DECOUPLING MATERIAL AND TIME: AARON CASSIDY'S SECOND STRING QUARTET ESSAY BY TYLER JORDAN

Aaron Cassidy's compositions focus on experimental notation that focuses on gestural material. These works often ask the performer to unlearn traditional aspects of their instrument, both in notation and performance, through a notational technique Cassidy refers to as "decoupling". By deconstructing the instrument, these different elements of sound production are placed onto their own individual staves to allow for new possibilities of gesture, sound, and rhythm to appear when recoupled; combinations that would be theoretically impossible with traditional notation. Cassidy claims that all western classical music up until recently has been concerned with the vertical and horizontal, while his work attempts to deal with the "diagonal" axis. This freedom found within the diagonal sets him apart from other new complexity composers; there is often something hidden in the notation, living in the space between decoupled material, that Cassidy is attempting to summon.

Decoupling can be seen in *String Quartet* (2002) where two separate staves are used for each instrument: one for the left hand, showing 4 pitches on a traditional staff for hand placement, and one for the right hand, showing a 4-line tablature style staff for which string to bow or pluck. (At times, a third staff is used to show precise changes in finger pressure or vibrato.) A much different approach to decoupling is seen in *Second String Quartet* (2010), where all of the information is kept on a single staff representing the entire body of each individual string instrument. Notation in this work is divided into three elements: left hand finger position (black), bow position (red), and up/down bows (green). The placement of all three elements on a single staff, in combination with the removal of pitch notation, allowed Cassidy to focus on and expand

the possibilities of gestural composition. Without specific pitch as a possible analytical framework for this piece, these gestures, defined as the resulting recoupling of the three elements, will be the focus, as well as other categories these gestures may fall into (registral space, timbral space, dynamics, etc.)

The first two phrases of the work show an example of gestural repetition through what Cassidy calls "short-term reflection". Violin 1's opening gesture is an up-bow into down-bow combined with sul tasto to sul ponticello back to sul tasto alongside a slow, downward glissando while the bow moves from the lower two strings to the upper two strings. This gesture is reflected in measure 6 in the viola, only altered by occurring over the duration of two eighth-notes instead of three. Cassidy uses the composition placement of these short-term reflections to create small-scale form, in this case as a phrase articulation. This approach is made clear in this instance by isolating the reflection on both sides with complete silence from the violist.

The same technique is used for the next phrase articulation at measure 10, where violin 2 has the same gesture as the cello in measure 6, eighth-notes 2 through 4. Unlike the previous example, where the material is near-identical, this example shows how one gesture might undergo transformation upon its reappearance. The cello bows from the bridge to the middle of string, and the second violin bows from the middle of the string to the nut with the same left-hand fingering, but now on the opposite side of the bow. While the first short-term reflection example underwent a durational transformation, this example exhibits a topographical transformation. Again, this reflection is amplified in significance through it being surrounded by silence, unlike its pre-reflected material. Additionally, we arrive at a new tempo. While the tempo adjustments are often not extreme, this provides the performance with another visual element, as seen in the US premiere performance by the JACK Quartet with the cellist often "conducting" the pulse.

Continuing after phrase 3 (measure 10-15), phrase 4 introduces the new prominent gesture of elongated overpressure bowing in measure 16 in the viola. From this measure onwards, these sustained overpressures continue, primarily between the viola and second violin, moving gradually, yet discontinuously, from the string position at the top of the instrument body towards the bridge, seen in the final bow position (red) gesture in the second violin into measure 25. This sustained overpressure gesture is notable due to much of the previous material incorporating smooth glissandi in both the left hand and the bow position. Here, we see stability in these positions, with variance in the bow position with fast vertical scraping interruptions, as well as triangular glissandi in the left-hand position stemming off from stable positions. Leading into measure 25, the sustained overpressure gestures become increasingly interrupted, with measure 24 being a collective moment where the second violin, viola, and cello are all playing overpressure with vertical bow scraping and left-hand vibrato. This is also a dynamic and registral arrival, with the loudest and lowest collective material seen so far. The claim that this is a large-scale goal through non-directed linearity can be backed up with another instance of short-term reflection. This final unison gesture in the viola and cello in measure 24 is taken from the second violin in measure 18. The transformation of having two instruments play this gesture, now being bowed on the "correct" side of the left hand, allows this gesture to take up more orchestrational space with a deeper and louder timbral space being covered in its new form. Measures 25-29 can be seen as a "coda" to this first large-scale section, with higher registral space and more harmonic timbral space resulting from the recoupling in contrast with the goal of the section, despite having similar bow gestures.

