

## Experimental Music and Communicative Action

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### Abstract

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The alienation of lay audiences from experimental music is broadly assumed today in the academe: composers of such music, it is alleged, address primarily their peers. This problem is symptomatic of the conditions of radical modernity, as analyzed by Jürgen Habermas, who distinguishes between the autonomous productions of expert culture (*system*) and the everyday experience of lay people (*lifeworld*). Under such conditions, Habermas advocates communicative action—verbal and nonverbal exchange, oriented toward understanding—as a form of mediation between these two cultural spheres (Habermas, *The Theory of Communicative Action*, Vols. 1 and 2, 1984 and 1987). Recent experimental projects of New Music New College may be understood as musical forms of communicative action. One such project, *Hocket Science*, was created collaboratively by seven composers, who developed this piece from a basic concept (“mediation”) to a finished work for sixteen vocalists. The compositional structure of *Hocket Science* requires that performers engage in symbolic dialogue, an exchange of musical material that is transformational on the individual and collective level. Audience members participate vicariously in the transformation, and become mobile at key moments in the performance. The work thus addresses the boundaries of autonomous art—the boundary between performer and audience, and between individual and the collective in the compositional process. *Hocket Science* attempts to open the lifeworld of participants to the insights of “expert culture” by focusing on questions of agency: Who creates? Who participates? Who listens? Who controls the outcome? This article argues for the relevance of Habermas’s social theory to contemporary compositional practice.

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For the past twelve years, the focus of my work has been experimental music—music that largely eschews convention and that values process over product. Those of us who compose, perform, and promote experimental music repeatedly confront the perception that such music alienates audiences, and that experimental music is intended primarily for practitioners and offers little of interest to anyone else. Based on my experience as composer and performer, and on my reading of social theory, I will argue the opposite. Understood in the light of Jürgen Habermas's theory of communicative action, experimental music mediates between the sphere of specialists and lay audiences, promoting a reflexive engagement with music and its social dimension. The bulk of this essay will be devoted to explicating Habermas's theory and to discussing relevant projects of New Music New College, my experimental music group at New College of Florida. First, however, I wish to discuss recent music history and explore the reasons for experimental music's marginalization.

No one would claim that experimental music has ever been at the center of musical production. Even during the sixties, when John Cage, Morton Feldman, Cornelius Cardew were at the peak of their influence, experimental music was at best a challenge to the more dominant forms of musical practice, whether traditional or so-called avant-garde.<sup>2</sup>

Though techniques of indeterminacy differed fundamentally from the systematic controls of serialists, such distinctions were often lost on critics and the public, which tended to lump all such practices into one broad category: "new music." The seventies witnessed a broad-based reaction against the most complex and radical forms of contemporary music, whether composed by serialists, postserialists, or, for that matter, experimentalists. Leading the charge were composers such as George Rochberg, who argued in both essays and music for a return to the musical past, not simply in spirit but in substance. A variety of "neos" followed in the succeeding years: neotraditionalism, neoromanticism, and neotonality. While the focus of this polemic was ostensibly music, the real quarrel was over modernity itself. Rochberg and others feared that the specialized techniques of contemporary music—techniques that he associated with rampant scientism—alienated composers from their audience and from themselves.

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<sup>2</sup> Here I follow Michael Nyman in using the term "avant-garde" to designate the high modernist practices of composers such as Boulez, Stockhausen, Nono, and later Berio, Xenakis, Ligeti, et al. While the term "avant-garde" has been defined much more precisely in literary and art criticism (see Peter Bürger, *Theory of the Avant-garde*), its use in music discourse is by now firmly entrenched.

Composers had both a musical and cultural obligation to abandon the isolation of aesthetic modernism and affirm traditional values.<sup>3</sup>

There were at least two problems with this traditionalist critique of modernist music. First, musical modernism was a manifestation of cultural rationalization, the movement toward increasing reflexivity and autonomy that, as diagnosed by Max Weber, is pervasive in every productive sphere of Western society. The development of specialized compositional methods, based on a critical understanding of previous practices, is not culturally aberrant. To the contrary, it is absolutely consistent with the larger processes of rationalization dominant in the aesthetic sphere and even more so in science and social institutions. And I am not referring here solely to twelve-tone technique or aleatoric methods: the process of cultural rationalization may be observed in music dating at least from the seventeenth century. Contemporary scholarship has helped us perceive the historical consciousness and self-consciousness of composers from Monteverdi to Schoenberg, composers who worked in a highly reflexive manner, altering traditional materials in light of their contemporary significance.<sup>4</sup> Even if this genie could be put back in the bottle, music cannot be isolated in theory or in practice from its larger social, intellectual, and institutional contexts. It is naïve to think that the problems of cultural rationalization can be ameliorated through activity in a single productive sphere.

This leads to the second problem. The neotraditionalist position in music reflects the same fear of modernity seen in neotraditionalism in politics and social life. In *The Cultural Contradictions of Capitalism*, one of the classic texts of neoconservatism, theorist Daniel Bell calls for a revival of religious tradition as the means to combat what he describes as the pervasive hedonism of contemporary society.<sup>5</sup> However, as Habermas has observed, Bell and other neoconservatives confuse cause and effect: a preoccupation with self at the expense of social solidarity is endemic to capitalist competition. Neoconservatism displaces the burdensome and unwelcome consequences of a more or less successful capitalist modernization of the economy on to cultural modernity.

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<sup>3</sup> Rochberg, George. "Music: Science vs. Humanism," *Music in the Western World: A History in Documents*, ed. Piero Weiss and Richard Taruskin (New York: Schirmer Books, 1984), 534-38.

<sup>4</sup> Subotnik, Rose. *Developing Variations: Style and Ideology in Western Music* (Minneapolis: University of Minnesota Press, 1991), esp. 98-111.

<sup>5</sup> Daniel Bell, *The Cultural Contradictions of Capitalism* (New York: Basic Books, 1976), 162-171.

It obscures the connections between the processes of social modernization, which it welcomes, on the one hand, and the crisis of motivation, which it laments, on the other, and fails to reveal the sociostructural causes of transformed attitudes to work, of consumer habits, of levels of demand and of the greater emphasis given to leisure time. Thus neoconservatism can directly attribute what appear to be hedonism, a lack of social identification, an incapacity for obedience, narcissism, and the withdrawal from competition for status and achievement to a culture which actually plays only a very mediated role in these processes.<sup>6</sup>

Habermas also notes that the authority of religion, undermined by modernist critique, cannot be willfully revived.<sup>7</sup> This, however, does not deter religious fundamentalists (whether Christian, Jewish or Islamic) when they reject the challenge of pluralism and seek to impose their version of absolute truth on thoroughly secular, modern societies.

Viewed within this larger context, the challenge that composers face today is that which confronts producers in every domain of society and culture: how to respond to modernity in such a way that self-reflexive reason leads to an expansion of human freedom, not to its reduction.

What composers need today is a more coherent theory of modernity, one that opens our eyes to the social character of our labor and suggests the relevance of our specialized production for lay audiences. To those who question the need for theory, I would maintain that modern music is already theoretical through and through: to the extent that musical meaning (on whatever level – social, aesthetic) is not transparently derived from tradition, it is driven necessarily by a theoretical understanding of previous practice. This is the case even when that theory is followed intuitively as an assumption and is not fully worked out in discourse.

