HOTNESS REVISITED: METAPHOR AND ENVIRONMENT IN DISCOURSE ON AFRICAN MUSIC

LYNDSEY COPELAND

Abstract: This article revisits a familiar trope in African music studies: "hot rhythm." By tracing the lineage of the "hot" concept through twentieth and twenty-first century Africanist scholarship, I demonstrate the prevalence of foreign-made metaphors in contemporary African music studies and suggest scholars rethink whose metaphor and whose hotness they employ. What is the relationship of the metaphorically hot to phenomenal sensations of hotness? And what is the relationship of the "hot" concept to lived experiences of heat? I explore the relevance of heat as a material condition and hotness as a condition of being to music making in Africa with reference to ethnographic research with amateur brass band musicians in the Republic of Benin. This essay's primary contribution is to apply an ecomusicological critique to an enduring climatic metaphor in African music discourse. My appeal to rethink the long-accepted analytical metaphor of "hot rhythm" further strives to destabilise entrenched theories of African music formulated by foreign scholars and instead focus attention on African concepts and experiences.[1]

Keywords: Benin, brass bands, climate, ecomusicology, hot rhythm, metaphor, Richard Waterman, West Africa

Introduction

Perhaps known best to music scholars from Richard A. Waterman's (1948) essay, "'Hot" Rhythm in Negro Music", the metaphor of musical hotness has long been associated with Africa and its diaspora. Although the concept of "hot rhythm" has been summarily dismissed as an essentialist fiction about African and African diasporic music rooted in Euro-American theories of racial difference (Agawu 2003; Garcia 2017; Iyanaga 2015; Radano 2000), a skim through Africanist music scholarship from the last few decades shows that metaphors of hotness are still in use. While some scholars engage directly with Waterman's "hot rhythm" concept, and sometimes uncritically, others amplify the metaphors of "hot" used by the musicians with whom they work. In what follows, I survey the "hot" concept in African music studies, and note ways that scholars analytically engage with sensorial metaphors and the phenomenological sensations that afford them meaning.

As we will see, discourse on African music is peppered with the metaphor of "hot" as conceived by non-African scholars. This metaphorical hotness, of which Waterman's "hot" rhythm is an exemplar, often rehearses racist ideologies that position

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Africa against Europe, and Black against white. These metaphors further obscure the sensation of hotness from which hot metaphors are made; namely, African musicians' experiences of heat. On the African continent, as elsewhere, heat as an environmental agent affects music making in significant and often detrimental ways. Musicians labour in extreme climates, musical materials deteriorate in high temperature and humidity, and environmental disasters spurred by climate change disrupt musical practices and put lives at risk. These very real experiences of heat—the literal condition of being hot—are frequently elided in popular imaginings of heat by non-African people. From nineteenth century French colonialist accounts of West Africa's intoxicating heat (for example, Bouche 1885) to twentieth century American journalism on "hot jazz" (see Radano 2000) to Spotify's 2021 playlist entitled "African Heat" (Figure 1), heat is metaphorised, racialised, fetishised, and made lyrical. Indeed, Euro-American thought has for centuries envisioned heat as something that happens in other places; heat is thought a climatic novelty of foreign lands, to and from which colonists and tourists and scholars alike can escape, and hotness—the phenomenal condition of heat—as something foreign, thrilling, dangerous, and racialised.

It is this tension between metaphorical and literal heat that motivates this article. Whose experience of hotness does the "hot" metaphor represent? Where and by whom is heat made? By contrasting foreign-made sensorial metaphors with ethnographic insight of musicians' engagement with hotness in the Republic of Benin, I show that heat is generated as both a musical metaphor and material condition of climate change. In both iterations, heat is primarily produced outside of Africa. My discussion of experiential phenomena in Beninese musical environments builds on work in sensory ethnography and ecomusicology; in particular, that which documents the material

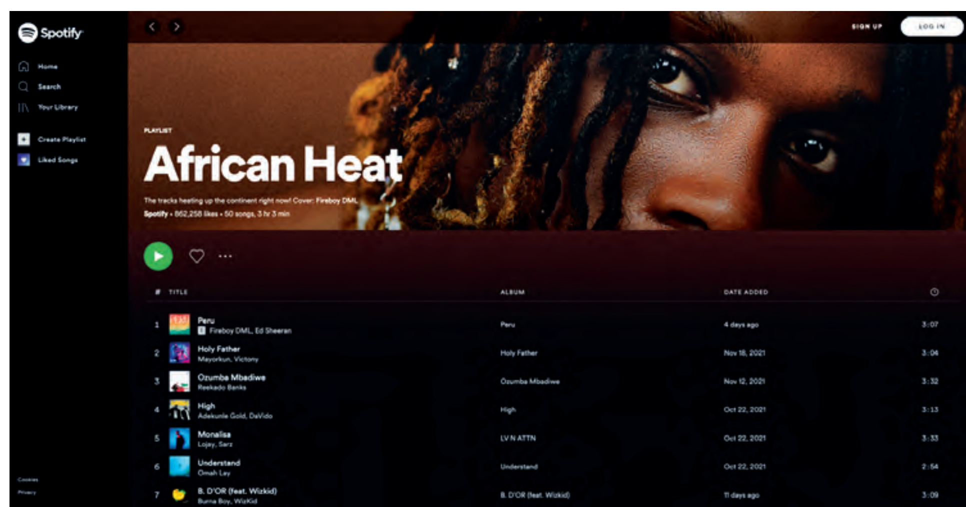

Figure 1. "African Heat" playlist generated by Spotify. The subtitle reads, "The tracks heating up the continent right now!" Screengrab, December 27, 2021.

effects of climate change. More generally, this essay seeks to destabilise a widely accepted Euro-American conceptual paradigm (that is, hot rhythm) and refocus music scholars' analytical lens on indigenous African epistemologies (see Dor 2015). My main proposition is that a critical examination of the musically "hot" should consider heat as a material condition and hotness as a condition of being.

I proceed in three parts. First, I review the conceptual lineage of "hot rhythm" in African music scholarship, tracing its use through seventy years of Africanist scholarship. Second, I consider metaphorical hotness more broadly, and discuss recent scholarship that engages in various ways with indigenous invocations of the musically "hot." In part three, I pivot from sensory metaphors to sensory ethnography. I ask what might be gained from probing the phenomenological experiences of heat that undergird hot metaphors and offer insights from my fieldwork with amateur musicians in the Republic of Benin as illustration. In conclusion, I reflect on the value of employing heat as a leveling analytic in ethnographic research and express the need for more collaborative work between foreign scholars and African scholars, musicians, and individuals already living and contending with heat.

Hot Rhythm

> [T]he essential criteria of Negro musical rhythm may all be understood as overt manifestations of the concept "hot."
> — Richard Waterman (1948, 24)

> [W]e must realize that not only in ethnomusicology does it occur that an authoritatively stated, although invalid, generalization comes to have considerable inertia of its own.
> — Richard Waterman (1952, 209)

In 1948, Waterman published his theory of "hot rhythm" in the inaugural issue of the *Journal of the American Musicological Society*. This essay attempted to demonstrate the musical retention of cultural elements in African diasporic communities in the "New World."[2] Specifically, Waterman's contention was that the "hot rhythm" considered characteristic of African diasporic music originated in an inherited African concept of "hot." "The name for the rhythmic style herein discussed", Waterman observes, "we take from a linguistic concept of West African tribesmen. A compelling rhythm is termed 'hot'; the more exciting the rhythms, the 'hotter' the music" (24). Waterman does not provide evidence of this "linguistic concept" in West Africa yet claims that it originates on the continent: "Since 'hot', as applied to musical rhythms, is an African concept, the music of Africa must give us the materials for a description of the 'hot' rhythmic style" (ibid.). The co-occurrence of the term on both sides of the Atlantic, in his view, is sufficient evidence to conclude that African and African diasporic musical traditions share a resemblance:

> Since this word, with the same meaning as applied to music, has come into our own slang, the label is both apt and convenient, for the essential criteria of Negro musical rhythm may all be understood as overt manifestations of the concept "hot." Everywhere, Negro music differs from the music of impinging non-Negro groups in being "hotter." (ibid.)

[2] See Garcia (2017, 103–106) and Iyanaga (2015, 179, 196) for further reviews of Waterman's article.

