In the third act of *As You Like It*, the alluring young Rosalind, secretly dressed as a man, explains to Orlando the relative nature of time. Shakespeare’s lovers are in the Forest of Arden, far from the regimentation of civilization. There’re no clocks and thus no objective measure of temporality.

“Time travels in diverse paces with diverse persons,” explains Rosalind. “I’ll tell you with whom time gallops, with whom time trots, with whom time ambles, and with whom time stands still.” “Prithee,” inquires Orlando, “With whom does time gallop?” “With a thief to the gallows,” she answers. “For though he goes as slowly as foot can fall, he thinks himself too soon there.” “And with whom does time trot?” he asks. “Time trots tortuously with a young maid between the contract of her marriage and the day it is solemnized,” she explains. “If the interim be but seven nights, it seems the length of seven years.”

“So with whom does time amble?” “With a priest that lacks Latin, and a rich man that hath not the gout. For the one sleeps easily because he cannot study, and the other lives merrily because he feels no pain—the one lacking the burden of lean and wasteful learning, the other knowing no burden of heavy tedious penury. For them time ambles.” “And last,” asks Orlando, “with whom does time stand still?” “Why, with the lawyers in court,” she exclaims, “for they sleep between trial and trial, and perceive not how time moves.”

Good morning members of the fifth annual Mannes Institute for Advanced Studies in Music Theory. As a former barrister who perceiveth not how time moves, I welcome you to the city that never sleeps. Each of you is a distinguished scholar coming together with your peers, not as passive listeners to a select roster of polished texts and unchallenged pronouncements, but as equal participants in an active and democratic think tank. Lessing once said that if God held the truth in his right hand, and in his left hand its pursuit, he would choose the left. We’re gathered here today from around the country, the continent, and indeed the world not professing to find the truth, but simply pursue it through an open and vigorous exchange of doubts and discoveries.

This year’s topic of rhythm has something to do with the Institute itself. The reason we’re here is not just to exchange information, but to implement a relationship. The significance of our gathering lies not merely in its content, but in our rhythm of relating to one another. We’re comrades in a contemporary scholastic order, cloistered together in a convent of learning, to shape our ideas, as Augustine put it, on the anvil of discussion.

I warn you we’re about to embark on an intense and strenuous journey that’s different and far more demanding than your typical conference. You can probably already tell that by all the
reading we’re supposed to have done before we got here. Kofi sent me an enormous pile of articles filled with charts and diagrams. Fortunately I studied speed-reading and read the entire thing last night in twenty minutes . . . It’s about Africa. David sent me a bunch of single-space sheets in Latin. The only word I recognized sounded like a disease.

Over the next four days, we’ll cease to be a mere aggregate of separate individuals, and become an egalitarian community where everyone contributes to the welfare of the whole. Our common goal is shared exploration, unfettered inquiry, and spirited debate. Our workshops, plenary discussions, and even our meals are forums in the art of social rhythm. During this time, I’ve reserved these early morning sessions for a few informal observations of my own. It’s not intended to be indulgent or self-serving, but rather a way for me to set our tone in a personal as well as administrative way. Like Charles Lamb’s essays, they’re cluttered with “surmises, guesses, half-intuitions, dim instincts, and embryonic conceptions.”

Consistent with our Quaker approach, there’s a few simple guidelines I’ll ask you to observe while we’re here. I don’t mean to be pedantic, but the Institute has a distinctive ethos and mission I need to explain. First, aside from my morning talks, the modality here is dialogue, not monologue. We’ve come not just to learn from our faculty, but from each other as well. We’re here both as students and teachers; even our group leaders are our peers. What this means is that everyone here ought to speak up, contribute, ask questions, share insights, further exploration, and give of themselves in the fullest sense of the word. It’s not in accordance with the mission of the Institute to sit back quietly and absorb, no matter how mentally engaged one might be inside. Each of you has something to contribute, or otherwise you wouldn’t be here.

Next, while we discourage bystanding, we also frown on grandstanding. We’re all expected to talk, but also to listen. It’s collective discourse we’re after, not soliloquies. So don’t be a spectator, but don’t filibuster either. You can and should challenge each other—that’s what we’re here for—but not antagonize or personalize. This is a process of collective deliberation and negotiation, so be collegially probing.

Third, in order to fulfill our mission of intensive collective inquiry at the highest possible level, each of us must commit ourselves fully while we’re here, intellectually and socially. For instance, you should eat all your meals together except as noted, attend all events including these morning sessions, and direct your energy on maximizing the experience at hand. Stick with the program, don’t pick and choose, sleep late, or wander off like we tend to do at regular conferences. We’re here to strengthen the bonds of our profession, and staying the course has a cumulative effect. Four days from now, you’ll have the satisfaction of having participated in something unique that none of us will quickly forget.

There’s an ancient myth that Democritus tore out his eyes in a beautiful garden in order to think without distraction. I don’t recommend you go quite that far, but if myth has meaning, Democritus suggests our goal. The city surrounds us, more alluring that any Attic garden. Yet inside these walls, we follow Montaigne’s admonition to focus on that extraordinary undertaking that draws us within, and leave the government and errands of the world to those left behind.

The Anthropology of Rhythm

In my morning chats I’d like to explore our topic of rhythm from an anthropological perspective. Sometimes we need to remind ourselves that musical concepts don’t exist in a theoretical vacuum, but have roots in who we are as human beings. Among all elements of music, rhythm has the most ancient provenance. In fact, it has every appearance of being an indigenous human
trait. We’re the only species with a sense of rhythm, and for us the trait is universal regardless of age or society. Every human culture has a rhythmic capacity to clap, tap, and keep time together. It’s found in all places, and in all periods of history.

Rhythm is unlearned and spontaneous; it just happens. A baby has the ability to feel a regular beat. Even profoundly handicapped children and adults incapable of learning language have an innate sense of rhythm. Rameau says that a sense of recurrent pulse “comes naturally to everyone; it forces us, as if against our will, to follow its movement.”

Rhythm, in fact, is so pervasive that Blacking calls it a “species-typical trait,” a diagnostic feature of what it means to be human—with the possible exception of my Aunt Harriet, who manages to screw up our seder each year by going into some sort of arrhythmic overdrive evidently afflicting elderly Jews in suburban Detroit. The annual inability of the Alpern family to actually keep a steady beat while chanting “Let My People Go” after three boruchas seems to disprove the theories of every single member of our distinguished faculty—except perhaps Harald. I grew up thinking everyone calls roast beef “brisket.”

