Application Study

African Folklore and Music Communities

Musical Assembly versus an Assembly of Musicians

Some years ago I studied and played in ensembles with Kwaku Dadey, a master drummer from Ghana who lives and teaches in the San Francisco Bay Area. One of the classes I took with him involved learning traditional folklore pieces from the Yoruba tradition. This music is part of the West African storytelling practice in which the drum pattern is linked to lyrics, in effect telling the story through the drumming. As we studied these various pieces I became interested in transcribing them, and I worked with Kwaku on making transcriptions. Of course there are innumerable difficulties in transcribing any music that doesn’t begin as a notated composition. There is a lot of subjective interpretation required to get from a musical piece as it is performed to the necessary reductions of pitch, rhythm, and dynamics needed to create a notated version. Nonetheless, I began the current project of creating a recorded version of the piece “Milee Yookoe” by referring to my notated rendering of the music.

At the foundation of the composition is a typical African approach to polyrhythm. The fundamental rhythmic underpinning involves the subdivision of a basic pulse by three imposed over a subdivision by two: this is technically called hemiola but generally referred to as “three against two” in musician’s vernacular. In order to create a Western popular music context I began with a strong pulse to set up the subdivision by two, over which I could superimpose the subdivision by three. I used a sample of a single bass drum hit to establish the repeating pulse. This created the same fundamental rhythmic structure used in a lot of dance and electronic music, the
“four on the floor” underpinning that began with 1970s disco. “Four on the floor” is a play on words that references four evenly spaced beats per bar played by the bass drum (the drum usually placed on the floor in a typical drum set configuration), though the term originated as an automotive reference to a four-speed manual transmission operated by a floor-mounted shifter. By using this as the basis I have removed the musical context from a traditional African musical setting (which would not employ a straight pulse underpinning) and given it a recognizable popular music context.

The “three against two” polyrhythm was structured over the course of a half-note in 4/4 time. Because the bass drum pulse was made up of quarter-notes, it was outlining the “two” subdivision—two evenly spaced bass drum notes in each half-note. To establish the contrary “three” subdivision I created a track of hi-hat (closed cymbal) sounds and placed them to create an even three pulse over each half-note (quarter-note triplets). I then repeated the bass drum pattern and the hi-hat pattern over a stretch of about three minutes to provide a working foundation.

For the story line I constructed the rhythm pattern from my transcription of the piece as I had learned it from Kwaku. I took drum samples from a collection of drum recordings that I had made of single drum hits. I arranged each appropriately pitched drum into the rhythmic pattern of the story, against the grid of the bass drum pulses that I had previously constructed. This particular piece requires some intricate rhythmic construction, including several phrases where four evenly spaced notes are played in the space of three beats (four against three). I constructed the rhythms mathematically so that all notes were placed in their fractionally correct position against the musical timeline. I listened to the playback, adjusting the levels of each individual element until the whole sounded balanced.

I then went to a sample download website to search for samples to use as accompanying rhythmic substructure. There are many websites that offer royalty-free samples that are searchable by musical genre, instrumentation, key, and tempo. These are typically short loops made of instrumental segments—the building blocks of many typical popular musical recordings. Royalty free indicates that the musical sample purchased is not encumbered by any copyright, and the purchaser is free to use it without any royalty payment consideration.

I searched the sample websites under submenus “world music/African/drums and percussion” and selected tempos within plus or minus 10 bpm (beats per minute) of my original tempo. I auditioned the samples
available, listening for samples that contained the polyrhythmic underpinning that I wanted to accompany the “melody” (in this case the single-note drum pattern that is the story line of “Milee Yookooee”). I selected one two-bar sample that seemed like it might work well as accompaniment. It contained a percussion ensemble of a variety of instruments with an underlying pulse that incorporated the “three against two” feeling that I wanted outlined. It was played at a slightly slower tempo than I wanted for my piece, so I time-compressed it to the desired tempo. One of the newly acquired capabilities available when using digital audio is this ability to expand or compress (make slower or faster) audio tempos without altering the pitch of the original element. This is a tremendous advantage when creating sample-based compositions such as this, as it allows easy synchronization of material that was not originally played at the same tempo.

Once I had this two-bar percussion phrase at the desired tempo I looped it to play continuously under the entire piece. I then worked on a second two-bar percussion phrase, consisting of a different percussion ensemble playing in a similar style. I adjusted the tempo of this phrase by using the time compression function and looped it to play continuously. The two loops worked well together, providing a dense, polyrhythmic bed of percussion. I then worked on a third percussion phrase using a lighter-sounding ensemble of wood block sounds. After adjusting the tempo and looping this phrase I began to construct an arrangement from the various elements.

