Bytes and Backbeats

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Artist or Artisan?

Improvisation and Recording Subvert Categorizations

My application study and studio study in the preceding chapters indicate some of the new possibilities that recording technology offers for capturing and constructing musical performances. They also raise questions about how we define composition and improvisation. There is a natural correlation between recorded music and composition. Because recordings have a repeatable permanence, they bear a close relationship to a musical score and thus to composition. Live performances require a unique physical manifestation for each presentation. Popular notions of art versus craft or artist versus artisan have followed along similar lines—composition and authorship are aligned with art, whereas performance may be relegated to craft. The application and studio study present examples of how these categorizations are becoming increasingly blurred in contemporary musical practice.

The interpretation of live performance from a score is still easily distinguished from authorship and, because of its dependence on composition and its physical manifestation, may be associated with craft rather than art. These two paradigms, the craft of live performance versus the art of composition, are somewhat undone by the very notion of improvisation. Improvisation is a kind of live composition—performance as a kind of authorship—that is less easily separable from composition than interpretation from a score. Solo improvisations aside, improvisations are distinct from compositions in their collaborative nature, but this too is somewhat undone by the very notion of recording. Recording begins to weaken the dominant position of collaboration in performance and independence.
in composition, and contemporary computer-based music construction practices subvert the positions completely.

Contemporary recording practices relieve ensemble performances from the necessity of real-time collaboration, allowing recorded performances to share in the off-line construction model that composition has always employed. Recorded ensemble music may be created from disjointed and time-shifted performances through multitrack recording, overdubbing, editing, repurposing previously recorded audio, and so on. As a result, recordings of ensemble music may be the work of a singular author/performer. The application study in this chapter further extends and destabilizes the models of improvisation, composition, and collaboration. The jazz piece I created removes both ensemble performance and improvisation from real-time performance and from collaboration. At the same time it creates recorded ensemble performances by applying the model of the solitary authorship of composition. There is no ensemble collaboration involved in creating the final ensemble performance as presented in the recording. This is a further step removed from the common practice of ensemble recordings built from performances recorded in isolation at different times, but where the performers are listening and responding to the previous performances.

One might argue that this new compositional model brings a fresh approach to the spirit of jazz or that it defeats the primacy of real-time, collaborative improvisation. In any event it breaks the traditional improvisational mold. Berliner details many of the qualities of improvisation, including some of the most challenging elements. He notes “the intensity of struggling with the creative process under the pressure of a steady beat,” and the musicians in my application study struggled with this in unique ways because they were performing in isolation. However, Berliner also points out that “the consequences of their actions are irreversible,” and it is this quality of improvisation that has been undone by my application project. The musicians were improvising but the final ensemble performance was created using the compositional model—a single author (me) with control over each element (prerecorded, isolated performances). This resulted in the positive response from the pianist to his fresh improvisational structures and the negative response from the drummer, who reacted to his sense that someone had manipulated his performances with their own purposes in mind.

Just as we now have time-shifted noncollaborative ensemble performance, we also have real-time collaborative composition. The idea of com-
positional collaboration has been active in jazz for a long time. It sometimes emanates from accidental occurrences in improvisation: “Should musicians regard such unanticipated results of their interaction as successful, they can incorporate them into their formal arrangements as fixed or composed features.” This approach borrows from the real-time collaboration of live performance improvisation and “ports that over” (to use the common phrase from cross-platform computer application development) to composition. This allows collaboration to fertilize composition and improvisation to reach beyond its status as a single performance. Even in its simple form, as described above by Berliner, the evolution from improvisation to composition suggests the difficulties in tracing the influence of collaboration on later works.

Cook points to the many features that improvisation and composition share, with specific musical elements of planning and spontaneity a requisite of both activities. Nonetheless, Cook suggests that there “is a simple and fundamental difference, one that admits of almost no borderline cases, which is that improvisation takes place on-line (in Schutzian inner time) while composition takes place off-line (in outer time). . . . For this reason it seems to me that improvisation’s more significant other is performance.” This is a variation on the distinction just drawn between real-time and time-shifted performance of ensemble music. It also hints at the distinction between collaboration and singular authorship, without privileging either.