Waterman's explication of the "hot" concept lacks clarity. He makes definitive assertions about the racialised nature of "hot rhythm" (and hotness more generally) but sidesteps by evincing them with elusive statements. "The concept of 'hot,'" he writes, "is one of those subliminal constellations of feelings, values, attitudes, and motor-behavior patterns which, ordinarily, are most difficult to analyse objectively" (ibid.).[3] Indeed, Waterman himself struggles to analyse it. For example, he claims that "hot" manifests in "patterns of behavior" (30) purportedly shared by descendants of African slaves, yet the "objective" examples he provides are general to the point of meaningless: "dancing" (26), "the African feeling for 'hot' rhythms' (ibid.), "[t]he feeling for rhythmic complexity" (37), and so on. While the evidence is fuzzy, the author's intention is clear: embracing the anthropologist Melville Herskovits's (1930) acculturation theory,[4] Waterman conceived this "hot" African style as a "submerged" cultural retention: "a culture-pattern carried below the level of consciousness, often unrecognised by those who adhere to it" (37, 24). Again, without substantiation, Waterman claims that, following its departure from the African continent, "[t]he concept of 'hot' went underground . . . until it reappeared in jazz music" (37).

Though Waterman's postulation of "hot" as an unconscious cultural retention is speculative and ill-defined, he does ascribe to "hot rhythm" specific musical features. He delineates five telltale traits: polymeter (alternately polyrhythm), dominant percussion instruments, off-beat melodic phrasing, call-and-response patterns, and the "metronome sense" (see Waterman 1948; 1952). In a retrospective on Waterman and the Africanisms controversy, Michael Iyanaga (2015, 179) notes that these five features were widely adopted in subsequent scholarship on African and African diasporic music. "Surprisingly, however", Iyanaga remarks, "while scholars have embraced (or at least acknowledged) these reified traces of Africanity, they have virtually ignored Waterman's more challenging and provocative concept of 'hot', of which these traits had initially served only as diagnostic markers" (ibid.). Waterman's classifications of African rhythm have indeed received much attention, yet I would submit that the "hot" concept has not been ignored. To the contrary, following Waterman's essay (1948), "hot" became a major musical descriptor in Africanist ethnomusicology.

Hot topic

Waterman's theory of "hot rhythm"' was readily adopted by his contemporaries and subsequent generations of scholars. In 1951, A.M. Jones published the essay, "Blue

[3] Waterman took the idea of motor-behaviour patterns from Hornbostel's (1926; 1928) theory of psycho-motor behaviour, which asserted that Europeans and Africans have different, inherent rhythmic propensities. Yet Waterman disagreed with Hornbostel that African rhythmic traits were "racially inherited" (1948, 24), and instead claimed that the "motor-behavior pattern" of hot rhythm was culturally inherited and "learned" by imitation (1948, 24, 30).

[4] Herskovits (1930) championed acculturation theory in anthropology and was Waterman's dissertation advisor at Northwestern University from 1941 to 1944 and mentor at Northwestern's Department of Anthropology thereafter. Herskovits himself was the doctoral advisee of Franz Boas; together Boas, Herskovits, and Waterman formed a formidable lineage. See Garcia (2017) for this intellectual history.

Notes and Hot Rhythm", wherein he echoes the theory of African American musical retentions (for example, "Jazz is indebted to the African" [9]) and touts the uniqueness of African musical consciousness (for example, "The African thinks in terms of *rhythm patterns*" [11, emphasis in original]). Waterman's influence is also notable in Jones's canonical *Studies in African Music, Vol. 1*. Therein, Jones suggests that African and African diasporic persons have a unique rhythmic sensibility (1959, 201), echoing the motor behaviour theories of both Erich von Hornbostel (1926; 1928) and Waterman.

Jones also weighs in on the Africanisms debate of the previous decade (see Waterman 1963; 1952). Voicing support for African retentions in the New World, he cites Waterman's essay of 1948 as "actual contemporary evidence as to the relative permanence of music and language" across the African diaspora, offering the example of "Africanisms in jazz" (1959, 201). Yet Waterman's "evidence" of a "hot" African rhythmic style was neither contemporary nor from the African continent—as Garcia (2017) details, Waterman constructed his notion of "hot rhythm"' using Herskovits's research materials from Trinidad and Brazil in the 1930s. Ironically, Jones's endorsement of Waterman's conclusions—the latter reached, as they were, through neither fieldwork nor consultation with African musicians—came in spite of Jones's skepticism, voiced a few pages later, of musicological studies that rely solely on the analysis of recordings and fail to account for musicians' perspectives, studies that he suggests are "impersonal", "subjective", and unscientific (1959, 231).

Writing in the same period, Alan Merriam (1959) utilised Waterman's work to buttress assertions about African music's rhythmic exceptionalism. For example, Merriam underlines "the dominance of rhythmic and percussive devices as the outstanding characteristic of music in Africa south of the Sahara" (15) and lists several "traits" of African rhythm, such as syncopation and off-beat phrasing (16), that echo Waterman's criteria of hot rhythm. Merriam later corroborates "hot" as a pan-African concept by detailing its distribution across the continent:

> The West Coast area [of Africa] is distinguished by a strong emphasis on percussion instruments and especially by the use of "hot" rhythm. This concept seems to be nowhere in Africa so strong as it is along the Guinea Coast; while powerful rhythms and even group or solo drumming in other parts of the continent are dynamic in effect, they seldom approach the "hot" concept of the Guinea Coast. The "hot" concept…extends southward in the coastal regions of Cameroon, Gabon, Congo Republic, Cabinda, and the Republic of the Congo; on the basis of recorded material from Western Angola, this area must also be included. (1962, 120)

Merriam's tempered proposition that West Africa is the hub of "hot" rhythm and speculation about where hot is hottest, recall Waterman's own conjectures about the hot concept's geographic origin.

In the following decade, John Miller Chernoff (1979) acknowledged Waterman, Jones, and Merriam in his monograph on African rhythm. Like his predecessors, Chernoff maintains the uniqueness of an African rhythmic sensibility: "[T]he Western

and African orientations to rhythm are almost opposite" (54).[5] Chernoff also hops on the "hot" bandwagon, saying "African dance music is sometimes referred to as 'hot' in the sense of dynamic and exciting", and citing both Waterman and Merriam (213–214, n41). Later, Chernoff applauds Waterman's "analytic insight" into Africanisms and musical acculturation (see Waterman 1952), concluding: "We should be able to see, by this point the validity of Waterman's conception of musical 'metronome sense' as a cultural index. Certainly, the African rhythmic orientation is quite different from our own" (1979, 95–96). Even three decades after Waterman's first essays on African rhythm—three decades that saw widespread decolonial thought and action—his analytical influence remained strong.

Chernoff's monograph was cited, in turn, by Ghana-based musicologist John Collins. Collins (1992, 7) quotes one of Chernoff's interlocutors to demonstrate the use of climatic metaphors within Ghanaian drumming communities. Collins then describes African music writ large with metaphors such as "hot sounds", "hot rhythms", and "the heat of the rhythms", suggesting that "the local music of Africa sparks off hot, disoriented states" (3–7). Citing Waterman and hinting at a Herskovitsian retention, Collins claims that an African propensity for polyrhythm produces the "hot aspect": "African music is mostly polyrhythmic, composed of multiple rhythms each with its own particular metre. The friction between these criss-crossing polymetric strands of rhythm is what generates its energy or heat" (10, 13).[6] What began in the 1940s as hot rhythm regenerates here in the 1990s as dispersed hotness, friction, energy, spark, and heat.

I review this literature to emphasise the fact that Waterman's early speculation on hot rhythm had an outsized effect in Africanist musicology. As we saw, twentieth-century authors of field-defining studies accepted the metaphor of hot rhythm uncritically and Africanist scholars today continue to invoke the hot concept. The ready adoption of Waterman's ideas and those of his mentors exemplifies how academic hegemonies feed ideological ones. Indeed, the early writings of Hornbostel, Herskovits, and Waterman on Africanisms and African rhythmic traits fueled the scholarly fetishisation of African rhythm for decades (see Agawu 1995b). Throughout the twentieth century, rhythm was the predominant theme in scholarship on African music and, thanks to Waterman, hot rhythm was a hot topic.[7]

Hot fantasy

The "hot" concept finally came under fire at the turn of the twenty-first century. Its most prominent critic has been Ronald Radano (2000), who first debunked hot rhythm as a "hot fantasy." Radano argues that "hot sound" was a modern construct formulated in

[5] See also Chernoff 1979, 40–2, 47–54, 94–7.

[6] Collins also muses on the generative ontology of African "hot" rhythm, and its relation to space and time (1992, 5–6).

[7] The influence of Waterman can be seen in Wilson (1974), Arom (1991 [1985], 181–182, 659), Kubik (1999, 98, 85), Charry (2000, 307–309, 327–329), and Maultsby (2005 [1990], 328), among others.

Euro-American discourse in the late nineteenth and early twentieth centuries as part of a larger process of anti-black othering:

> The modern figure of hotness seemed to conflate all these qualities of excess, from drunkenness to fever to sexual promiscuity and frenzy; together, they outlined a matrix of extremes that specified the dislocations of white physical and psychological certainty. Correlations between blackness, bodily violation, and aberrant 'hot sound' had already appeared by mid-century… (463)

The "racial myth" of musical hotness emerged from colonial accounts of the African continent and racist assumptions that Black bodies posed a pathological threat to white comfort and control. Radano redoubles the point in *Lying Up a Nation*, stating that "perpetuating absolute notions of difference…can only affirm racial precepts that took form at the beginnings of a colonizing modernity" (2003, 9). This, according to Radano, is the proper context for Herskovitsian analyses of African musical elements: notions such as "hot rhythm"' tell us more about the formation of racial ideology (and attendant white anxieties) in certain intellectual periods than they do about supposedly "African" or "Black" musical elements.

