

A Systematic Dismantling: Heinz Holliger's *Streichquartett* (1973)

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“In particular, the String Quartet is an extreme example of a music of effects rather than of 'ideas' in any conventional sense. The result, beginning with frantic high harmonics and ending, some twenty-six and a half minutes later, with the barely perceptible breathing of the players, is music whose expression is always utterly clear and direct, but which seems mechanical in its apparent rejection of the kind of relationships between significant detail and overall shape and perspective through which most music communicates.” – Arnold Whittall, *Gramophone*, August 1981

Heinz Holliger's *Streichquartett* (1973) is a landmark work. It challenges the listener and performer alike, posing many questions and giving only tentative answers. While still obeying the basic rules and conventions of string quartet discourse and notation, it methodically strips away the artifice of performance, working from the inside out. It comes into being in a furious flurry of activity. Organic processes play themselves out to exhaustion, reaching termination less through the end of a compositional process than through something like a loss of entropy; musical form attempts to assert itself and is subsumed in the welter of activity; technique and the instruments themselves become deformed, barely able to retain their identity, threatening to become only the wood and metal from which they are made. Eventually exhaustion is reached, both on the part of composer and, one must assume, on the part of the players. Then something mysterious happens: first, after this inexorable,

almost ritualistic revealing of the instrument, then, finally, the body of the performer, which has been residing underneath the sounds all along, emerges. The dramatic structure of this piece is a result of a progressive and exhaustive dismantling of traditional string techniques. The quartet becomes the sound of the quartet's undoing: this work eventually renders the instruments themselves unusable in any traditional technical sense, promoting what was previously considered only the residue of the tools and the physiology needed to produce these sounds into the central musical material.

It would be easy to interpret this work as the last, dying gasp of the string quartet tradition, the death rattle of a moribund genre. However, just as much as this piece is a methodical deconstruction of many aspects of traditional string quartet composition and aspects of string writing in general, it also creates quite a few reconstructive strategies that give focus and purpose to the work developmentally while simultaneously pointing to a few ways out of the cul-de-sac of the historical moment in which it is situated. It provides the ground for regeneration through destruction.

The Death of the Sound

“...To some extent the physical death of the sound occurs inevitably when the tension of detuned strings is reduced so that nothing except quiet bow noise and the exhausted breath of the musicians can be heard.” - Deitmar Polazcek

This piece is the story of the failure of composition to dominate the instruments and the emergence of first the instrument, then the instrumentalist herself. Slowly each layer of artifice, both compositionally and instrumentally is stripped away, suggesting the beginning of the emergence of the individual (this is in distinction to the beginning of the emergence of the individual as not under the control of the composer, a paradigm that Holliger keeps firmly in place). What makes this comprehensive dismantling so remarkable is the thoroughness with which it is done and the obvious attachment towards the deconstructed tradition. For instance, despite a preponderance of indeterminate elements, especially on the most local scales of rhythmic activity, there is never a waning of faith in the devices of composition, especially in the domain of large-scale temporal structuring and in the importance of pitch-based material as essential to compositional architecture. This is not an “open work,” though it directly engages such issues. This work exists more on the controlled edge of the continuum of compositional indeterminacy. In fact, even though some control is given up in the domain of pitch and rhythm, some arguably more repressive forms of control come into play, like more direct control of the body, including many aspects of physical comportment and activity normally off limits that could be even considered a transgression of the composer-performer relationship.

This is especially true regarding the implications of many aspects of the notation, especially the multi-stave, non-intersecting notation that dominates major sections of this work. Traditional techniques of proper sound production in string instruments emphasize, among many other things, the production of pitch-stable, mostly equal-tempered pitch material in a fashion that in general imitates a vocal tone and phrasing. Of course, that bel