Few other living creatures—things like whales, frogs, crickets, birds, and chimpanzees—make spontaneous patterned signals. But only humans are capable of rhythmic entrainment, that is, locking onto and effortlessly maintaining a regular pulse. When disrupted, even synchronous croaking frogs take up to 45 minutes to get back together again, whereas we simply do this at will—noting once again, however, what I will hereafter refer to in strict neo-Riemannian fashion, as the “Aunt Harriet Overdrive Loop”—or AHOL for short.

My dog Lucy, along with horses, fish, and even apes and monkeys, lives in the strangely arrhythmic world of my aunt. Everything for them, and apparently her, just sort of happens in a temporally atomized, disconnected sequence of events—which is probably why no one understands her.

How old is rhythm? Well, pitched instrumental music is about 40,000 years old. That’s about eight times since my ancestors “helped” build the pyramids. But percussion music based on rhythm alone is twenty-five times older, going back at least a million years. If I can mix Babbitt with Gershwin, strike two rocks together once, I got noise. Strike them together twice, I got rhythm.

To give you a better picture of its antiquity, if we condense the entire history of muscimaking into a 400-year time frame from 1600 to today, everything up to 1985 would be non-pitched percussion music based on rhythm alone. The entire history of pitched or melodic music, from the cave man to Cage, would be composed only in the last two decades.

So if a Neanderthal hammered out the first rhythmic pattern at the death of Palestrina around 1594, the Well-Tempered Clavier would have been composed last April; Tristan would have premiered a month ago; Schenker would have died two weeks ago. Lewin’s GMIT was written four days ago; Chris’s book hit the shelf as you were checking-in last night to the ill-named Quality Hotel, and Justin’s book came out 20 minutes ago while you were eating a bagel. In fact, by my calculations, my own speech today wouldn’t actually begin until tomorrow. Of course, keep in mind 95% of all statistics are made up . . . .

In other words, in the larger scope of things, the pitch relationships we all obsess about are a very recent phenomenon, about as old as America Online. The sheer vintage of rhythm alone suggests that things like pulsing, beating, and patterning have a lot do with what it means to be human in the first place, excluding my aunt.

But in order for rhythm to constitute a biological human trait in a scientific sense, it must serve or at one time have served an adaptive function and have some selective evolutionary
value. While rhythm and music are culturally valuable, however, most scholars claim or assume they are biologically useless and serve no purpose in the actual sustenance of life. Music can’t help find food, avoid predators, or overcome parasites. Compared to language, its factual content is minimal. Music may simply be the byproduct of higher intelligence, the secondary result of the evolution of other more fundamental adaptive facilities.

According to some members of our faculty, rhythm may be a bodily or cognitive response to stimuli, or what Chris calls persistence and change. But if evolution is based on the survival of the fittest, the ultimate question is not what is rhythm, but why are we rhythmic at all. To answer that “this is how we perceive time, respond to data, or move together through the world” merely begs the issue: why do we behave in this way in the first place?

So my question over these four mornings is this: does rhythm represent some evolutionary adaptation in its own right? If it is a biological trait, what survival benefits could it confer? What is or was the evolutionary function of rhythm? What is rhythm for? Why are we synchronous beings? In short, what is the anthropological origin of rhythm?

Rhythm is sometimes linked to the heartbeat, a venerable theory proposed by Gaffurius, Mersenne, and the overlooked Ramos de Pareja. But the connection is tenuous. Cross-cultural studies show that people asked to keep a beat generally tap about two times per second, which is faster than the normal human pulse. A better candidate for the isochronic tactus might be the locomotive periodicity of walking. Kirnberger and Rameau draw this analogy. But walking is subject to considerable variability in tempo. My wife Nancy walks faster than I do, simply because she’s shorter. In any event, neither of these secondary explanations address the evolutionary origin of rhythm as a functional adaptation in its own right.

Justin claims that rhythm and specifically meter are manifestations of a general human capacity for entrainment, that is, our organization of stimuli into symmetrical and recurrent structures. But again, why do we entrain in the first place? Pressing argues that rhythm arises from the evolved cognitive ability to form and use predictive models, especially the timing of future events. Through the feeling of an evenly paced timekeeper, we can anticipate when the next beat will fall, and thus synchronize our actions with the pulse. Rhythm becomes a means of coordinating group behavior among soldiers or hunters, or musicians and dancers. But how does this actually work? What specific evolutionary value does this predictive capacity confer?

Darwin claimed over a hundred years ago that the biological function of rhythm was sexual selection. In 1871 he wrote, “It appears probable that the progenitors of man, before acquiring the power of expressing their love in language, endeavored to charm each other with musical notes and rhythm during the season of courtship.” Just as birdsongs function as courtship displays to attract sexual mates, Darwin argued that human music evolved to serve a similar purpose. He viewed rhythm not simply as a side effect of higher intelligence, or a manifestation of some generalized cognitive capacity for entrainment or predictive behavior in hunting or warfare, but as the outcome of a specific evolutionary process of sexual selection.

After a century of neglect, Darwin’s exploration of the biology function of rhythm has been revived. Recent studies in the field of evolutionary musicology postulate different hypotheses to explain rhythm as a universal human trait serving an adaptive purpose in the process of human speciation. Over the next few mornings I’ll map out three different theories of the anthropological origin of rhythm—or rhythmogenesis—not in any scholarly detail, but hopefully in a way that gets our synapses charged before the mental calisthenics of the workshops.

We’ve enlisted a tremendous faculty of experts for that purpose, with Chris, Kofi, Pieter, Harald, David, and Justin. Over the past few weeks I’ve read some their work in preparation for
the Institute. I can’t say I understand it all, and the parts I understand, I can’t say I agree with it all. But that’s the lawyer in me: I’m purposely trying to instigate debate and even controversy here. As Joel will attest, I really can’t help it. When it comes to the Institute though, I’m the boss. Joel just makes the decisions.

In any case, this promises to be a stimulating event. By the time it’s over, I hope our teachers fare better than John Scotus Eriugena—that’s John “oriuginating” from Scotland, the court schoolmaster of Charles the Bald in the ninth century. John’s students back at the Monastery of Malmesbury found his ideas so medieval they stabbed him to death with their pens. Scholars were evidently less impenetrable back then.

I’d like to close my remarks this morning with a collage of phrases from Virginia Wolff’s collection of essays, The Common Reader. Some are preserved in tact, others slightly altered, and all are out of context. Yet woven together, they set our compass as we begin our voyage at the Institute this year:

So now let us withdraw to our innermost room, and indulge in that strange and pleasant process called “thinking.” To communicate is our chief business, society our chief delight, not merely to acquire knowledge, but to extend our discourse beyond ourselves. To share is our duty, to bring to light hidden thoughts, to give a little, to risk a little, and to pretend nothing. Let our success be measured not by the answers we find, but by the questions we ask. If we are ignorant, to say so, if we doubt, then to wonder out loud. Let us cast about, generous of encouragement, in the give and take of common conversation, on the back of our comrade, in order to reach its farthest shore.