However, Cook’s distinction between the temporality of improvisation and performance is only intended to apply to the activity, not the product of these activities. There are points at which recording activities blur many of the distinctions between performance, improvisation, and composition. When improvisations are rearranged in the off-line editing process, what elements are then improvised and which composed? As compositions are lifted from on-line performances, which part is considered improvised and which composed? Perhaps the played portions (the music itself) rightly retain the moniker “improvised,” but the edited aspect of the final recording, or the elements later extracted as composition, is “composed.” This too is good in theory but it becomes a fine job of splitting hairs to separate the elements. This is especially true when the editing process takes on the kind of broad intervention of my application project. After the process is complete and memories begin to fade (and old files won’t open in new programs), there is no longer any reliable way to distinguish between the improvised and the composed. In this way even the on-line/off-line distinction be-
comes difficult to hold on to. It still exists in theory but in practice the elements cannot be differentiated. This coincides with Cook’s broadest conclusion: “in the reality of life as actually lived, binary distinctions—such as between the literary and the aural/oral, or between improvisation and performance—are rarely as impermeable as they are made to appear.” Similar binaries between authorship and collaboration, and ultimately between art and craft, would seem equally porous.

**Improvisation and Composition Are Both Constructed**

Another (false) binary understands composition as a means of making music concrete and improvisation as a fluid expression of musical ideas. Barthes suggests that the fluidity of improvisation may be subsumed back into composition out of the desire to fix meaning. In speaking of film Barthes notes that “all images are polysemous.” and certainly the same could be said for all music, even for each musical passage or phrase. By attempting to explain film or music the linguistic message becomes one of the ways society seeks to “fix the floating chain of signifieds in such a way as to counter the terror of uncertain signs.” Whatever one’s opinion of jazz, any written critique may be motivated by a desire to “counter the terror” of the unknowns of musical improvisation. Barthes argues that there have been historical disagreements but contemporary researchers (and Aristotle) agree on “giving primacy to the logical over the chronological [and thus] the task is to succeed in giving a structural description of the chronological illusion.” Barthes’s language suggests the impossibility of such a task. The illusion of the perception of time (“time flies” versus “time stands still”) speaks to the difficulties in separating composition from improvisation. Composition and improvisation have complex relationships to time that cannot be logically fixed, nor can they be isolated from each other. The “chronological illusion” breaks down the simplistic notion that defines composition as off-line and improvisation as on-line.

Certainly improvisation is not tantamount to pulling wholly new musical performance out of nowhere. Improvisers are working from their trained musical skills, they are drawing from a vocabulary of musical ideas that they have mastered (just as authors draw from their linguistic vocabulary), and they are usually operating within a musical tradition that has very established modes and parameters of expression. Certainly improvisers may be involved in spontaneous creation, but that is only one element of what they do, and spontaneous creation is an element in compo-
sition (or writing) or any supposedly off-line creative endeavor as well. Improvisation as elaboration within a sociological context also places it in closer proximity to composition than the simplified belief that improvisation is wholly spontaneous or unplanned.

Improvisation may lean closer to composition in ways that fall outside the typical understanding of musical models of construction employing Western rationalist thought. Bruno Nettl describes a Native American musical tradition that isn’t “planned ahead” and thus would normally be considered improvisation. However, once this spontaneous music gets played it tends to remain rather fixed. This really brings it closer to the compositional model—a kind of spontaneous composition—than to the traditional ideal of improvisation where each playing is its own unique expression. However, when recorded, sometimes improvisations—ones that were intended as a unique constructions created in the moment—become fixed. This is because they are heard repeatedly by listeners, including other musicians, and sometimes even relearned and reperformed by the original improviser. In both these examples the lines between improvisation and composition are very fluid.

Nonetheless, Nettl contends that “art music is correlated with discipline, art for art’s sake, reliability, and predictability, while the opposites of these characterizations apply in the case of jazz.” This description of the qualities of these genres does not necessarily stand up to close scrutiny of the genres in actual practice. Commentators such as Johnson have pointed to the philosophy of aesthetics that has created these stereotypical notions of the genres: “The centrality of performance rather than prior composition also destabilizes the mind/body hierarchy that underpins high-art aesthetics.” And contemporary musicology seeks to reclaim performance as central to the Western art tradition just as it recognizes the long-lasting influence of recorded improvisations. Again, binaries such as mind/body not only fail to encompass the broader process of music making that incorporates composition and performance together, but fail to describe each supposedly unique element in the process. Composition must include spontaneity just as improvisation must include planning.

Attali adopts his own revised definition of composition to highlight the hopeful direction he wishes for musical activity—encompassing improvisation by positing an approach to composition that is based on intention as opposed to control. For Attali compositional control is an illusion and its ascendancy as the essence of creativity that eclipses improvisation is a historical anomaly. Attali seeks a fundamental shift “in which man has
conquered power [and] the relation to technology and knowledge changes, because the relation to the essential has changed.”