To be explicit: "hot rhythm"' gives cover to racism and ideological violence. As noted, the hot concept of the twentieth century relied on a supposition of biological difference between Black and white bodies. Musical sounds produced by Black bodies were coded as Black, and if Black sounds were "hot" then white sounds were "cool" (*cf.* Thompson 1973). Ingrid Monson's (2007, 80–84) discussion of racialised discourse around U.S. American bebop and jazz in the postwar period illustrates this opposition well. While documenting the history of Miles Davis's "cool jazz", Monson likens the cool/hot binary operating in postwar America to a "Nietzschean dialectic" that associated whiteness with "restraint, balance, subtlety, sophistication" and Blackness with things "unrestrained, orgiastic, intense, exuberant" (84). "In the chain of implicit oppositions operating in the aesthetic discourses of the 1950s," Monson elaborates, "composition, intellectualism, and Western classical music were coded as white, while improvisation, emotional expressiveness, and the legacy of the blues were coded as black" (ibid.). The coding of Black music as "hot" similarly relies on the idea that Black bodies are different from white ones in particular ways—Black bodies are thought less refined, less sensitive, more tolerant of pain, more tolerant of heat. Such falsehoods about physiological difference emboldened American slaveholders to force Black people to endure extreme physical labour and cruel medical experiments (Brown 1855), and continue to motivate medical doctors to systematically undertreat Black patients for pain (Hoffman et al. 2016, see also Washington 2006). While the "hot" concept surfaced in the mid-twentieth century as the preeminent code for Black sound, it was bolstered and sustained by racist ideas about Black bodies still extant today.

Subsequent scholarship on Black music expands Radano's critique of "hot rhythm" to implicate Waterman himself, especially his research methods. In his historical study of African diasporic musical discourse, David Garcia (2017) documents Waterman's academic training and scholarship, as well as his relationships with Herskovits, Hornbostel, and other forerunning Africanist scholars. Garcia demonstrates that the

empirical basis of Waterman's theorising in both his 1948 article and 1943 doctoral dissertation were Herskovits's own gramophone recordings and accompanying fieldnotes from research trips to Trinidad and Brazil in the late 1930s (79, 104; see Waterman 1948, 24n2). Indeed, Garcia implies it was Herskovits's racialised diction in his Trinidad fieldnotes that furnished the "hot" concept which Waterman later attributed to "West African tribesmen." Garcia recounts:

> It is in Herskovits's entry for August 20, 1939, that we read of his making reference to the "'jazzing' of a Sankey hymn" that he observed while attending a Shouters service in Toco. Herskovits writes of "the hymn … being sung over and over until it gradually went into a jazz rhythm which brought about the second possession of the evening"; he adds, "The song leader shook a bit and did a kind of foot-patting dance that gave a further basic rhythm to the massed song." Finally, he uses the term "hot": "The singing became hotter and hotter, the lad who had been dancing starting again. This time they went into full cry, and gave as 'hot' a performance as I have ever seen." (2017, 104)

Garcia shows that Waterman's notion of musical "hotness" was validated neither by the Sankey musicians in Herskovits's recordings nor by musicians living on the African continent. Waterman did, however, pursue *ex post facto* corroboration: in October 1944, he sought confirmation from his colleague William Bascom, who was then living in West Africa, and from Abdul Disu, then a Yórùba graduate student at Northwestern University, that the term "hot" indeed existed in African languages (Garcia 2017, 103–104). "The idea, of course", Waterman wrote in a letter to Bascom, "is to suggest that the concept of 'hot music' in this country is sort of an Africanism. If there aren't any African words with this meaning, my heart will be broken" (quoted in Garcia 2017, 104).

Waterman's tautological reasoning and deductive cherry-picking—of terms, fieldnotes, and corroborating sources—bespeak an intellectual era of musical and racial difference-making (see Agawu 2003). Hotness, in Waterman's hands, was an analytic construct that served to place Africa and Africans at a spatial, temporal, and evolutionary remove (Garcia 2017). His idea of "hot rhythm" caught fire—I trace the genealogy from Waterman to Jones to Blacking to Merriam to Chernoff to Collins—and, in the hands of those twentieth century scholars, hotness solidified as a defining, even *a priori*, feature of African musical practice. Despite attempts to debunk such racialised theorising, othering portraits of African music endured well into music studies' period of postcolonial reflexivity (see Waterman 1991).

Hot Metaphors

> [T]he time is ripe to develop, expand, intensify, and regularize the use of metaphors among other interpretive frameworks—indigenous conceptions, perceptions, ontologies, nomenclature, philosophies, maxims, ethos—in Africanist music scholarship.
> — George Dor (2015, 178)

Discourse on hotness percolates in contemporary scholarship on African music; in recent publications there are passing mentions of hot rhythm, compendiums of climatic

metaphors, reports of hot field sites, and musings on the aesthetics of sweat.[8] What are we to make of this persistence of the musically "hot"? Perhaps we should interpret hot metaphors as Waterman's "hot rhythm'" in rhetorical disguise—regardless of its circumstance of use, "hot" is a colonial relic, a signpost for, in Agawu's words, "an intellectual space defined by Euro-American traditions of ordering knowledge" (1995b, 383). Alternatively, we might hear metaphorical hotness voiced by African musicians as distinct conceptualisations, as indigenous knowledge whose underlying epistemologies stand apart and against Waterman's racialising frame. In what follows, I consider these possibilities with reference to recent scholarly treatments of hot metaphors in African musical discourse. My aim is to demonstrate different modes of engagement with metaphorical hotness—modes that I organise as comparing, localising, and deploying—and advocate for work that privileges locally understood and operative metaphors over, and even to the exclusion of, foreign ones. But first, I offer a brief reflection on the nature of metaphor.

A note on metaphor

The expressions of musical hotness I describe below each deploy metaphor as a rhetorical device. Per the Oxford English Dictionary, to use a metaphor is to apply a descriptor to an "object or action different from…that to which [the descriptor] is literally applicable" (OED Online, accessed May 7, 2020). Anthropologist Harry West likewise emphasises that "metaphor refers people to a semantic domain that is *separate* from the one they seek to understand" (2007, 36); "the most celebrated examples of metaphor", he posits, "are ones in which it is clear to all concerned—speaker and listeners—that the metaphoric predicate and the subject to which it is applied inhabit *distinct* domains" (ibid.).[9] The choice of a metaphorical referent is motivated by an effort to make something sensible; we refer to domain B to help make sense of domain A. As such, we might reason that Waterman's metaphor of "hot rhythm'" is rhetorically effective because it bridges the chasm between the environmental phenomenon of heat and the sonic phenomenon of rhythm, and because it is understood that rhythm is not literally hot. In whatever way "hotness" functions semiotically,[10] it relies on an understanding of the expressly sensuous experience of the qualitative property "hot."

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[8] There are numerous other metaphors operative in scholarly discourse. Tracey (1948), Jones (1959, 248–251), Merriam (1962, 125), and Charry (2000, 325), among many others, document African conceptual metaphors for pitch, including "hard", "soft", "big", and "small." "Sweet" music has received particular attention (e.g., Chernoff 1979, 66–67, 139; Fiagbedzi 2005, 9; Nketia 1984; Meintjes 2004, 173–174, 195; Maxwell 2008; Locke 2015, 102–109; Dave 2019, 103). Some scholars use sensorial metaphors to characterise African social aesthetics (e.g., Thompson 1973; Chernoff 1979; Collins 1992; Burns 2012). I limit my discussion here to studies that engage explicitly with hotness.

[9] Yet the semiotic domains that metaphor puts into relation are not arbitrary in the Saussurean sense.

[10] For example, as a qualisign of value (Munn 1986), a quale (Harkness 2020; Chumley and Harkness 2013), a hypostatic abstraction (Chumley and Harkness 2013, 6), or something else. For a recent application of Harkness's idea of qualia in ethnomusicology, see Lie (2020).

Sensory metaphors, however helpful, can be slippery. While the sensations behind music scholarship's favored metaphors, for example, hot, cold, smooth, rough, sweet, light, and so on, are widely experienced across cultures, people ascribe different values to those experiences and apprehend them according to various epistemologies. The situatedness of sensation and sensory concepts renders the act of translating them difficult, and the cross-cultural application of sensorial metaphors risky (Dor 2015). As we have seen, a hastily imposed, externally concocted metaphor conveys the ontological tenets of the speaker, not the community whose epistemology it purportedly describes (see West 2007). For these reasons, it is imperative that ethnographers engage with metaphors accepted by those in their respective community of study, a point made convincingly by ethnomusicologist George Dor.

