

## **Pan-modal Optimism / Spectral Pessimism:** Notational mediation in the works of Horațiu Rădulescu and Anthony Braxton

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The aim of this short essay is twofold. First, I intend to pick up where other scholars of Rădulescu’s work have left off in discussing the function and implications of the idiosyncratic neonotation deployed in *Das Andere* (1984) and Op. 89 *Before the Universe was Born* (1993), specifically as regards their relationship to compositional fixity and openness (and, by proxy, to structures of improvisation generally). Second, I would like to throw his method into sharp relief by contrasting it with the neonotational practices of Anthony Braxton, another prolific “fringe” composer who has been, up to this point, the subject of much of my study. Ultimately I hope to lead us from a recognition of the superficial similarities between these two composers’ techniques to a deeper understanding of what makes them, in fact, diametric opposites. To this end I will be comparing these two artists along three axes: (a) the brute syntactic and semantic function of their seemingly impenetrable notational systems, (b) the function of their notation in relation to *sound* and *process* and (c) the role that notation plays in reflecting or articulating the tenets of their underlying philosophical schemata.

Superficially, at least, we have two quite prolific musicians who, through sheer hard-headedness, have succeeded in forging their unique aesthetics (seemingly) *sui generis*. Both could be said to have had an outsize influence in certain circles despite a relatively small “cult” listenership, and both have been accused of being outsider artists on account of the extent to which their musical output is tied directly to an underlying philosophical paradigm, about which both have written significant tracts. Most importantly, though: central to each artist’s work is a style of musical notation that at first blush appears dense and opaque, perhaps even a call for unrestricted improvisation, but which in fact belies a rich, internally coherent logic. I take it that a fuller understanding of the implications of these systems will not only add nuance to our understanding of open systems of notation generally, but will equip composers with the tools to craft richer, more delicate open scores as well — as has always been my selfish aim. However, before we begin “reading”

these systems, we must first come to understand how precisely they function in context.

Before moving on, I will clarify a few terms I use in this discussion. What I call “neonotation” refers broadly to any notation scheme which has not (yet) achieved widespread use in concert music, and may include any variety of extended techniques, improvisational signifiers, etc. Some neonotations have slowly gained traction in the field (Saariaho’s overpressure notation), while some more idiosyncratic examples have not (Berberian’s notation in *Stripsody*, say). “Open notation” (typically a subset of neonotation) refers to symbols which do not map one-to-one with a particular sonic output. Examples may fall into categories of “improvisation,” “stochasticism,” or “indeterminacy,” depending on the particular alignment of the composer. Recognizable examples include things as far-ranging as “up-arrow” notation meant to indicate an indeterminate pitch in the highest register of the instrument all the way to Feldman’s notation in *King of Denmark* which only prescribes a specific instrumental register and a number of sounds per unit time. Lastly, “second-order” notation — a new term with specific relevance to Rădulescu’s music — refers to typically pictorial notations which do not point to a specific sound or physical movement but to a whole cluster of smaller indications which are grouped together under one sign for ease of reading or for economy of engraving. Under some readings, one might consider the simple baroque turn to be an example of second-order notation in that it stands in for a particular cluster of subsidiary tones.

Certain new music scholars have a vexing tendency to lump together any novel form of music notation under a broad umbrella they dub “graphic notation,” and gloss over these as undifferentiated calls to improvise. With these terms I hope to significantly enliven the discussion of these varied techniques of open scoring (many of which are on full display here).

Where previously Rădulescu relied on the complex interactions between string or wind instruments to produce a metamorphic cloud of ever-fluctuating tone and noise and emergent sum- and difference-tones, *Das Andere* represents his attempt to solve the problem of creating his signature “sound plasma” using only a single instrument. The following section will demonstrate the role of open notation in achieving this idiosyncratic *klangwelt*. Intriguingly, the piece features very few moving parts despite first appearances. The primary dramatic action of the piece is driven by two (as he dubs them) “play characters”—“*alpha*”  and “*sigma*” . These function as mutable, flexible second-order notations which cluster together a constellation of subsidiary physical parameters which would otherwise be unduly clumsy to notate using traditional notation.<sup>1</sup>

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<sup>1</sup>I speak of these works in tandem simply because of the extent to which they share a notation scheme. Rădulescu himself refers the reader to *Das Andere* in the supplementary material to Op. 89, and indeed the string quartet features only very few addenda to the notation used in *Das Andere*.