Certainly we have seen this shift relative to technology and knowledge in the world of music creation—a paradigm shift toward the construction of music that hinges on “a general availability of new tools and instruments” just as Attali suggests. Whether his further suggestion, that the intention of the artist has changed such that the goal of creative labor exists for the sake of the act itself rather than the results of the act, is a more difficult case to make. In a much more modest proposal I would suggest that our ability to capture the unintentional performance, such as in the studio study above, has elevated our ability to experience elements of the essential in musical performance. However, such examples hardly augur a wholesale shift in the artists’ relationship to the essential as described in Attali’s hopeful new compositional model.

These various formulations confirm the ways in which composition insinuates itself into the basic structure of an improvised performance. Nonetheless, the jazz critic might wish to downplay the centrality of composition almost to the point of eliminating it:

In classical music, it is considered that how a work is performed is never as important as the work itself. In jazz, the work itself is never really as important as the way it which is played. Jazz, then, is not a composer’s art; rather jazz is the art of the performer, the performing ensemble, and the arranger. The quality of the art is dependent upon their creative ideas.

While this reinforces the orientation of improvisation to performance, it also, perhaps inadvertently, reinforces its dependence on the off-line compositional model. Though improvisation leans heavily on real-time performance, even this attempt to minimize the role of traditional composition contains a piece of the compositional model by including the arranger in the list of primary participants in the creation of jazz. Arrangements are made in the same manner as compositions—off-line—and the distinction between composer and arranger is often blurred. Nonetheless, both arrangements and compositions—and all of music—must be realized in time in order to be heard, whether it is a live performance or an elaborately constructed recording. The structural description that Barthes notes as part of the attempt to contain the terror of chronological uncertainty must ultimately be abandoned when music is finally played.

Writing in the same volume as Nettl, Stephen Blum expands the inter-
section between composition and improvisation in ways that reinforce positive elements in both my application study and my studio study. As noted, the pianist in my application study was most interested in the ways that my edited version of his playing allowed him to hear himself outside of the kind of repetitious tendencies he battled to overcome in his own improvisations. Blum suggests that “If improvisation has often been described with respect to the expectations and responses of listeners in a familiar milieu, it can also be treated as an art that enables performers to control their dependence on habitual responses.” The improvisers’ reliance on repetition and habitual response reminds us of the ways improvisers lean on compositional elements within the improvisational context, despite their attempts to control these dependencies.

Yet none of this is intended to diminish what it is about improvisation that thrives on the spontaneous, and we may still embrace the notion of improvisation as part of the imaginative process that produces music that is created in the moment. This links improvisation to the kind of unintentional performances I detail in my studio study. While this reinforces the fluid element in improvisation that is part of what distinguishes it from composition, the joy in capturing these spontaneous elements is part of what recording provides. This then reconnects even the most spontaneous improvisation to the fixed quality of composition. As recording makes the fleeting musical moment concrete it further blurs the lines between improvisation and composition.

**Recording Redefines Improvisation**

Brian Eno suggests that because recordings allow repeated listening, improvisations “become more interesting as you listen to them more times. What seemed like an almost arbitrary collision of events comes to seem very meaningful on relistening.” This transformation of significance is one way improvisations begin to evolve into more formalized compositions: “So they were listening to things that were once only improvisations for many hundreds of times, and they were hearing these details as being compositionally significant.” It’s a short step from compositionally significant to actual compositions, as detailed here by Berliner: “Guitarist John McLaughlin and violinist Shankar, of Shakti, would record their informal improvising. After evaluating the taped sessions, they sometimes extracted the most cohesive segments to combine and reassemble into original compositions and arrangements.” The act of transcribing an im-
provisation, only possible through the ability to analyze a performance by repeated listening to a recording, may also move the improvised performance closer to the realm of composition. But recording serves to reveal and expand the idea of composition in more than just this kind of simple progression from played to replayed to transcribed to composed.

The ambiguity between the passing improvisational moment and the compositionally significant musical idea is no more evident than in the playing of the jazz saxophonist Ornette Coleman. In Coleman’s case the notation of his improvisations only serves to complicate what the ear might hear as significant over repeated listening. Coleman’s revolutionary compositional approach breaks down musical conventions such as regular meter and harmonic tonal center while maintaining a free flow of musically satisfying (compositionally significant) ideas. Cook uses the analogy of the flight of an arrow to describe Coleman’s playing. Just as we are unable to describe the flight of an arrow (only its position at any given moment)—so with any of the flights of Ornette’s solos (many of his notes make no sense when viewed statically) notation cannot truly describe the flights of his improvisations.  

We experience Coleman’s playing as having compositional integrity, but when we try to codify the notes as composition they seem to belie the experience. Similarly Crouch uses a comparison to Picasso to describe Coleman’s improvisations: “In Coleman’s case, that form has great plasticity, protean possibilities, but it arrives in music quite like the Picassos that mix the figurative with abstraction.”