Dor writes forcefully in support of using indigenous hermeneutical and epistemological tools, impressing "that African metaphors should be used as regular interpretive frameworks" (2015, 171). Dor's own examination of composer Vinɔkɔ Akpalu's song genre, *agoha*, the name of which is a portmanteau of the Ewe words *ago* (velvet cloth) and *ha* (song), offers a robust example of the "conceptual blending" of two domains inherent in metaphor, as well as metaphor's cultural situatedness (164). Following a critique of pervasive Euro-American paradigms employed in ethnographies of African music (151–154, see also Blum 1991), Dor implores researchers to pay attention to the "communicative devices that Africans use strategically in negotiating and explaining their worlds and lives" and "the ways in which [conceptual metaphors] are deeply situated in the multiple landscapes of their local communities of use" (178).[11]

Dor's point is well-taken. Engagement with indigenous metaphors is one of many efforts needed to reorient the field of African music scholarship away from the hegemony of Euro-American thought and the inscriptive power of the anthropological pen. I strive to follow the example set by Dor in my exploration of hotness below, illuminating ways that scholars have and can privilege indigenous metaphors and, simultaneously, rendering less valid (if not invalid) metaphors as forced and declarative as Waterman's.

Comparing hotness

First, consider ethnomusicological studies that document African musicians' conceptualisations of music, including local idioms and terminology. A ready example is from Chernoff (1997), who offers something of a compendium of Dagbamba metaphors for musical sound. In addition to documenting cross-modal concepts such as "thick", "clean", and "curves", Chernoff observes:

> Dagbamba drummers, like musicians in many other African societies, use the notions of "high" and "low", with which we discuss pitch, to describe music that is loud or quiet. They use the concept of "hot" to describe drumming that is intense, fast, or loud, and they use the

[11] Steingo's (2019) recent study of analogy in South African midwifery practice and Agawu's (2016; 2003; 1995a) discussions of rhetorical devices in African languages are but a few examples of scholarship that does just this.

> concept of "cool" to describe drumming that is moderate in speed and intensity, or that lays back in the rhythmic groove. (22)

Scholars working elsewhere in West Africa likewise notice that musicians use hotness and its corollaries as descriptors for musical rhythm, volume, intensity, and speed. Reflecting on Ewe words and idioms used to describe rhythm, for example, Kofi Agawu offers, "I might ask the singers to 'put fire inside' (*dé dzò émè*), which might result in both an increase in volume and, often unintentionally, a quickening of pace" (1995a, 6). "Hot" tempo also appears in Eric Charry's (2000) monograph on Mande music, in which he describes Bamana metaphors used in Jambe performance contexts:

> The tempo of the whole ensemble speeds up during this kind of dancing. … The dance is considered to "heat up" or "speed up", and sometimes drummers describe this kind of playing with the French term *échauffment* [*sic*] (heating) or the Bamana term *golobali* (running, speeding up). (222–223)

Notably, Charry observes Jambe performers using terminology in both a colonial (French) and indigenous (Bamana) language. These multilingual expressions invite questions about the directionality of translation and the (potentially multiple) origins of sensorial metaphors (see also Agawu 1995, 7). Charry, too, ponders about the relationship between Mandinka and U.S. American (musical) terminology. He interprets Mandinka musical metaphors within a comparative frame, suggesting the Bamana terms, *sumaya* (cool) and *kalan* (hot), are similar to "usages of the terms 'cool' and 'hot'…in the African diaspora", yet dissimilar to a general understanding of "cool" as "fast" and "hot" as "slow" in the United States (327). Charry then offers nuanced support for a pan-African aesthetic: "The usages of the terms 'cool' and 'hot' do seem to exhibit some conformity, however, in the African diaspora, as Robert Farris Thompson (1973) has argued for the former term and Richard Waterman (1948) for the latter" (ibid.).

One finds a starker (and much earlier) example of comparison in Merriam's (1962) essay on African musical idioms. Merriam seeks to make sense of an apparent lack of sensorial metaphors in Basongye musical terminology by comparison to musical vocabulary among the Ashanti and Shi, as well as that of a presumed Euro-American readership:

> Thus in our own culture, we speak of music as "hot" or "cool", "blue", "rough", "sharp", "high", "shallow", "sweet", and use various other terms which in actuality refer to the senses of sight and touch. If we turn to Africa, we find, for example, that the Ashanti refer to music as "hard", that the Shi refer to what we call a high tone as a small or weak tone, and to what we call a low tone, as a big or strong tone, and that the Basongye make virtually no such transfers. (125)

We can read in both Merriam's and Charry's comparisons across cultures and continents a motivation to place examples of African hotness alongside iterations found elsewhere—and, in Charry's case, within American conceptual histories of Waterman's (1948) hotness and Farris Thompson's (1973) coolness. Such comparisons seem bent on finding differences; in Agawu's words, these scholars "[probe] the metaphors African musicians use, noting points of nonalignment between (African musical metaphors)

and those of metropolitan languages" (2003, 181).[12] While Chernoff, Charry, and Merriam each offer ethnographic detail of indigenous metaphors, when making sense of those metaphors they opt for an etic comparison over an emic explanation.

Localising hotness

A second analytical approach to the hot metaphor is one that attends to its local referents and indigenous conceptual origins. This approach seeks to move beyond the observation of a metaphor's discursive use by locating it in local histories, practices, and ideas.[13] A ready example is James Burns's (2012) article on dance-drumming in Ewe funeral ceremonies. Burns observes that Ewe discourse around death features metaphors of hotness and coolness; invoking Farris Thompson (1973), Burns suggests that funereal practices and communal music-making serve to "cool" the hotness brought on by death (2012, 158). Steven Friedson (2008, 16) also observes so-called "hot deaths" among the Ewe in Ghana and correlates this metaphorical hotness with literal heat in Ghana's regional climates, noting that hot deaths occur in the desert.[14]

Friedson's (1996) ethnography of drumming and spiritual practices among the Tumbuka in Northern Malawi offers a detailed consideration of musical (and spiritual) hotness. In the Tumbuka tradition of *vimbuza*, divination ceremonies serve to neutralise malevolent spirits—of ancestors, animals, or foreigners—by controlling spiritual energy.[15] According to Friedson:

> In the Tumbuka theory of illness, the *vimbuza* spirits heat up and afflict people for various reasons, and sometimes for no reason at all. This affliction can manifest itself in many different symptoms of illness, but the root cause of all *vimbuza* illness is this overheated state, and hence an imbalance of hot and cold. (91)

In the course of a *vimbuza* healing ceremony, the spiritual state of hotness can be realised through drumming and dance; drummers play successive rhythmic modes for fifteen minutes at a time, thereby "giving the *nthenda* (disease) ample opportunity to heat up" (120). The practice of controlling hotness can slip from the metaphorical to the literal. Friedson narrates how Chikanje, a prominent healer who oversees his own temple, will cover the body of the afflicted person with a blanket "to help generate more

[12] Agawu consigns this analytical approach to the realm of "ethnotheory", which he discredits for its implicit reliance on unbridgeable difference, among other shortcomings (2003, 181–183). For what it is worth, I find it difficult to locate in Charry's passage ethnotheory's penchant for synchronically fixing the African other.

[13] Scholars have observed hot metaphors constructed from experiences of climatic conditions as well as everyday practices, for example, sunning batteries (Friedson 1996, 91), heating metal (Charry 2000, 10), burning wood (ibid.), and boiling water (Skinner 2015, 87, 99).

[14] In the same monograph, Friedson plays with the double-meaning of *kpome*, an Ewe term for "home of the god" that literally means "in the oven" (2008, 28, 217). I leave this translation to Ewe speakers to evaluate.

[15] The term, *vimbuza*, in Chitumbuka, has multiple meanings. It can refer to a practice of recuperative medicine, the malign spirits that cause illness in the first place, the competing spirits summoned to assist the afflicted, the ceremony undertaken to address the illness, the genres of music and dance that help constitute the ceremony, and even as a gloss for the rhythmic modes performed in the ceremony (which have recently appeared in Malawian popular music genres).

heat" (ibid.) and sometimes healers will burn medicine underneath the blanket so that the patient breathes in smoke. Following a successful ceremony in which a patient is made spiritually hot, dancing serves to "cool the *vimbuza*" (ibid.) and eventually return the afflicted body to its equilibrium.