canto types of vocal phrasing seem irrelevant to Holliger at the outset seems obvious. What is not so obvious is the idea that underpins this that unconsciously remains hidden in standard notations, which is the synchrony of left and right hands. Notation leaves out so much, a situation that is allowed by all the conscious and unconscious elements that make up a style of musical performance. Once the door to questioning this is opened, once discreet, clear pitch production is unnecessary, problems arise. Indeed, that road is a long one, for the factors that go into proscribing even a single motion are innumerable. Tablature as a proscriptive measure is only a partial solution, in its own way leaving out as much as it includes. Holliger takes a middle way, a performer's compromise. This quartet in fact chronicles the hands separation, their inability to remain together being indicative of a questioning of the hegemony of the valuation of discrete pitch material on which so much music of the European compositional tradition depends, yet still retaining the possibilities of controlled, goal-directed indeterminacy. This divorce is not a meaningless gesture, but a possible way out of Darmstadt-style serialism's dead-end, one that gives the performer some interpretive say without relinquishing the role of the composer altogether. That Holliger does not exactly get this balance right is forgivable, as his attempt to enfranchise the performer into deeper interpretive involvement somewhat expectedly turns into an oppressive weight, albeit in an intriguingly different fashion from how this normally happens in the course of performer's traditional interpretive strategies towards compositions involving indeterminacy.

From Illusion to Instrument to Body

“Biological processes are virtually written out: each of the usual and unusual ways to maltreat each instrument, leading to its ultimate consequences, each player driven to the edge of exhaustion.” - Dietmar Polaczek

The dramatic structure of this piece is a result of a progressive and exhaustive dismantling of traditional string techniques. The quartet becomes the sound of the quartet's undoing: this work eventually renders the instruments themselves unusable in any traditional technical sense, promoting what was previously considered only the residue of the instrument's means of musical production into the central musical material. The piece therefore becomes in fact almost a treatise on extremes of extended techniques and methods of dislocation. In the end, the work uses the means by which the sounds are made as the musical material. The unpredictable results that happen as a consequence of two or more independent layers of activity has the result of producing dynamic textures that can shift and develop organically but are still highly unified. Out of this arises first the use of the mechanics of string playing as the emergent musical material and eventually becomes quiet and still enough to reveal the biological support system behind the instrument itself, the individual instrumentalist. This eventually comes to the point of revealing the breath.

Coming from an acknowledged contemporary master of the oboe, this idea makes a lot of sense. Breath and breathing, the necessary but often musically superfluous companions of all wind players, must have been on Holliger's mind in the composition of this quartet. String instruments often imply respiration in their articulation but are in no way as tied to

the breath as the voice or a wind instrument. I like to imagine that this quartet is in fact an attempt to compose a string quartet that is like a wind piece. The quartet is like a breathing thing, a living entity. In fact, the piece is less a quartet (certainly not the kind of quartet that reminds one of select company having a well-mannered conversation, which Holliger commented was not his interest in this composition) than it is some sort of meta-solo piece, a multi-armed monster, with appendages moving in different, unpredictable directions at all times, but yet possessing a highly unified vector; one body, with a specific center of gravity, only tolerating a single trajectory at any given time.

I cannot help interpreting this piece in the context of Holliger's *Studie über Mehrklänge* for Oboe solo, the piece immediately preceding the string quartet in his compositional catalog. These pieces have many similarities, including an interest in producing not fully determined but mostly predictable fields of musical activity through a decoupling of left and right hands (as one does often in the production of multiphonics) and an isomorphism in their overall form, most likely in the case of the Oboe study as a result of the exhaustion produced by performing oboe multiphonics while circular-breathing. One has to wonder if this string quartet is an attempt to somehow capture and elaborate on this performative experience, but transferred over to a different media, one that requires quite a bit of scaling up in order to produce an analogous level of exhaustion.

For greater clarification as to the context of breath in Holliger's compositional output, Peter Palmer has this to say on the matter (in a review of a book about Holliger by Kristina Ericson): "Breath control, for Holliger, is as necessary for the string player as for the singer and wind instrumentalist.... Most [of the works of this era] are associated with a crisis

in Holliger's creative output, whereby the hitherto germ-free (his own phrase) style became contaminated by noise and other impurities. In “Pneuma” the wind ensemble serves as a giant lung,” (p. 50). Holliger’s “Atembogen” for Orchestra (1975), composed immediately after the string quartet, shares similar concerns but on obviously the largest possible scale. However the image is evocative and applicative to the work at hand: the entire quartet as the exhaling of a single, giant lung.