_Synchronous Chorusing_

Yesterday in David’s workshop I learned that time is infinite, but space is finite. This is a very comforting thought—particularly for people who can never remember where they’ve left things. I gave some thought this year to having a more health conscious program, particularly on day two after all the eating and drinking last night. My wife Nancy is a professional ballet teacher who’s constantly working out, so we considered starting this morning with a little exercise workout for out of shape theorists like me. But then we started to picture what this would be like: “OK, everyone, bend over and touch your waist . . . Now put your hands where you think your hips might be.” Wouldn’t work . . . Besides, I figure if I were supposed to touch my toes, they’d be higher up on my body.

Yesterday I suggested that musical rhythm is an innate human faculty representing some kind of evolutionary adaptation. This requires that it promote, or at least one time have promoted survival through reproductive selection. In other words, our ability to entrain a rhythmic pulse must confer some distinct biological advantage, and thus have an evolutionary benefit in the process of human development. The question is: what?

A biologist by the name of Björn Merker—some of you might know him—he’s one of the directors of the Institute for Biomusicology in Sweden—has come up with an anthropological theory of rhythmogenesis based on what he calls synchronous chorusing. As I said earlier, rhythmic synchrony, or patterned temporal behavior, is extremely rare in nature. Dogs and wolves howl together, but they can’t do it in unison. Birds and fish move in a unified pattern, but it’s not repeated according to a rhythmic pulse. Only a few life forms—things like crickets, crabs, and frogs—are actually able to chirp, clatter, or croak in unison. The fact that these simple creatures are capable of synchronous chorusing, that’s to say, making noise together in time with
a beat, shows that rhythm has nothing to do with a big brain. I’ve never seen a cricket brain, but I doubt it’s very big.

So why do crickets chirp together? The most common explanation is that it serves a reproductive function. It’s a form of sexual advertising by males to attract females, or to quote Paris Hilton, an authority in these matters, it’s hot. Synchronicity might look like male cooperation, but it’s probably just a byproduct of each cricket’s attempt to chirp first. Another explanation is that synchronicity is a defensive strategy to dilute the attention of whatever eats crickets by hiding in a group. Like the second violin, if I chirp in a crowd, no one will notice me.

Merker’s developed a theory of rhythm’s origin based on the synchronous chorusing of chimpanzees. Chimps are our closest living relative and oddly enough the only member of the ape family capable of rhythmic synchrony. I don’t know why gorillas and orangutans can’t keep a beat any more than my aunt, but I’ve learned to live with it.

Anyway, a key element in Merker’s theory is that among chimpanzees, unlike other monkeys, it’s the female rather than the male who moves away from her birth family to find a mate and have kids. This notion of female mobility is what the biologists call female exogamy. What it means is that girl chimps, like my two daughters, basically get bored at home and wander off looking for boys. The boy chimps, on the other hand, band together in groups staking out different turfs in the jungle. Aside from fighting for food, what they like to do is compete against each other to attract girls.

For Merker, this element of male group sexual rivalry and territorial competition is what accounts for the biological origin of rhythm. It establishes the evolutionary role of synchronous chorusing in man’s emergence from our common ancestor with the chimp, and thus explains why we’re having this Institute in the first place. Merker contends that male synchronous chorusing among chimpanzees, and hence among our hominid ancestors as well, serves a selective sexual function. By timing their hoots in unison, the chimps basically increase their collective amplitude to attract exogamous females. Is that a word? What’s another word for thesaurus?

The synchronized whooping and screeching, usually triggered by the discovery of a big fruit tree or other source of food, extends the geographical reach of their peak signal output to all those girls roaming around beyond their territorial boundaries. This group noise level is further increased by synchronized stomping or dancing, linking the rhythm of synchronous chorusing to the evolutionary changes of bipedalism and upright posture. This collective signal conveys the presence of group resources, social cooperation, and vocal skills, all of which are of considerable interest to discerning young females shopping around to decide where and with whom to settle.

The louder and more repetitive noise invariably attracts them to the site of the commotion, and thus enhances the survival of chimps with some rhythmic capacity over their less rhythmic competitors. The broadcasting of synchronous hooting evidencing male cooperation also functions as an intimidating deterrent against the encroachment of other males, and a warning against predators. The aggregate sound of sixteen chimpanzees hooting and stamping in unison is not only impressive, but scary too.

The highlight of Merker’s theory is his live demonstration, which I won’t do. He stomps around all hunched over like an ape whooping it up as loud as he can. It’s quite colorful, although when I saw it in Belgium, the only reaction he seemed to elicit from the females, and everyone else for that matter, was more like heavy laughing than heavy breathing.

Despite synchronous chorusing among a group of chimps, when you get one of them alone,
mango a mango—or maybe mono a mono—he’s incapable of true rhythmic behavior. A single chimp is mentally and physically unable to keep a beat even with training, which reminds me of someone else I know.

So according to Merker, our propensity to join a repetitive beat is the remnant of our ancestors’ successful ability to synchronize mating calls as a biological trait. Rhythmic entrainment served the evolutionary function of decibel summation through synchronized multimale chorusing, generating greater reproductive advantage over arrhythmic rivals. Those best able to coordinate their shouting and dancing together based on the predictive pattern of an isochronic beat were more successful than their competitors in attracting mates and thus reproducing.

But if we have male cooperation to win among competing clans, how was the struggle played out within the group after they lured the females to their home court? Apparently, even within the synchronized chorusing of male chimpanzees, certain individuals try to distinguish themselves from their competitors within the ensemble by rubato rhythmic effects, entering slightly before or after the beat. Once the females were safely within the group, our primitive ancestors had frenetic nocturnal social gatherings—somewhat like our reception last night—but where they engaged in orgiastic singing and dancing for the purpose of individual mating. This provided an arena for competitive mating tactics through creative performances and behavioral displays designed to attract the attention of the opposite sex.

In short, virtuosity counts. One scholar claiming that music had the power to “melt the heart of an ovulating ancestor” cites the case of Jimi Hendrix as modern example of the reproductive value of rhythmic virtuosity. Hendrix’s death at the age of 27 proves that his musical talents obviously did little to help his chances of survival. But he apparently had sexual relations with hundreds of groupies. Under primitive conditions, he would have fathered innumerable children. Hendrix’s musical genes would have proliferated through the power of attracting sexual admirers.

Merker’s theory also accounts for the considerable advance in human brain size since our first ancestor appeared roughly two million years ago. The sexual value of rhythmic precision among competing primates was a key factor in promoting the expansion of human learning capacity and musical creativity. In order to impress a discriminating partner, there was pressure to come up with and master new and more creative gestures. The demand for rhythmic virtuosity as a mating tactic in the paleolithic dating scene generated a spiral of creativity and brain expansion.