Friedson also endeavours to locate Tumbuka allusions to hotness in local experience. He writes, for example, of frequently encountering the analogy of *vimbuza* drums serving "as the battery for the *mizimu* (ancestors) radio" (ibid.). Friedson observes that batteries are an essential technology for rural Malawians without access to the national power grid and those who are reliant on battery-powered radios for regional communication.[16] Used batteries, even ones close to dead, were hot commodities for the Tumbuka at the time; Friedson observes that "[t]o get more life out of the [used] batteries, Tumbuka would put them in the sun 'to heat up' because, according to both Malawian popular belief and some Western technical experts, this gives them longer life. Tumbuka heat *vimbuza* spirits *and* D-cell batteries" (33, emphasis in original). Friedson reasons that a literal relationship (between sunlight and batteries) is the basis for a metaphorical one (between drumming and spiritual energy), proposing that "people construct their metaphors from what is at hand" (32).[17]

Deploying hotness

A third approach is evinced by scholars who deploy their interlocutors' metaphor as a rhetorical and poetic device in ethnographic writing. Louise Meintjes's (2017) study of Zulu *ngoma*, for instance, makes poetic recourse to hotness. For *ngoma* performers, the hot concept expresses a pleasing performance aesthetic and a positive social valuation. To be hot is to be a skilled dancer and an engaged participant, and, in a national context of corporeal precarity, to possess a healthy and masculine body (45, 114, 201). In one vignette, Meintjes quotes a *ngoma* performer, Siyazi, as he shouts a hot metaphor in the midst of a performance. In a style of narrative counterpoint, the author riffs on this hotness:

> "We are too hot these days, way too hot these days!" boasts Siyazi more loudly, as he begins rebuilding the sonic texture, taking the drama to even greater heights.… On the pickup to the next phrase he cues the drummers. "*We are too hot these days, way too hot these days!*" lilts the chorus, cycling through the riff. Siyazi's whole body is as if dancing as he conducts the broiling flow of the event. (45, emphasis in original)

In similar fashion, in his study of music in Bamako, Ryan Skinner (2015) relays Mande musicians' terms for metaphorical hotness and then animates those concepts with his own word play:

> This is when the music heats up (*fɔli kalaya*)—gets louder, faster, and more energetic—often described by metaphors of "boiling" (*fɔli wulila*) and "raging fires" (*fɔli ŋagalen don*)….

[16] That Friedson's primary fieldwork took place in 1986 and 1987 explains, in part, his focus on batteries as a scarce resource.

[17] Other ethnomusicologists in the wake of the reflexive turn similarly sought to understand local experiences undergirding musical metaphors. See, for example, Erlmann (1996, 186–187).

> Before boiling over, this instrumental hotness is necessarily countered by vocal injunctions to cool down and return to an accompaniment pattern… (99)

By enlivening indigenous metaphors in their texts, Meintjes and Skinner give definition to local concepts and invite their readers to engage in metaphorical thinking. This stylistic gesture shows that African metaphors need not be flattened by description nor dismissed as opaque (see Dor 2015, 172–173), nor fated to a local or "traditional" discursive boundedness.[18] I note that neither Meintjes nor Skinner makes a comparative gesture, nor do they situate Zulu or Mande metaphors within the allochthonous lineage of Waterman's "hot rhythm." I read their deployment of African metaphors, *sans* qualification, as an ethical and, unfortunately still, political move: these authors engage their interlocutors on their own terms without defaulting to a didactic mode of demystification.

Whose metaphor?

Scholars of recent decades attend to hotness in African musical discourse in several ways: some document, some compare, some contextualise, some deploy. Rather than evaluate the relative worth of these approaches, I emphasise that the scholars above share an attention to locally operative metaphors in their respective community of study. In my view, their analytical engagements with musical hotness break from the conceptual lineage of Waterman's own theorising in the absence of fieldwork; they privilege the experiences and ideas of their interlocutors, and, in some cases, implement indigenous concepts as analytical and poetic devices. These examples demonstrate that it matters whose metaphors we use (see also West 2007 and Dor 2015).

Now I want to push the consideration of African musical hotness further. If metaphor relies on at least some distance between conceptual domains for communicative effect, then what do we make of a metaphor in which that distance dissolves? In other words, what is the meaning of a musical hotness that is perceived in, or even *as*, heat? As I illustrate below, with reference to my research with musicians in the Republic of Benin, many African musicians conceive (musical) hotness while living in hot places. To hark back to Friedson's observation that people construct metaphors from experiences at hand, it seems to me that the climatic situatedness of the hot metaphor in African contexts is central to its sense-making. To appreciate the meaning of musical hotness, then, we should understand musicians' experiences of heat.

[18] Recall one aspect of Agawu's criticism of ethnotheory: that it confers "a certain timelessness epitomized in the dubious word 'tradition' to African semantic fields, vocabularies, and conceptual schemes" (2003, 182). See also Garcia (2017; 2014) for critiques of discursive techniques that spatialise and temporalise Africans as Other.

Heat

So where does it go, this heat?
— Michael Taussig (2004, 36)

Anthropologist Michael Taussig uses the question in this section's epigraph to stage an ethnographic irony. On the one hand, colonial travelogues and diaries dating back centuries detail the unusual terrains and difficult climates encountered by Europeans traveling in the colonised world. Their authors often did so with contempt and irritation for scorching heat and stifling humidity, bemoaning their own bodily suffering in local climates.[19] Such authors also reasoned according to Enlightenment theories of racial difference that the perceived ability of the natives to withstand heat marked the non-European body as genetically primed for labour. On the other hand, frank depictions of heat and its ramifications rarely feature in scholarly ethnographies. Taussig observes that heat is oft treated as experiential marginalia, phenomenally immediate in the fieldwork moment yet conspicuously absent in the moment's telling: "the writer is strangely removed from this basic bodily experience of heat and humidity, as if such experience is inimical to the act of writing itself" (37).

This ironic omission is also evident in ethnographies of African music—a genre of writing that habitually alludes to metaphorical hotness. When talk of heat does appear, it is usually for narrative effect: a drive-by description of a landscape, a scene-setting sentence in a chapter introduction, or a passing reference to the day's weather at the beginning of a vignette.[20] In other words, heat—along with its climatic correlates such as humidity, sunlight, and the like—is not represented in Africanist ethnographies as a relevant component of music-making. Along with Taussig, I am left wondering, where does the heat go?

In the following paragraphs I explore the direct bearing of heat on musical practice and discourse with reference to brass band performance in southern Benin. In West African geographies undergoing the extreme and unpredictable effects of climate change, including unprecedented coastal erosion, drought, flooding, and heat waves, both musical practices and lives are at stake. Is it not pressing that we pay attention to musicians' experience of heat? In my view, participant-observation is an effective methodology for understanding how heat and changing climate patterns affect people's lives, and ethnography an especially sensitive way of representing those effects. *Pace* colonial accounts of bodily-difference-through-hotness, contemporary ethnographies should engage with shared experiences through heat.

[19] As example, I refer the reader to two such accounts of Dahomey (present-day Benin), drawn from different centuries. The first is French missionary and explorer Pierre Bertrand Bouche's memoir *Sept Ans en Afrique Occidentale*, in which he laments the coastal region's "high and constant heat", humid atmosphere, risk of malarial infection, and the general assault of heat and fevers on the European body (1885, 204–206). Second is French colonialist Roger Lesage's publication *Au Dahomey*, in which he complains of Dahomey's "suffocating heat" and "fiery sun" while waxing poetic about its "mysterious forests" (1956, 9).

[20] I invite the reader to revisit Africanist ethnographies with an eye toward heat and observe the narrative context of its mention.

The materiality of heat

The tropical, coastal environment of southern Benin presents unique challenges for musicians who perform outdoors. An exemplar is the local tradition of amateur brass bands (*les fanfares*), which perform actively throughout Benin's peri-urban region surrounding Cotonou, Porto Novo, and Ouidah.[21] Brass instruments have been present in Benin since the 1880s, when French colonisers introduced the brass band and its instruments to what was then the Kingdom of Dahomey (see Politz 2018). Today, Beninese fanfares feature European-designed brass and percussion instruments (see Copeland 2018); perform traditional, popular, and religious song repertoires; and perform for communal events such as funerals, church services, naming ceremonies, and political rallies. Since the 1980s, amateur fanfares have been an increasingly popular form of affordable, acoustic, and mobile musical entertainment in southern Benin's music scene. They are now something of a musical fixture in local funerals, which primarily take place outdoors.[22] On any given weekend in a Beninese town, one can hear the ringing sound of trumpets and bass drums and cymbals as fanfares proceed down dusty streets, animate dancing in a compound courtyard, or march behind a hearse in public caravans from the morgue to the family homestead to the church and finally to the cemetery (Figure 2).

Fanfares perform almost exclusively outside, and coastal Benin's environment has significant influence on outdoor performances, sounds, instruments, and musicians. Let us consider a few examples of how heat affects Beninese fanfare.[23] Musicians typically perform under a blazing meridional sun that sustains high temperatures year-round, and in air thick with the coastal region's near-constant 80–90% humidity. During Benin's two annual rainy seasons, fanfare performances are not infrequently interrupted with a sudden clap of thunder and torrential release of rain. As opposed to a readily available, climate-controlled indoor venue, southern Benin's climate is fickle and challenging, and weather dictates whether fanfare performances can occur. Gigs are regularly called off or postponed due to uncooperative forecasts, leaving working musicians who had planned on a weekend's income in limbo.