I built an arrangement without trying to emulate any traditional models. I started with the two contrary pulses—bass drum and hi-hat—added the first loop and then played the story of “Milee Yookooee” using my drum samples playing over the percussion bed. At the conclusion of the story line I started a second loop, creating a more dense underlay of percussion. After eight bars I further developed the polyrhythmic percussion bed by adding a snare drum pattern that I created from a snare drum sample. This pattern reinforced the tradition African bell pattern. I let that play for eight more bars and then added the third percussion loop, creating a very dense and highly polyrhythmic percussion ensemble. I then broke the piece back down to the original loop with the bass drum pulse. After four bars I added the hi-hat pulse back in, and four bars later I repeated the story of “Milee Yookooee” as it had been programmed using individual drum samples. Once again, at the end of the story line, I started the second loop—this time letting the percussion groove for a few seconds and then slowly fading the music out. Arranged in this manner the entire piece
was slightly over two minutes long. Please refer to audio clip 12 to listen to this piece and follow the arrangement I have described here.

The piece of music that I have created employs only preexisting samples of recordings that have been repurposed to create this version of “Milee Yookoe.” That is to say, I did not actually “play” a single note in the traditional sense, yet I am responsible for the existence of this version of this piece of music—I constructed it. Although created in isolation, this music can be shared as a listening experience, it can be considered as a technical process, and it can be treated as a musicological reference to the traditional folkloric story line. Through this application project I explored the bond that may occur through musical creation regardless of the cultural context, and the many elements in that bond that cross widely divergent cultural environments.

The essence of a musical experience is inevitably tied to social and cultural integration, a part of the historically and culturally contingent nature of musical experience that we have been repeatedly reminded of as we have explored musical effect. Therefore, the specific musical manifestation—the individual piece of music—may be experienced very differently by different people (especially those from different cultures or at different times). Yet there are numerous elements that remain consistent regardless of the musical, cultural, or historical specifics. These include the expression of creativity, which is an amalgamation of the historical and cultural history with the unknowns of individual expression; the interaction between the musician and the tools of creativity, where we find the intersection of the human and technical in that pursuit of creative expression; and the experience of music as taking an active role in the construction of society and culture.

Later in this chapter the larger issues revolving around isolation and collaboration will be discussed within the context of the African music tradition. Essential cultural expressions of community and creativity will be considered in their musical context, balanced between their representation in the African tradition and their parallels in the world of digital audio. The relationship between art and technology is primarily a social process, a cultural dynamic. In light of the contemporary social network of audio experiences I will consider a possible reversal in the conventional hierarchy of production and reproduction. The use of repurposed audio through sampling technology allows for new compositional models where the copy achieves a status that may overtake the original. This also speaks to the increasingly important and varied role of the recordist as a more di-
rect participant in musical creations, and to the idea of the recordist as au-
teur. In this creative environment musical and technological elements be-
come more intertwined than ever before. While these new relationships
proceed helter-skelter in the practices of the music community, there is
the need for them to be more fully examined within the larger context of
cultural expression.

Before exploring these ideas further it is valuable to first look more
deeply into the African music tradition. In doing so it may seem that my
application project (the constructed “Milee Yookoee”) and the tradition it
draws from are light years apart, if not diametrically opposed. However, if
we break down assumptions about both the computer age and traditional
musical expressions, a more balanced picture of the impact of contempo-
rary audio technology may be found.

African Rhythm and Values

Music is deeply woven into the structure of traditional African culture, and
rhythmic expression is at the heart of traditional African music. John
Miller Chernoff maintains that despite the great variations in the manifesta-
tions of music and culture throughout Africa, there remains a sufficient
thread of truth in the above statement to render it useful for discussion.3
The extent to which music is deeply embedded in the structure and function of African folkloric culture is reflected in the widespread participation
in musical practice. While we identify these as distinguishing features of
African folkloric culture, at the same time we must recognize that the
African and European musical traditions share a great many elements,
both musically and culturally.

Kofi Agawu observes that most ethnomusicology focuses on the differ-
ences between African and European musical traditions, and this distorts
the myriad ways in which they are the same, which might be of equal in-
terest and importance.4 Agawu focuses on musical sameness, while ac-
cknowledging musical differences. What follows here focuses on musical
differences that have evolved into sameness through the adoption of ele-
ments from African music in the West. In line with Agawu, none of what
follows should be interpreted as essentializing difference between African
and European traditions, and ultimately the focus here is on the sameness
of musical cultures as apparently divergent as African folkloric music and
high-tech Western popular music. What follows is also a representation of
African music that, while drawn from anthropological research, is not to
be understood as a totalizing account of the complexity or diversity of musical expression within Africa.