Rhythm was also an important factor accelerating the perfection of upright posture and bipedal locomotion. Those who could stand on two legs were especially impressive dancers. Their movements were more sophisticated and attractive to a mate than some dumb monkey crawling around on all fours. Upright aroused male dancers were more erotic for other obvious reasons as well—a subject upon which I shall not elaborate further.

Merker’s theory, in short, explains rhythm not as a mere byproduct of higher intelligence, but a pragmatic human trait permitting predictive coordinated behavior in order to maximize survival. By synchronizing their vocalizations, our early ancestors were able to shout together and thereby increase their total amplitude, which gave them a reproductive advantage over others in attracting sexual partners. Individuals within the group demonstrating rhythmic proficiency in turn had greater competitive advantage in mating.

If you can accept this evolutionary trajectory from chimps to Tchaikovsky, and crickets to Krebs, then we’ve got one explanation why each us, no matter when or where we’ve lived over
the past million years or so—with the possible exception of the Yenta tribe of suburban Detroit—can quite simply do this [clap, clap, clap].

So Percussion

We’re fortunate to have an outstanding group called So Percussion here this evening to perform some of the music of our special guest, Steve Reich. Steve and I both agreed it would be appropriate to begin our plenary session with some music. After that we’ll have a short time to ask our performers a few questions. Then Steve and I will have an informal discussion in the form of an interview for about 45 minutes.

We’ve tried to incorporate some of your questions, and others I’ve come up with myself. After that, we’ll hear a CD of Steve’s latest piece, You Are (Variations), which runs about 30 minutes. I previously circulated a pdf version of the unpublished score, which Steve and his publisher Boosey & Hawkes graciously provided. At the end we’ll have plenty of time for some open questions for Steve from the floor.

So Percussion is one of the most exciting young ensembles in the country. The New York Times calls them “brilliant” and “consistently impressive.” They've performed at Carnegie Hall, Bang on a Can Marathon, BAM Next Wave Festival, the Cleveland Museum of Art and numerous other venues, and have conducted educational residencies at the University of Texas, Princeton, Duke, Williams College, King's College and elsewhere. They received the Chamber Music America/ASCAP Adventurous Programming award for their performance of contemporary music, and their first two albums are available on Cantaloupe Music.

The group describes its mission in these words: “Percussion,” they write, “has a unique ability to thrill and captivate. Its expressive possibilities range far beyond beats and rhythms, speaking to the impact of sound on our very lives. A So performance seeks to convey this impact. From the pure joy of drumming to the strange beauty of everyday objects, audiences are uniquely moved and entertained by this total immersion in sound and imagination. So is a form of the Japanese verb meaning, ‘to play.’ For us, it means sharing the joy and spirit of musicmaking with whomever we can!”

Tonight we’ll hear two of Steve’s early and important works, Music for Pieces of Wood and Drumming Part I, which will balance our later listening to his most recent piece and give us a sense how his music has evolved. I’m happy to present Doug Perkins, Adam Sliwinski, Jason Treuting, Lawson White, and David Schotzko, the distinguished members of So Percussion.

Reich Introduction

A few years ago I was asked by an online music encyclopedia called Musica Viva to write an entry for Steve Reich. Here’s what I wrote: At a time when composition was dominated by atonal chromaticism, relentless dissonance, irregular rhythms, disjunct leaps, perpetual variation, and inaudible complexity, Reich reasserted in a compelling and radical way music's fundamental roots in diatonicism, consonance, pulse, linear motion, repetition, and audibility itself. This infusion of these normative and to an extent universal musical impulses injected fresh life into a shriveling compositional scene dominating by chromatic and arrhythmic experimentation. It reopened musical doors too long shut. In an age of dissonance, Reich emancipated the consonance. As one composer said, we can finally use meter again.

Reich’s challenge to midcentury musical orthodoxy had a revolutionary impact signalling
the end of high modernism. While not all composers followed his lead quite as aggressively—nor need they once a path was lit—he allowed those of us who still love atonal masterpieces to turn its page and reconnect with a rich tonal and rhythmic heritage extending back not only to Perotin, but Haydn and Bach, and laterally to Bill Evans, the talking drum, and just plain singing in the rain.

I’ve known Steve for nearly thirty years. We met at Morton Feldman’s June in Buffalo program back in 1976. Each summer, Feldman invited a group of outstanding composers to conduct informal seminars, in some ways a precursor for this Institute. Steve came along with Xenakis and Crumb. I was determined to get to know him and learn as much about his music as I could.

I hung out in Steve and Beryl’s loft in Soho in the late 70s and heard rehearsals of Music for 18 Musicians. I wanted nothing more than to be in his ensemble, but my rhythm wasn’t precise enough. This was before the computer, so I eventually became Steve’s copyist instead, generating handwritten parts for Octet and then Variations from his notebook score. We worked together well, and at times I like to think he even considered some of my minor musical suggestions. After that we’d meet every now and then for lunch in Ellen’s Coffee Shop across from City Hall. Nancy and I were honored to take part in a celebration of Steve and Berly’s son’s wedding at their house. Over a quarter century we’ve always managed to keep in touch.

I’d say the most unusual composer I’ve ever known was probably Feldman—he was one of a kind. But the composer who I admire most, who I think has most shaped the course of music for me and our generation is Steve. Boulez once said that when he first heard Webern, he knew it was the music of his time. The moment I heard Music for 18 I knew it was the music of our time. To quote Evelyn Waugh, it has charm, and charm for me is everything, or nearly everything. Steve has done something I said, not all he will do, nor all he can do, but something. I felt significant simply because I knew him.

The hardest part about being Steve’s friend has been continuing my own composing. He carved out something original, and ultimately I had to come to terms with the fact that glimmering repeating patterns was Steve’s thing, not mine. Like Charlie Parker, no one could do it better. I had to find a way around Steve, a way to be me. I felt the same around him as I did around Carl Schachter. As Charles Lamb put it, “too frequent doses of his creativity restrained what lesser portion of that faculty I possessed of my own.” I could derive thoughts from Steve, but my way of thinking had to be my own. My task was not to copy him, but to copy what he had done: to be fully me, just as he was fully him. I learned to write music that was not as original, but was authentically my own.

The truth is that very few of us come up with a really new idea. Feldman once said you’re lucky if you have one important idea in your whole life. Schoenberg had an idea, Debussy had an idea, Cage had an idea—and Steve has an idea. Most of us work with other people’s ideas, expanding them, analyzing them, and in some cases even avoiding them. So in the end, it seems more important to discover our own musical identity than to come up with a new idea, and have the courage to really be ourselves.