Rehearsals, too, are often canceled if fanfare ensembles cannot gain access to a shaded location that is available, free (in the monetary sense), and sufficiently distanced from other people. In my time performing with Fanfare St. Joseph (2015–2016), every

[21] Between 2013 and 2018 I conducted seventeen months of fieldwork in these cities and their environs, during which I performed actively as an invited member of the ensembles Voix des Anges Brass (now Ifê Brass), Fanfare St. Joseph de Cotonou, and La Voix des Anges de Sodohome.

[22] In Benin as elsewhere in West Africa, funerals typically comprise multiple ceremonial events over the course of days, if not weeks. Funerals are immensely significant social and religious events in which families publicly express grief and celebrate the life of the deceased (see Noret 2010; Noret and Jindra 2011; Burns 2012).

[23] Attending to the physical environment of this outdoor musical practice takes plainly the ethnomusicological call to study music *in-situ* (Blacking 1973; Myers 1992). I think that ethnography that seeks to represent with fullness outdoor musical-cultural life in a particular place should impart to its reader something of what that place feels like.

Figure 2. Voix des Anges Brass performs outside of a morgue for a funeral procession waiting to collect the body of the deceased. Cotonou, August 9, 2016. Photograph by the Author.

Monday afternoon we would rush to the concrete plaza surrounding the soccer stadium in Cotonou, *Le Stade de l'Amitié*, in the hope of securing a covered area of the stadium steps for our rehearsal. On days that other groups beat us to the sought-after shade, we would seek refuge under some small mango trees near the parking lot or relocate to a nearby public beach. On one particular Monday we opted to move to Fidjerossé Beach, a popular sandy stretch along Cotonou's southwest coast. Predictably, the temperature was sweltering, and the palm trees offered little protection from the sun; after a half-hearted attempt to rehearse, we opted to go home because it was too hot and unpleasant to stay.

It is not an overstatement to say that heat and humidity inflect every fanfare rehearsal and performance, and that every fanfare musician reckons with the reality of heat. Leading up to a performance, for example, musicians prepare their bodies for physical exertion and, in particular, heat exposure. A trumpeter William told me that he rests and hydrates for many hours before a performance so that he does not become dehydrated while performing outside. A trombonist, Roger, explained that he drinks at least three plastic sachets of water during a funeral procession and, he added with a chuckle, at minimum three beers during the funeral reception. Beatrice, a trombonist and member of Voix des Anges Brass, said that she sometimes applies sunscreen to her face and arms before a gig to protect her skin from the sun. Musicians also dress for the

heat by wearing sunglasses, hats, and light clothing. For example, David, the leader of Fanfare St. Joseph, explained that the ensemble's choice of uniform (matching button-down shirts) had two motivations: mass manufactured shirts are less expensive than custom-tailored outfits, and cotton fabric breathes better and is cooler than customary wax cloth (*pagne*). These behaviours may seem unremarkable, yet my point is that these climate-minded actions are pervasive among musicians and an integral component of the musical practice of fanfare.

Similarly, heat conditions the air that musicians breathe. As I discuss elsewhere (Copeland 2019), Beninese brass players pay close attention to their bodily health and breathing practices. In conversation with me about fanfare's working environment, the trombonist, Maxime, suggested that heat surrounds and penetrates musicians through hot things, such as asphalt and metal instruments, as well as hot air (Figure 3). During long, arduous processions through the streets of urban Cotonou, he said, brass musicians breathe actively and deeply, inviting a wealth of pollution, exhaust, and dust to enter their body. Air in the city has been "worked already", Maxime claimed; replete with carbon dioxide rather than oxygen, this poor-quality air constitutes a health hazard. Maxime called this "hot air" (*le souffle chaud*), comparing it to "cold air" (*le souffle frais*) that is clean and fresh. Moreover, because brass players often breathe through their

Figure 3. Fanfare Voix des Anges de Sodohome prepares to perform in a funeral procession through downtown Lokossa. Maxime is centered wearing a dark shirt. Lokossa, January 29, 2016. Photograph by the Author.

mouth, he explained, they sometimes inhale the air inside their instruments, ingesting the hot air they exhaled only moments before.

Heat exposure, in Maxime's rendering, occurs internally; the necessary act of breathing invites hot air and its toxic trappings into the body. This air is literally hot in that the particles it carries are heated by the sun and the steaming exhaust fumes of Benin's famous motorcycle taxis (*zemidjans*). Hot air burns and clogs the lungs, impeding a wind instrumentalist's ability to breathe. This hot air is also a metaphor in the sense that Maxime spoke of "hot" to mean dirty, polluted, and bad, and "cold" to mean clean, pure, and good. I would add another semiotic layer to Maxime's invocation of hotness: that is, that the vehicular exhaust and industrial smog which literally and metaphorically heat the city's air also heat the earth's atmosphere.

In Maxime's rendering of the sensory experience of hot air—in his coughs, choked breaths, and consequent flubbed notes while performing within it—we observe the musical ramifications of heat. In his and other musicians' descriptions of fanfare processions, we can make out the sounds of ecological crisis. Beninese fanfares perform in postcolonial urban cityscapes ravaged by centuries of deforestation, extractive trade practices, and international market demands. The soundscape of a fanfare procession is not of rustling leaves and birdsong but rather the crunch of secondhand American car tires turning on asphalt poured by Chinese contractors; the rumble of imported Japanese motorcycle engines; the foghorn of ships carrying cotton and cashews and petroleum to Nigeria or the United Arab Emirates; the clangor of machines grinding and bagging cement. Fanfare musicians perform in hot and dirty air made hotter and dirtier by foreign market-driven industries.

Just as musicians' bodies react to heat and humidity so, too, do instruments. Metal has particular sonic qualities and responds to heat, cold, moisture, and other environmental elements in particular ways. When brass instruments become hot, their metals expand and oils evaporate, causing trumpet valves and trombone slides to become sticky and sluggish. Environmental conditions pose frustrations for maintaining the instrument: extreme humidity encourages accelerated corrosion of the lacquer on instruments, deteriorating felt pads, and crumbling bits of cork. This is troublesome for Beninese brass players who, for lack of access to imported instrument accessories, use makeshift valve lubricants with local substances such as palm oil, peanut oil, motor oil, gear grease, and petrol (Figure 4). An elderly brass instrument repairman in Porto Novo, Monsieur Cledjo, who was for decades a repairman for Benin's *fanfare de gendarmerie*, told me that these locally improvised lubricants can be destructive. Gasoline can corrode metal (especially the low-quality sort smuggled across the Nigerian border, he said), and palm and peanut oils deposit organic particles inside of instruments, which in turn fester in the humidity and grow mold.[24] The fanfare musicians I know lament the

[24] As Perlman (2014) predicted in his call for a "literal" ecomusicological agenda, an organology that accounts for environmental pressures on musical instruments takes us surprising places: to "resourceful [instrument] builders who devise ingenious makeshifts", to "the stratagems of smugglers", and "the reach of ecological deterioration itself."

Figure 4. Monsieur Cledjo's workshop table holds petrol, motor oil, gear grease, and other locally sourced materials that he uses to repair brass and woodwind instruments. Porto Novo, September 29, 2013. Photograph by the Author.

poor condition of their oft-secondhand instruments, glossing their deterioration using organic metaphors such as "spoiled" and "rotten."[25] The materiality of heat can manifest in musical instruments as malfunction and deterioration, which in turn compromises performances (Copeland 2018).

I survey these material-cum-musical consequences of heat to demonstrate that fanfare musicians do not perform in an atmospheric void but rather a particular and challenging climate. Reports of drought, unprecedent heat waves, soil erosion, shrinking coastline, floods, famine, deforestation, and agricultural disasters are frequent topics of

[25] Musicians often use the French verb *gâter* (to spoil), as in *cet instrument lá, c'est gâté*. This metaphor of organic disintegration is a direct translation from the Fon term *gblé* and is uncommon in French vocabularies outside of Benin.

conversation in Beninese public discourse (see Okanla 2018), and common banners in local newspapers.[26] This ecological crisis is audible in fanfare practices. The health and livelihood of Benin's working musicians are susceptible to environmental conditions outside their control. Indeed, there is great injustice in the unevenness of climate change. Industrial and cultural practices within Europe and North America cause the most environmental harm in other places, and it is well-documented that Africa is the continent most vulnerable to changes in climate patterns (Pereira 2017). Much like Waterman's hotness, it seems that heat comes from the West.