My interest in this essay is to promote Habermas's theory of communicative action as a model for experimental music. Habermas might seem an unlikely source of insight into musical practice: though unquestionably one of the world's most important philosophers, Habermas has not focused on art and aesthetics.

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<sup>6</sup> Jürgen Habermas, "Modernity: An Unfinished Project," trans. Nicholas Walker, in *Habermas and the Unfinished Project of Modernity*, ed. Maurizio Passerin d'Entrèves and Seyla Benhabib (Cambridge, Mass.: MIT Press, 1997), 43. Habermas presented this lecture upon receiving the Theodor W. Adorno Prize from the City of Frankfurt in 1980.

<sup>7</sup> *Ibid.*, 42.

However, his theory of modernity is of paramount importance. As argued in such works as *The Theory of Communicative Action* and *The Philosophical Discourse of Modernity*, Habermas has developed an intersubjective conception of reason that balances individual agency with collective responsibility. More importantly, at least for the purpose of this essay, Habermas's work constitutes a substantive revision of the philosophy of Theodor W. Adorno. Given Adorno's profound influence on composers of the last half-century, Habermas's critique of Adorno is crucial to those who wish to understand the social and cultural position of music in high modernity.

After discussing the theories of Adorno and Habermas I will turn to recent projects of New Music New College. The focus of this final section will be *Hocket Science*, a work for two vocal ensembles that was composed by XMG (eXperimental Music Group), a collaborative of seven composers. While this project was not pursued consciously as an implementation of Habermasian principles, its significance is more readily understood through reference to Habermas's theory of communicative action.

### **From Negative Dialectics to Communicative Action**

In diagnosing the conditions of cultural modernity, Adorno was relentlessly dialectical. Though he held that the autonomy principle could not be reversed, he lamented the social and psychic costs of rationalization.

Writing with Max Horkheimer in *Dialectic of Enlightenment*, Adorno retold the story of reason's rise with bitter irony, noting the fundamental contradictions of knowledge, language, and culture. As the scientific method gradually replaced myth as a means for understanding nature, religious authority withered. Science, however, is concerned with mastery of the objective world: questions of spiritual meaning or even social meaning are irrelevant. Crucially, to address issues outside of its specialized area of knowledge would be a violation of the principles and methods of science. Science and rational methods are supposed to emancipate human beings from enslavement to myth, yet Adorno argues that they result in radical subjectification. As the cognizing subject acquires dominion over the objective world, that world increasingly becomes an extension of the subject: "Man's likeness to God consists in sovereignty over existence, in the countenance of the lord and master, and in command. Myth turns into enlightenment, and nature into mere objectivity.

Men pay for the increase of their power with alienation from that over which they exercise their power."<sup>8</sup>

Indeed, Adorno held that the human desire to control and manipulate nature—the essence of instrumental rationality—could be located at the deepest level of thought: in his view, the cognizing subject is virtually doomed to dominate the object of cognition, imposing concepts that efface the object and lead to identity thinking: “Language itself gave what was asserted, the conditions of domination, the universality that they had assumed as the means of intercourse of a bourgeois society.”<sup>9</sup> The power and seductiveness of language thus became one of Adorno’s primary themes. It is one of the reasons why his writing is so notoriously difficult: he deliberately structured his sentences so as to display writing at work. Adorno’s task was to turn concepts against themselves, invoking them only to negate them, demonstrating their limits. In Adorno’s mature writings, sentences turn on themselves through intricate dialectical reversals. Thought must become sufficiently reflexive to catch itself in the act of domination, consciously negating this tendency to dominate. It can never fully succeed, but this unrelenting opposition—negative dialectics—is the best strategy.

The aesthetic as a category thus became central to Adorno because it consists of both a rational and a mimetic moment: where discursive thought is limited by the universalizing character of language, art offers a means of resistance through the sensuousness of form. This resistance occurs on two levels: production and reception. The artist’s work may be grounded in a concept, yet the realization of that concept will require engagement with material, and this material offers resistance because it is not the product of mind. The artist must approach the material in a process that is interactive: the artist discovers the limits of her imagination and domination in the demands of the artistic material. To disregard this moment of resistance is to abandon the redemptive potential of art itself.<sup>10</sup> Likewise, the art audience must remain open to specific demands of the artwork. In contrast to entertainment commodities, art is not offered *for* us.

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<sup>8</sup> Theodor W. Adorno and Max Horkheimer, *Dialectic of Enlightenment*, trans. John Cumming (New York: Continuum, 1972), 9.

<sup>9</sup> *Ibid.*, 22.

<sup>10</sup> Adorno, *Aesthetic Theory*, p. 55: “Art is rationality that criticizes rationality without withdrawing from it; art is not something prerational or irrational, which would peremptorily condemn it as untruth in the face of the entanglement of all human activity in the social totality.”

Though it may give pleasure, it is under no obligation to do so. In Adorno's view, only autonomous art enjoys this freedom from the demand to serve human desires. Because such art is at liberty to negate convention (sedimented history), it cannot be wholly subsumed under abstract categories. The reception of autonomous art requires exploration: as we engage the artwork, we discover its particularity, not its universality.

From Adorno's perspective, the only hope is for art to embrace reason through its methods while renouncing wholeness through its structure. Adorno's exemplars of this extension of negative dialectics to artistic production include Samuel Beckett, Arnold Schoenberg, and Paul Celan, whose demanding works occupy a prestigious if marginalized position in our culture. These artists placed at the center of their work the social and psychic traumas of mid-century existence, and they refused to compromise the form of their work in the interest of accessibility. To do so would have been to neutralize the social and aesthetic value of the work. As Adorno writes, "The acute reason today for the social inefficacy of artworks—those that do not surrender to crude propaganda—is that in order to resist the all-powerful system of communication they must rid themselves of any communicative means that would perhaps make them accessible to the public."<sup>11</sup>

Though bleak and uncompromising, Adorno's theory was extraordinarily influential because it offered composers a way to reconcile the production of autonomous (i.e. radically self-referential) music with social relevance. A composer did not have to travel to Darmstadt or read *The Philosophy of Modern Music* to absorb the notion that the most important feature of new music was its autonomy. (This was especially easy to support if one occupied a position in the academy.) If this approach seemed to lead into a cul de sac, composers tended to displace the problem from the level of production to that of reception. In a manner that recalled Adorno's approbation of Schoenberg, academic composers honored the audience by making no concessions to them.<sup>12</sup> Some of Adorno's statements about composers and audiences are strikingly similar to those of Milton Babbitt:

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<sup>11</sup> Theodor W. Adorno, *Aesthetic Theory*, trans. Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 1997), 243.

<sup>12</sup> Theodor W. Adorno, "Arnold Schoenberg 1874-1951," *Prisms*, trans. Samuel and Shierry Weber (Cambridge, Mass.: MIT Press, 1984), 154.

