006:94). Thus, a complementary approach to the "stylization of natural sounds" (Levin) or the "aestheticized imitation of natural sounds" (Post 2007:56) should consider what Benjamin Koen identified as "the overlooked counterpart to the *sounded* expression," namely "the *unsounded* cognitive experience of silent performance in the mind" that results from a synergistic experience of dwelling in these environments (2009:124).

The recreation of the natural environment for ceremonial purpose is not simply a symbolic act. Marina Roseman, for example, noticed that the Temiar bring the jungle foliage into the room where they hold their nighttime ceremony. The leaves "visually, tactilely, olfactorily, and audibly link village and forest, as well as person and environment" (1998:112). The Yoreme create a similar multisensory environment for their ceremonies, one that is conducive to trancing for the performers as well as the audience. While physical sacrifices, such as prolonged periods of wakefulness and dancing, may help individuals shift stages of consciousness, the overall ritual agitation and the dynamics of the dance may unleash cathartic experiences resembling "collective trances" (Olmos Aguilera 2011:412–13).[16] Indeed, the sounds, sights, and smells intensify as the ceremonial night proceeds and a certain "emotional contagion" or ripple effect may be felt by the participants of the ceremonial fiesta. This emotional contagion is largely "un-verbalized, unintellectualized, sometimes occurring beneath the level of conscious awareness," yet it is "perhaps the most immediate, direct form of experiential involvement possible" (Herbert 2011:182).

The Yoreme communities, although dispersed over a large territory across the northern part of the state of Sinaloa and the southern part of Sonora, continue to hold on to their ceremonial life, perhaps more fiercely than in former times. Based on ethnographic fieldwork in Sonora in the 1970s, N. Ross Crumrine (1977) considered the Mayo (Yoreme) "a people who refuse to die" and suggested that "the whole process of Mayo cultural revitalization acts as a symbol of the Mayo attempts to control their own destiny and to develop beyond a liminal state to a more respectable national status" (Crumrine 1981:34). The lack of a formal system to teach accumulated knowledge and a neglect to speak their native language with their children, together with drastic changes in the ecological environment of northwestern Mexico in the past decades, are some of the biggest challenges for Yoreme people in maintaining their identity as a distinct ethnic group. But, although the ways in which today's Yoreme communities interact with the resources of their environment in obtaining a livelihood may have changed substantially since the Jesuits began to reduce them in their missions four hundred years ago and since the Spanish encroached on their territories, Yoreme peoples' lifeworld continues to be imaginatively envisioned, ensounded, and enacted in myth, music, and ceremony.

Notes

1. See Carrasco (1990) and López Austin (2004). For an overview of Aztec and Maya mythology see Taube (1993); about Mayan sacred narratives see the proceedings of the 2007 European Maya Conference (Le Fort 2009). Myths related to the ritual of the peyote among the Huichol of west-central Mexico were first collected in 1934 by Robert Zingg (2004). Since then numerous anthropologists have explored the world of myth. A new generation of Mexican anthropologists focuses on contemporary indigenous cosmovision and mythology, such as Millán (2007), Neurath (2002), and many others (see Neurath 2008).

2. The indigenous people referred to as "Mayo" (derived from *mayóa,* shores of the river) call themselves *yoreme* (also *yoleme,* plural *yoremem* or *yolemem*), derived from the verb *yoore* which means "to be born" (personal communication, Esquer López, 2009). It is this self-designation that I use in this paper rather than the official label "Mayo" or the combination Mayo-Yoreme. The Yoreme are culturally closely related to the Yaqui people, who call themselves *yoeme* (see Shorter 2009).

3. The Mayo story about "*Cuando Dios nos dio la música*" ("When God gave us the music") was originally recorded and published by Ochoa Zazueta (1998:241). An unidentified informant from La Florida, a Yoreme neighborhood of Ahome, Sinaloa, allegedly related it to the Mexican anthropologist.

4. Like most Mexican indigenous languages, Yoreme is spoken only. There have been several attempts to compile a standard dictionary (Spanish-Mayo, Mayo-Spanish), but people use their own orthographies, following their ears and spelling words according to Spanish pronunciation. The Yoreme language belongs to the Uto-Aztecan language family. It is a language with a complex morphology characterized by polysynthesis and agglutination, allowing for the construction of long words with complex meanings out of several stems and affixes. A simple word-to-word translation is often impossible. The Yoreme equivalent for "musicians" would be *jíponammen,* derived from *jipona,* to knock with a hard object such as a rock. The verb *jipona* refers to playing (hitting) the

drum, yet those who play drums are never referred to as "músicos." Each instrumentalist plays in a different manner: the verb *huiise,* derived from the up-and-down motion of the bow (*jihuisiria*), is used for the violin; *jisuque,* which describes the motion of animals sharpening their nails (e.g., the iguana), is used for playing the harp. The general term for singing is *buica,* which may be further specified depending on who is singing (*cuuse* for birds; *buana* for donkeys, etc.). The most suitable word in Yoreme language for music would be *jiahua*—an umbrella term for all the sounds that humans, as well as animals and natural phenomena, produce. Machines, on the other hand, produce the onomatopoetic *ruruti* or noise. Silence is *ca'a cuusi,* or absence of sound/singing.