The next large-scale section of the work is measures 29-75. In this section, phrases are demarcated by sudden shifts in juxtaposing material. On one hand, we have material similar to the

first section's goal that has been pushed past its gestural limits by having increasingly longer and more intense vibrato overpressure gestures, often accompanied by pizzicato in at least one instrument. This increase in intensity makes the material less individually gestural, creating a more uniform sound throughout the ensemble that the newly introduced pizzicato can take the foreground of. The first instance of this material can be seen from measure 29-40. This phrase exhibits a crescendo into measure 35, and a decrescendo into measure 40. Alongside this dynamic spatial crescendo and decrescendo is an accompanying orchestrational spatial mapping of 2-3-4-3-(2 at measure 41) instruments present to amplify this dynamic gesture. Gestural intensity is also maximized at this phrase peak, with the viola having the longest "bow vibrato" gesture in the work so far in measures 34-39.

This material is juxtaposed in the next phrase, measures 41-46, categorized by extremely weak bow pressure, col legno tratto (indicated with the red bow line now a grayish-blue), less complete instrumentation, no pizzicato, and more narrow gestures. These two contrasting materials sets up a multiply-directed linearity with contrasting goals. Sharp shifts between these two materials continue.

The intense overpressure material returns in measures 47-51. Note that these primary overpressure lines come in many forms, from square-like shape, indicating near-instant change in bow placement, to zig-zag shapes, referencing the goal material of the first section, and also the crescendo shapes, indicating weak pressure to overpressure. The counterpoint and juxtaposition between these different modes of overpressure material is what is adding to the intensity of this material over time.

The weak bow pressure material returns in measure 52 with a sudden drop off in dynamic, harmonic, orchestrational, and registral coverage. Interestingly, we see a shifting between the two

materials alongside the accelerando in measures 58-59. This shift is seen with the introduction of pizzicato material that accompanies the intense overpressure material on top of the weak bow pressure material. We also see a collective, gradual increase in bow pressure and bow movement in these two measures, leading to what is the goal of the intense overpressure material in measure 59 with a glissando gesture in the cello that covers the entire instrument, both in the left hand and the bow. This marks the return of another intense overpressure phrase, with the density, or instances of individual overpressure gestures within a given phrase, now decreasing.

A weak bow pressure phrase returns in measures 63-68. Interestingly, the square-shaped bow lines from the opposing material are seen in the viola, but paired with weak finger pressure as to not break the timbral and registral space of the weak bow pressure material. This shows that Cassidy has a complete knowledge of what the combinations of decoupled material produce sonically as well as gesturally. Strong bow pressure material returns again in measures 69-74. Again, we see a gradual decrease in density, with measure 70 exhibiting 3 different strong overpressure gestures in the violins and viola, then winding down to less complex overpressure gestures, such as the viola in measures 72 and 74. These last two intense overpressure material phrases having this gradual decrease in density shows that this point in the music is past the material's goal point, which occurred in measure 59. Measure 75 is the goal of the opposing weak bow pressure material with complete silence and inactivity throughout the ensemble. This "lack of gesture" is in complete contrast to the goal of its opposing material of a glissando gesture that spans the entire body of an instrument with both hands, specifically the cello, the largest instrument.

The next section features the viola as a primary voice, starting at measure 76. This music features shorter gestures in terms of duration, with complete silence now commonly found to create

phrase delineations. The material itself is derived from both of the opposing materials from the previous section, but without separation of phrasing. Other instruments are sparingly added as complementing gestures. Unlike previous material, there is no counterpoint between voices; when multiple voices are present, they act as one. This allows for the viola to play, for example, fast overpressure glissandi while another instrument plays music derived from the weak bow pressure material. This can be seen in very short additions of other voices, such as the cello overpressure in measure 79 adding to the first articulation of the jete in the viola, but also in longer phrasing, where one decoupled aspect is rhythmically identical to a different decoupled aspect in another instrument. This technique can be seen in measure 92, where the bow direction changes (green) in the viola is rhythmically identical to the left-hand glissando direction changes (black) in the cello. This creates a texture that builds in timbral, registral, and dynamic spatial coverage over time without having counterpoint and rhythmic density as a spatially developing aspect.