This idea of plasticity, which is most often associated with filmmaking, brings to the fore questions regarding the nature of composition in the context of improvisation and recording. In its traditional form composition uses the plasticity of notation, but in its contemporary form it is at least as likely to use the plasticity of recording instead. And the extended capabilities of recording make for compositional approaches that move beyond the formal structures of notation, encompassing new structural conceits—from simple splices to the kind of heavily reconstructed formats of my piano trio recomposition. Yet recordings that emerge from an improvisational context of great plasticity may take on all of the qualities of composition and bypass the structural process of either recording or notation. Cray’s unintentional performance, which was expected to be discarded but has risen to the level of career-defining performance, emerges as musically defining for the artist in a way typically associated with the legacy of compositions. As with the experience of many Ornette Coleman performances, the recording has transformed Cray’s improvisation—created
completely in the moment and seemingly removed from the formality and off-line model of notational composition—into what becomes a compositionally significant experience for the listener and a historical legacy for the artist. In both cases the recording serves the process by providing the simple capability of multiple listenings, without the constructivist practices of recording or notation.

The fluid relationship between process and product that characterizes recordings of improvisations blurs the notions of composition and performance and breaks down the composer-centric orientation. Jazz musicians often work backward from improvisation to composition, transferring “the swooping shapes, rhythmic subtleties, and intensities of jazz improvisation to the written page,” further blurring the distinctions between playing and writing. Sometimes solos “acquire independent lives as compositions” and sometimes soloists have to relearn their solos from recordings to satisfy their audience. Ultimately, jazz allows these various activities—playing, listening, and writing—to blend into one fluid creative process that may be thought of in terms of composition in the broadest sense: “jazz improvisers fundamentally devote their lives to music composition. This remains true whether they store, edit, and revise musical ideas by ear, visual imagery, and instrument, or carry out similar procedures with the aid of writing or recording.”

The interweaving of writing and recording is becoming more complex—sharing more connections while also becoming broader in the ways that they are implemented. Recording encourages interaction between composing and improvising—because it allows the reflection born of repeated listening. As a result, the “solo” that sounds more like a composition than an improvisation (sometimes called “through-composed” solos) is a common element in popular music and increasingly prevalent in jazz as well. Because of the expectation of repeated listening improvisers have tended to orient their playing to more of the internal structure and logic associated with composition. Recording also facilitated the selection of solos of this type by allowing for repeated takes from which selections can be made. However, the technology of recording has not only encouraged the use of solos of this type but it has enabled the construction of such solos through editing. As with my application project, improvised solos may be edited and thereby reimprovised, or more accurately recomposed (because this is done off-line). Such editing can significantly alter the sense of an improvised solo from one that has the more abstract elements of improvisation to one that has the more formal sense of the through-composed
solo. Here again the intervention of the recordist (with or without the collaboration of the original performer) has a compositionally significant effect on the final recorded “performance.”

In a most basic way, recording itself is now so thoroughly a part of musical practice as to have changed the essence of how music is composed and then performed. “If thinking of classical music as reproduction leaves too much out, in the case of most other musics—popular music, jazz, non-Western music—it leaves practically everything out.” Simple reproduction of scores as the musical performance paradigm is not just inadequate, it is now thoroughly inaccurate. And in much of constructed contemporary music, thinking of recordings as simple reproductions of musical performance is utterly mistaken as well. Recordings now blend and blur improvisation and composition and adapt and repurpose audio into a performance constructed from a mélange of sounds and techniques.

**Live versus Recorded Improvisations**

In the relatively new field of Performance Studies “performance” gets identified in the broadest of terms by Richard Schechner: “Performances mark identities, bend time, reshape and adorn the body, and tell stories. Performances—of art, rituals, or ordinary life—are made of ‘twice-behaved behaviors,’ ‘restored behaviors,’ performed actions that people train to do, that they practice and rehearse.” This broad understanding of performance certainly encompasses both live and recorded musical improvisation, including the performance of the recordist who constructs musical recordings. However, in jazz there are significant differences in both theory and practice when it comes to live versus recorded performances. How profoundly are the “twice-behaved behaviors” of live jazz improvisation altered by recording?

For many jazz critics live performance is central to the practice of improvisation. The unifying moments in improvisation that take place in live performance are understood to encompass the performer, the listener, and the physical space that the performance takes place in. Recording, on the other hand, is frequently seen as an impoverished version of the “complete” experience of improvisation that live performance provides. Derek Bailey suggests that the dislocation from space is the most damning part of the attempt to translate the live jazz experience to a recording: “But much more important than the limitations of the technology is the loss during the recording process of the atmosphere of musical activity—the musical
environment created by the performance—‘the matching of music with place and occasion,’ as Peter Riley describes it.”