Adorno: "Art respects the masses by presenting itself to them as what they could be rather than by adapting itself to them in their degraded condition."<sup>13</sup>

Babbitt: "I question that morality which suggests that it is more virtuous to stoop to attempt to conquer the masses than to attempt to create a standard to which they might aspire."<sup>14</sup>

For composers, the great value of Adorno's theory is that he helps us see the contradictions between the utopian potential of productive forces and the thwarting of those forces in practice. He also opens our eyes to the utopian potential of music, even if it is limited to a very narrow kind of music. The value is thus primarily diagnostic: Adorno does not help us respond to this contradiction in ways that reach those who suffer most from the impoverishment of culture and the cruelty of society. This is the strategy of hibernation and withdrawal, in which art serves best those whom it ignores.

Habermas, himself a distinguished student of Adorno, offers a way out of this cul de sac, less through direct statements on art and aesthetics than through his penetrating and original theory of modernity.

With regard to the consequences of cultural rationalization, the differences between Habermas and Adorno are subtle though important. Habermas notes that the autonomous development of the three validity spheres, while productive and desirable in many ways, has resulted in a gap between *system* and *lifeworld*: our experience of the cognitive, the moral, and the aesthetic in our everyday lives often seems remote from the formulation of these spheres by experts. This problem tends to be tolerated in the cognitive and social spheres because most people judge the cost/benefit ratio to be ultimately acceptable. Also, the authority of experts in these domains seems more difficult to question. In the aesthetic sphere, however, the distinction between *system* and *lifeworld* is commonly derided by non-experts. Because the realm of art is more closely tied to tradition, not least because of the links between aesthetics and religion, the negation of tradition is viewed as both an aesthetic and social violation. Autonomous art hardly marginalizes or controls the "communicatively structured sphere" of lay audiences.

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<sup>13</sup> Adorno, *Aesthetic Theory*, 239-40.

<sup>14</sup> Quoted by Leon Botstein in "Milton Babbitt: Speaking Truth Through Music," *The Chronicle of Higher Education*, April 14, 2006.

Yet, the hostility of audiences to music that—however rationally conceived—negates tradition and received convention, is a response to the colonization effect. The rationalization of music (as autonomous system) has outpaced the experience and knowledge of audiences.<sup>15</sup>

So what are artists to do? Having acquired a reflexive understanding of artistic domains, how do artists affirm disciplinary knowledge while addressing nonprofessionals? It is precisely this problem that has provoked the most heated reactions by composers and musicians. As was discussed earlier, neotraditionalists have called for a revival of past musical conventions. Others, such as American minimalists and post-minimalist composers have incorporated features from popular music. While such moves unquestionably result in greater accessibility, this gain in communicative value is achieved at the expense of reflexivity. Though we all lament the gap between expert culture and lay experience, between *system* and *lifeworld*, we must be wary of attempts to resolve this problem artificially. Habermas's theory of modernity, and his emphasis on the necessity of maintaining a clear distinction between the three validity spheres (cognitive, moral/ethical, and the aesthetic), helps us to avoid this error.

Since there are no norms that govern all three validity spheres, thoroughly modernized societies are radically decentered and may be described as post-conventional. Individuals in such societies acquire a reflexive understanding of their objective world, their social relationships, and their subjective experience. In a post-conventional society, the desire for a transcendental grounding of all experience is set aside in favor of something more contingent: individuals accept that religious beliefs cannot be held as absolutely true, that social values cannot trump scientific inquiry, and that there is no ultimate standard of beauty. This is an exceedingly demanding position, one that can inadvertently lead to the positing of new transcendental foundations for experience or to the incorporation of knowledge from expert cultures directly into the lifeworld. This, however, would be a mistake. Habermas writes,

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<sup>15</sup> Martin Jay's comment on the rational development of autonomous art is relevant here: "...if Bürger is right about the atrophy of the original semantic potential of art as a result of too much technical virtuosity, there may even be a contradictory relationship between increased artistic rationalization and its redemptive function" ("Habermas and Modernism," in *Habermas and Modernity*, ed. Richard Bernstein, 138).

The *unmediated* transposition of specialized knowledge into the private and public spheres of the everyday world can endanger the autonomy of independent logics of the knowledge system, on the one hand, and it can violate the integrity of the lifeworld contexts, on the other. A knowledge specialized in only one validity claim, which, without sticking to its specific context, bounces across the whole spectrum of validity, unsettles the equilibrium of the lifeworld's communicative infrastructure. Insufficiently complex incursions of this sort lead to the aestheticizing, or the scienticizing, or the moralizing of particular domains of life and give rise to effects for which expressive countercultures, technocratically carried out reforms, or fundamentalist movements can serve as drastic examples.<sup>16</sup>

Habermas calls for mediation between expert culture and the lifeworld. But how is such mediation to be carried out? Who are its agents? What are the rational grounds for such mediation? These questions lead to the foundation of Habermas's project, his postulation of communicative rationality.

Habermas's insistence on the legitimacy of lifeworld experience in the face of expert culture would seem to distinguish him from Adorno. However, Habermas distances himself from Adorno decisively in his conception of reason: he maintains that Adorno's diagnosis of culture followed inevitably from his philosophy of consciousness.

Because Adorno subscribed to a subject-centered notion of reason, there was no place in his scheme for an intersubjective moment, though his notion of mimesis implicitly acknowledged the need for intersubjectivity. Habermas writes:

...the rational core of mimetic achievements can be laid open only if we give up the paradigm of the philosophy of consciousness—namely, a subject who represents objects and toils with them—in favor of the paradigm of linguistic philosophy—namely, that of intersubjective understanding or communication—and puts the cognitive-instrumental aspect of reason in its proper place as part of a more encompassing *communicative rationality*.<sup>17</sup>

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<sup>16</sup> Habermas, *The Philosophical Discourse of Modernity*, trans. Frederick G. Lawrence (Cambridge, Mass.: MIT Press, 1992), 340.

<sup>17</sup> Habermas, *Theory of Communicative Action*, Vol. 1, trans. Thomas McCarthy (Boston, Beacon Press, 1984), 390.

Habermas has devoted the last forty years to the idea that, under the conditions of modernity, reason must be understood as communicative. Reason cannot be defined in terms of transcendental principles, that is, in terms of content. Rather, it must be understood as procedural: participants in communicative rationality offer validity claims, claims that can be accepted or rejected, but which constitute the shared path toward mutual understanding. Following the post-metaphysical thinking of Habermas, this is the only way to conceive of reason that does not involve force. Indeed, what constitutes the true, the good, and the beautiful will be determined by the stronger argument.

If Habermas conceives of reason in post-conventional societies as communicative, what are the consequences of this view for action in such societies? First, in contrast to strategic action, in which agents objectify other subjects in the pursuit of goals, communicative action takes understanding itself as its goal: "Every action oriented to reaching understanding can be conceived as part of a cooperative process of interpretation aiming at situation definitions that are intersubjectively recognized."<sup>18</sup> Habermas devotes considerable space in his writings to the problems of strategic action, and in so doing he reveals a connection to Adorno. Adorno viewed instrumental rationality as doubly defeating, in that it both turns the Other into an object and it creates the illusion of subjective control. For Habermas, strategic action constitutes domination of the Other, while simultaneously limiting the subject's access to the Other's perspective. Habermas writes the following on the challenge of other speakers, other viewpoints, other claims:

These constraints force the actors to change their perspective: they must shift perspective from the objectivizing attitude of an actor oriented toward success who wants to realize some purpose in the world, to the performative attitude of a speaker who wants to reach understanding with a second person with regard to something in the world.<sup>19</sup>

Second, while communicative action is closely tied to language and validity claims, it may take the form of non-linguistic expressions as well.