Techniques of Deconstruction

There are many simultaneous layers of deconstructive or destabilizing processes in this work: (1) lack of meter, (2) lack of small-scale phrasing, (3) decoupling of left and right hands, which happens in many phases and in various ways, (4) deformation of technique (too much bow pressure for example), (5) irregular bow movement/disruption of bow movement, (6) playing on bridge, tailpiece, and body, and (7) detuning/scordatura. Each of these will be dealt with in turn in the course of this analysis. Much of what one hears at any given time is the whole “instrument-ness” of each instrument, aggregating into a somewhat striated kind of “quartet-ness.”

As one can see clearly from the spectral signature of the entire quartet (as performed by the Berner Streichquartett, here analyzed from 20Hz to 20kHz, (see accompanying materials: Holliger_spectrogram_complete.png)), there is, generally speaking, a descent in the range of spectral saturation. This is especially true of the extremes of the beginning and

ending sections. The spectrograms of the individual sections (attached under their own headings in the accompanying folder) show this process in much greater detail

Of all of the technical devices, the scordatura are of special significance. They are key to understanding the larger musical form of the quartet, since the form of the piece itself mirrors the scordatura process; in either case, they mirror each other in overall general descent, both in aggregate pitch of the quartet and in a fanning out towards a larger spectral range. In addition to this, the detuning is also a compositional necessity: since all of the above listed techniques foreground instrumental resonance (or lack of), the detuning is necessary for developmental purposes. The entire spectral range of all the instruments are activated so consistently, the shifts in string tension and the subsequent altering of the fundamentals and timbre helps avoid the inevitable tedium of essentially activating a large part of the spectrum of an entire instrument at any given time. These areas of emphasis can be seen clearly in the spectrograms, especially on the lower borders.

Compositional Narrative

The opening begins from the outset with a decoupling of the players from one another, as a result of a high density of material with only general instructions as to how to articulate them in time due to the lack of meter and the lack of small scale rhythmic coordination, save only in the most general sense of graphic notation. Exact synchrony between the players becomes essentially impossible except for at certain orienting signposts,

in this case circa 10 second groupings that begin at the start of each system. Each grouping is offset by artificial harmonics at the beginning of each grouping that in essence momentarily double the already relatively high tessitura. This opening is problematic. It is quite specific in the dimension of pitch, but extremely relative in the domain of rhythm. How are the players to work out their rhythms without wholesale re-composition? It seems to doom the performer to failure to articulate all the pitches. This seems like a choice that Holliger is forcing the quartet to make, with little guidance about how to navigate that element of the piece.

Pitch is produced through what seems like a generalized, contrapuntal algorithm. The general rules are articulated in the notes for (A21), which describes the selection process for choosing sequential intervallic content according to the following rules: “(1) [left hand intervals should be] major and minor 2nds, major and minor 3rds, occasionally fourth and tritone as well, (2) every 2nd or 3rd [interval] should be a minor 2nd, and (3) not more than 3 notes should be played in the same direction.” (For a playable, working example of this pitch-selection system, see the attached Perl script (Holliger.pl, located in folder “pitch_algorithm”) and execute it in RTcmix). Holliger’s typical use of this algorithm is to obey it fairly strictly, merely nudging it in preferred directions every once in a while.

Beginning in section (1), the algorithmic counterpoint is, as a consequence of the algorithm as specified, range specific. It also, unlike later on, involves a greater amount of pitch repetition. This is continued in (2-4), with larger rhythmic groupings being slowly added, and the size of “rests” within each grouping growing larger, especially at (4). (5-9) is

more of the same, until “f staccato sempre” is reached. (10-15) continues but with a gradual interpolation of longer tones, artificial harmonics, glissandi, finally tremoli.

Section (A) is a continuation of the inevitable once such a process has been set into motion. Pitch begins very gradual transition to lower range, decoupling of the left and right hands, which begins as an extension of unmeasured tremolo. In (A1-5), the same part-writing rules guide pitch selection, but now with octave transposition allowed. This is also where the gradual decoupling of the left hand and right hand begins. Also of interest is the appearance of Fibonacci number as a material determinant, as suggested in the notes of the score in application to certain groupings of notes. (A6-11) introduces small *crescendi* and *diminuendi*, {uncoordinated and in individual voices}, notated for the right hand only. There is a large overall *crescendo* into (A11). (A12- 15) begins right hand “duets” while the left hand continues unabated. (A16-20) leads to a gradual unity of right hand articulation. At this point, the lowest range of the instruments in standard tuning is reached, leading to (A21-24) where the first *scordatura* process begins. The *scordatura* process is deeply musically integrated into the score.