As Christopher Small explains, African music is “not set apart in any way from everyday life but is an integral and essential part of it, and plays an important role in all aspects of social interaction and individual self-realization.” The intention of musical activity revolves around the practicability of functions. Amiri Baraka describes these functions as consisting of many of the most essential human activities, including courtship, labor, rites of passage, spiritual pursuits, battle, leisure, and so on. Fundamental to African musical culture is the assumption that everyone is musical: “Musicking is in fact thought of as being as basic a form of social interaction as talking.” This doesn’t mean that all Africans are equally gifted or skilled; it simply means that the universality of music practice is central to the cultural identity. Most African languages are tonal and the connection between the rhythms and melodies of language and music is very strong. “A cursory comparison of transcriptions of speech and transcriptions of drumming reveals striking similarities between the two domains.” Thus the status of musical expression in Africa “can be used to challenge the privileged conceptions of both language and writing as preeminent expressions of human consciousness.” This is an indication of the level of importance that music attains in African culture. Indeed, the African cultivation of music encompasses the ethical and aesthetic values of both community and individual.

These expressions of structure and function in the African musical tradition coalesce into a highly evolved rhythmic concept. As such the intricacies of rhythm operate on many different levels of complexity: “rhythm is the most perceptible and the least material thing.” David Brackett quotes Olly Wilson as saying that “Africanness consists of the way of doing something, not simply that it is done” and thus reinforces the need to delve into the specifics of African music construction. Mark Katz also uses Wilson to extend this idea one step further. He quotes Wilson as asserting that the African and African-American traditions seek a “heterogeneous sound ideal,” and he suggests that using loops as I have done in my project may participate in this same ideal.

Repurposed audio, in the form of loops from audio taken from a variety of sources, is a natural extension of the ideal of heterogeneity. Thus loop-based music, which has emerged from the African-American music traditions, is a contemporary expression of music’s interaction with social function, utilizing recent developments in audio technology. This is not to
suggest that the varieties of contemporary musical participation are equiv-
alent to the range of expressions of participation in the African folkloric
tradition, but to further the exploration of these relationships it is valuable
to consider some of the ways that African music is manifest in the West.
This encourages us to recognize that musical expression is much more than
simply the music that is played, but most significantly, the way that it is
played.

“It Don’t Mean a Thing If It Ain’t Got That Swing”

Musical notation provides a means of “recording” essential information
about musical performance. However, notation is very limited when it
comes to subtle elements of expression. Digging deeper into the language
of music yields many layers of expressive capabilities. Burrow through the
strata of harmonic theory, and myriad complex relationships emerge: pass-
ing tones, implied key changes, and ambiguous tonal centers all surface as
tools of expression. These are all readily analyzed within music’s theoreti-
cal bounds. Peel the rhythmic veneers and similar elements are encoun-
tered: the backbeat, syncopation, and odd time signatures expand the
range of musical exposition within a widely understood theoretical frame-
work. Dig further into harmony and rhythm and unearth a set of expres-
sive tools that form a whole range of expressive techniques that are not so
easily quantified—a whole musical subtext.

A major portion of this subtext is a product of purposeful deviations
from notational values. In melodic terms this means played or sung notes
that intentionally vary from an adherence to precise chromatic pitch. In
terms of rhythm this means a divergence from strict metronomic time-
keeping. This is far from “Can’t keep a beat,” however. In fact it is the op-
posite. Consistent placement of notes that subtly deviate from metro-
nomic time is a powerful form of musical expression. It is widely practiced
in African folkloric music and has been integrated into much of the popu-
lar music in the West. American popular music is directly indebted to
African music in the adoption of syncopation and backbeat. This is widely
recognized. What is less understood is that we have actually learned differ-
ent ways to feel rhythm by adapting the African model of variations in note
placement within our popular musical forms. Africa has taught us how to
“groove.” This is different from expressiveness in Western art music be-
cause of the consistent nature of the purposeful nonmetronomic note
placement. In Western art music variations in note placement are used to
interpret phrases and passages independently and often include variations in tempo. Groove derived from African music functions as an autonomous, omnipresent layer of variations in note placement relative to a stable tempo.

An outstanding description of the various expressive elements that are integral to African folkloric music and have found expression in American music is the following list of components of the American spiritual from Samuel A. Floyd Jr.:

These included elements of the calls, cries, and hollers; call-and-response devices; additive rhythms and polyrhythms; heterophony, pendular thirds, blue notes, bent notes, and elisions; hums, moans, grunts, vocables, and other rhythmic-oral declamations, interjections, and punctuations; off-beat melodic phrasings and parallel intervals and chords; constant repetition of rhythmic and melodic figures and phrases (from which riffs and vamps would be derived); timbral distortions of various kinds; musical individuality within collectivity; game-rivalry; hand-clapping, foot-patting, and approximations thereof; and the metronomic foundational pulse that underlies all Afro-American music.  

From a purely rhythmic standpoint Floyd hints at the depths of complexity contained in the African musical tradition. Syncopation, backbeat, and small-scale rhythmic repetition form easily analyzable elements that have been recognized as gifts to American music from African sources. The concept of offbeat phrasing represents an expressive element more difficult to define in the traditional language of European musical analysis. Western music tends to create rhythm based on a regularity of rhythmic subdivision, employing units of equal value called bars. My use of “four on the floor” as a means of putting “Milee Yookoe” into a popular music context imposes a European sense of rhythmic construction. Traditional African music imagines rhythm as a looser conglomerate of both musical and physical expressions (dance). Agawu faults much analysis of the rhythm tradition in African music for not incorporating this “choreographic element.” Beyond this difference in conceptual organization the African tradition also focuses on minute variations in note placement (off-beat phrasing) in order to create what is now commonly referred to as musical “groove.”