Is it even possible then, through recordings, to extract improvisation from the audience and environment? One interesting development in recent compositions is an indication, as a part of the musical directions made by the composer, of the space of the performance. Pope observes: “I am most intrigued by several pieces that I have heard in the past that introduced themselves as specifically intended for performance over home stereo systems, or via headphones, or solely for performance in large halls with expensive sound projection systems.”

Note that here there is also a technological element that interacts with the acoustical space. Chanan takes this idea further: “if . . . music is frequently composed not only for particular performers but also to fit particular kinds of acoustic space, then the truth is that acoustic spaces have their own history and create their own expectations.” This reminds us that recording studios also have a history and set of expectations that may interact with performance, both positively and negatively, so Bailey’s reference to the “dislocation from space” cannot be wholly accurate.

One may argue that yes, the environment that studio recordings take place in also interacts with the performers, but it is the addition of an audience—in combination with performer and physical environment—that creates the privileged improvisations of the live experience. Here again, though, there are related elements in the process of recording. Recording musicians often speak of performing for the select audience of the recordist(s) in the control room, and musicians frequently comment on their relationship to the microphone (a relationship that is carried from live performance to the studio and back again in most circumstances). I am not suggesting that the performance/space/audience dynamic of live performance is mirrored in studio recordings—only that it is not lost in them.

Not even the harshest critics of recordings deny their value, at least as a source of some elements from musical occurrences; yet the tendency is toward considerable qualifications regarding the value of jazz recordings. Berliner states flatly that “they are not equivalent to live performances.” While most might accede, along with Rasula, to the value of recordings in the preservation of the tradition—“the historian setting out to compose a written history of jazz will find that history already composed, and made audible in recordings”—this carries a very limited status. In this sense the improvisations remain extracted and isolated from the live music experience, with the recordings only retaining value as historical documents. It is
the fixedness of recordings that allows for their extraction from audience and environment—they have become a kind of remembrance of performance where their cultural presence may be debated along the lines of Benjamin’s “aura” although their historical influence is undeniable.

Though the experience of improvisation may be limited in recordings because of their relative isolation, it is enhanced in other, significant ways. Sometimes these limitations produce unexpected and beneficial results, as documented by Berliner. He tells of George Duvivier’s efforts to master a bass solo from a particular recording. To master the solo Duvivier had to develop a new fingering technique only to discover, when he saw the band live, that the “solo” was actually a duet, with the drummer playing along on the bass strings with his sticks. This somewhat happy accident for Duvivier is a direct result of the physical separation of recording from performance.

Another effect of jazz recordings on improvisation that is widely acknowledged is the educational opportunities they provide. As materials for study they offer clear value as documentation of performances despite their perceived limitations. Recordings provide the opportunity for both the preservation and the continuation of many of jazz’s legacies. Chanan observes that recordings communicate “what cannot be indicated in any score, the nuances of articulation and timbre which are central stylistic concerns of jazz.” Also, thanks to recordings, we can hear seminal performances that would have been lost to all but the minuscule number of those who were present at the original performance. This is certainly a net gain. It is through recordings that access to these performances has provided generations of jazz musicians the opportunity to develop the musical genre, benefiting from having learned from these earlier performances. But it isn’t only access to such a broad spectrum of performances that is brought about by recordings. In regards to the subtleties of musical execution, recordings provide access to a much broader spectrum of performance detail than can be captured by score or transcription.

Contemporary recording techniques may further encourage negative reflections on the relationship of recording to improvisation. Butterfield clearly indicates his assessment of the specific practice of overdubbing parts in the following anecdote about a recording made by the well-known guitarist John Scofield and the legendary jazz saxophonist Wayne Shorter:

What is telling here is that neither Scofield nor his interviewer Zan Stewart express the slightest surprise or embarrassment that Shorter
never actually played his part with the other performers—the practice of overdubbing has become that mundane. Listeners, on the other hand, are still supposed to experience the recording as though the musicians were all co-present during the recorded performance. The final product thus effectively masks from public view a radical transformation in the social relations of music performance.42

But is the practice of overdubbing really masked from the listener, and is it truly a concern? Most members of contemporary audiences are aware that these kinds of studio practices are common, and yet they are thoroughly willing to accept the musical experience as presented. Butterfield makes a valid point about the transformation of social relations, but that this should cause embarrassment or is tainted as somehow “masking” something from the public suggests nostalgia for a time before recording technology had transformed everyone’s relationship to the musical experience.