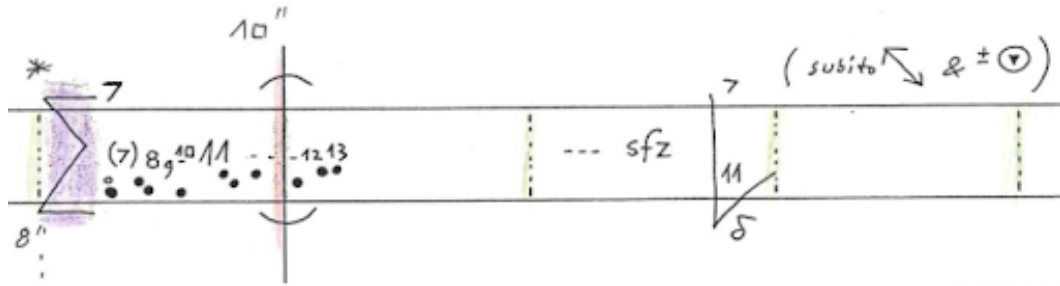


Figure 1: *Excerpt from Das Andere, pg. 1.*

The *sigma* modules (such as the one that begins the piece shown above) instructs the interpreter to play two concurrent melodies on natural harmonics on two adjacent strings. The actual  $\Sigma$  figure at left illustrates the gestural boundaries of all (abbreviated) *sigmas* which are to follow until a new  $\Sigma$  symbol gives new parameters. For the most part the player holds a single harmonic steady (seventh partial on the A string here) on one string while ascending irregularly/at will along a linear series of partials on the other string (seventh to 13th partial on the D string). In these abbreviated *sigmas*, the number above each string indicates the highest partial which is to be sounded during the melody and the oblique “tail” indicates the approximate length of the melody shown in proportional notation against the consistently 15-second system. This excerpt also features Rădulescu’s neotation indicating bow speed (the diagonal arrow) and bow pressure (the encircled inverted triangle).

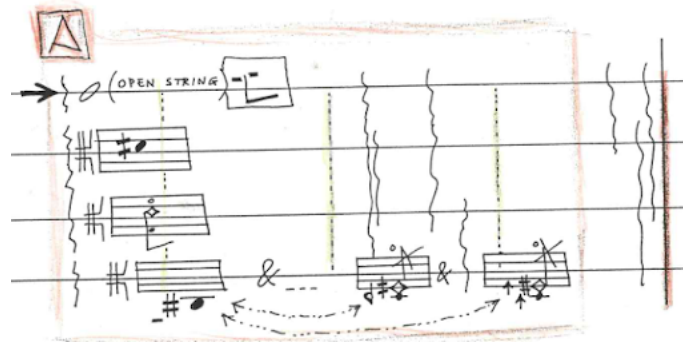


Figure 2: *Excerpt from Das Andere, pg. 4.*

Whereas *sigma* modules are played entirely on natural harmonics, *alpha* modules indicate stopped pitches as well as harmonics to be held with the left hand (open A, C $\sharp$ , 3rd partial E harmonic, C $\sharp$ –, etc., above). Dotted double-headed arrows indicate where the player may freely alternate pitches on a given string (touch-3 harmonics on D $\downarrow$  and D $\uparrow$ ). The wavy verticals that make up the “body” of the *alpha* module that follows are a rather loose indication to play rapid arpeggios between the strings they span using combinations of the given pitches.

While these two modules make up the primary materials of the work, Rădulescu uses four more “micro-improvisatory” (to use his term) second-order symbols to supplement his established sound-world.

1. “Little devils,” shown using two stacked harmonic diamonds with a thick “underline” calls for a rapid, unstable morse-code-like sounding of harmonics made by gently stroking a low segment of a given string and using a very fast bow speed.
2. The “u du ‘u du” or “phase-shifting arco,” shown as a headless grace note bracketed by two black bars, similarly prescribes a very specific bowing indication but calls for a stiff “locked-arm movement” as though the bow is “‘rebounding’ inbetween [sic] two imaginary walls.<sup>2</sup>”
3. The “trembling ‘M’” symbol indicates a specific type of string multiphonic featuring very slow bow speed and increased bow pressure on specific harmonics, causing multiple tones to sound from a single string.
4. Lastly, the “bar-and-dots” symbol indicates high natural harmonics, played slowly and unstably, continuously alternating with the open string in a sort of irregular bariolage.<sup>3</sup>

There are a few observations worth noting about these structures. First: for the most part these symbols do not map one-to-one with a specific sonic output the way, say, an A4 on the page maps to a single tone with a 440hz fundamental. Rădulescu’s sound plasma refers, in essence, to a complex and ever-changing blend of pitch and noise as well as “virtual” or “illusory” sum- and difference-tones which emerge from concurrent high harmonics. As such, the most efficient use of ink, as is were, is to use a form of tablature which gives no indication as to resultant sound but rather encodes the performer’s physical gestures such that the desired sound might result.