Attempts to understand “groove” have been hindered by limitations in technical ability as well as limitations of language. Attempts at such analy-
sis have also become confused by the needless addition of value judgments such as the following: “scientific analysis of rhythmic components of a given groove would be meaningless if the analyst (or the analyst’s ‘informants’) could not distinguish between a ‘good’ groove and ‘bad’ one.”

The experience of musical groove is exceedingly personal. A musical groove may be considered good by any individual who is drawn to it. Nonetheless, there are communal elements of groove that are traditional to cultures and have been long admired by fans and analyzed by musicians and musicologists. Many of the most prevalent, admired, and mystifyingly complex grooves have come to us from the African tradition. Among these is the widely beloved groove identified as “swing.” Part of the mission of musicians and musicologists has been to discover better ways of analyzing and understanding musical groove.

Along the way the meaning of the word groove has become confused. Here, and throughout this work, I am using groove to refer to the rhythmic interpretation or “feel” of a particular performance—a “feel” that is dependent on a repetitive interpretation of note placement and accentuation. This is the most common use for the word among musicians in the world of popular music. Musicologists have come to use this word to include a combination of what I would call arrangement and groove. Such is the case in an essay from Lawrence Zbikowski entitled “Modelling the Groove: Conceptual Structure and Popular Music.” Zbikowski lays out a structure for groove analysis that has the potential to encompass both arrangement and interpretation. However, the essay proceeds to interpret several pieces of popular music strictly from the standpoint of arrangement—of how musical elements are put together as opposed to the “feel” of how they are played—and in my experience most musicians would not identify this analysis with the primary notion of what comprises groove.

The popular musician’s meaning of groove becomes clearer when it comes to judging the value of a groove. Zbikowski, as with Brackett, asserts that “listeners know a good groove when they hear it,” though he immediately identifies this as a problematical statement. The problem for Zbikowski is not the value judgment but “the status of the knowledge behind these actions: what is it that listeners know when they know a good groove?” He goes on to suggest that the difficulty in assessing this knowledge is that neither the listener nor the musician has a good idea about how the judgment has been made. He complains that if you ask musicians, “what makes for a good groove,” they “often as not become vague, refer to things like ‘feel,’” and generally skirt the issue. He then proceeds toward
his structure for modeling groove (which again, could incorporate elements of “feel”), and his analysis focuses solely on arrangement. But the “vague” musician’s reference to feel is actually at the heart of the meaning of groove that is always rooted in “time feel.”

Any of the examples that Zbikowski explores could be judged as “good” groove or “bad” groove depending on how they’re played. The most funky James Brown arrangement, in the hands of the wrong musicians, could be judged as utterly “grooveless” by musicians familiar with that music—yet the parts played could conform to the notationally correct arrangement of the original James Brown recording. Thus the value of a groove is completely dependent on “feel” and to analyze only the arrangement aspect of a piece of music is essentially to bypass the groove component.

The world of popular music vocabulary usage isn’t quite so clear-cut as this would suggest. I have also heard musicians refer to arrangements as “grooves,” so the meaning of the word is, to some extent, ambiguous. However, I have never heard the word groove used in practice, when it is intended to carry the weight of a value judgment, without the primary reference being to “feel” and not to arrangement. A good groove is always a “felt” groove. And feel is not “vague” but quite specific and increasingly analyzable. A transcription of a performance does not represent a good groove; it can only present the opportunity for being a good groove if it is played with “groove.”

Contemporary manifestations of groove have followed along a progression that began with the purely communal expression of musical ensembles. In these cases the inner time of musicians is shared through individual musical articulations, but the group is also under the direction of one individual. In African ensembles there is a master drummer who sets the tempo and focuses the groove—in small rock and jazz ensembles this task falls most frequently to the drummer. In larger ensembles the conductor or bandleader directs the groove. In loop-based musical construction the groove is selected from previous performances, previous manifestations of groove, and it is the builder of the piece that is ultimately responsible for the final groove. All of the elements I describe in the “Milee Yookoee” project—from selecting to modifying and combining elements—coalesce into a new groove. The computer environment has directly entered into the groove-making process, and while African music taught us how to groove, the computer has extended the ways that we may apply those lessons.