This combination of nostalgia with an unwillingness to grant contemporary audiences a heightened understanding that technology is a partner in both musical creation and consumption leads others to lament the effects of recording on improvisation. Derek Bailey finds the fundamental techniques of recording to be anathema,43 and he quotes a variety of jazz artists speaking negatively about the recording experience, including Lionel Salter, who opines: “I’m not at all sure that recording is useful for anything more than reference.”44 Despite this, Bailey ultimately acknowledges that “Records simply supply a different listening experience to listening ‘live’; for the majority of people, apparently, a preferable one.”45 This final admission reveals that those who are unwilling or unable to come to terms with the relationship of improvisation to recordings are left out of the primary discourse of contemporary jazz.

But it is not just the grudgingly acknowledged historical or educational opportunities that jazz recordings present, nor the undeniable passion for recorded music that audiences demonstrate with their dollars, that give recordings meaning for the jazz tradition. Recordings provide inspiration for musicians as well. Though impossible to quantify, it can be argued that much in the evolution of jazz, much of the innovation and leaps in creative expression, are fueled in large part by access to recorded performances. For the musician and the listener, recordings often transcend their status as commodity.

Nonetheless, the relationship of the work of art to the commodity that
art often becomes has long been a point at issue. A firm distinction is sometimes drawn between the two, following John Dewey’s school of American pragmatism and his book *Art as Experience*: “The *product* of art . . . not the *work* of art.” This is explored in regards to improvisation by Keith Sawyer, who defines improvisation as a live event in which “the creative process is the product; the audience is watching the creative process as it occurs.” So improvisation, as defined by Sawyer, displays an “emphasis on creative process rather than creative product.” Some might say that with the product of recordings, this principle of improvisation is automatically betrayed. Although Sawyer differentiates between product creativity and improvisational creativity, he links the two because product creativity is often the result of improvisation. He uses the example of the Henri-Georges Clouzot film showing Picasso’s process of improvisation that ultimately leads to a “product” (a painting) but he could have as easily used any recording of a jazz ensemble. Crouch uses Picasso to illustrate the same thing, though he ties it directly to the improvisations of Louis Armstrong: “Armstrong made the musical performance a work in progress much like a series of nudes or bathers in Picasso’s work, where there is no correct version, only the variation or variations that most move the individual.” The existence of multiple recordings of jazz improvisations—for example, the whole phenomenon of the commercial release of “outtakes” from historic jazz recording sessions—participates in this same continuum from process to product.

A distinction can be drawn between a jazz recording intended for commercial release and the act of improvisation because the result of the former is a product—it is fixed and is therefore no longer a process. More and more layers of production continually complicate the continuum between process and product. In the new era of musical construction, however, the process has extended far back into the realm of the fixed product. What used to be fixed may now be another part of a new process, even potentially a new improvisation. Recordings are no longer fixed in the same way, no longer a simple end to process; instead they may be a new starting point for a new process that leads to a new product as part of a continual creative cycle.

The expanded notion of process that is made possible by contemporary recording techniques may provide the depth of experience that some critics seem to miss in traditional jazz recordings as opposed to “live” jazz. It can’t replace the subtle relationship between performer, place, and audience, but it can provide different levels and layers of creative expression.
The constructed performance of my application study is an example of how the fluid relationship between process and product, or live and recorded, may be extended. Improvisational expression may be made new by innovative types of collaboration that are not possible in live performance. Certainly recordings give their audience an experience not available to the audience of a live performance. Whereas recordings have limits in contrast to the gestalt of a live performance, they have expanded the boundaries of musical form and process.

**Improvisational Form versus Compositional Form**

The increasingly fluid relationship between improvisation and composition also encompasses developments in musical form. Robert Cray’s unintentional guitar solo, created in the moment and without thought that it was ever to be used, ended up extending the form of the song by adding a lengthy, unrehearsed “vamp” to the end. Although Cray was improvising, his soloing is very structured sounding, progressing from section to section in a way that carries the logic of a composed form. Of course he is playing to the chord changes of the song, so there is underlying harmonic form, but the structure he creates is much more “formal” than simply outlined by the harmonic structure. We can think of this as improvised composition, or “through-composed” soloing, and we have noted its long-standing place in jazz improvisation. The link between improvisation and composition is heightened in this case by the unintentionality of the performance. This musical moment is as fleeting and spontaneous as we might imagine—a purely improvised performance—yet because it is etched in stone thanks to the recording, and because the formality of its musical construction is so memorable, it achieves some of the status of a formal composition. And over time its compositional status increases as it becomes a formal part of music history—transcribed and then studied by an ever-increasing number of people.