In section (B), a rhythmic counterpoint now dominates, with *pizzicato* and more “wooden” sounds predominating. The left hand part is now quasi-improvised “in the style of” the previous two sections. This occurs according to the given formula, sans the inversions allowed in (A). Box notation is also briefly used, which provides great gestural unity momentarily. If one were on the lookout for sonata form references or conventions, this would be perhaps the second thematic area. Also there is the intriguing presence of Fibonacci numbers in the rhythmic instructions at (B3). It is highly likely that Fibonacci numbers are a

common grouping determinant in the domain of rhythm throughout the entire piece.

Perhaps this is reflective of an interest in biology and process. This section is fairly brief: (B5-6) transitions back to arco playing via *col legno battuto* gesture.

At (C) the gambit of (B) continues, with the left hand still operating of it's own accord. Aggressive slaps and strums predominate. The full decoupling of the hands is further developed, with the notation for both hands in separate, independent sets of staves showing up for the first time at (C3). The organizational principle here is difficult to detect. However, there is certainly the ghost of sonata form lurking here, or perhaps a musical joke, with the sudden appearance of the pitch algorithm material making a sudden appearance as a closing theme.

If the end of (C) marks a closing theme of sorts, then (D) signals the start of the development. It is marked as "4 soli," which indicates that the section should be treated as four simultaneous soli, with each instrumental part consisting of two staves of material, one for each player's left and right hands. This continues quite a while with highly asynchronous material that is nevertheless highly unified due to its uniformly overwhelmingly active content. The second scordatura is also folded organically into the material. This is an "everything-but-the-kitchen-sink" section, which becomes slowly unified via a counterpoint of right hand patterns, eventually converging in a point of rhythmic unity accompanied by the rare presence of meter.

(E) is a frustrated and extended attempt to bridge the gap between the rambunctious, physical cacophony of (B) and (D) and the pitch material of (A). However, despite labored argumentation and a strong effort, it is not meant to be. Things gradually wind down,

inexorably losing steam and cooling off. The loss of any power of middleground musical argumentation is palpable. What can be done with pitch material in this context? It has now lost its power, along with any extended technique imaginable. However, Holliger does not give up. The instruments are detuned once again, now for the third time, slowly sliding down to unimaginably low pitches for these instruments.

(F) begins with a truly astounding texture, dramatic in its unfamiliar, foreign timbre relative to this context. The intersection of these compositional processes, once put in motion, has brought us to this strange, alien place. The instruments themselves seem confused about how to respond to this request to produce such low frequencies. The tempo is now indicated as “sehr langsam”. Each system is now equal to around 20 seconds, double the “tempo” of the opening. The rate of overall change is slow, the timbre consistent, but something is constantly shifting underfoot. Glissandi of all types become the dominant material at this point. Harmonics and artificial harmonics are slowly added, which begins to engage the upper part of the spectrum once more. Building to (G), sforzandi appear, adding shape and momentum to the end of this section. The pitch material is still derived in general from the contrapuntal algorithm of the opening, but this time in an eight-voice texture and with the changes in the individual instruments happening very gradually and on a much larger time scale. The texture is dense and complex but paradoxically retains a thinness and fragility. Within the eight-part texture, the [0,1] and [0,2] relationships predominate in the individual voices, but are usually found in inversion, combining with the insistent, ghostly glissandi to create a field of constantly morphing sevenths and ninths. These are occasionally broken up by the other intervals as suggested in the contrapuntal rules, mostly the

augmented fourth. Thirds show up with much less frequency than and their inversions hardly at all.