Second: what allows Rădulescu to generate the aforementioned sound plasma and structure a complex dramatic arc using only a handful of symbols is the extent to which these symbols are *mutable*. Namely, they can be altered and combined in innumerable ways (yet remain easily comprehensible to the performer) which, combined, entabulate the skeletal structure of the work. In figures three and four below, we see the ways that Rădulescu compounds the complexity of his sound-world by deploying these symbols in combinations that would require exponentially more effort to write and read if encoded using traditional notation.

Though I’ll discuss the relationship of these symbols to notions of openness in musical works a bit later, for now it suffices to say that Rădulescu’s term

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<sup>2</sup>*Das Andere* supplementary notes, pg. 2.

<sup>3</sup>These last two techniques are the only additional techniques found in Op. 89 but not in *Das Andere*.

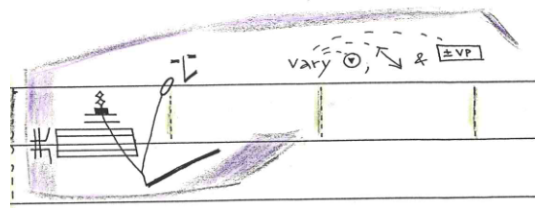


Figure 3: *Simultaneous techniques from Das Andere, pg. 7*

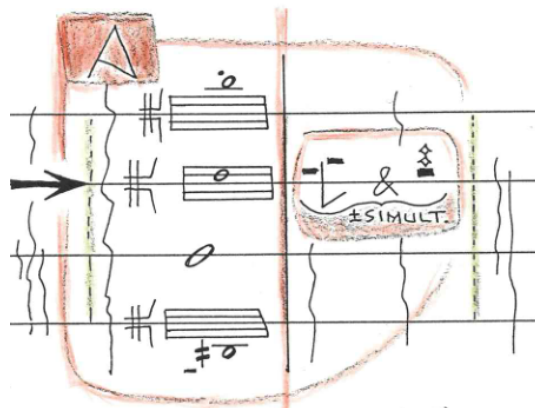


Figure 4: *More simultaneous techniques from Das Andere, pg. 7*

“micro-improvisation” is apt. These symbols allow for a rigorous and precise “zoomed-out” large-scale structure allthwhile maintaining an indeterminate, constantly fluctuating micro-level surface to the work.

On the other hand, it would be quite difficult to articulate a central library of techniques used in Anthony Braxton’s works as they have been subject to innumerable extensions and tweaks throughout the years. Nevertheless, certain pieces feature complex and disparate enough techniques to offer a fascinating counterpoint to Rădulescu’s work. To that end, I’ll be discussing Braxton’s *Composition No. 76* (1978), a modular piece for three multi-instrumentalists wherein paired modules (A1/A2, B1/B2, etc.) may be performed in any order. This is a work which has seen a good deal more scholarship than most of his oeuvre, due in no small part to its evocative and seemingly arcane symbolic language which is displayed prominently on the front panel of one of Braxton’s more well known albums, *For Trio*. Beginning with the performance instructions, Braxton includes a table of symbols a great deal more varied than those of Rădulescu. While the breadth of these techniques preclude the sort of detailed breakdown shown here for *Das Andere*, the table below alone is enough to make a number of key observations.

Where open material in Rădulescu’s work is primarily of second-order, and exclusively focuses on the “micro-level” and exclusively addresses the

physical movements of the performers, Braxton’s symbols (at least as seen thus far) are primarily first-order and operate on a variety of structural levels. At the lowermost micro-level we find the star accidental (allowing the player to either sharpen or flatten the given note) and the diamond clef (which allows a system to be performed in any transposition or clef). At this level, “information” is more fixed and only the ground-level topography will be changed from performance to performance, thus this notation will have the greatest impact on the brute *klangwelt* of the piece. Figure six shows the diamond clef and star accidentals in context in module D1, illustrating the comparative fixity of these passages.