The construction of the jazz track that I created for the application study might be thought of as “reconstructed” or “recomposed” form. This is the kind of newly acquired access to form that is the result of the editing capabilities of the DAW. In recomposing these individual improvisations I have taken many liberties with musical form. Twice, as I assembled the final piece, I found the progression of the performances I had chosen suggested to me that the rhythm section should stop for two bars and allow the piano to play solo into the following section. These breaks occurred in
two different places in the overall song form. This kind of two-measure break is a fairly common device in jazz arrangement; however, it usually subscribes to a certain formal logic (such as at the end of the final “A” section of the melody as a lead-in to the piano solo) and that wasn’t the case in my construction. My “breaks” had a natural feel to them—they are idiomatic—but didn’t adhere to this specific convention of form. Instead they were randomly placed in a way that would probably not have been planned as part of an ensemble arrangement.

This kind of seemingly random construction in musical form has attained much greater acceptance in the arrangements of a lot of contemporary hip-hop. The combination of free-form lyric writing approaches and DAW construction techniques has encouraged changes in traditional song forms such that apparently random, nonrepeating elements have become routine. Song sections may also vary widely in their length (number of bars) in contrast to the traditional song form where verses and choruses are usually set to a standard length of eight, twelve, or sixteen bars. These more randomized constructions of musical forms have not prevented large parts of the population from embracing this genre. Most rap and hip-hop is created using the editing techniques available in the digital audio workstation. The flexibility of DAW editing encourages a random quality that is not found in traditional popular music form and reflects an evolving cultural response to music—part of the evolution of the culture’s musical ear.

The musicians’ responses to my “recomposed” version of their playing point to differing reactions to issues concerning musical form. What Dana liked best about his own piano performance was that it was “nonrepetitive.” He did not comment on the two somewhat randomly placed “breaks,” but they might have added to his perception of a more varied improvisational approach. Just as the culture seems to be able to embrace less repetitive musical forms, so Dana enjoyed the less repetitive approaches to his own improvisational playing. It is worth noting that it is my intervention through recomposition that assisted him in achieving what he considers to be a desirably less repetitive performance in his improvisation.

On the contrary, it was precisely issues of form that the drummer responded to negatively. Jason focused on the way the ideas were put together, and not on the overall rhythmic “feel,” which I had expected to be the area that would be most problematic for him. The reordering of elements felt to Jason like an intrusion on the flow of ideas that he would create in an unedited performance—though he did not comment specifically on the random two-bar breaks. Berliner suggests that it is balancing com-
positional form with rhythmic freedom that allows an improvising musician to maintain a sense of place within the structure of improvised jazz: “It is only after developing command over the forms of compositions and the diverse rhythmic modes of jazz that they can engage in creative rhythmic thinking without losing their bearings.”

Perhaps it is the upending of the constructed set of “bearings” that is the reason that Jason found the reordering of his performance intrusive.

Although Berliner affirms that jazz improvisation requires both compositional form and rhythmic and harmonic modes, the status of structure in jazz remains at issue. Historically structure is associated with musical score, and Chanan describes how the status of notation generates a reaction to alternative structures: “Under the hegemony of notation, the Western psyche came to fear the embrace of what is repressed, and responded to any music which manifested this repressed material as if it were a threat to civilization.”

Avant-garde musician and composer George E. Lewis has insisted that cultural power resides with the creators of structure, and he reiterates this hegemony of the structural status of notation: “The structure inevitably arrives in the form of a written text, a coded set of symbols, intended for realization in performance by a ‘performer.’” This is set in contrast to jazz, which instead follows the less formalized improvisational model. However, it is more than simply different: “the dominant culture informs [us], in myriad ways that are continually reinscribed across the breadth of daily experience, that ‘improvised’ is a synonym for ‘unstructured.’” These messages maintain the dichotomy between highbrow and lowbrow, though they may be less apparent than previous pronouncements that separated Western art music from jazz. As an antidote to this hegemony the jazz critic may wish to emphasize the sophistication and spontaneity of content in jazz over the supremacy of the reductive form of musical text.

LeRoi Jones venerates the African tradition and Afro-American music in the occurrence of accident and circumlocution, placing content above form. Stanley Crouch, on the other hand, wishes to redefine the distinction. Rather than accepting “that formal attention is some version of Western imperialism dressed in aesthetic armor,” he insists that “it was the ability to create logical music on the wing, responding both to the structure at hand and to the invention of his fellow players” that truly distinguishes the great jazz improvisers. That is to say, while it is still form that sits atop the musical hierarchy, the form created in the jazz context deserves the same status and represents the same level of achievement as composed
form. In this sense it is impossible to distinguish between the forms that are cemented in notation versus the forms that are invented in improvisation (and cemented in recordings). Recording is central to this breakdown in the distinction between improvisational form and compositional form. The codifying of improvisations through multiple listening of recordings and through transcriptions of improvised performances reinforces the formal aspects of jazz improvisation.