The transition from (F) to (G) is hardly detectible. This section begins the final descent, the last scordatura that puts the instruments truly on the edge of any playable range string-wise, though it must be bourn in mind that, even though they are scarcely played from here until the end of the work, the highest string of each instrument is still near standard pitch, which is in all likelihood the only thing that keeps the bridges of the instruments from falling down. (G) in general continues in a similar vein as before, with the addition of a very interesting note in the score at (G1): “After "retuning" all bowing movements should be duplicated by respiration: [up bow] = inhale, [down bow] = exhale (if possible, a stethoscope microphone to amplify breathing sound). Fatigue from unaccustomed lengths of respiration should manifest itself in the tone (shaky bow; tense, halting bowing etc.). Breathing sounds should not attract attention, but should blend fully with instrumental sounds.” In this case though, it is not the breathing that creates the content, i.e. the breathing of the player determining salient musical material – in fact it is the opposite: the player must conform her breathing to the composition. Even more disturbing is this injunction: “Respiration always parallel to bowing. Tighten throat when bow pressure in increased. Rest created only by halting of breath and bow. During rests, leave bow resting on string and hold breath (closed throat). Silence therefore created by ‘no longer being able to breathe.’” This is certainly seems at first glance strangely invasive, and is certainly a high level of compositional control to submit oneself to, as a string player at least.

The transition to (H) is the point at which the final disintegration occurs, creating the still-point at which there is a symbiosis between the traditional modes of sounds production of these instruments, the “shadow” sides of the instruments, and the emergence of the sounds of the people literally pulling the strings. However, this moment quickly passes and we are left with the physical presence of the performer’s body finally revealed.

Conclusion

“In the context of Holliger's composition is to deal with the kinds and models of compositional tradition is not unusual, but he has rarely subjected to such a radical mass resolution as in the string quartet. Ultimately, this is a farewell to the string quartet genre, the final sound quality being a formal seeping into nothingness, which does not allow a new beginning.” – Von Stephan Drees

I hope that the opening quote at this point has been proven inaccurate. Holliger’s First String Quartet certainly is not merely music of effects without ideas. While not unproblematic by any means, it is in fact quite an articulate, sophisticated long-form argument; block after monolithic block of seamlessly stacked, quasi-algorithmically derived, Xenakian clouds of sounds intersect with a very traditional perspective on counterpoint and part-writing, creating a rich, textured world. Holliger chooses excellent tools for creating a maximum amount of activity and texture from what is a quite small ensemble for such a job. He finds and creatively deploys compositionally appropriate techniques that are suitable to

extended musical development. It is at the very least a remarkable achievement within the European milieu of contemporary composition circa 1973, namely the post-serialist compositional world of sound-mass composition, indeterminacy, and an emerging confrontation with the theatricality of musical performance. But I would argue that this piece exists within an even larger context, within the tradition of transformative, ultimately transcendental pieces like the Beethoven's Piano Sonata Op. 111, both pieces that are, for complex reasons, unable to truly come to a conclusion, or present a satisfyingly recapitulatory relationship that connects the beginning and the end of the piece. The material cannot entirely withstand the weight and dimensions of the work but, instead of breaking, the material becomes transformed into an unrecognizable substance. In pieces like these, a Rubicon is reached and crossed within the composition. Return is not possible.

This quartet is a systematic, figural and literal dismantling of string instruments, their playing techniques, and, to a some degree, the tradition of string quartet writing; but it is a work that has been lost, perhaps hobbled by its own formidable difficulty and its uncompromising musical language. It certainly asks quite a lot from the instrumentalists (and their instruments too). Despite its lukewarm reception in its time and its marginal status today, this quartet seems like a very personal answer to some of the most significant questions facing European composers in 1973. Furthermore, it is from one of the few significant performer/composers of this era and contains, whether consciously or unconsciously, important messages from the other side of the compositional divide. In the end, I must disagree with the assessments of this work as one without musical substance or lacking ideas or as only pointing towards bleakness and a dead-end, or as a farewell to the

string quartet. This is not a nihilistic work. With this deconstruction come other possibilities of reconstruction too. It is just as much a possibility that once the musical potential of performer's body behind the instrument is fully revealed, the real progress could start. Tilling must begin with destruction.

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One of the most significant aspects of Elliott Carter's Second String Quartet (1959) is that it represents the composer's workshop for developing his characteristic harmonic language. Many sketches in the collection depict the composer's systematic process of understanding the properties of all-interval tetrachords—how they combine into larger units to complete the 5-, 6-, 7-, 8-note collections, the 12-note aggregate, or how they break down into smaller units of dyads and trichords.