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<sup>18</sup> *Ibid.*, 69-70.

<sup>19</sup> Habermas, "Action, Strategic Action, Linguistically Mediated Interactions, and the Lifeworld," *On the Pragmatics of Communication*, ed. Maeve Cooke (Cambridge, Mass.: MIT Press, 1988), 224.

Habermas writes, "In linguistic utterances knowledge is expressed explicitly; in goal-oriented actions an ability, an implicit knowledge is expressed; this know-how can in principle also be transformed into a know-that."<sup>20</sup> Whether actions are verbal or non-verbal, communicative actors raise validity claims explicitly or implicitly, and other participants may challenge these claims in turn. The truth of a validity claim is "related to the existence of states of affairs in the world," while the effectiveness of validity claims is "related to interventions in the world with whose help states of affairs can be brought into existence."<sup>21</sup>

Third, as a result of such communication, participants become increasingly reflexive about their world and the appropriateness of their own claims with respect to the three spheres of validity. Because participants in communicative action raise validity claims and respond to the claims of others in unrestrained dialogue, the assumptions behind beliefs and values are open to question and interrogation. This leads to a process of thematicization, in which actors learn to distinguish between "topic-dependent contextual knowledge" and "deep-seated background knowledge."<sup>22</sup> Until such "knowledge" is made criticizable through validity claims, it remains prereflective and cannot be considered knowledge at all. Crucially, this means that communicative action is not just the work of actors in the lifeworld; it produces the actors as well.<sup>23</sup>

### **Communicative Action and Experimental Music**

What are the implications of communicative action for musical practice, specifically that of experimental music? I will focus only on two aspects of this question: the concept of a post-conventional culture and the necessity of developing interactive approaches to composition and performance.

Experimental music in many ways exemplifies post-conventional culture. Whether by Cage, Oliveros, or the most recent practitioners, experimental music raises validity claims: What is music? What is performance? What is their value? If music is truly experimental, it essentially takes the form of questions. The point is not so much to arrive at permanent answers to these questions, but rather to explore the range of possible answers.

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<sup>20</sup> Habermas, *Theory of Communicative Action*, Vol. 1, 8.

<sup>21</sup> *Ibid.*, 9.

<sup>22</sup> Habermas, "Action, Strategic Action, Linguistically Mediated Interactions, and the Lifeworld," 240-42.

<sup>23</sup> *Ibid.*, 246.

If experimental music is interrogative in character, it is vitally important that the audience perceive every performance as an invitation to dialogue. In my experience of performing with New Music New College, I have found the context of performance crucial in this regard. When experimental music is performed in conventional recital halls and auditoriums, there is a dissonance between the character of the work (open and indeterminate) and the space (closed and determinate). For example, performing the music of Cage on a stage invites the habits of reception more appropriate to a sonata by Beethoven: the audience is encouraged to listen in an undistracted manner, reconstructing the work mentally through recursive thinking. Since Cage's music reflects very different priorities, his music is better served by spaces that permit audience mobility and multiple auditory positions. In order for Cage's implicit validity claims to be entertained by the audience, they must first be properly perceived. When my students and I performed Cage's *Song Books* at the Ringling Museum of Art (in conjunction with an exhibition of Joseph Beuys's multiples), we spread the performance over an expanse of interconnected galleries. Five soloists performed independent "recitals" over the period of one hour, moving from location to location in the galleries. The audience, denied fixed seating, was released to establish their own positions in relationship to the music. In the course of the performance the audience gradually became conscious of their role in the performance. They became aware of their agency.<sup>24</sup>

If experimental music is implicitly dialogical, this communicative character can be developed explicitly through compositional structure and process. This idea is hardly new. Pauline Oliveros's *Sonic Meditations* offer a compelling model of intersubjectivity in composition,<sup>25</sup> and Cornelius Cardew's works of the late sixties (e.g., *The Great Learning* and *Treatise*) break down the distinction between performer and audience, enhancing the potential for dialogue. New Music New College has offered these works in performance and workshop, and the experience led us to produce compositions of our own.

In what follows, I will describe the development of two compositional projects, my own *Social Studies* and *Hocket Science*, a work composed collaboratively by six students and myself.

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<sup>24</sup> For a complete analysis of this performance, see Stephen Miles, "Seeing Cage, Hearing Beuys," *TDR: The Drama Review*, Vol. 54, No. 2 (Summer 2010): 126-154.

<sup>25</sup> See Stephen Miles, "Objectivity and Intersubjectivity in Pauline Oliveros's *Sonic Meditations*," *Perspectives of New Music*, Vol. 46, No. 1 (Winter 2008): 4-38.

For many years I had wanted to create vocal compositions that would call attention to the social dimension of musical performance—the way rehearsals and performances always structure social relationships for performers and audiences. I devoted considerable time to analyzing these behavioral patterns, yet my attempts to translate my insights into fully notated compositions were unsatisfying: despite the fact that the musical structures addressed the patterns, the performers remained entirely under my control. Hence, a new and contradictory social dynamic was at work. If the performers themselves were to truly experience the social aspect of the performance, they needed to become agents in the compositional process. My solution to this problem was *Social Studies*, a collection of musical games that I created in 2002. Each of the *Social Studies* games uses a specific social dynamic as its generative principle. Each game consists of verbal instructions, essentially a set of procedures. The performers themselves must contribute material and participate in the compositional process.

One such game, “Learning to Lead,” addressed the problem that musicians, in the course of their training and professional experience, become far more adept at following a leader than at taking initiative (see Figure 1, below). Note the communicative character of the process: each singer must invent (contribute something new) and analyze (understand the constituent units of the pattern they receive before changing it). Thus, before one can lead, one must learn to listen.

**Figure 1. Stephen Miles, *Social Studies*, “Learning to Lead”**

The participants sit in a circle, eyes closed.

The leader establishes a short pattern that is taken up by the group. The leader must determine that the group has mastered the pattern before relinquishing the role of leader to the person to the person on his or her left.

Moving around the circle each participant takes a turn as leader, initiating a new pattern that retains a feature of the preceding pattern. Participants should gradually take up the new pattern, but they must wait to do so until the new pattern has reached their location in the circle.

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If such pieces as “Learning to Lead” could be performed before an audience, other *Social Studies* compositions were intended for performance by everyone present. In “Following,” simple vocal actions (e.g., laughs, coughs, voiced and unvoiced tongue trills, tongue clicking, etc.) are used as the sonic material for a fully participatory work (see Figure 2, below)

**Figure 2. Stephen Miles, *Social Studies*, "Following"**

The participants are divided into three or four groups, each of which selects a leader. The leaders stand in the center of the performance space with their backs to each other, facing their groups.

Each group is given a repertoire of vocal actions, labeled 2-10, A, J, Q, K, printed on large sheets of paper. Using a deck of playing cards, divided according to suit, the series of actions to be performed by each group is determined.

Following this series, the conductor of each group initiates each action and controls its duration, dynamics, and attack. The conductor may also direct the group to be silent. When all groups have completed their actions, the piece is over.