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|-----|---|---|
| 1.  |    | Match dynamics  |
| 2.  |    | Match dynamics but very softly  |
| 3.  |    | Play note then improvise for small amount of time   |
| 4.  |    | Hold until next cue point (suspension)  |
| 5.  |    | Prepare just before time cue (and then execute)   |
| 6.  |    | Cue for someone else (butout in so that you will know what's happening when it occurs)                          |
| 7.  |    | Can be used for vocal phrase  |
| 8.  |    | Wait for near the end of the time group to finish phrase point (with regards to the coming time change and cue) |
| 9.  |    | Rest  |
| 10. |   | Match instrument (that principal figure in time zone is playing) (no - 2 plays)                                 |
| 11. |  | Change dynamics abruptly for next playing section (from what went on before)                                    |
| 12. |  | Rest for 3 to 5 seconds   |
| 13. |  | Change instrument quickly   |
| 14. |  | Independent tempo   |
| 15. |  | Match tempo (with musician - 1)   |
| 16. |  | Open Clef   |
| 17. |  | Sharp or flat   |

Figure 5: *Symbol legend from Composition No. 76*

At the mid-level, we have symbols which have greater influence over the sonic contour of the work in that they restrict the performer’s output *less*. Figure seven below shows an excerpt from one of the open modules of *Comp. 76*, wherein clef-less melodic material is stretched and distorted visually on the page and given a color, the reading of which is up to the performer’s “emotional subjective interpretation” (about which no more information is specified in the score). In these more fixed sections, the player is free to navigate through the sub-cells in any manner she chooses, a scheme which ensures that though the melodic/rhythmic information present will all be presented (in some form), the larger contour of the work will likely be



Figure 6: *Low-level “micro-improvisation” in Braxton’s work*

different each time.

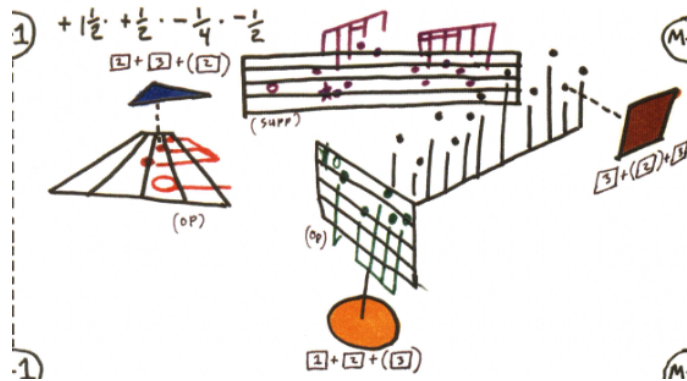


Figure 7: *Excerpt from module M1 in Composition No. 76*

Finally at the highest level, we find indications which affect larger structural parameters, both sonic and processual. Symbols #1, #2, #10, #14, and #15 of figure five all describe relational parameters which impact the sonic relationship between two or more players in terms of dynamic, tempo, or choice of instrument. Similarly, in figure seven we find colored shapes which, again, are subject to the player’s “emotional interpretation” but which call for improvisational outbursts not tied in any way to the surrounding pitch/rhythmic material. These outbursts are, however, restricted according to the numerical and textual codes which surround the material, instructing the player as to the number of “attacks,” when to switch instruments, whether to “dominate” (DOM) or “support” (SUPP) or “oppose” (OP) a fellow player, etc. Here, then, both the small- *and* large-scale contour of the piece will differ from performance to performance.

Already we begin to understand the drastically disparate roles neonotation plays in these two artists’ work, and the insufficiency of hand-waving these techniques as mere “graphic” or “improvisatory” notation with no other qualifiers. Indeed, though both systems of notation are undeniably “open”

to different degrees, further discussion is needed as to why these particular techniques and their varying structural levels of influence were chosen, and how they reflect greater compositional aims.