And that’s a lesson I’ve learned from Steve. He has the conviction to be himself. His music has what Borges once called a “ferocious integrity.” Someone once asked Feldman how he could possibly like Xenakis’s music, because it was so different from his own. He said Xenakis spoke with a personal voice, and that’s all that counts.

Steve speaks with a personal voice, and for me, that’s what counts. But it’s more than this. It’s not only his own voice, but has become a larger resonant voice in the world itself. Steve is
one of the most original musical thinkers of our time. Only a few living composers can legitimately claim to have altered the course of music history, and he’s one of them.

And this no doubt is why he’s the recipient of this year’s Edward McDowell Medal, awarded to an individual who has made an outstanding contribution to the arts, celebrated later this summer with a public performance by So Percussion of the same music we just heard in our exclusive private session tonight. I’m extremely grateful to Steve, not only for what he’s accomplished and the lesson he unwittingly taught me as a composer, but for being a good and valued friend for so many years. We’re all honored to have him here. Please give a warm welcome to Steve Reich.

Reich Interview


1. You indicate that unlike composition, music theory describes the past (p. vii). Since you are addressing a group of theorists, can you discuss the relationship between theory and practice? What is the proper role of music theory as you see it? What is its use as well as its limitations?

2. Early on you made a decision not to pursue an academic career. You indicate that the best teachers may “lack the single-minded focus on a particular way of writing music a stronger composer may have” (p. 143). Can you elaborate on your attitude toward teaching and composing?

3. You wrote that *Music for 18 Musicians* was “consciously composed with a feeling of liberating myself from strict strictures” (p. 94). You moved from what you called a “didactic quality” in your earlier phase pieces which perceptibly show “how the music is made” to incorporate other aspects involving “questions of taste with no other justification.” You also note that “even the pure process pieces” are based on some “aesthetic decisions” (p. 92). Can you elaborate on this tension and transition in your work?

4. You’ve written regarding tempo and the number of repetitions in your music that “there is latitude, but there are limits to that latitude” (p. 97). How do you conceive of the role of limitations and constraints in your music generally, and the tensions between latitude versus limits, or between “strict strictures” as you put it, and creative freedom?

5. Unlike your early pieces that have an unspecified number of repetitions, beginning with *Octet* in 1979 you write the repetitions out. In *Nagoya Marimbas* and more recent work you limit the number of repetitions of a pattern to three (p. 184). How has your conception of the number of appropriate repetitions changed over time, and is this essentially an intuitive decision on your part?

6. Much has been written by you and others about your approach to rhythm and melody, but I’d like to address your conception of harmony and harmonic progression. Although your internal chord structures are often based on 4ths and 5ths, you seem to favor a more ambiguous harmonic root movements by thirds, as in *Desert Music* (p. 121), rather than traditional dominant-tonic or subdominant-tonic tonal progressions and cadences. How does this relate to the conception and role of harmony in your music? For example, how did you construct the cycle of 11 chords in *Music for 18 Musicians*? Potter give a quasi-functional analysis in F# minor and A major. Do view this as a goal-directed progression, an ambiguous shifting background of colors, or what?

7. Although diatonicism is central to your music, over the years there has been an increasing use of chromaticism, as in *Tehillim, Desert Music, Sextet*, and quite extensively in *City Life*. Can you
elaborate on the situations and contexts in which you tend to use chromaticism?

8. You cite some isolated instances of extended repetition in Bach’s C major Prelude and Wagner’s das Rheingold (p. 130), as well as the serial repetition of the row as early examples of repetition as a musical technique. Can you elaborate on the centrality of repetition as an aesthetic and not just structural element in your music, and the importance of the idea expressed in Desert Music using William Carlos Williams’ text “It is a principle of music to repeat the theme. Repeat and repeat again as the pace mounts. The theme is difficult, but no more difficult than the facts to be resolved” (p. 125-26)?

9. Several people here are African music scholars. Citing its use of downbeats in simultaneous patterns that don’t coincide, you indicate that the central lesson of African music for you was the relationship between ambiguity and repetition (p. 150, 106). How indebted is your music to the structure of African music?

10. Several people here are experts in German romantic songs. In your essay on Chamber Music discussing the type of musicians best suited to perform your music, you compare rhythm based on “a fixed pulse” and “a firm sense of regular time” found in most non-Western music, jazz, and early music to “the more gestural rhythm found in German romantic music” (p. 156). Can you elaborate on this distinction?

11. You’ve said that “serial and 12-tone music were a kind of break with natural principles of resonance and with human musical perception” (p. 159), and that your music represents a “restoration” of certain fundamental, universal qualities, such as a steady pulse, consonance, and the intervallic primacy of fourths, fifths, and octaves. You also indicated that “any theory of music that eliminates these realities is doomed to a marginal role in the music of the world” (p. 186-87). Can you elaborate on your concept of musical fundamentals and natural principles? Do you view the historically rooted musical elements and traditional conventions, such as the diatonic scale, triadic harmony, and metered pulse, although not inherently absolute, nonetheless acquire over time some superiority, legitimacy, necessity, and authority of their own over others that might merely be created or invented?

12. In discussing The Cave, you cite the importance of “popular sources” and “popular culture” (p. 161), and trace its historical influence in serious music as far back as dance forms in Bach suites and Renaissance masses (p. 168, 174). You state that “the wall between serious and popular music was erected primarily by Schoenberg and his followers” and “since the late 1960s, this wall has gradually crumbled” (p. 168). You also note a solid tradition of American composers like Ives, Gershwin, and Copland who “stayed in touch with the popular music of [their] time” (p. 165), and indicate that “when composers look down on all the popular music around them, they are generally suffering from some sort of emotional disorder” (p. 174). Elsewhere you write that “the art music of a nation or culture normally tends to reflect its folk music. When that ceases to happen you have the musically unhealthy situation that pertained in American art music in the 1950s and ‘60s when it lost all connections to American folk music (read jazz and rock and roll) and instead self-consciously modeled itself on European serial models instead.” (p. 194). Can you elaborate on the role of popular music in shaping your compositional aesthetic?

13. Several people here are Stravinsky scholars. Some have noted a certain similarity of texture and rhythm between some of your music and certain static layered passages in Stravinsky, such as the opening to Petrushka to cite one example. What impact did your encounter with Stravinsky have and how do you view him today?

14. In writing about modern opera, you single out Kurt Weill, generally overlooked in the
classical tradition, especially the *Threepenny Opera* of 1928, as pointing to the future, in contrast to Alban Berg, generally praised in the classical tradition, especially *Wozzeck* of 1921, as pointing to the past. Weill and Berg both composed under what you call “the shadow of the death of German romanticism,” but while “Berg is looking backward, Weill instead does an about-face and looks to contemporary popular forms as material for music theatre” (p. 167-68). As you know, this contradicts the conventional party line. Can you elaborate?