Experiencing heat

Fanfare participants regularly find themselves marching for hours on end in funeral processions: sweating in steaming heat and humidity; squinting in sunlight reflected off asphalt streets; breathing in air thick with car exhaust; coughing through tornadoes of dust fueled by the winds of the harmattan; and playing without rest or food or water at the command of others. Cries of "Ah the heat!" and "Oh it's hot out!" and "I'm so thirsty!", interrupt performances, as do the irritating sensation of thirst and an incessant need to wipe sweat from one's brow. In this section I detail two of heat's bodily consequences—fatigue and sweat—and point to ways that people make sense of these sensations.

Beatrice once recounted a fanfare performance for an outdoor procession that snaked interminably through downtown Cotonou's polluted and populated streets, including traversing two bridges high above the city's stagnant lagoon. The nine-mile route took six hours, the musicians took no breaks, and the recompense was a meager 2,000 CFA (then approximately 3 USD) per head. Shaking her head in disbelief, Beatrice cried "Oh! The fatigue! You can imagine eh? That did me harm. I slept for two days after that", and vowed she would never accept a gig like that again. Indeed, the physical strength required for processions is one reason given for the exclusion of women in Beninese fanfare (see Copeland 2019). The trombonist, Celestin, narrated a similar experience of a lengthy procession and back-to-back performances during a weekend-long funeral with Fanfare St. Joseph. He detailed, "At funerals, you become sick after you play for two days straight. You must take medicine to stay awake. And if you are tired, people will tease you, 'What? You don't have breath?'…It's not easy, eh!"

Like Beatrice and Celestin, many fanfare musicians report negative bodily experiences of fatigue, dehydration, and headache—all symptoms of heat exhaustion—

[26] Benin's premiere newspaper, *Benin Times*, reports regularly on environmental issues. See, for example, their series of articles under the banner "*Lutte contre le changement climatique.*" Public discourse on climate change increased when the Republic of Benin's National Assembly adopted its first legislation on climate change, Law No. 2018–18 known as the "Climate Change Act", in June 2018. This bill enables the national government to act in response to and protection against climate change, the negative effects of which manifest locally as "the decline of rains, rising temperatures, especially in the northern part of the country, drought, floods, and late and violent rains" (UNDP "Benin Adopts National Legislation on Climate Change", accessed September 5, 2019). We can add to this list food insecurity, compromised water resources, soil erosion, and agricultural destruction, among other consequences.

after performances. Once I was catching up with Maxime over Facebook Messenger chat when he mentioned a "fatiguing" procession he performed in the weekend prior. Intrigued by his use of the term *fatigant*, I asked him to elaborate. His reply, written mostly in English and replete with emojis, portrays fatigue as a negative after-effect of difficult musical labour:

> Me I think that it is fatigant (fatiguing or tiring).
> You would be walking for hours, under the sun, behind a dead person that is not even a member of your family and that you didn't know before ☺.
> …
> Even if you are tired you shouldn't stop. Like that the lips too are tired and hurts sometimes. Supposed that you did such a performance twice or three times successively in a week. It is not easy.
> Walaï Lyndsey! Fanfare is too fatigant. During the performance one does not notice the fatigue or does not care, because money is coming ☺. Once at home, now we start facing the consequences (headache, malaria, muscles pains...).

In contrast, some fanfare musicians interpret fatigue as a positive experience and an index of hard work. Fatigue was alternately a bad thing, musicians told me, because you deplete your energy in the short term, and a good thing, because it is a sign you worked hard and are strengthening your body for the long term. Joël, a percussionist in Voix des Anges Brass, told me that being tired was ultimately "good for your organism." "It bothers you now", he explained, "but that will give something in the future." Some musicians denied ever feeling fatigued. The trumpeter, David, claimed, "I do not get tired. I am used to it already", and suggested somewhat paradoxically that, because being fatigued is routine, he does not feel fatigued. I read these interpretations of fatigue as individuals understanding somatic experience through affective valuations of pain and pleasure, as well as social valuations of hard work. Feeling hot or feeling fatigued can be quite meaningful for musicians; in this way, the experience of heat takes on social valence.

My conversations with fanfare musicians about heat condensed around one bodily topic in particular: sweat. In Benin there is a local aesthetics around sweat and the appearance of hot bodies.[27] Musicians informed me that to sweat—to embody heat, to display hotness—was to exhibit strength, health, and physical ability. For example, Beatrice proposed that perspiration is a sign that her body is working and that she is getting good exercise. "[Sweat] is good for your organism", she assured me, "That means that [your body] works" (*Ça signifie que ça marche*). Sweat is also a symbol of labour, which in turn invites remuneration. During fanfare performances, audience members show their appreciation for a musician's work by engaging with their sweat. An audience member might hold a banknote in front of a musician, luring them to come closer. Once the musician is within reach, the audience member will rub the banknote on the musician's sweaty face, putting into contact the material of physical exertion and its

[27] Sweat features in recent Africanist ethnographies, with stories from South Africa (Steingo 2016; Meintjes 2017) to Ghana (Friedson 2008; Feld 2012) to the Democratic Republic of Congo (White 2008) all pointing to rich social aesthetics around perspiration.

reward. It is convenient that money sticks to sweaty foreheads (Figure 5).[28] I have also seen audience members use a towel or piece of wax cloth to wipe the sweat off a musician's brow. In this manner, they contribute to the performance not by paying the musician but by symbolically cooling them off. These examples suggest that physical effort is perceived in perspiration. As Beatrice explained, sweat indexes a healthy, working body.

Fanfare musicians also strive to look cool—one does not want to sweat *too* much.

Figure 5. A member of the Celestial Church of Christ wipes a banknote on the sweaty forehead of Fanfare St. Joseph's bass drummer, David. Cotonou, November 8, 2015. Photograph by the Author.

The trombonist Celestin told me that "sweat is a good thing" because it is a sign of hard work, but too much sweat shows weakness: it means that "you don't have the energy, you don't have the force." Celestin then boasted that, when he performs, he "perspires just a little." The desire to control bodily hotness is evinced by a popular local practice of draping towels around one's neck. Towels serve both a practical and symbolic purpose: they absorb sweat and convey a cool composure.[29] I observed towels worn by people in different demographics, including working musicians and wealthy politicians, and both women and men (Figure 6). In performances, musicians use towels in performative gestures: to twirl around the head or playfully swat a passerby. Towels and handkerchiefs are particularly handy for percussionists who need to dry

[28] "Spraying" money as a form of tipping is an act of praise observed across West and Central Africa. See, for example, White (2008).

[29] The presence of towels, and particularly white towels, in Beninese cultural performance might be productively compared with the political history of the white handkerchief and its use in public performances in the Republic of Guinea (see Dave 2019).

Figure 6. A fanfare surrounds local politicians wearing high quality clothing and towels around their neck at a public rally for the 2016 presidential candidate Lionel Zinsou. Yenawa, February 27, 2016. Photograph by the Author.

their hands, and for brass players who want to wipe their face so that sweat does not drip into their mouthpiece. Sweat uncontrolled can cause technical troubles, leading to a dropped percussion mallet or renegade trombone slide.

I interpret these practices around sweat as modes of controlling one's body and, especially, its temperature. Understood in this way, heat is a function of corporeal movement: hotness is a product of bodily exertion, and coolness that of bodily control. Musicians do not just passively respond to heat; rather, people purposefully generate and moderate temperature so as to control the perception of hotness. This observation points to a question I posed earlier: what is the meaning of a musical hotness that is perceived in or as heat? In fanfare performances—where hot and cool metaphors mix with the bodily experience of heat—the "hot" concept carries different meaning than that which Waterman implied. Beninese musicians describe the direct bearing of heat on their musical practices, and in doing so, show that heat moderates their understandings of sweat, labour, pleasure, health, and the quality of being hot.

Reflecting on heat

I think it is also worthwhile to consider heat experienced by the ethnographer. If the objective of a musical ethnography of heat is to pay attention to sensorial phenomena,

then an additional tactic is self-reflexivity. After all, as a musical participant in Beninese fanfare, I, too, was exposed to heat. When preparing this article, I searched my field notes for mentions of my own hotness. The results of my keyword search pointed bluntly (and, I caution, in crass language) to my feelings about heat, as expressed here:

> on top of all the crowd and commotion, it's super fucking hot, at 1pm in the heat of the day, in the blazing sun of the harmattan season, on the asphalt street, walking around in a mass crowd of people. i am dripping in sweat and really not comfortable. my cameras keep over heating and turning off. (February 27, 2016)

My notes expose my frustration with southern Benin's humid climate and soporific temperatures. I complain of the discomfort of sleeping on a concrete floor with no fan and no ventilation; the trouble of finding a shady place for an interview; my technology's malfunction in the heat and humidity—my cameras overheating and recorders rusting;[30] my chafing sunburn; my fatigue; the heat, dust, and sun.