Thus, with loop-based music constructed in a DAW it may be that “no performers are required; indeed, there is no ‘performance’ in a conven-
But does this mean that there is no intention, no activation of groove aesthetics? Construction of music through building blocks of elements creates the notion that music is less something that you do and more something that you know. But whether it is through doing or knowing, there is still judgment; with loop-based music construction, people are making the original grooves, but it is people who are remaking them as well. And, as with Brackett’s quest for “good” and “bad” grooves, people are making judgments about these grooves regardless of whether such judgments are the product of “knowing” or “doing.” Zbikowski goes farther in acknowledging the historical and cultural basis for value judgments about grooves. This is appropriate as such judgments vary within different cultural contexts and ultimately must be reserved for each individual to make. There can be no universal judgment of the quality of any musical groove. This is directly in line with Allan Moore’s broader observation that “No sooner do we suggest that a music is ‘better,’ than we have to ask ‘better at what?’ and ‘for whom?’”

**Elements of the Diaspora of African Rhythm**

It is valuable in the context of Western technology to note some of the key aspects of the diaspora of African rhythm and to see how new technologies reinforce some of these elements. The use of call-and-response and repetition are hallmarks of African folkloric music that have been tremendously influential in American music in the past two centuries. Ultimately the confluence of African rhythm and European harmony forms the basis of a great deal of the popular music tradition in America.

Call-and-response is so essential to African-American music that it has been called the “trope of tropes” and proposed as the musical equivalent of Henry Louis Gates’s identification of “signifyin(g)” in the African-American literary tradition. From spirituals through gospel, and from R & B to hip-hop, the call-and-response model has been a central characteristic of African-American music. Closely related is the tradition of musical repetition. The distinctively African expression of musical repetition involves extended, small-scale phrase repetition and includes elements of simple variation through improvisation. Both of these practices distinguish the African musical tradition from traditional European musical construction.

Agawu is careful to qualify the extent to which this practice represents significant difference: “What perhaps distinguishes the African usages is the degree of repetition of the constituent patterns, the foregrounding of
repetitions as a modus operandi. If this counts as a difference, it is one of
degree, not of kind.”

In Agawu’s eagerness to emphasize sameness—certainly a worthy endeavor—he has perhaps succumbed to overstatement. The distinction between the foregrounding of repetition in African usage and the occasional appearance of such repetition in the history of Western art music must be considered a significant difference.

James Snead elevates repetition “to a position of ontological importance as a distinctive marker of ‘black’ and ‘European’ cultural difference.” Snead further asserts that black culture accepted musical repetition as a form of beauty, whereas European culture, especially in the nineteenth century, avoided repetition in favor of accumulations. While Snead may be debated on this point—consider baroque dance music (and Agawu’s general objection)—the African practice of lengthy, small-scale repetitions with variations has hardly been central to Western art music until its quite recent (and quite influential) appearance in the works of composers such as Steve Reich and Philip Glass (both of whom readily acknowledge the African roots of some of their music). In the meantime this style of repetition has become a fundamental musical principle in American popular music from the earliest appearances of the blues.

In a technical sense repetition is a necessary element in the more elaborate improvisations that have become the basis for most American jazz. The improviser relies on repetition for the harmonic sequence, but often even more specifically for the ostinato of the accompaniment. On the social level both call-and-response and this African form of musical repetition reinforce the integration of music with the fabric of society, providing structure and supporting social functions. Call-and-response does this through direct participation and message reinforcement, while repetition, which allows individual expression through variation, supports small-scale freedoms within a tightly structured community. Both elements also provide support for an emphasis on communal, participatory music making. Ultimately it is the marriage of these African rhythmic elements with basic harmonic elements from the European hymns spread by colonialism that yields the early missionary hymns in America. Together the two traditions forge the fundamentals of American popular music. The triumph of the fundamental American form, the twelve-bar blues, derives “in roughly equal measure from African tribal call-and-response chants and the simple triadic chords of missionary hymns.”

This evolution is reinforced by the blending of the primary motivations that compel these traditions. These forms that merged to create American
popular music, the African and the European, reflect the cultural heritage whereby “more participatory musics are more rhythmically complex (and harmonically simple); more contemplative musics are rhythmically simpler (and more harmonically complex).”  

This analysis in no way reinforces the racist portrayal of the African musical tradition as simple (body) and the European as complex (mind). Quite the contrary, it acknowledges the deeply complex and yet complementary roots of both of these traditions. And thus, along with these rhythmical complexities, American culture gets a dose of the central qualities of structure, function, and universal participation that come with them.

It is noteworthy that other aspects of African rhythm have not made significant inroads in American music. The highly integrated practice of polyrhythm—multiple rhythms expressed with roughly equal weight over an entire piece of music—traveled from Africa to Cuba and South America but has never had a significant impact in European or North American music. This may be traced to essential differences in religious philosophy if one accepts the case for a parallel “between the aesthetic conception of multiple rhythms in music and the religious conception of multiple forces in the world.” The structure of African religious belief incorporates a multiplicity of spirits that are both independent and also considered manifestations of a supreme being. The many rhythms of the music might be considered expressions of the spirits. Such a philosophy finds sympathetic expressions in the indigenous cultures of Cuba and South America but is at odds with Euro-American monism. Such a simplistic concordance as this breaks down, however, when other musical attributes are considered. Counterpoint, for example, might also be understood as an expression of multiplicity but it is prevalent in the much of Western art music.