What we have seen in the examples above shows that these artists achieve familial but quite distinct results using their two systems of open notation. Rădulescu seeks to build a whirling, buzzing, complex sound world using a minimum number of constituent parts, and consequentially a minimum of labor and rehearsal time on the part of the performers. As such, he has taken specific gestural parameters (bow speed, bow pressure, bow position, left hand placement, rate of movement of the left hand) and clustered them together into mutable symbols in such a way that a modification of a second-order symbol might have a drastic impact on the first-order techniques it encapsulates. This, in turn, allows the performer to quickly grasp the otherwise devilishly complex “body data” needed to produce his desired sounds. Here Rădulescu has solved a problem common to any composer working with unfamiliar notational symbols — namely, the problem of constructing a novel system which does not require that the performer reconfigure their entire network of affordances by internalizing a complex library of dozens of symbols. The flipside of this problem is that a symbolic library must still have enough complexity to adequately represent the sound world desired. One might argue that the notation deployed in Feldman’s *PROJECTION 1*, while elegant in its simplicity, falls short in that it does not provide the performer with enough information to satisfactorily recreate the sound-world envisioned by the composer—thus requiring that the performer seek out alternate means of ascertaining what it was the composer actually *wanted*. Rădulescu retains a certain level of elegant simplicity in his work but solves this problem by expanding the gestural *domain* of each symbol using helpful modifiers, significantly diminishing the risk of an unfaithful rendition.

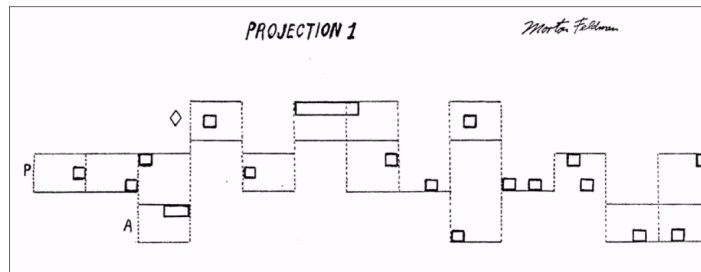


Figure 8: *Excerpt from Morton Feldman’s PROJECTION 1*

For Rădulescu, it is the creation of sound plasma that is absolutely essential to his creative output—all else is secondary. My stance here is that his complex system of notation was developed primarily because it was



the most straightforward means of achieving that elusive sound; obviating the need for walls of explanatory and expressive text or a dense jungle of 32nd-note figures which would never succeed in capturing the “virtual” or “emergent” qualities of sound plasma anyway. As a result, we have a system wherein the primary domain addressed by the notation (that is, the field of potential action over which the notation operates) is one of bodily kinetics, not of sound. Thus, I argue, Rădulescu uses notation to place the human body in service to sound itself.

We understand what Martin Suckling means when he describes Rădulescu’s notational practice as requiring “near-continuous improvisation” and “‘open[ing] a door on the performer’s creativity.’”<sup>4</sup> Certainly there is an extent to which the performer’s “creative” rather than “reproductive” faculties must be engaged when performing this music. For instance, the precise contour of the harmonic melody performed in the *sigma* modules is up to the whim of the player—as are “the direction of the arpeggios ( $\uparrow$  or  $\downarrow$ ), the speed of their deployment, and the point of contact along the strings...”<sup>5</sup> in the *alpha* modules. However, closer inspection reveals that collaborative interplay (perhaps the first thing we think of when confronted with the term “improvisation”) is in fact the furthest thing from Rădulescu’s mind. Rather, this notation marks an attempt to radically *decouple* the performer from his/her creative faculties by substituting precise, raw body-data in lieu of both more traditional and more open, improvisational forms of notation — both of which “[force] performers to think differently than they do when playing conventional music, ensuring a fresh interpretation that is free of many preconceived parameters of traditional playing technique”<sup>6</sup> This is an open notation which renders the player’s years- or decades-old muscle memory and cognitive maps obsolete, and which acts not as a call to create, but as an instruction manual.

Braxton, on the other hand, employs a much larger library of symbols, which tend to focus not on entablating the parameters of the body of the performer, but on creatively restricting the performer’s improvised output by giving him or her varying degrees of leeway over how a section of music is to be played. We find that this degree of leeway is directly proportional to the micro- or macro-level over which the notation operates. In *Composition No. 76* we see affordances ranging from tightly restrictive (star accidentals/diamond clef) to somewhat less restrictive (colored fragments featuring contour and rhythm) to quite open (colored geometric shapes). Furthermore, we see Braxton emphasizing interaction *between* players by employing symbols which point to relational attributes (is player  $\alpha$  louder than player  $\beta$ ? is player  $\gamma$  slower than player  $\delta$ ?) in a way that is totally absent from Rădulescu’s works. Like the *alpha* and *sigma* modules, these relational symbols fix certain

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<sup>4</sup>Suckling, pg. 2.