**New Directions in Performance and Composition**

Classical music creation is also engaged in the techniques that have transformed popular music construction, although there remains considerable cultural capital in the idea of the score (along with the supremacy of the composer) as a marker of status for Western art music. As noted, Lewis contends that “cultural power clearly rests, for the moment, with the ‘bringers of structure.’ In Euro-American art-music culture this binary is routinely and simplistically framed as involving the ‘effortless spontaneity’ of improvisation, versus the careful deliberation of composition—the composer as ant, the improviser as grasshopper.” But many in the classical world wish to elevate the joys of improvisation and spontaneity into the realm of both classical composition and performance. There have been subtle developments beyond the standard level of performance interpretation—such as contemporary conductors’ propensity to release tempo control briefly to orchestral soloists—but there are also many classical composers who seek a much closer affinity to the improvisational ethic of jazz. Michael H. Zack contends that listening to jazz improvisation—especially of the freer kind—is partly “a matter of tolerating ambiguity and equivocality [and finding] it to be a source of beauty, exhilaration, and creative freedom.” Composers in Western art music are seeking to make similar demands on their audiences.

The avant-garde in classical music has long incorporated elements from mass culture, and contemporary computer-based musical experimentation finds some of its most interesting applications within the classical ranks. Certain elements of jazz improvisation, as well as a fascination with the unintentional, have inspired recent interaction between classical musicians and computers. Zack quotes Ryle’s description of improvisation and suggests that “the pitting of an acquired competence or skill against unprogrammed opportunity, or obstacle or hazard seems to be right on target. The contention is around what we mean by ‘unprogrammed opportu-
A new genre within contemporary classic music, sometimes called “interactive composition,” incorporates computer capabilities and borrows heavily from jazz and the notion of “unprogrammed opportunity.”

The participants in this new genre are using the computer to actively break down the roles of composer, performer, and audience. Modern composers from Stockhausen to Cage have written “composed improvisations” where the abstract instructions require considerable improvisation on the part of the performers. Initiating the debate on where composition ends and improvisation begins was one of the motivating factors behind such scores. Contemporary composers are using computers in interactive ways—that is, the computers are programmed to respond to musical performances—so that musical input results in a response from the computer in the form of musical output. This inspires a response by the performer, thereby triggering new computer-based responses and on and on in a riot of artificially intelligent improvisation. The result, further pressing those boundaries between composition and improvisation, is the “interactive composition.”

Where one draws the line between composition and improvisation is less important than the motivation, which is to shift the emphasis from the composer or performer to collaboration between the two. This is a motivation that resonates with many popular music forms that are also blurring the distinctions between all of the various elements that go into a musical performance or recording.

An excellent description of the activities that are pressing the boundaries of improvisation, composition, and computer-oriented music interaction comes from Lewis’s account of the process involved in creation of his composition Voyager:

Voyager . . . is a nonhierarchical, interactive musical environment that privileges improvisation. In Voyager, improvisers engage in dialogue with a computer-driven, interactive “virtual improvising orchestra.” A computer program analyzes aspects of a human improviser’s performance in real time, using that analysis to guide an automatic composition (or, if you will, improvisation) program that generates both complex responses to the musician’s playing and independent behavior that arises from its own internal processes.

Here Lewis explains his intentions regarding the categorization of musical activities:

Voyager’s unusual amalgamation of improvisation, indeterminacy, empathy and the logical, utterly systematic structure of the computer pro-
gram is described throughout this article not only as an environment, but as a “program,” a “system” and a “composition,” in the musical sense of that term. In fact, the work can take on aspects of all of these terms simultaneously—considering the conceptual level, the process of creating the software and the real-time, real-world encounter with the work as performer or listener. Flowing across these seemingly rigid conceptual boundaries encourages both improvisers and listeners to recognize the inherent instability of such taxonomies.

The breadth of Lewis’s formulation is telling. The computer continues to act as a primary tool for breaking down categories of musical creation and performance. Part of the way that it does this is the ease with which the computer allows fixed musical recordings to be repurposed in both composing and performing environments. My application study takes recorded elements and uses them in both recomposing and reimprovising the initial recorded performances—providing further examples of the way contemporary practices may participate in Lewis’s notion of the instability of fixed musical taxonomies. My studio study shows the ways recording may capture some of the most intimate musical moments, moments that would likely never have occurred in live performance, where the performer’s intentionality is constantly reinforced by the presence of the audience. Contemporary musical practice generates a fluidity of musical performance that helps to dissolve hierarchical distinctions between creation and execution, between artist and artisan.