The “Milee Yookoee” project adopts the practice of repetition—heightened and made more rigid while at the same time more accessible to a Western audience through the use of sample-based compositional construction—while incorporating the much less common use of a highly integrated and consistent expression of polyrhythm (hemiola). Is it possible that the more formalistic tendencies of loop-based construction might ease the sense of dislocation created by this type of polyrhythm for those steeped in Western pop music? It certainly makes such construction more available to a much wider range of composers, for it removes the skill element required for performance—the “doing” as opposed to the “knowing.” It has also made the integration of different styles of music much simpler, and thus loop-based construction has been a prime factor in driv-
ing the current hybridization of different forms of music—a process the merit and meaning of which are still very much debated (see chapter 9 for more on this).

Community and the Process of Participation

Contemporary cultures are very different from the cultures of the nineteenth century, and one of the most profound areas of difference is in the nature of community. Nineteenth-century patterns of community were much more significantly bound by geography, while any good definition of community in the contemporary urban world must include structural and functional elements that are not defined by territory. There are the explicit communities of geography and of primary institutions such as churches and schools, but there are also the implicit communities of function or process that draw people together through secondary interests and activities. It is these implicit communities that have been the most profoundly affected by current technologies. Mass media and now the Internet have made for communities of interest that are truly transnational, and some of the most conspicuous are established based on musical interests.

At the end of the nineteenth century the experience of music in the West had already begun to be transformed from the direct participation of previous societies to the passive audience of the concert hall. The development of audio recording then began its transformation of musical reception into an experience that was secondhand, the experience of reproduction rather than of live performance. Benjamin argues that mechanical reproduction of music, which has the destructive element of “the liquidation of traditional value of the cultural heritage,”36 is nevertheless positive for the masses because social emancipation requires the dissolution of tradition that binds people by class. Of course social divisions also played a large role in earlier societies, but this does not alter the fundamental connection made when communities interact directly through music and dance. The participatory nature of live music performance, and the social cohesion that it engenders, allows a quality of integration that is simply not possible in “virtual” communities. Even real-time interaction over the Internet is clearly not the same thing as a musical experience where individuals are physically present together.

The alienation and fragmentation that are so much a part of contemporary culture are reflected in a certain dislocation between music and its reception, but mechanical reproduction is not necessarily the primary
cause that may work to strip this connection. To place such dislocation at the feet of reproduction is to miss many of the broader sources of the contemporary cultural condition such as the dislocation of families, the crowded urban environment, the automobile, and so forth. As previously noted, it may be elements of the process of reproduction that are responsible for restoring some of the integrative forces within the postmodern experience. Just as Benjamin saw both positive and negative value systems reflected in mechanical reproduction, so might we note the positive and negative effects on community building that mechanically reproduced music may have.

Is it fair to conclude that the Western cultural experience of recorded music denies community? Is it appropriate to taint mechanical reproduction as a force of social isolationism, and deny its own forms of participation? Jonathan Sterne models recording technology as part of an essential social network. From the earliest forms of audio reproduction “these technologies were understood as having the potential to break down social boundaries and at the same time to help enforce social norms.” There is a complex relationship, based on shared values and assumptions, that builds a “social correspondence” between the performing musician and the sound that is experienced coming from a radio or CD player. Louis Meintjes sees the mediation of the recording studio as essential to the way that music creation not only transfers elements of cultural identity but also transforms them. This parallels Sterne’s network of musical creation, but Meintjes is speaking from a directly African perspective. In her ethnographic study of a South African recording studio she chronicles ways in which contemporary technologies of music making cut across international and pan-cultural influences: “I show how global and national dynamics interface with local and individual struggles to reshape social life by reworking expressive forms.” This is not to deny ongoing differences between Western and African music culture, but it does affirm the shared qualities of the community-building network in contemporary music creation.

The recognition and acceptance of contemporary music construction practices as retaining a connection to community building requires a broader recognition of the function of music in culture. Sterne acknowledges the false dream of a vanishing mediator but replaces it with the practical relationship between the network of sound reproduction and the consumer. Where Sterne sees the practicality of current networks as having maintained the role of music in culture, Attali sees the need for a more profound alteration before music’s position might be restored to its stand-
ing in earlier eras. Attali’s vision of contemporary culture, where the de-
ritualization of music has left it with only a “hereditary memory [of] mu-
sic’s power of communication,”41 chronicles the increasing mediation be-
tween music and culture with much less apparent hope for its healing.
Music is still there, but it has lost its connection to ceremony and thus to
the “logic” of the process of communication. It is no longer focused within
cultural institutions. According to Attali, “when this happens, music can
no longer affirm that society is possible.”42 Attali concludes that “in this
sense, music is meaningless, liquidating, the prelude to a cold social silence
in which man will reach his culmination in repetition. Unless it is the her-
ald of the birth of a relation never yet seen.”43 Ultimately Attali’s hopeful
model of a new understanding and practice of “composition” returns mu-
ic to the role of societal building block.