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Audience members who chose to participate in "Following" experienced a number of things. First, they discovered the expressive potential of common vocal sounds and thus added them to their understanding of "music." Second, they experienced the discipline of performance as they followed their leader's directions completely. (It's one thing to cough; it's another thing to cough on cue with others at the appropriate dynamic.) Third, as they heard the same vocal actions produced differently by the other groups, they experienced an indeterminate composition as still possessing such conventional musical features as repetition and variation, and they even perceived the groups as interacting, led of course by their conductors.

In such moments, the audience experienced the music simultaneously as both performers and listeners.<sup>26</sup>

The *Social Studies* experience was a revelation to all of us. We had created music that was completely unfamiliar, yet fully accessible. The audience experienced a new sense of agency and seemed eager for more. The following year, my students and I endeavored to take the process of collaboration one step further.

If performers and audiences could participate in communicative music, perhaps composers could as well. The result was *Hocket Science*, a work for two groups of performers, created by a collective of seven composers.

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<sup>26</sup> For a complete analysis of this music and the performance, see Stephen Miles, "Composing Reflexivity: The Social Studies Project," in Brenda Dervin and Lois Foreman-Wernet, eds., *Audiences and the Arts: Communication Perspectives* (Cresskill, New Jersey: Hampton Press, 2010), 123-150.

I should make it clear right away that, prior to working on *Hocket Science*, I had never before composed collaboratively. Like virtually all composers trained in the art music tradition, I had always worked in solitude, only sharing my music with performers when my work was finished. In order to help myself learn how to compose with others, I offered a course, Experimental Music in Theory and Practice, in the fall of 2003. Of the fourteen students who enrolled in the course, ten had played key roles in the *Social Studies* project of the previous spring. The theoretical aspect of the course was broad in scope, with readings including Hegel's *Lectures on Fine Art*, Bourdieu's *The Field of Cultural Production*, Peter Bürger's *Theory of the Avant-garde*, and Richard Schechner's *Performance Theory*. Through a series of workshops we explored key works by Cardew, Cage, Brown, and various Fluxus artists. Only after completing this period of study did we embark upon the task of collaborative composition.

Inspired by Sol LeWitt's dictum, "the idea becomes the machine that makes the art," we first decided on a concept that would be the focus of our project. We considered and rejected several ideas before the right one came along. One of the students proposed "mediation" as the concept because so many of our discussions had been spent mediating between our opposed positions on aesthetics and composition.

I then proposed an assignment: create verbal instructions to vocal performers that transform a drone state into a percussive state. The responses to this assignment were promising, but a new problem then emerged: how to synthesize the contributions into a coherent composition. This proved impossible because, as one student put it, the synthesizing process effectively blunted the boldest features of each composer's work. By semester's end, we had succeeded in one thing and one thing only: we knew how *not* to compose collaboratively. We had produced intriguing individual pieces, but we had not created a work together. The primary reason for our failure was clear: our *process* had not been sufficiently collaborative. However, we had come close enough to our goal that a subset of the class agreed to try again the next semester. It is this second effort by a group of six students and myself (eventually known as XMG), which yielded *Hocket Science*.

As collaborators, the students and I covered a broad range of experience and expertise. Two students, Page Laubheimer and Steve Scott, had studied algorithmic composition and were very comfortable thinking in terms of structured commands.

Other students brought deeper experience with traditional compositional techniques to the project. Audrey Troutt and Thomas Patteson were more traditional music students. They had studied counterpoint, had composed music for standard ensembles (e.g., string quartet, wind quintet, brass quintet), and were my teaching assistants for music theory courses. The other two students, Taylor Briggs and Eliot Chayt, were equally versed in music and philosophy. Their imagination and conceptual skills proved invaluable in the collaborative process. Though none had composed collaboratively before (apart from the ill-fated experience of the previous semester), all were willing to give the project a try.

We would have to try hard because we were flying without a safety net: in a moment of bravery (or foolishness), I had scheduled a public performance of our work for later in the term. We thus had seven weeks to create collaboratively a work that met certain specifications. First, the work would of necessity be vocal. Given the limited instrumental resources of New College, it seemed prudent to rely on singers, particularly those who had participated in the previous year's *Social Studies* project. Second, we had to assume that the performers would be largely untrained. This would place severe restrictions on our use of pitch and notation. Finally, we could only count on three or four rehearsals prior to the performance. Though these restrictions were daunting, they provided us with objective limits, limits that would serve as reference points during the collaborative process.

Compared with the performers (and the audience), we were experts. Our knowledge of musical technique and reflexive engagement with contemporary musical issues constituted a basis for our self-evaluation. We would draw upon our collective knowledge of musical technique, yet that technique would be used in response to the specifics of our assignment.

Perhaps it was because of our sense of urgency that we decided very quickly to stick with the concept of "mediation," the concept that had formed the basis for the previous term's class assignment. The idea still held promise, especially since it seemed so closely connected to the process we were about to pursue, one characterized by discussion, negotiation, and working toward consensus.

However, we immediately had to confront the problem that our understanding of “mediation” was highly varied. Though I could have attempted to clarify the concept myself, this became our first exercise in communicative action. We spent several sessions to open-ended discussions of “mediation,” considering the possible meanings and learning from each other in the process. Though these discussions became tedious at time, and all of us were tempted to cut the process short by imposing our will, we sensed that this was in fact what had been missing from the classroom experience. Only when each issue had been sorted through patiently and consensus had been achieved could we move on to the next stage of the creative process.

In the end we defined mediation as “a thorough movement between extremes.” This then led to the next set of questions: What were the “extremes” that would be mediated? What would constitute “thorough movement?” In response to the first of these questions, we posed the following set of dichotomies: outer (perimeter)/inner (center of the performance space). audience/performerensemble/soloist assembly/dispersement drone (vowel, voiced consonants)/percussive state (unvoiced consonants/body percussion)

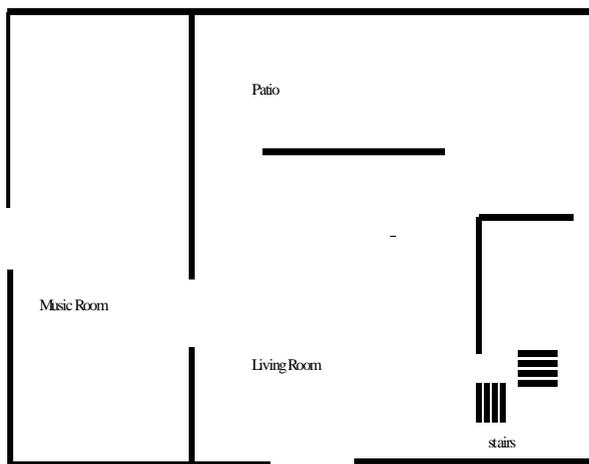
Should the movement between the extremes be smooth and stable or contested and unstable? How could the movement between the extremes be energized? What strategies would we want to promote? These were among the questions that our choice of concept had raised.

But what would this mediation look like? What would it sound like? Our first efforts to make our concept operational resulted in the following suggestions: Page: “mediate between building blocks and concrete musical entities (old songs)”

Eliot and Page: “someone could be singing a song and then others could break it down” Audrey: “text and music could be deconstructed” Steve and Thomas:  $A \rightarrow C \leftarrow B$  “meat-grinder approach” (“you need a hand pushing it in”) Taylor: “You need a *group* that mediates.”

We tossed around these ideas for more than a week until settling on a basic formal plan, defined as both a sonic and spatial process. Crucial to the plan was the scheduled performance space, College Hall, a large, historic mansion with excellent acoustics on New College’s Bayfront Campus.

In contrast to a conventional recital hall or auditorium, College Hall offered multiple performance areas that could be linked through the composition (see College Hall Floor Plan, Figure 3). Thinking back to Steve and Thomas's idea ( $A \rightarrow C \leftarrow B$ ), we decided



**Figure 3. College Hall floor plan (ground level)**

to make the Living Room the focus of the mediation, the second stage of a three-stage compositional process. Stage 1 would constitute a breakdown; Stage 2, the mediation; and Stage 3, some kind of recombination.

Here are my notes from 2/19/04:

Regarding the piece under discussion, here are some thoughts on the "breakdown" process during Stage 1:

The idea is that the participants need to move from a circle (in the Music Room or in the Patio) to the Living Room. In order to move through the performance space, they have to break the tune into parts. As each participant makes progress toward the Living Room, he or she has to relinquish more and more parts/aspects of the tune. As we discussed last time, the participants should begin by singing the entire tune in unison. (How many times?)

Using a simple subtractive process (still to be worked out!), each participant begins to sing less and less of the tune: with each successive step toward the Living Room, the fragment becomes shorter, until it consists only of very short units. NOTE: as we discussed last time, participants should maintain the temporal sequence of the fragments. Despite valiant efforts to preserve the tune as a whole, the “hocket” effect and the spatial dislocation will almost certainly take their toll: by the time the participants have reached the Living Room door, the tune will probably be completely broken down.

Once this process has been fully worked out, the additive process of Stage 3 can be worked out. Then we can consider the interactive process of Stage 2 (Living Room).

In our discussions of the “dissolution” procedures that would follow the hocket, we faced a critical stage in the planning process and the piece as a whole. The hocket technique was easy enough to explain to performers: with each repetition of the song, each participant would sing less and less of the tune, until the tune had been reduced to a series of disconnected fragments and even gaps of silence. But what then? While making their way to the Living Room, what were the participants to sing? Would they sing their fragment?

Would it be further modified? Some of us (myself included) suggested that the fragments be transformed through precise techniques (e.g., reversal of direction, inversion of intervals, augmentation, diminution). This reflected the priorities of “experts,” the choice of techniques relating strongly to serial and postserial compositional procedures. Without such procedures, how would the material be developed in a rigorous way? Fortunately, some members of our group (including the less compositionally experienced) questioned the feasibility of this approach. They rightly pointed out that our performers would have tremendous difficulty applying the procedures we envisioned. We needed to find a way to create variations by enlisting the imaginations of the performers. Instead of prescribing variation techniques, it would be better to simply ask them to vary the material, providing some suggestions for how this could be done.

The compositional process thus far described took the form of mediation between expert culture and lifeworld experience: we were creating a set of instructions that called for specific actions, yet permitted the performers to draw on their own experience and judgment in their implementation.

With Stage 1 of the piece conceptually clear, we turned our attention to Stage 2. Starting with the assumption that the two groups would converge in the central performance space (the Living Room), we then had to decide how the mediation would actually take place. Among our questions: Who would do the mediating, the linking? What would be the role of the audience? Would only pairs be formed? Would mediators work in Stage 3 also? What rules would apply? As these questions indicate, we still thought that the audience might have a role as mediators for the two groups. We envisioned audience members linking members of the two groups, perhaps even directing the singers in some way. All of this seemed intriguing yet totally unfeasible. We had learned from the *Social Studies* project that audience members (as much as performers) need absolutely clear instructions if they are to participate willingly and effectively. Plus, asking the audience members to serve as mediators seemed to be asking too much.

At one point, Taylor Briggs suggested that we think of Stage 2 less as a “meat grinder” and more as a conversation, or as numerous conversations occurring simultaneously. The performers from the two groups would somehow work in pairs to negotiate agreement. If the singers of each group were assigned numbers before beginning Stage 1, the two singers with the same number could face off in the Living Room. How would this work? We decided that each singer should identify (for himself or herself) the most important feature of his or her fragment.

The two singers would then sing to each other alternately, each time modifying their material until consensus was reached on a single fragment. This would be an open-ended form of communication, one that in retrospect reflects the ideals of communicative action quite well: both singers would be surprised by the outcome, as neither could predict the content of his mediation partner in advance. At the same time, neither singer would be forced to relinquish that which they deemed most important. The participants would forge something new together.

Our original conception of Stage 3 was quite diffuse. We imagined the singers moving into a new space (the Patio or the Music Room) and “moving freely, offering their cells and listening to others.” We sensed early on that Stage 3 would be a reversal of Stage 1, and we somehow felt that the gradual movement from one space to the Living Room should be part of this process. Simply directing the performers to mingle and sort things out clearly wouldn’t do.

In the end, the numbering of participants—so key to the structure of Stage 2—proved essential to Stage 3 as well. We decided that the performers from each group should reassemble in numerical order. Because of the meditation process in Stage 2, *both* groups would now have identical material.

Stage 3 would begin as a *hocket*, each performer singing his or her fragment in turn. As the participants became familiar with their material, they could decide where to place a given fragment in the whole. Participant No. 5 might decide that her fragment would fit well following Participant No. 2, and could move to that position in the circle. If that proved agreeable to Participant No. 2, he could indicate this by taking Participant No. 5's hand. They would now form a stable pair and would together sing both of their fragments in order when the time came. As this process continued, the participants would decide on the final ordering of fragments. With each new linkage, more members of the circle would sing more fragments in succession and thus more of the emerging melody. In the end, everyone would sing the entire melody: the *hocket* process of Stage 1 would be effectively reversed. The two groups would end up with different melodies, but both melodies would be formed from the same structural units. The final version of *Hocket Science* is shown in Figure 4.

**HOCKET SCIENCE**

Composed by XMG

Participants: an even-number of singers (12-18)

Space: Music Room (MR), Patio (P), and Living Room (LR)

**Stage 1: Dissolution**

The following instructions are followed independently by two groups of even number, one in MR, the other in P: Participants in the group count off to establish numerical order. The group forms a circle, facing outward, and holds hands. Someone begins singing "a song from childhood." The group sings the song in unison. With each repetition of the song, the group expands the circle by taking a step forward. When the circle can be expanded no further, hands are released and a subtractive process begins: with each new repetition, each participant sings less and less of the song. The group performs the song as a *hocket* and begins moving slowly toward LR. Once the subtractive process has reduced each participant's material to three or four notes, participants accentuate some feature of the fragment, lending it greater definition. (This may take the form of rhythmic alteration, melodic embellishment, change in dynamics, etc.) With each new step toward LR, singers must continue to accentuate the feature in some way, always limiting the material to three or four notes. The *hocket* is maintained as a trigger for events. Participants cease singing as they enter LR, repeating their material mentally in preparation for Stage 2. Stage 1 is complete once all singers have entered LR.

**Stage 2: Encounter**

Chairs, numbered and facing each other, have been arranged in two concentric circles in LR. As participants enter the room, they sit down at the appropriately numbered chair. Participants from P sit in the inner circle; those from MR sit in the outer circle. Once all the participants are sitting, the corresponding participants from each group begin a mediation process: working in musical conversation (speaking is not permitted), the two participants must alter the material they sang at the end of Stage 1—maintaining the most important feature of their material and jettisoning the less important features—eventually singing the mediated version in unison. The mediated version should be comparable in length to the material offered at the beginning of the mediation process. Once this process is complete, the participants separate and move onto the next room (participants who originated in MR move onto P and vice versa). While in transit, participants repeat their material mentally in preparation for Stage 3.

**Stage 3: Recombination**

Retaining the order from Stages 1 and 2, participants form a circle at arm's length in the new space, facing inward, and sing their mediated material as a *hocket*. At any time, a participant may drop out (the *hocket* continues without that participant's material) and take a new position in the circle. A participant affirms his or her position in the sequence by adding a neighbor's material to his or her own in the *hocket*. If the neighbor agrees to remain fixed and takes on the additional material, both participants hold hands. As this process continues, participants take on more and more of the group's material until the *hocket* has been replaced by unison singing of the combined material. All hands should be linked by the close.

© 2004 Taylor Briggs, Eliot Chayt, A. Page Laubheimer, Stephen Miles, Thomas Patteson, and Audrey Troutt

**Figure 4. *Hocket Science*, final version**

The process that yielded *Hocket Science* was the result of patient elaboration of a concept by a group of diverse individuals. Some students felt more comfortable initiating ideas, others in responding to those ideas, though everyone played both roles from time to time. I was certainly involved (indeed, I suggested the use of *hocket* technique), but I tried to function more as a facilitator. I took careful notes and tried to reflect the emerging consensus back to the group, step by step.

Together we were committed to a specific process more than a particular outcome: though we had not set out to model Habermas's concept of communicative action, we had resisted the temptation to resort to strategic action and had placed ultimate value on each participant's right to contribute. During the early stages of the process, when the performance was two months away, we often spent several sessions discussing a single compositional problem. This, of course, was understandable because the most basic decisions are key to any compositional process: those decisions have implications and consequences that become progressively easier to see as the process moves forward. However, as the performance date drew near, we had

to draw on reserves of trust and patience to remain faithful to our philosophical priorities. The pressure to sacrifice our principles in the interest of practicality was great.

With the creation of *Hocket Science*, the composers of XMG had succeeded where the experimental music class had failed: our process had somehow balanced individual agency and group consensus. But what about the work itself? How would it be experienced by performers and by the audience? Would they feel tightly scripted in their actions or would they enjoy genuine agency?

Before the first notes of *Hocket Science* are sung, the performers must decide which "songs from childhood" to sing.<sup>27</sup> Since the two groups make these decisions in isolation from each other, their choices cannot be coordinated. Members of the group suggest possibilities and eventually make a decision without time constraints. Indeed, the choice could be made at a separate meeting, held at another time and place.

Once the songs have been chosen, the members of each group face numerous other decisions, all of which have consequences for each other.

In Part I (Dissolution), each singer creates his or her own hocket fragment. There are no rules that control the subtractive process: each singer decides during the first rendition of the song (perhaps even before?) which specific fragment to keep.

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<sup>27</sup> In the first performance of *Hocket Science*, on April 18, 2004, one group sang "O Where, O Where Has My Little Dog Gone," the other "She'll Be Coming 'Round the Mountain."

The singer may revise her choice as the dissolution proceeds, wishing to avoid gaps of silence in the hocket, but the opposite is just as likely: she may stick to her original choice, consequences be damned.

Such duplication of fragments would not necessarily be a problem, since the singers vary their hocket unit in the closing minutes of Part I.

Singers decide on their own how to alter their fragment, though they must bear in mind that outrageous variations may come back to haunt both groups. The most prominent features of all the hocket fragments will likely be preserved in Part II (Mediation).

If the two groups operate in isolation from each other in Part I, they work in the same space during Part II. On the other hand, what had been a group process now becomes highly individual. Each singer now must now negotiate with a single singer from the opposing group. Neither singer can anticipate what the other will bring to the negotiation, what demands might be made. Once begun, each singer can decide how to conduct himself. He can play an active role, asserting "the most important features of the fragment" while proposing new possibilities, or he can be passive, protecting "the most important feature of the fragment" while refusing to agree. The connection here to communicative action at this point in *Hocket Science* is absolutely clear. Each singer is in essence offering a validity claim. Acceptance of the claim (some feature of the other's fragment) is both an affirmation and the refusal of possible negation. Because there are no time constraints, the singers must focus entirely on the integrity of their process: they must reach a true consensus. While it's doubtful that anyone wants to be the final pair to complete the "mediation" process, the music of *Hocket Science* does not necessitate a smooth conclusion to Part II. Indeed, the music could become more interesting for the listener if a few pairs were exposed toward the end of this section.

The individual agency of the singers is emphasized in Parts I and II of *Hocket Science*. Individual choice is certainly central to Part III (Recombination), but group consensus becomes the focus. Once the new fragments have been revealed to the entire group, each singer may shift his or her position.

Note that the assertion of a new position effects everyone: if your position changes, mine also changes as a result. However, just because Singer X positions herself next to Singer Y, Singer Y does not have to agree: until Singer Y agrees to take Singer X's hand, one of them may choose to move on. At some point, however, a singer *must* agree to connect: the only point is when.

At what point will holding out seem unreasonable? At what point will an individual singer feel pressured to agree? These are questions that not only haunt *Hocket Science*; they haunt Habermas's theory of communicative action as well.

The experience of *Hocket Science* for the composers and performers was intensely dialogical.

Every member of XMG had contributed to the work's creation and every member of the two ensembles had played an indispensable role in its realization. The actions of participants on both levels may be understood as communicative. What about the audience? What roles did they play? Does *Hocket Science* even require an audience? Could it not be performed equally well, if not more successfully, as a workshop? In what sense is the performance of *Hocket Science* a public event?

Our performance of *Hocket Science* comprised the second half of a NMNC concert, "From the Laboratory: New Experimental Works." The first half of the program was offered in the Music Room and the seating had been traditional: folding chairs were arranged in rows, facing the main performance area. The first set of works performed that day were three realizations of excerpts from Cornelius Cardew's *Treatise*, all of which respected the conventional use of space in musical performance. However, the last piece on the first half, *Five-Plus*, by Jeff Morton, had negated this convention. The five brass players used the entire room in the course of the performance, making the audience aware of the space and creating a dissonance between the mobile performer's space and the fixed space for the audience. At the conclusion of *Five-Plus*, all of us in XMG stood before the audience and explained what to expect in the second half. Even though most of this information was provided in the program booklet, we wanted to make sure that the audience was fully prepared for their roles in *Hocket Science*. Since the work begins in two separate spaces, the audience members would need to decide beforehand where to position themselves for the performance—in the Music Room, the Patio, or the neutral space of the Living Room.

(Though the Living Room was not used in Parts I or III, it was already set up for Part II: two rows folding chairs had been arranged in a circle. Arranged in facing pairs, each pair was separated from the others by a distance of six feet. Signs bearing numerals were taped to the chairs, thus facilitating the face off of Part II.)