<sup>5</sup>*Das Andere* supplementary notes, pg. 3.

<sup>6</sup>Dougherty, 2014.

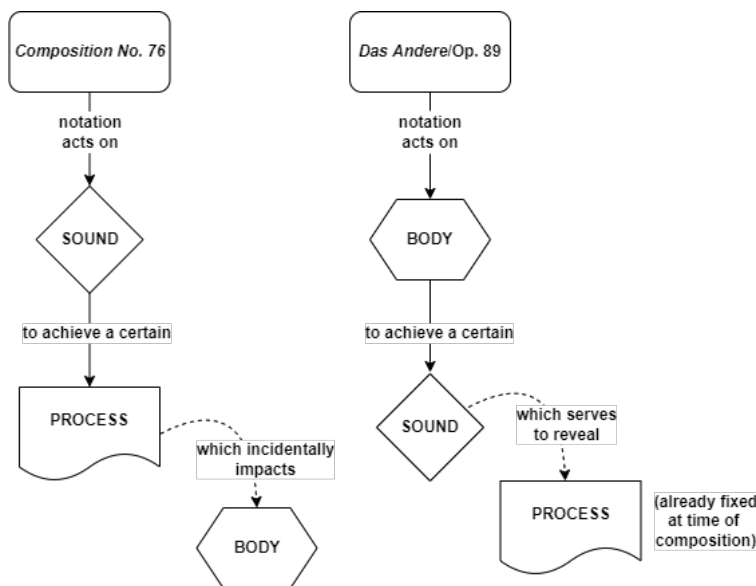


Figure 9: *Helpful(?) diagram illustrating flow of influence through compositional systems*

properties of the large-scale form while leaving the surface-level pitches, rhythms, more-or-less indeterminate. However, unlike Rădulescu’s symbols, these render each player’s *sonic* contribution contingent upon the actions of her bandmates, rather than solely upon the composer’s authorial decisions.

*Composition 76*’s overarching modularity combined with the extent to which Braxton centers improvisation “proper” (i.e. mid- and high-level openness) demonstrates that it is a creative *process* that is central to the piece rather than any one particular sound. However, in contrast with Rădulescu, *sound* makes up the domain over which the notation operates rather than physical gesture. That is to say: for Braxton, sound is in service of process.<sup>7</sup>

Armed with this understanding of the forces at play in these compositions, the next section will attempt to trace the ways in which these notational paradigms could be understood to reflect their composers’ philosophical tenets, as laid out in their writings: Braxton’s *Tri-Axium Writings* (1985) and Rădulescu’s *Sound Plasma* (1973).

For all the complexity of their philosophical output, one may claim at least one thing confidently: Rădulescu and Braxton are both artists wholly oriented toward the future. Both artists work (to use the eternal present tense) in dogged pursuit of certain musical ideals which they envision as lasting long after their own passing.

<sup>7</sup>It is certainly worth noting that these disparate approaches need not be mutually exclusive. Ideally with growing interest in structures of open notation, works will begin to emerge over the coming years which manage to harness sonic *as well as* physio-spatial parameters with deft use of second-order notations.

Braxton consistently speaks of the “Third Millennium” as being the start of a new, great turning for human culture and society during which we are uniquely malleable; able to be influenced by radical new art forms, of which it is his responsibility as a “restructuralist” (as opposed to a “stylist”) to bring about. Of this view, Ronald Radano writes, “Linking a global conception of musical structure with the universal beliefs of the occult, Braxton advanced a view in which music became an active force and, in the proper hands, a tool for progressive social and cultural change.”<sup>8</sup> Of course, not just any music could “activate these forces” and reconfigure our hopelessly Second-Millennial minds. Specifically, Braxton sees himself “as a creative musician who was born in a time where it would be possible to fuse world musics and learn from the great picture of Earth musics, and to look for strategies and states of music that respond to the challenge of the Third Millennium.”<sup>9</sup> *Synthesis*, then, is clearly Braxton’s modus operandi in general. Via their stylistic choices and inscriptions, his works pay implicit and explicit homage to dozens of artists from wildly disparate backgrounds and musical styles—from Lee Konitz and Warne Marsh, to Richard Wagner and Karlheinz Stockhausen, to Cecil Taylor and John Philip Sousa. Further, his status as a “trans-idiomatic” composer has been frequently addressed by scholars and critics of his music alike. It should come as little surprise, then, that at the lowermost level, the notation that comprises his works, we should find structures promoting this universal synthesis as well. While he does employ more conventional sonic signifiers in his notation, his use of color as a means to access his performers’ subjective emotional interpretations of material as well as his use of intra-ensemble relational parameters demonstrates a commitment to musical co-authorship by comparatively “free” agents whose wide-ranging musical experiences will necessarily impact the overall sound-world in unpredictable ways (while leaving the compositional *process* intact). This approach betrays a certain universal optimism as regards the role of *history* and *memory* in his music, which inevitably play a large part in the improvisatory contributions of his co-authors. By invoking the diverse history and personal agency of each of his collaborators via this multi-level notation-scheme, Braxton takes the first step in facilitating the pan-cultural and pan-historical fusion at the center of his ethics.