15. Speech melody has been an important feature of much of your work over the past several decades. Is there a tension between the steady rhythm of a regular pulse in repeating musical patterns and the more “natural” or fluid rhythm of speech patterns? Does this require some sort of “regularization” of speech patterns?

16. In describing the relationship between your music the prevailing style of the 1950s and ‘60s, you indicate you “sometimes see both serial music and Cage as influencing my music [by] suggesting that any radical organization is possible, on the one hand, and on the other, forcing me back on my own rhythmic and tonal inclinations that received no satisfaction whatever from either of these musics. Serialism and Cage gave me something to push against” (p. 159). Can you elaborate on this, and how you see serialism and Cage today?

17. *Three Tales* “reflects on the growth and implications of technology during the twentieth century [and the growing] debate about the physical, ethical, and religious nature of the expanding technological environment” (p. 204). Your portrayal of the crash of the Hindenburg, the atom bomb test at Bikini, and the genetically engineered cloning of Dolly the sheep present “different attitudes toward the science and technology we so avidly embrace”—both positive and negative. This piece and some of your other large recent works are heavily dependent upon technology itself. How would you address this tension in your own music?

*Motherese*

You know, even though this is the fifth Institute, each year I get so nervous about the whole thing, my bicuspid aortic value starts throbbing so much I feel like I’m gonna die—but at least I could do that lying down. I start thinking rejected applicants hate my guts, Mannes will throw me out of the school for lousy student evaluations, and some workshop leader won’t give out reading assignments on time.

I gave up talking to my psychiatrist when he told me you’re got to crazy to live in New York in the first place. So I decided to try yoga and meditation. I went to this Indian guru someplace in the village and he says, “Wayne, don’t worry about the Institute. Life is an illusion. Nothing exists.” When I got home I thought, if this guy’s right, I really overpaid for my upholstery.

So the next time I said, “Listen, swami, I’m still worried about the Institute. Can you help me relax?” He says, “Yes, Wayne, breathe in, breathe out . . . breathe in, breathe out . . . breathe in, breathe out . . .” I’m thinking, if I can’t do that, the Institute’s the least of my problems.

By the way, a few days ago I said half-heartedly that the lawyer in me is purposely trying to instigate debate and even controversy here as a legitimate mode of inquiry. I don’t mind lawyer jokes since I’m no longer one of them, but I’m actually not kidding. This happened to some extent in Kofi’s workshop yesterday, where I defiantly opposed Kofi’s and seemingly the rest of the group’s assertion that the African’s interpretation of his music has any more validity than mine. I reserved the right to assess that view, even though I’m not African. I reserved the right to assess that view, even though I’m not African. I was arguing in a sense against Clifford Geertz’s
fashionable postmodern notion of local knowledge—a position very effectively stated by Ernst Gellner. This triggered an extensive debate involving several participants in the workshop, in which I could have quite easily argued the other side.

It’s probably because of my training and experience in legal advocacy rather than any personality trait that I believe what the Sophists called “antilogy”—deliberately arguing both sides of an issue—is a good thing and not a bad one. Rather than inducing paralysis or contentiousness, I believe it undermines self-satisfaction and encourages closer reflection and open judgment. The give and take of multiple perspectives tests the strength of our ideas in the crucible of conversation.

I wasn’t trying to simply be provocative, but rather flush out what I believe were methodological assumptions and issues beneath the surface. Their excavation required some digging, and that happened primarily through collegial opposition. This mode of participatory and to some extent competitive and combative discourse at the Institute revives the classical tradition of rhetoric and forensic debate practiced by Cicero and Demosthenes centuries ago. This is the pragmatic arena in which Quintillian’s prose rhythm that we’re studying in David’s workshop was put to the test, measured not just in terms of its eloquence, but its persuasiveness.

While Socrates via Plato condemned the Sophists for unnecessary and duplicitous argumentation—as perhaps some my colleagues may have perceived me—Gorgias’ delivery of speeches on opposite sides of the same topic invited and even thrust the audience—in this case, the workshop—into the process of reexamination and decisionmaking. As a result, I believe a more probing discussion ensued, in which my own views were reevaluated through the demands of articulation and confrontation as well.

And from a larger perspective, while the Institute may be condemned perhaps for being socially and professionally elitist—restricted to those of some scholarly rank and achievement—within those bounds I would assert that it is epistemologically democratic, and by potential, radically so, in its modality that everyone contributes to the construction of contingent truth as a collaborative intellectual enterprise.

Yesterday I discussed the idea that musical rhythm is an anthropological adaptation promoting survival through the phenomenon of synchronous chorusing. By coordinating their screeches with an isochronic beat, our primitive ancestors could increase their collective amplitude to better attract sexual mates, and thereby enhance their reproductive success. This theory assumes, however, that male sexuality constitutes the essential driving force in rhythmogenesis, even though it’s female choice—as in my house—that triggers the ultimate consummation.

The anthropologist Ellen Dissanayake has come up with an alternate explanation of the evolutionary origin of rhythm. She argues that rhythm evolved from proto-musical interactions between mother and infant in the early nurturing process. The gurgling and cooing that goes on in the post-natal setting consists of temporally patterned sounds which create an emotional communion or affiliative bond between mother and child. Dissanayake claims this is a survival-enhancing mechanism that ultimately lays the ground for social cooperation among adults. Rather than male sexual competition or adult courtship, the evolutionary antecedents and purpose of rhythm lie in our earliest socialization in the crib.

Dissanayake is not referring to childhood lullabies or singing, but rather ritualized packages of sequential and rhythmically patterned behavior—vocal, facial, and kinesthetic—suffused with emotional and perceptual salience between mothers and infants under six months of age. These not only attract and charm us as Darwin suggested, but teach us to coordinate our emotions and
interactions with another person. They promote the conjoinment necessary for empathetic relations with others as adults, and our psychic connection with the world at large.

This theory of rhythmogenesis is predicated on the assumption that ontogeny recapitulates phylogeny, that is, the existential development of the single individual recapitulates the evolutionary development of the species as a whole. We don’t have a primitive humanoid around, but we do have a human infant and from it we can draw conclusions about the infancy of the species. The baby, as it were, relives our origins, and its behavior provides a rear window into our evolutionary past.

Dissanayake’s theory is grounded in the physical helplessness or altriciality of humans at birth. Unlike other mammals, human offspring are incapable of fending for themselves. In fact, according to my Uncle Morris—he’s Aunt Harriet’s equally senile husband back in Detroit—the human fetus only becomes viable upon acceptance into medical school. OK, what’s the difference between a Rottweiler and a Jewish mother? Eventually, the Rottweiler lets go.