Reflecting on my fieldwork prompts me to make two points. The first is that atmospheric experience—specifically the bodily process of acclimatisation felt by many ethnographers working in new places—can be added to the roster of reflexive positions. As evidenced by my diction in my field notes, my climatic position—literally my being in heat—altered my mood and emotional state. Other North American scholars working in West Africa have likewise acknowledged their discomfort in specific climates, detailing their languor in sweltering heat (Appert 2018, 7, 45) or sweat dripping into their eyes (Chernoff 1979, 66). This is all to say that the necessary experience of climate belies an impartial—or room temperature—observer. In my view, a fair accounting of fieldwork should include the ethnographer's sensorial and affective experiences of the research environment, if only to document the ways their subjective experiences influenced their collection of data considered more objective.

The second and somewhat paradoxical point is that bringing attention to the foreign ethnographer's experience of their collaborators' environment proffers an analytical model of sameness. In the case of my own fieldwork, paying attention to heat allowed me to appreciate the challenging conditions faced by the Beninese musicians who shared their lives with me. In the act of performing together, we experienced commonalities of sweat, thirst, fever, and fatigue; we experienced heat together. In this way, temperature—hot, cold, or otherwise—can be a leveling analytic.[31] Shared experiences of environments forecast a basis for understanding and empathy across cultures, tenets that undergird responsible humanistic scholarship.

Beginning from a starting point of sameness-through-heat might allow ethnographers (of any positionality) to account for "true" difference with nuance.[32]

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[30] I am reminded of Steingo's (2015) comments on the obduracy and breakdown of technology, and the material barriers he and his interlocutors faced in their music-making.

[31] This analytical stance toward heat is the inverse of colonial accounts in which climactic experience marked racial difference and implied inferiority.

[32] In Agawu's words: "[O]nly if we proceed from a premise of sameness and grant difference in the unique expression of that sameness are we likely to get at the true similarities and differences between 'African' and 'Western' musics" (1995b, 393).

The apperception of difference in musical experiences of heat, for example, might involve observing different social meanings of sweat; how class, race, or other social identities position people to perceive heat differently; or even how musicians in the same performance situation accommodate heat differently. Sylvia Bruinders, also a researcher of African band cultures, describes one such difference in how she and her interlocutors dealt with heat during a Christmas band parade in the Western Cape:

> The parades…happen during the hottest months of the year, when marching for hours in full uniform and blowing an instrument can be somewhat uncomfortable and quite challenging. As these road marches make for rich visual material, I acquired a digital video camera and spent many Sunday afternoons taking visual images of the band. Having discarded my jacket and tie, I was a lot cooler than my fellow band members and not as restricted by the marching file…. I realised that I was taking liberties that were unavailable to them. No matter how uncomfortable it became for them, they had to continue through the hot afternoon until the parade was officially over for the day. (2017, 24)

Noticing difference in people's experiences of heat can reveal structural reasons for why heat is unevenly realised. For example, noticing that Beninese musicians struggle with malfunctioning instruments raises questions about for whom mass-produced brass instruments are designed and manufactured, and what climates those people are presumed to enjoy. Observing that fanfares perform in polluted air, or that they march on broken asphalt and scorching sand, points to Benin's crumbling colonial infrastructure and the techno-industrial complex's continued assault on its environment. Admitting that, during a fanfare performance, David, Maxime, Celestin, Beatrice, Joël, and I each got really, really hot, and yet I was the only person who could afford to retreat afterwards to an air-conditioned room, is a testimonial of persistent global inequality and the enduring lopsidedness of an ethnomusicology dominated by scholars in the global north writing about the global south. Revisiting hotness means reckoning with the injustice of heat, yes, but also the uncomfortable intellectual history and inequitable contexts of ethnomusicological research.

Conclusion

This essay critiqued the racial stereotypes, generalisations, and propensity toward difference at the heart of Richard A. Waterman's notion of "hot rhythm." I traced the term's conceptual lineage in Africanist music scholarship as well as showcased ethnographies that break from Waterman's model to elevate the hot metaphors used by African musicians. While scholars may not always escape the sticky history of hot rhythm, many do offer detailed, empathetic, and evidence-based accounts of African musicians' experiences and ideas. Somewhat paradoxically, I proposed that scholars of African music both resist and return to hotness. As Dor (2015) and many others argue, I think music scholars share a responsibility to reckon with our respective disciplinary histories and disprove invalid Euro-American paradigms (hence, my vote to resist "hot rhythm"). I also think the Euro-American scholar has a heightened responsibility to represent African musical worlds accurately and in fullness (hence, my vote to engage with indigenous hot metaphors and local experiences of heat). As J.H. Kwabena Nketia

wrote almost forty years ago, "the Western musician and scholar specialising in African musicology has a dual obligation—to Africa and the West" (1986, 54).

My second contribution was to demonstrate the influence of heat as a material condition and hotness as a condition of being in the context of Beninese fanfare. I proposed that heat, in contrast to the difference-making concept of hot rhythm, is a leveling analytic that invites us to consider the environment's effect on musical practices. My related call for ethnographic attention to climatic phenomena in African musical practices follows from recent appeals for ecomusicology to move beyond metaphor to the literal (Perlman 2014; Ochoa Gautier 2016, 136).[33] A more direct avenue toward ameliorating climate change's crisis of culture, some suggest, is to leave behind analyses of "surface level representational conceptualizations" (Kaur 2019, 127) and address people's sensorial experiences of musical environments. And yet, as Marc Perlman (2014) concedes, "it's not at all clear what the activist implications of ecomusicology might be." Likewise, it is not clear to me whether a musical ethnography of heat alone will result in action outside of academia, and I do not presume this article will benefit the Beninese musicians presented herein.

Rather, my hope is that this essay's audience of people researching and writing about African music will take up my appeal to reorient discourse on hotness from the metaphorical to the literal. Doing so could contribute to the ongoing critical assessment of (ethno)musicology's analytical frameworks and, more importantly, attend to African perspectives on African environments. African music studies need more voices of African people and African scholars, and ecomusicology needs more collaborative research with African activists already at work on environmentalist campaigns. I can imagine collaborative projects between music scholars and experts at institutions such as Centre Songhaï, an agricultural research and training center in Porto Novo, Benin that offers programs in agroecology, sustainable farming, and organic energy.[34] And I can imagine collaborations between music scholars and climate advocates such as Vanessa Nakate, a Ugandan activist who spoke at the 2021 United Nations climate summit in Scotland and has protested the exclusion of African perspectives in the global environmental movement. Such projects could combine the methods of applied ecomusicology, which strives to change policy and practice, with those of ecological ethnography, which seeks to accurately account for how local experiences, histories, ideas, and aesthetic practices are shaped by heat and climate change. This research could leverage the resources of Euro-American academic institutions to serve the campaigns

[33] Many scholars engage with environmental issues via the topic of metaphor, including documenting indigenous metaphors around music and the environment (Feld 1981; Guy 2009; Dirksen 2018; Dettmann 2019) and deploying "ecology" and "sustainability" as analytical metaphors (Titon 2009; Allen 2016).

[34] Centre Songhaï's website is available in French and English (http://www.songhai.org/index.php/fr/, accessed December 28, 2021).

of African institutions and individuals. And this research should amplify the voices of African people speaking to their own experiences.[35]

In closing, I want to reflect on an observation I made earlier: that heat and climate change, much like Waterman's hot concept, come from the West. This parallel reminds me of other dark ironies. That the French missionary Pierre Bertrand Bouche was complaining of West African heat in 1885 during the high-water mark of Europe's industrial revolution and at the close of the Berlin Conference—events that would catapult the environmental devastation and exponential warming of the African continent. Or that Spotify, the music streaming giant with U.S. headquarters in New York City, pushed an "African Heat to the Streets" marketing campaign to promote its "African Heat" playlist the same year that climate scientists at City University of New York published an article entitled, "The Future Urban Heat-Wave Challenge in Africa" with devastating climate projections (Marcotullio et al. 2021).[36] My point here is that, sometimes, the same people who ascribe to Africa a metaphorical or even lyrical hotness are implicated in its actual heat. What happens, then, when the people generating heat also feel its effects? For so long in Euro-American imaginaries, heat marked other places and hotness marked other people. When heat is increasing everywhere and for everyone, how might attitudes toward hotness change? Will the "hot" sound and signify differently for European scholars or American journalists or Spotify executives? Looking ahead to a discourse on African music that has left the othering "hot rhythm'" metaphor behind, I anticipate explorations of diverse understandings of "hot" music, and hearing from African musicians what heat and hotness mean to them.

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[35] I am grateful to an anonymous reviewer for encouraging this reflection.

[36] I note that, in 2021, Spotify also "expanded its international footprint" to offer music streaming in thirty-five African countries for the first time (Spotify 2021)—a move that will inevitably increase Spotify's environmental footprint given the astonishing energy demands of data servers (see Devine 2019).

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