But is Attali’s pessimism warranted? Beyond the conflict between his
interpretation and Sterne’s more generous notion of community building
lies an acceptance of music’s role that is more broadly understood within
its social context. There is a lot of contemporary music—from Eno’s am-
bient music explorations to the smooth jazz radio stations that play in
office waiting rooms around the world—that is intentionally dislocated
from the traditional role of musical engagement. This music’s meaning is
clearly tied to its social landscape in ways that are profoundly affected by
the cultural climate. Recognizing this helps to remind us how music can
change our experience of things. Conversely, how music is experienced in
different cultures may be significantly different. For example, in the
African folkloric tradition rhythms are understood as a sequence of beat
groupings added one after the other, whereas in European music rhythms
are understood as structured within a preexisting metric system of beat
groupings. Whether it’s the notion of ambient music or the context of
rhythmical understanding, if we lack the cultural context, we may well
mistake the true intent of the musical enterprise.44

The true intent of the musical enterprise includes social interactions,
which are reflected and advanced in musical interactions. The way musi-
cians and audiences must cooperate with one another in order to complete
the musical experience provides positive models for the way people must
coop rate in order to create community structures of all kinds: “Music,
then, reveals with singular clarity just how people can work together, and
how it is possible to design a framework within which they will do so.”45
More specifically: “Participation in music is like a flight simulator for so-
cial life: listening to others, developing your sensitivity to them, experi-
encing different relationships with them as the musical lines interact with one another—all these constitute a kind of crash course in interpersonal relationships.”

This constructivist view of art described by Nicholas Cook means that music doesn’t just reflect a cultural condition but may actually change it. Whether or not we are able to distinguish music’s significance in any particular culture we must acknowledge music’s power to participate in and directly influence that culture. Cook uses as an example the new South African anthem and notes that “It doesn’t symbolize unity, it enacts it.”

Matthew Butterfield also examines the power of the social interaction that is enacted in musical play, placing it within the context of larger social events. He uses this broader understanding as a structure for musical analysis that he calls “situational particularism.” Butterfield contrasts this with standard musical analysis, which analyzes musical content outside of its larger context: “Instead of examining music apart from the real situations in which it is encountered, it considers how the structure of a given situation determines the social and cognitive relevance of musical details.” Butterfield’s situational particularism is more restrictive than Cook’s constructivist model in that it privileges live performance as the preferred means of enacting social structure from the social interaction of musicians. He notes the dislocation of recorded performers both from the audience and from each other, as in the case of performances on a single recording that are recorded at different times. Butterfield suggests that “Technological advancements have thus altered the social meaning of performance as it takes place in the recording studio. Musical interaction is largely mediated; as a result, it loses much of its erotic social potential.”

Butterfield’s project focuses on jazz performance, so it is perhaps understandable that he emphasizes the ways in which recordings separate musicians from their audience. In the case of my “Milee Yookoe” project (and similar musical constructions that are common in today’s contemporary music) the detachment from the original performances is key to the social construction of the particular musical experience. It is true that the musicians are removed from this social interaction, but they were actually removed as a part of the original construction of the musical piece, which repurposed their performances in an entirely new context. The very indirect relationship of the original musician’s performance to the final musical construction is an essential part of the new musical creation. This is key to the nature of my “Milee Yookoe” project because, while it draws from a specific performances of African music, it is a contemporary expression
of music construction. Although the music is created in a social vacuum, it may be encountered in a highly social setting as a shared listening experience. Recordings may be shared in very social environments, both face-to-face and in the virtual communities of the Internet: “today’s isolated fans can find like-minded friends on the Internet.” This community experience may activate ways in which the music’s social construction influences larger cultural and interpersonal relationships—it is a contemporary expression of social interaction. This is the kind of social exchange that participates as a constructivist force as it might in any culture. This suggests an inclusionist understanding of all forms and technologies of musical expression as participants in the constructivist model.

**Technology Releases Musical Community**

It is most appropriate to view the differences between musical cultures as simply ideological rather than comprehensive, as per Baraka: “Ideology functions, at least in part, to fix the individual in a certain place at a certain time by organizing the world. The individual constructs reality from a position already inside that reality.” This ideological position encompasses the social, the political, and the economic; it is expressed by production and articulation that emanate from a unique cultural location. Cultural ideologies are bound by history and location, and we may look beyond them to discover the similarities in musical communities.