The texture continues to build in these aspects until measure 103 when all four instruments are playing complementary material in different modes (pizzicato, sustained overpressure, and fast glissando overpressure, all with varying finger pressure). While 103 is the non-directed linear goal of this viola solo turning to complementary tutti material, two measures later, the fermata further emphasizes this through a decoupling of the spatial and temporal aspects of the opposing material. On one hand this moment has a sense of temporal stasis, derived from the weak bow pressure material's goal of silence, but the timbral and registral spatial coverage of the intense overpressure material. This moment stands out for its incongruence; an overpressure gesture has not been shown to have this little activity so far in the piece. Its existence can be explained as a recoupling of the temporal aspect of the weak bow material and the spatial aspect of the overpressure material.

The final section, measure 105 to the end, is characterized by how it deals with the idea of complementary material and combative material. Unlike how material in the previous section had rhythmic similarity, either unison or hocketing, with at least one decoupled element of the viola, combative material can be defined by its holistic individuality; not a single decoupled aspect is similar to one in a different instrument. This section begins by always having at least one complementary pairing of decoupled material, most often the left-hand changing glissando direction or finger pressure. Entire unisons or transformed unisons can exist, such as the violins in measure 106 or the viola and cello in measures 117-118, but singular decoupled elements between instruments can be linked as well, such as all instruments having some type of left-hand change occur on the second beat of measure 105. The important aspect of these decoupled unisons is that any harsh or drastic changes to the sound production is paired with another change in another instrument to diminish its individuality. Less sonically significant changes, such as a subtle bow direction change, do not need to be paired with another decoupling for this complementary effect to occur.

Starting with the duet in measure 122, combative material between instruments begins emerging, leading to the first goal in measures 130-133, where the entire ensemble is playing with combative material. This change can be seen when comparing the finger position (black) beaming under each staff at the start and end of the section. Due to different rhythms and tuplets, measures 130 and 132 have no significant rhythmic landings across parts besides the downbeats. Previously the majority of measures were on the same eighth-note or sixteenth-note grid for this decoupled element. While combative, this material stays relatively subdued in terms of dynamic space even when gesture variance is wide, covering a large timbral and registral space.

A more drastic linearity towards combative material is seen in the second half of this section, from measure 135 to the end. Again, the left-hand changes begin mostly in unison, with rhythmic misalignment occurring primarily between the bow (red and green) decouplings. Intensity is restrained until the final phrase, measures 153-156, where all gestures have maximum individualization in terms of duration and mode of production (topographical placement of decoupled elements).

As a whole, the piece has four moments that can be seen as goals. The first goal is the "most exaggerated gesture", first foreshadowed in measures 24-25, and then revealed in its true form as a two-part glissando over the entire length of the cello strings in measure 59. The second goal is the opposite of that, the "least exaggerated gesture", which is the reduction of density and intensity until silence in measure 75. Cassidy then decouples the previously inherent materials that were associated with these two goals to create the third, a very long and slow overpressure glissando in the fermata after measure 104. While the first two goals imply multiply-directed linearity, the repurposing of opposing goals into a grand ultimate goal morphs the temporality back into a singular non-directed linearity. In addition, Cassidy holds back on making the opposing goal material obvious until measure 41, which is the first time the weak bow material is used in isolation. Therefore, I claim that the work is attempting to take the listener on a similar journey Cassidy himself took with his meta-analysis of the string quartet as an ensemble. His deconstruction of the string quartet manifested most jarringly in String Quartet with up to three decoupled staves per instrument. When returning to the medium in Second String Quartet, these decoupled elements were refigured onto a single body. Cassidy not only deconstructs the body of the string instrument, but also how material can be deconstructed to take on new temporal causes within a work.

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