Anyway, the prolonged infancy of the human offspring is generally attributed to the conflict between bipedal locomotion and expanded brain size during the course of human evolution. Upright posture induced a narrowing of the birth canal in the female. But this conflicted with the necessity for a larger skull to accommodate increased brain capacity. The evolutionary compromise was that human babies were born prematurely, while they still had small enough heads to fit through the birth canal. This prematurity in mental capacity accounts for their extended dependency as infants—and in some cases beyond.

This anthropological trend toward juvenile helplessness in turn created a selective evolutionary pressure for more intensive maternal care and bonding within the mother-infant dyad. This resulted in the development of rhythmic and temporally patterned ritualized interactions, creating heightened interest and attunement, and fostering greater intimacy and affiliation. Maternal movements and utterances like cooing, nodding, clapping, swaying, smiling, eyebrow raising and so forth, became simplified, exaggerated, and above all, repeated.

These various sounds and gestures known as motherese—though it could apply to paternal primary care give as well—are composed of rudimentary musical elements in that they are melodic, temporal, and have rhythmic regularity and variety, including pauses or rests, dynamic variation, and alterations of tempo and timbre. Although semantically meaningful words are often used, to the baby these aren’t verbal messages but musical sounds and symbolic behavior.

Dissanayake calls them “interactive affiliative communicative mechanisms based on sequentially organized signals that create sympathetic attunement and communion.” This protomusical interaction within the mother-infant dialogue develops sensitivities and competencies, incipient in other primates, that provide a foundation for the temporal art of music.

This includes our perception of anticipation and fulfillment of beginnings and endings, implications and realizations, antecedents and consequents, qualifications and subordinations, and things like contrast, redirection, opposition, play, pacing, climax, and release. All of these refinements unfold in the primitive rhythmic polyphony between parent and child in the first few months of life.

Mother-infant dialogue is thus not only the evolutionary origin and prototype for musical behavior according to this theory, but the nursery for our interactive capacities with each other, and our affinity with the world at large. The same skills that go into making music are what make this Institute tick—the social rhythms of talking and listening, working and playing, group-time versus self-time, the metrics of group interaction, turntaking, and our sensitivity and entrainment to each other as people.
So now we’ve got two competing theories of the anthropological origin of rhythm—one based on the sexual value of screaming, and another based on the emotional value of gurgling. This is the current state of the field. I didn’t anticipate it would be so, well, autobiographical. Tomorrow I’ll explore the anthropology of rhythm from the perspective of neurology and the chemistry of the brain itself.

Musical Performance

One of the best things about teaching at Mannes is the incredible level of musical talent we get from all parts of the world. It’s a little weird dissecting two measures with someone who can play Rachmaninoff’s third by heart. But there’s always some wonderful classroom moments to remember. One girl told me her favorite piece was the Taco Bell Canon. Another thought a virtuoso was a musician with high moral standards. The best was a paper I got that said Bach wrote many compositions and had a large number of children. In between, he practiced on an old spinster he kept in the attic.

Anyway, today we’re honored to have a performance by one of the smartest and most talented students at Mannes, our own Administrative Coordinator, Ilya Yakushev. This is his second year helping with the Institute, and all I can say is, he’s extremely competent at everything he does. And what he does best is play piano.

Ilya is from St. Petersburg and is one of Vladimir Feltsman’s top students. He won the 2004 Mannes Concerto Competition and performed this past fall at Alice Tully Hall at Lincoln Center. Even though the rest of us are struggling to maintain consciousness at this early hour, Ilya will play Prokofiev’s Third Piano Sonata, and then hopefully answer a few questions about the challenges of performing such rhythmically dazzling music. After the Institute he’ll perform this piece along with several others at the World Piano Competition in Cincinnati.

We’ve given each of you a copy of the score so you can follow along and identify specific passages you might want to talk about. So let’s welcome Ilya Yakushev to the stage for a very special performance of Prokofiev’s Third Sonata for Piano.

Solipsism

I want to confess right up front that I nicked myself shaving this morning. I’ve spent the past few hours applying various ointments, salves, and irrigational techniques to shore up the embarrassing flow of red corpuscles down my chin. I don’t want to over personalize this, but I didn’t want anyone here to think that this blow was sustained in an altercation last night with the restaurant manager over lousy service and abrasive music, or even worse, self-inflicted out of encroaching depression that after today, the only authority I’ll have for the next year will be over my dog.

We’ve got a little time left, so I’d like to polish off my anthropological triptych by discussing the theory of Walter Freeman, a neurobiologist who goes beyond the aesthetic, the cognitive, and the cultural, to the chemistry of rhythm itself. The centerpiece of Freeman’s approach is what he calls epistemological solipsism or our innate condition of neurological solitude. Rhythm evolved, he says, as an antidote to our loneliness. We reach out to each other through the mutual act of synchronization, and thus come to trust each other and transcend our own autonomy.

Freeman claims that isolation is neurologically hardwired into our brains themselves. He
uses the term “solipsism” not in the sense of being so self-centered as to believe everyone else is a merely a projection of your own imagination, but rather that knowledge is subjectively constructed. Learning and perception are not passive acts of acquiring objective data, but active processes of engagement shaped by our own mental operations. As we age and become more individuated, our neural pathways become increasingly unique and individuated as well. As our knowledge increases by selective learning, our brains grow progressively apart from each other because of the particularity of our experiences and the subjective knowledge we each construct. We recognize that other minds as well as the world itself must exist, but we can never escape our own cranium.

For Freeman, the basic problem in overcoming this psychic solipsism is not translating or mapping knowledge from one brain to another, but in establishing mutual trust through shared intentional actions. For human society and a communal reality to exist at all, this psychological gulf must somehow be surmounted.

Rhythm for Freeman evolved as a social mechanism to bridge this gap by inducing a sense of barrier dissolution and oneness with others and the world around us. Repetitive pulsing has a hypnotic effect causing us to transcend ourselves. This same effect—Freeman calls it a psychic meltdown—can be achieved by other stimulants as well, such as sex or drugs, which trigger the release of neurohormones in the brain.

A sexual climax, for example, releases a neuropeptide called oxytocin into the basal forebrain, causing a breakdown of our sense of autonomy. I’m sure you can get it down in the village. Alcohol, marijuana, and cocaine all induce the neurochemical correlates of subjective meltdown or release, as do extreme exercise, sleep deprivation, sudden grief, starvation, and certain back issues of the Journal of Music Theory. Personally, I’m unfamiliar with the effects of extreme exercise, though sleep deprivation and I have become good friends. And the only thing I know about marijuana is it causes amnesia, and other things I can’t remember.