5. See Schechter (1992) for a detailed account of the practice of string instruments in colonial Latin America. The historical documents he cites testify Amerindians' enthusiastic reception of European instruments, particularly the violin and the harp, but do not indicate on what terms indigenous people adopted these instruments.

6. Navarrete Pellicer (2005) has similarly argued the case of the marimba in Achi Mayan culture in Guatemala. Achi do not consider the adoption of the marimba as their key instrument as a loss of tradition. Rather, the new instrument is perceived as indigenous to Achi culture because it is used for ancestral rituals. See also Neustadt (2007). The deer dance is generally believed to belong to the most archaic level of ceremonialism in indigenous Northwest Mexico (see Spicer 1962; Varela 1986; Evers and Molina 1987; Griffith 1998). Some scholars, however, express doubts about the Amerindian origin of the flute-drum (pipe-and-tabor) combination based on the fact that this playing technique is also widespread in the Iberian Peninsula and throughout the former Iberian colonies. Relying on an abundance of Iberian iconographic sources, Montagu (1997), for instance, claims that the use of the pipe-and-tabor by one single musician is a purely European practice, probably originating at the beginning of the thirteenth century. Varela (1986: 110), in her study of Yaqui music of northwestern Mexico, concludes that the flute-drum combination must be of European provenance since such practice was not mentioned in any of the (scarce) colonial sources, nor are there any archeological or iconographic indications that flutes made of two parts existed prior to Spanish arrival. Boilés (1966), on the other hand, established evidence for the existence of autochthonous traditions in Mesoamerica and called for a reassessment of this phenomenon. While it is not my intention to solve the dispute over the origin of the simultaneous playing of the flute and drum by one single musician here, it is important to notice that my Yoreme informants clearly regard this as an indigenous, and not as an indigenized, practice.

7. The Yaqui are culturally related to the Yoreme. Their territory stretches from Sonora across the US-Mexico border into Arizona, where Yaqui communities found refuge in the early twentieth century from the brutal persecution and massive deportation by the Mexican government.

8. Following Becker (2004:7), trancing is understood as an active process rather than a state of consciousness (trance).

9. This conceptual framework of soundscape ecology is based on the causes and consequences of biological (biophony), geophysical (geophony), and human-produced (anthrophony) sounds.

10. Attending the graduate program in ethnomusicology at UCLA during the early 1990s, I remember vividly our class discussions of Feld's call to refocus our discipline on sound. His book was mandatory reading in several classes.

11. This dichotomy between nature and culture/society is reflected in the title of Seeger's 1981 book, *Nature and Society in Central Brazil.*

12. Although the neuropsychological approach to music is a century old, recent advances in brain-imaging techniques have led to an explosion of research and empirical studies on brain organization: see, for example, Peretz and Zatorre (2003), Juslin and Sloboda (2010), Thaut (2008).

13. For a more profound interpretation of the *pascola,* see Olmos Aguilera (1998).

14. Stanford took a photograph of this deer dance session that is published in *La música de México (I. Historia, 5. Periodo contemporáneo (1958 a 1980),* edited by Julio Estrada (Mexico: Universidad Nacional Autónoma de México, 1984). Stanford allowed me to reproduce the photograph in a recent publication on deer songs (Simonett 2012:145).

15. The Encuentro Yoreme (Yoreme Meeting) was held annually from 1999 to 2004 in Culiacán, Sinaloa. The festival changed its name in 2005 to Festival Sinaloa de los Pueblos (Sinaloan Festival of the People) and in 2007 to Feria de las Artes Sinaloa (Sinaloan Arts Fair). An alternative festival was organized in 2006 by Leonardo Yañéz (a Mestizo deer dancer), Encuentro Yoreme Alter-Nativo (Alter-native Yoreme Meeting). A group of Mestizo performers represented the Yoreme at the Bi-national Dialogue about the Indigenous Cultures of the United States and Mexico, a conference held in Guadalajara, May 2011. Yoreme groups are increasingly more apprehensive to perform at such events.

16. In the hitherto most exhaustive comparative study of indigenous artistic expressions in northwestern Mexico, Olmos Aguilera encourages future research in the realm of trance, or what he calls "symbolic hallucination" (2011:410).

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