Perhaps the darker side of the same coin, Rădulescu’s operant philosophy was not one of universal, third-millennium agglomeration mediated by a sort of post-Webern, post-Coltrane aesthetic, but instead one of radical, utopian severance. Though certainly broad-minded in his tastes, Rădulescu was anything but a musical omnivore. Guy Livingston’s 2007 interview catalogs the well-known disdain the composer had for his predecessors and contemporaries (Shostakovich, Mahler, Schnittke, Boulez, and the entire

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<sup>8</sup>Radano, pg. 229.

<sup>9</sup>Heffley, 2000.

cohort Parisian spectralists) who he saw as carrying on a musical tradition that had essentially died with Webern.<sup>10</sup>

He also renders these thoughts in text: Though not fully comparable to Braxton’s mammoth, three-volume *Tri-Axiom Writings*, Rădulescu penned his own, more compact manifesto-cum-prose-poem, itself titled *Sound Plasma* (1975). In it, he opines that up to the present, music has primarily been characterized by a “historically exhausted DISCONTINUANCE,<sup>11</sup> consist[ing] ... of sounds as points and lines, of mode steps ... of rhythm, of modal and tonal gravity centers ...” and that via the then-dominant trend of serialism, these musical features are “still increasing and hypertrophying.” Only by “ENTER[ing] THE SOUND, PLAY[ing] THERE AND FROM THERE,” may we then “transform UTOPIA into REALITY and vice versa.” For Rădulescu, argues Francis Heery, it is the amorphous sonic object of the sound plasma itself, an object that does away entirely with the atomization and binarism inherent in nearly the entire canon of Western music, which has the potential to lead us, as performers and listeners, into a new, listening-centric utopia.<sup>12</sup>

Rădulescu’s notation, somewhat indelicately referred to as “improvisatory” or as “permitt[ing] a great deal of freedom”<sup>13</sup> by other authors, is in fact a rather restrictive, precisely constructed mechanism designed to achieve this utopian schism; separating us from our historical predecessors. Indeed this individualistic utopianism might go a long way toward explaining the self-similarity underlying his musical architecture, whereby each notated gesture involved in the creation of sound plasma acts as a miniature instance of the entire “sound plasma concept,” shifting and flickering unto itself (i.e. wholly independent from its neighbors) before aurally merging in the ear of the listener.

Crucially, given the (perhaps egomaniacal) extent to which Rădulescu believes that this sonic utopia represents a form of *gnosis*, closed off to anyone but God’s chosen composers, is it any wonder that his notation is specifically designed to harness human physicality and the illusory “free” will granted to the performer in service of this veiled, liberatory sound mass? It seems that in the end, not only would traditional notation fail to capture the *sounding* of sound plasma in all of its spiritual import, the performers—as laypeople—are not yet worthy of having the secrets of the sound revealed to them in the form of sonic signifiers. Thus, the sounds remain un-notated and only the means to produce them, the tablature, is permitted. Our agency (our “freedom to act as we will”) is an illusion and we performers are so corrupted by our overreliance on tone, line, and rhythm, that we are not to be trusted with (nor could we even *comprehend*) true representations of this sacred, gnostic sound which, if nevertheless somehow invoked correctly, will

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<sup>10</sup>Livingston, 2007.

<sup>11</sup>(capitals his)

<sup>12</sup>Heery, 2016.

<sup>13</sup>Dougherty, 2014.

bring us to the promised land—what could be more pessimistic?

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