Floyd understands that the differences in musical expressions are not fundamental to humanity, only to specific human cultures—what he terms “cultural memory.” The limited cultural memory of an individual may cause them to condemn any unfamiliar tradition unfairly. The listener must “possess the knowledge, perceptual skills, emotional histories, and cultural perspectives appropriate to the various genres.” Thus some misinterpret the blues and call-and-response traditions as “shameful relics of the American past,” whereas others who see an orchestral work as “‘dry,’ ‘scientific’, or ‘unemotional’ do not appreciate the aesthetic values of European-derived musical expression.” The differences in the specifics are eclipsed by the similarities in the essential musical objectives of personal expression and communication. Music specifics are culturally based, but the greater musical “project” is the same in all communities. Certain composers are able to create a new paradigm; Duke Ellington, for example, did so by “making use of the myths and the mythic constructions of African-American culture and by treating African-derived myth and ritual within
the context of European-derived myth and ritual." Ellington successfully bridges the two cultural communities. Community is created and re-created within a cultural context, and we are continually integrated and reintegrated into that context.

The digital age of sound reproduction corresponds to the age of the Internet and the promise of transnational, distance-based communities. The Internet has greatly expanded the ability to experience and share music instantaneously and to create music in a "virtual" community. Musicians create recordings together without physically being together—the digital audio being transmitted in real time over the Internet. Some artists are using the Internet to provide individual elements of their music for those who might be interested in manipulating and reprocessing it in differing forms—allowing fans to become partners with the artists in the creative process. Thus, as the anthropologist Clifford Geertz indicates, the cultural resources become the building blocks of the culture and the technology is a central participant, just as the more traditional elements of communication always have been: "Words, images, gestures, body-marks, and terminologies, stories, rites, customs, harangues, melodies, and conversations, are not mere vehicles of feelings lodged elsewhere, so many reflections, symptoms, and transpirations. They are the locus and machinery of the thing itself." The communities of music live within the context of the entire range of cultural relationships. As Geertz insists, this time with the help of Michelle Rosaldo:

"[If] we hope," Rosaldo writes, with the groping awkwardness this sort of view tends to produce, given the ingrained Cartesianism of our psychological language, "to learn how songs, or slights, or killings, can stir human hearts we must inform interpretation with a grasp of the relationship between expressive forms and feelings, which themselves are culture-bound and which derive their significance from their place within the life experiences of particular people in particular places."

Although it may be typical to note that "for preliterate peoples everywhere, music was an important aid to structuring thought," it really is thus for all people in all cultures, including cultures after literacy. In fact, early childhood studies tell us that "music is constituted as an integrative human process right from the start of our lives in the world," and this goes for all of us.

Yet the value of music extends beyond music’s contribution to the culture—its cultural capital—to its real value in economic terms. Too much
music analysis tries to separate the broader cultural interaction of music from its simple commodification. At the same time we have seen forms of cultural nostalgia and determinism demonize contemporary forms of technological mediation. Musical expression is not independent of the network from production and distribution through to consumption, and technologies provide ever-changing commodity environments for music within the larger network of contemporary culture. Our understanding of musical participation must embrace all of these elements while recognizing the contradictions that such an embrace might entail.

One can detail any specific historical genre and discover the ways it furthers sociability, how it strives for community. At the same time the mediation of technology or the demands of commodification may supply narratives that seem to contradict traditional notions of musical practice or musical community. I have sought to position my recreation of an African folklore piece in line with more traditional musical creation despite the fact that I didn’t play one note. I also claim it as a part of the process that sustains musical community despite the fact that it was created in isolation. Frith documents a similar process in regards to contemporary folk music—noting the ways that it presents itself as naturalistic rather than musically sophisticated, and communal rather than commercial. Yet the striving for community is present even though it "seems to rest on an essential self-deception—that which is worked hard for is presented as coming naturally, that which is commodified is presented as communal." But isn’t there a subtext to every artistic cultural interchange that might represent a kind of deception about the effort needed to achieve what is presented as natural, or that seeks to hide the exchange of capital (cultural or otherwise) behind the experience of community? Part of the profound connection of music to community is its ability both to be part of an apparent deception and at the same time to engage community on a fundamental level.

The nature of musical participation in cultures is separated by degree, not by essence. In Music and Technoculture Lysloff and Gay confirm the contribution of technology itself to community building while reiterating the potential dichotomy: “the technological device, whether it is a quill pen or a personal computer, gains meaning through human agency. Because of human agency, technology can be politically oppressive yet also liberating; it might build community while simultaneously causing social alienation.” One could add the ancient African talking drum to the list of technological devices, and this might help to remind us how intimately
technology and music making are connected. Outside of the voice music is always expressed through technology, and the DAW stands in line with the wooden flute as essential elements in the cultural exchange.

The level of integration of music with fundamental human qualities such as wisdom, reverence, and social code is exemplified in the African folklore tradition. This music represents an elemental force in the culture, and to recognize this level of integration helps one consider the interaction between technology and contemporary musical practices as it provides a benchmark for the interaction between music and community. As a means of further exploring the way contemporary music practices reflect similar qualities, I propose an evolving relationship between consumption and composition. The iPod introduces new modes of music consumption, and GarageBand offers a new breed of recording studio tools. Together the two provide a possible model for the future of music participation that shares elements with the African folklore tradition as well as with Western music culture prior to the advent of recorded audio.