Freeman claims that a rhythmic pulse alters the chemistry of our cortex in a similar fashion. It causes a release of neurohormones creating an altered state of consciousness in which our normal sense of personal autonomy dissolves. The cognitive meltdown induced by rhythm, like sex and drugs, is a sort of neurological massage that weakens our inhibitions and promotes reciprocity, sympathy, and mutual understanding.

Music in preliterate tribes, especially rhythmic drumming, clapping, and chanting where people sing and dance in a hypnotic trance to the point of physical and psychological exhaustion, is designed to dissolve individuality and create communal bonding and spiritual exaltation. There’s an element of this psychic meltdown and group consciousness in rock music, minimal music, and even the rhythmic chanting at sports events. By acting together in unison, we transcend our isolation and feel part of something larger than ourselves. Through rhythm we overcome our sense of separation and achieve communion with one another. We become more receptive to the group and its goals.

This is the function not only of tribal rituals, but of religious chants, military marches, and patriotic anthems as well. By clapping, singing, or moving together in a synchronized manner, we identify with each other, and feel one with the sports team, the school, the nation, or the deity. The strongest basis for social bonding and cooperation lies in rhythmically repeated actions and vocalizations, since they’re predictable by others who can anticipate and thus participate collectively in accordance with group expectations.

Rhythm, according to Freeman, is a wordless, intuitive, and physical means of barrier dissolution by greasing our synapses and breaking down subjectivity. It forges a sense of
mutuality and allegiance, ultimately facilitating the possibility of coherent collective action, the process of socialization, and the formation of human institutions.

It’s the darker side of rhythm’s power to degrade rational minds, unravel morals, and subvert an established social order that caused Plato to ban it from his academy, and the church to suppress syncopation. Carried to an extreme, the steady pounding of a drum can lead warriors to destruction and their own demise, and turn orderly civilians into a mob, inciting riot, slaughter, and even suicide.

Rhythm, by this last account, is social glue, originated through the biological evolution of brain chemistry to overcome our own solitude. It’s a human technology, an audible liquor discovered by our earliest ancestors, to span the gulf between us, if only temporarily, through the collective euphoria of the beat.

And that’s why at the beginning of our journey I said that the topic of this year’s Institute has a lot to do with the Institute itself. Through our collective drumming these past four days, in the persistent intensity of our pulse, we begin to transcend our individual differences and sense our part in a larger community. We feel a shedding of our professional solipsism, our inhibition and pride through a comparable sort of barrier dissolution. We begin to identify with and listen to each other more as members of an intellectual ensemble instead of soloistic scholars, sharing our attunement and affiliation as an organic workshop, a think tank with a unified objective and multiple voices.

And if I correctly understand the guru who told me it’s all in the breath, we may through the ancient antidote of rhythm shed an illusion of our ego, and if only temporarily, become one thinking mind, an integral consciousness, like Aristotle’s God, of thought itself.

Spanning the seemingly insurmountable gulf between us, we too can finally bask, like the Bantu, the Balinese, and the Burgundian, in the richly textured polyphony and resultant patterns of our own music, riding along with Virginia Wolff on the back of our comrades, to glimpse its farthest shore.

Closing Ceremony

It’s time to bring the fifth Mannes Institute to a close. This was a challenging and rewarding experience, and one I’m delighted not only to have made possible, but be part of myself. I thank you for contributing to our success. People have said a lot of wonderful things about the Institute that make me feel really good. In fact, Justin told me that the only thing standing between the Institute and greatness is me.

Before we disband, I’d like to express our appreciation to our faculty, Kofi, Chris, Pieter, Harald, David, and Justin. They each brought something unique and special to this event, and we all learned a great deal from them. There’s no question that the Institute’s ability to attract outstanding scholars like you is a tribute to their intellectual stature and collegial rapport. They confronted the daunting challenge of leading workshops before an intimidating group of peers, and have done it with impeccable grace and skill. Future faculty members will be held to the same high standards. I’d like to ask these six distinguished scholars and colleagues to please stand for a round of applause.

Within their ranks, I’d especially like to acknowledge Harald and Justin. As co-chairs of this year’s faculty, they helped me organize this event from the ground up, select the faculty and participants, and make innumerable decisions along the way. I discovered why they’re not only outstanding scholars and wonderful colleagues, but leaders in our field. They are both
committed, calm (especially Harald), and chipper (especially Justin). This was a particularly demanding assignment this year. To be honest, I simply couldn’t have done this without them. We’re all indebted to them, so let’s thank them again.

I’d like to remind everyone to fill out your Institute Evaluation Sheet in your conference packet and be sure to give it to me or Ilya before you leave. You can also mail them to me, or preferably even use your own university letterhead. But please do. If you enjoyed this experience, please take the time and effort to share your thoughts. It means a lot to me and the others who made this happen. I’m pleased to say that one of your esteemed colleagues last year, Dan Harrison, wrote that the Institute has become one of the most significant professional credentials in our field.

Next year’s program will be an Institute on Chromaticism with Pat McCreless, Dan Harrison, Charles Smith, Deborah Stein, Richard Kramer, David Kopp, and Greg Proctor as special guest. We’re exploring the possibility of taking the Institute on the road by holding 2006 at Yale just for a temporary change of venue. In 2007 we’ll be back at Mannes for an Institute on Schoenberg and His Legacy with Andy Mead, Severine Neff, and other experts in that area, with Allen Forte as our special guest. Plans are also afoot for a Jazz and Pop Institute, a Cognition and Perception Institute, a Recent Music Institute, and an Aesthetics Institute as well. Each year a different subject is explored, and new proposals are welcome. What we need is a core group of six outstanding scholars working in a particular area of broad enough interest to form a faculty and attract our peers.

I urge each of you to tell your friends and colleagues about the Institute, and encourage them to join us in the future. If you know anyone who applied before and was rejected, please urge them to try again. Our purpose is to establish greater communication and collegiality throughout all branches of our profession, and to give all scholars an opportunity to come together in an interdisciplinary context. As you can see, this year we’ve broadened out to include many more midlevel and junior scholars, and we expect to continue to be more inclusive in the future.

My final task is to present each of you with your diploma evidencing your membership in the Institute, which I’ll do as theatrically as possible, by asking you to come up and walk across the stage. Although we’re all teachers, here we’re students too and we need to graduate. So as Director of this noble enterprise, I hereby call the roll of newly admitted fellows into our ranks. As I read your name aloud, please come up to receive your diploma. And let’s make the first group our outstanding faculty: Kofi Agawu, David Cohen, Chris Hasty, Harald Krebs, Justin London, and Pieter van den Toorn. And now the graduating class of 2005: