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Process in Gentle Fire's *Group Compositions*

Music and/as Process, University of Huddersfield, 8 December 2012

Gentle Fire was a performing ensemble active from 1968 to 1975. Its repertoire included works by Cage, Stockhausen and others, as well as its own *Group Compositions*: six pieces composed collectively by the members of the group between 1970 and 1972.

The scores for the *Group Compositions* are not linear scores that prescribe the succession of sonic events one after the other. Rather, the scores for the *Group Compositions* prescribe the criteria, mechanisms and processes by which musical material is produced or transformed. The *Group Compositions* are, in other words, "process" pieces of sorts, similar in some respects to Stockhausen's process pieces, or some of Cage's *Variations*. In this essay I will be discussing aspects of the notion of "process" in the composition and performance of Gentle Fire's *Group Compositions*.

Michael Robinson—one of the members of Gentle Fire—described the *Group Compositions* as 'situations which select sound from the entire possible range without employing conscious decision before or during the performance'.[1] Some of the methods of selection are fairly straightforward: in *Group Compositions 2* and *5*, for example, a set of custom-made five-sided dice is used to pseudo-randomly generate rhythmic patterns comprising notes and rests. This is what Erik Christensen, in his essay 'Overt and Hidden Processes in 20th Century Music', terms an 'indeterminate generative' process.[2]

Another method uses a system of symbolic notation borrowed from Stockhausen that represents the degree of change between one musical event and the next. Plus, minus and equal signs are used to indicate whether a particular sonic parameter—pitch or dynamic level for example—should be greater than, less than, or equal to the corresponding parameter of the previous musical event. Christensen terms this a 'rule-determined transformation process'.[3] This system was used by Stockhausen in his process piece *Kurzwellen,* and a very similar system is used by Gentle Fire in *Group Compositions 2* and *5*. (Incidentally, the *Group Compositions* were devised not long after Gentle Fire performed *Kurzwellen*'s London première alongside works by Cage, Kagel and Cardew, in February 1970.[4])

But perhaps the most interesting processes at work in Gentle Fire's *Group Compositions* are what I will call 'instrumental processes' and 'people processes', borrowing and developing terms from Michael Nyman's book *Experimental Music: Cage and Beyond*.[5]

A 'people process' is one in which the unique characteristics of individual players—for example the particularities of their playing techniques, or the ways in which they make choices or interpret instructions—are incorporated into the compositional fabric, such that they provide an essential part of the process by which musical material develops over time. Nyman gives the example of Morton Feldman's *Piece for Four Pianos*, in which four pianists play the same material, starting simultaneously, but each proceeding at their own chosen tempo, the choices of tempo unique to

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[1] Cited in Davies, Hugh. "Gentle Fire: An Early Approach to Live Electronic Music." Leonardo Music Journal 11 (2001): 53–60 (58).

[2] Christensen, Erik. "Overt and Hidden Processes in 20th Century Music." In Johanna Seibt. 2003. *Process Theories: Crossdisciplinary Studies in Dynamic Categories*. Springer, 2003: 97–117.

[3] Christensen.

[4] Gentle Fire. "The Gentle Fire", concert programme, February 4, 1970. Hugh Davies Papers. The British Library, Music Collections.

[5] Nyman, Michael. *Experimental Music: Cage and Beyond*. 2nd ed. Cambridge University Press, 1999. See discussion of "People Processes", "Electronic Processes" and "Electronic Systems" on pp.4–9 and 89–109.

each player thus providing essential variable to the unfolding musical process. In people processes, says Michael Parsons, 'the variety comes from the way everyone does it differently […] making use of "hidden resources" in the sense of natural individual differences.'[6]

The relevance of people processes in Gentle Fire's *Group Compositions* appears to have its roots in the fact that the members of Gentle Fire were all involved, in one way or another, in improvisation. Hugh Davies, in parallel with his work with Gentle Fire, was also a member of two different improvisation groups—The Music Improvisation Company, and Naked Software—of which he says the following:

> In both groups you could play in the secure knowledge that one or more of the other players, almost always particular players that one was 'aiming at', would react to you in a particular way, without necessarily playing the sort of thing that you might have expected them to play…[7]

Davies knew which kinds of musical gestures and articulations would be most likely to attract the attention of which players, and was thus able to 'aim at' particular players during performance. He also knew how that player would respond, at least broadly if not in detail. If we think of this as a process, the output—the way in which a player responds—could broadly be predicted by Davies from the input—the musical gesture that he produced in order to 'aim' at that player. This 'input, process, output' structure, it seems to me, provides all of the necessary ingredients for a people process that could be knowingly and systematically exploited in order to influence the flow of musical events. The question is, then, does such a systematic approach exist within Gentle Fire's *Group Compositions*? Davies continues:

> …in other words [there was] a security which enabled unrestricted exploration of the new musical possibilities to take place. In Gentle Fire we have a similar trust in each other. Occasionally we do perform improvisations in which nothing is planned in advance, but on the whole we seem to be more at home in performing our own group compositions […] and compositions by other composers which suit our particular way of playing together.[8]

Here Davies makes two important points. Firstly, he makes an explicit distinction between improvisation, on the one hand, and Gentle Fire's *Group Compositions*, which are <u>not</u> improvised, on the other. Secondly, by saying that the members of Gentle Fire 'have a similar trust in each other', he suggests that—yes—the kind of systematic people process he has just described in improvisation nonetheless does indeed play an important role in the *Group Compositions*.

A similar kind of people process is, I believe, embedded in the way in which Gentle Fire's *Group Compositions 2* and *5* were composed. In composing *Group Compositions 2* and *5*, each member of the ensemble wrote a score for another member: Graham Hearn wrote a score for Hugh Davies; Davies wrote a score for Michael Robinson; and so on. In carrying out this process, I believe that the members of Gentle Fire intentionally exploited their knowledge of the unique musical mannerisms and idiosyncrasies of the players for which they were writing. Implicit in the writing of each score, in other words, was the knowledge that it would be performed, not by just anybody, but through the unique filter of a particular individual's known habits of technique and interpretation, or 'musical personality'. Each score, in other words, is the input, while the performer is the 'process' that produces—with an instrument, of course—the output. The scores that the members of Gentle Fire wrote for each other were not linear, prescriptive scores but, rather, a combination of text, graphic and process-based scores.

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[6] Cited in Nyman: 6.
[7] Davies, Hugh. "Stockhausen's Intuitive Music." *Musics* (May 1975): 10–11 (10).
[8] Davies (1975).

The interplay of musical personalities through people processes also plays an important part in the way the *Group Compositions* unfold during performance. Michael Robinson, in a BBC interview broadcast in 1973, says the following:

> I think it's interesting that all the *Group Compositions*—although there are little relationships here and there […] to […] our own [individual] pieces—basically they're quite different from the music of any [individual one] of us. You couldn't pin it down and say "Well, that's obviously Hugh Davies's piece", or "That's Richard's piece." They are quite different, and they seem very clear in their difference; they are clearly something else… I think that all of [the *Group Compositions*] have made an environment in which our own group musical personality has a chance to resonate, which is impossible for any one of us to do in a piece. It makes something resonate which a single piece or improvisation […] has never really seemed to be able to do.[9]

It is possible to foster the emergence of what Robinson calls a 'group musical personality' by bringing the individual musical personalities of ensemble members—what they react to, and how they respond—into play. This could be done in a more or less informal, unstructured way in improvisation, as described by Davies, but what Robinson points out in the quote just given is that something 'extra' can happen if the individual musical personalities are brought into play in a more formal, structured manner, in a predetermined, composed context. This, he says, is what allows the group musical personality, not merely to exist, but to 'resonate.'

The *Group Compositions* are, in other words, compositions in which the individual musical personalities and interactions between players are treated as compositional materials. These materials are brought into play within a carefully constructed framework or environment whose purpose is to allow the group's collective musical personality to resonate by providing a context that is more formal, structured, and bounded than a freely improvised context

In *Group Compositions 3* and *4*, that structured, bounded context takes the form of a custom-built musical instrument called the 'gHong'. The gHong comprises three welded metal grid structures—like wrought-iron gates or cattle grids—measuring about 1.5 meters squared. These are suspended from a stand or from the ceiling, allowing the structure to resonate when struck. The gHong is fitted with contact microphones, such that the vibrations produced can be amplified. In performance, all five members of the group play the instrument simultaneously.

Since the purpose of the gHong is to provide a context that is more formal, structured, and bounded than an improvised context, so one would hope to find evidence that the instrument circumscribes the actions of the players in some way, providing an anchor for a systematic people process as opposed to a disorderly rabble. Some evidence of this can be found in Michael Robinson's description of *Group Compositions 3* and *4*, which is as follows:

> [They] share the same instrument, which we've all contributed to and built… [T]he explorations of the instrument, and […] how we hear the way that instrument sounds, is the context of the piece… *[T]he instrument is the score of what we're playing*…[10]

To say that 'the instrument is the score' succinctly indicates that it presents the performers with a clear, well-defined and limited set of possibilities, forming the environment within which a systematic interaction of individual musical personalities can take place. *Group Compositions 3* and *4* could perhaps be described, then, as being dominated by people processes that unfold within an instrumental environment.

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[9] Bernas, Richard, Hugh Davies, and Michael Robinson, Interview by Stephen Plaistow. Reel-to-reel tape, 1973. Hugh Davies Collection. The British Library.

[10] Bernas, Richard, Hugh Davies, and Michael Robinson, Interview by Stephen Plaistow. Reel-to-reel tape, 1973. Hugh Davies Collection. The British Library.

It is also possible to imagine a scenario in which an instrumental process dominates. An instrumental process is one in which the transformative qualities of specific instruments or technologies are exploited in order to have a determinative effect on the musical process as it unfolds. A good example is Alvin Lucier's *I Am Sitting In A Room*, where a passage of spoken text is recorded, and then the recording is played back into the room via loudspeakers while being recorded again. The new recording is then played back into the room again and a third recording is made, which is played back into the room to make a fourth recording, and so on, until 32 iterations have been completed. With every iteration there is a cumulative colouring of the sound as the room's natural acoustic resonances are emphasised. By the end of 32 iterations, what we hear is essentially a single pitched drone, corresponding to the most dominant resonant frequency of the room. The playback of each recording is the 'input'; the room—which is the 'instrument' in this case—provides the 'process' of colouring the sound; and the new recording is the output. (Obviously the voice, microphone, loudspeaker and recording device are part of the instrumental process, too.)

Instrumental processes of one sort or another play an important part in *Group Compositions 1, 2, 5,* and *6*.

Appendix – What theoretical frameworks might be useful in understanding and modelling process in Gentle Fire's *Group Compositions*?

…and perhaps other musical scenarios?

Performance Ecosystems

The 'performance ecosystems' model examines the 'reciprocities between performers, "instruments" and environments', focusing upon 'the interpenetrations of human, technological and environmental agency'[11] and emphasising that these three things must be considered holistically for a meaningful analysis.

Affordance

The idea of 'affordance' is useful when considering more closely the relationship between performers and instruments. An affordance can be thought of as the potential for interaction between an agent and a tool. Door handles are often used as an example: a door-handle affords turning as long as the agent is psychologically aware of that possibility and physically capable of acting upon it. '[A]ffordance [...] refers to attributes of both the object and the actor.'[12]

Mediated Action

Mediated action focuses on the human agent acting with mediational means within a broader context that includes the scene of the action, and the purpose toward which the action is directed.[13] Mediational means can be physical, as in physical tools or musical instruments, or they can be conceptual, as in musical notation.

Technological Momentum

Technological momentum is a way of modelling sociotechnical systems that sits 'somewhere between the poles of technological determinism and social constructivism'.[14] It is useful in modelling the balance of technical and social components within a system in terms of their bearing on the behaviour of the system as a whole, and how this can change over time, so that a system might 'become more social and less technical' for example.

Actor-Network Theory

Actor-network theory focuses on the relationships between agents acting within a network. Agents can be human or non-human entities, for example objects and organisations. Human and non-human entitles within a network are treated equally in terms of their potential to influence the behaviour of the network.[15]

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[11] Waters, Simon. "Editorial." *Organised Sound* 16, no. 02 (2011): 95–96. doi:10.1017/S1355771811000021.
[12] Gaver, W. W. "Technology Affordances." In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems: Reaching Through Technology*, 79–84, 1991. http://dl.acm.org/citation.cfm?id=108856.
[13] Wertsch, James V. *Mind As Action*. Oxford University Press, 1998.
[14] Hughes, Thomas P. "Technological Momentum." In Merritt Roe Smith and Leo Marx. *Does Technology Drive History?: The Dilemma of Technological Determinism*. MIT Press, 101–114, 1994.
[15] Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. OUP Oxford, 2005.