The spatial demands of *Hocket Science* are considerable. Not only does the music require the use of three separate rooms, the movement of the singers in Parts I and III requires that the audience be seated on the periphery. Did this make them feel alienated from the performers? In Part I (Dissolution) the performers link hands and form a circle in the center of each performance space. Significantly, the performers face out.

Not only do they face the audience, they draw closer to the audience as the movement progresses: as the circle expands, the space separating performers from audience thus contracts and distance is replaced by closeness. Part I ends as the last members of each group leave their initial space and enter the Living Room for Part II (Mediation).

Though audience members were not compelled to follow performers into the Living Room, most everyone did so because that was where the action was. Upon entering the new space the audience encountered a very different performance environment, one that reversed key aspects of the preceding section: where the performers had been mobile and the audience seated in Part I, it was the audience that exercised mobility in Part II. Indeed, no seats were provided for audience members in this part of the piece. We wanted them to move freely among the seated performers, observing and listening to the mediation process from the closest possible positions. This both altered the relationship of the audience to the performers and to each other. In Part I, the audience sat, watched and listened: they were silent in the presence of a performed group activity. In Part II, this group activity was atomized. Though both groups were brought together for this portion of the piece, the mediation process was focused on pairs. The separation of group members from each other was accentuated by the movement of audience members between the facing pairs of chairs. As the performers concentrated on their dialogues, the audience seemed to take over the space. As they moved around the seated performers, their attention shifted back and forth from the performers to each other. Eye contact between audience members was virtually unavoidable and some audience members had conversations of their own.

The Living Room became a fully animated space during Part II, particularly toward the beginning, when the sounds of the pairs were cacophonous. However, as the meditation process advanced, one could hear the chaos transformed into something more orderly: first here, then there, one heard pairs repeat their newly negotiated material.

As each pair finished, they got up from the chairs and moved on to their respective rooms. This created a subtractive process that was both audible and visual. Responding to the performers, the audience withdrew from their conversations and adopted a more focused attitude toward the music and the musicians. The Living Room gradually became silent and empty—empty except for those audience members who chose to make the room their vantage point for Part III (Recombination).

Our comments to the audience before the intermission had prepared them for the final part of *Hocket Science*. Everyone knew that both groups now had the same musical material. Some members of the audience followed “their” performers into a new space, while others returned to their original chairs to listen to a different group of singers. While the musical process of Part III is essentially a structural reversal of Part I, audience behavior was different in this part. Those who remained behind in the Living Room enjoyed a large measure of spatial distance. Listening from the Living Room, these audience members could hear the two groups congeal into new melodies, they could hear the same fragments arranged in two completely different ways—a striking experience of simultaneous similarity and difference, something between heterophony and polyphony. At the same time, the physical isolation of the Living Room enabled the audience there to participate in side involvements, Erving Goffman’s term for “an activity that an individual can carry on in an abstracted fashion without threatening or confusing simultaneous maintenance of a main involvement.”<sup>28</sup> This created a disturbing irony: the audience members at the greatest physical distance from the performers were in the best position to enjoy the musical process of Part III. Had we left them behind? Did they feel excluded? Or, paradoxically, did they feel a greater sense of protection, a kind of autonomy from the performers?

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<sup>28</sup> Goffman, Erving. *Behavior in Public Places: Notes on the Social Organization of Gatherings* (New York: The Free Press, 1963), 43.

## System and Lifeworld Mediated

Throughout this essay I have asserted that experimental music offers a unique opportunity for the practice of communicative action. Pursued in the knowledge of Habermas's theory of modernity, experimental music can perform a mediating function, using the techniques of expert musical culture to illuminate the lifeworld experience of participants.

Among the features of *Hocket Science* that belong to the reflexive world of musical research, the most notable is indeterminacy. For lay audiences, indeterminate music is often perceived as random, even when the underlying process is carefully determined (as, for example, in algorithmic music). When audiences fail to perceive, even intuitively, the logic of a structure, they usually feel alienated and left out.

It's true, however, that some music that is initially alienating can become less so through prolonged exposure, thus leading to greater familiarity. The traditional features of highly determinate music, such as that of Schoenberg or Carter, eventually become clear to patient listeners. In the case of indeterminate music, no amount of listening will clarify the structural relationship between aleatoric sounds and the process that produced them. In works such as *Hocket Science* and *Social Studies*, the processes that yield the music are simple, clear, and fundamentally related to the extra-musical themes (or content). The processes at work in *Social Studies* are directly related to the social aspects of music making; the indeterminate processes of *Hocket Science* perform basic functions: they serve to breakdown, mediate, and recombine the musical material. Though these techniques may have been unfamiliar to the audience (and even to the performers), everyone understood the logic for their use. Indeed, because the participants in *Hocket Science* and *Social Studies* were convinced of the necessity of the indeterminate processes, they were willing to accept the sonic outcome—no matter how dissonant or unfamiliar. Moreover, the logic of these processes was aurally transparent.

A second technical feature of *Hocket Science* was the key word of the title, the use of the hocket. Not many lay audience members are accustomed to hearing hockets, as this technique is used primarily in medieval and modern music. Examples of the former would include Machaut's *Hoquetus David*, while more recent examples would include most of Webern's mature works and Louis Andriessen's *Hoketus*.

The use of the hocket in *Hocket Science* is notable for being introduced gradually: the audience first hears a stable, recognizable melody sung in unison before it is sung in the fragmented form of the hocket.

It's also notable that *Hocket Science* treats the hocket in a transformational way: the hocket emerges gradually and then breaks down further into variations. This process is of course reversed in the third part of the piece.

Finally, *Hocket Science* relies upon the numerical ordering of singers. While numbering the singers might not appear to be highly technical, the use of numbering is absolutely crucial in the music's development. Without the constraint of numerical order, the mediation process would become random: Part II is dramatic because the singers must negotiate a musical synthesis with a partner not of their choosing. It is thus the application of numerical order as a compositional constraint that ties it to the expert culture of professional composition: it negates the habits of participants.

These various techniques were applied to musical material that was utterly familiar to the audience: songs from childhood. Significantly, it is the performers, not the composers, who select these songs for each performance. Since the performers are not presumed to possess special skills, the distinction between them and the audience is not implicitly great. *Hocket Science* is thus a set of procedures for the investigation of common musical material. During Part I the components of each song are gradually revealed through the hocket process. The material, which is initially all too familiar, begins to become strange as each singer begins to vary his or her fragment. Also, the physical act of following the singers into the Living Room for Part II becomes a symbolic act of leave-taking: the audience leaves the familiar behind, both in terms of musical material and aesthetic experience.

During the final part of *Hocket Science* (Recombination), the audience watches the performers struggle to collectively construct a melody. The task is daunting: no one has heard the fragments before, the text of each fragment is essentially nonsense, and each individual is still mastering his or her fragment, negotiated in Part II. The only thing linking the singers is the need to connect and the willingness to keep exploring new combinations until consensus has been reached.

When the group succeeds and sings its new song in unison, they have discovered that music—order, meaning, and value—is more process than product, more concerned with listening and understanding than with the object heard. Thus experimental music anticipates and models the social practice of communicative action.