

# Jacques Hétu's "style composite": Sonic planes and large structure in the *Prélude, op. 24*

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# Jacques Hétu's "Style composite": Sonic Planes and Large Structure in the *Prélude, op. 24*<sup>1</sup>

*Stephanie Lind*

Listening to the music of Jacques Hétu (b. 1938), it is not hard to understand why his music has been well-received and frequently performed in Canada. He successfully blends contemporary compositional techniques with more familiar neo-classical idioms. According to Irène Brisson, in her article on Hétu in the *Encyclopedia of Music in Canada*:

[his] versatile repertoire, conceived for traditional and practical ensembles (string quartet, wind quintet, symphony orchestra, etc) has resulted in Hétu being one of the most frequently performed Canadian composers... Hétu has described his music as incorporating "neo-classical forms and neo-romantic effects in a musical language using 20th-century techniques." Indeed, with a solid background in classical forms, as the titles and the often traditional stamp of his works suggest, Hétu constructs his works around cyclically repeated and skilfully varied motivic units ... As a result of his stylistic preferences, Hétu has often exacerbated proponents of the various trends that have laid claim to the title of "avant-garde" since the 1950s. Because many contemporary music ensembles have an aesthetic agenda tied to one or more of these trends, Hétu has needed to look to mainstream classical musicians for performances. This has not been difficult

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<sup>1</sup> An earlier version of this paper was given at the *Perspectives on Music in Canada Symposium*, University of Calgary, January 2006. I would like to thank the attendees, as well as my colleagues and professors at the University of British Columbia, for their feedback on my presentation.

for the composer, given his preference for traditional ensembles; it has ultimately led to the dissemination of his works among a broader concert-going public.<sup>2</sup>

Hétu's compositional style often incorporates classical forms, simple rhythms, repetition, sequence, and a mix of tonal and atonal pitch structures. Pitch is organized into the "modes of limited transposition" developed by Olivier Messiaen, with whom Hétu studied.<sup>3</sup> Messiaen was an enormous influence on many Québécois composers who studied in Paris, and also on many well-known European composers including Stockhausen, Boulez, and Xenakis.<sup>4</sup> As a direct result of Messiaen's teachings, many Québécois composers have integrated modality into their music by using novel, non-diatonic scales; this modality is outlined in Messiaen's writings, particularly his treatise *Technique de mon langage musical*.<sup>5</sup> At the same time, Québécois composers, like their English-Canadian counterparts such as John Weinzwieg and (to a more limited extent) Barbara Pentland, have emphasized

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<sup>2</sup> Irène Brisson, "Jacques Hétu," in the *Encyclopedia of Music in Canada*, online edition (accessed October 14, 2005).

<http://www.thecanadianencyclopedia.com/index.cfm?PgNm=E-MCSubjects&Params=U2>.

<sup>3</sup> While Messiaen was not the first to utilize the modes in his compositions (for example, the whole-tone collection, much used by Debussy), he was one of the first to develop the idea that these modes form a group because they have only a limited number of unique possible transpositions. For more information, see Olivier Messiaen, *Technique de mon langage musical* (Paris: Leduc, 2000; original 1944), 85-99.

<sup>4</sup> Jean Boivin, *La Classe de Messiaen* (Mesnil-sur-L'Estrée, France: Christian Bourgeois Éditeur, 1995).

<sup>5</sup> Messiaen 2000/1944, 85-99.

repetition and the development of smaller motives in their works.

Hétu himself describes his mix of modern and traditional elements as a "composite style." He explains:

Personally, in regards to my compositional style, I see no use in completely abandoning the compositional techniques of the past; I am searching for a synthesis of elements from past and present, taking from each that which seems useful to me. In other words, I believe in the possible existence of a style encompassing several systems. A brief analysis of a fragment from one of my works will illustrate and clarify my thoughts.

The first four measures of my *Variations for Piano* state, in a contracted manner, the essential elements which generate the entire work. In total, one can recognize two sonic planes. On one hand, the extreme registers: these are the melodic declaration of the theme; on the other hand, the middle register: this is its harmonic declaration. The conjunction of these two planes creates the contrapuntal and rhythmic characteristics of this fragment.

First, the theme. Its declaration presents the twelve tones of the chromatic scale but only the first six will have a structural function. The last six tones are merely the transposed retrograde of the first six, at a close variation... Secondly, the harmony: the chords are constructed from a mode previously catalogued by Olivier Messiaen... there is a relationship between this mode and the theme: the last six notes of the latter are also part of the mode. The contrapuntal aspect of this passage is characterized by the imitative treatment of these two sonic planes.<sup>6</sup>

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<sup>6</sup> "Personnellement, en ce qui concerne ma technique d'écriture, je ne vois aucune utilité à abandonner complètement la méthode d'écriture du passé; je cherche une synthèse des éléments passés et

Hétu observes that the listener must consider the interaction between “harmonic” and “melodic”, or “modal” and “motivic” dimensions of the music. Modal is appropriate since Hétu describes the harmony as “constructed from a mode previously catalogued by Olivier Messiaen”<sup>7</sup>; the term motivic aptly describes the short length, frequent repetition, and variety of transformations associated with his melodic material. Indeed, Hétu’s discussion of the *Variations for Piano* cited above clearly outlines several elements that will be important in analysing his *Prélude*, op. 24: the use of symmetrical materials (in the *Variations*, Messiaen’s modes and a retrograde-

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présents, adoptant de chacun ce qui me semble utile. En d’autre termes, je crois possible l’existence d’un style à travers plusieurs systèmes. Une brève analyse d’un fragment de l’une de mes œuvres illustrera et précisera ma pensée.

Les quatre premières mesures de mes *Variations pour piano* font entendre, d’une manière contractée, les éléments essentiels qui alimentent l’œuvre tout entière. En gros, on y reconnaît deux plans sonores. D’une part, les registres extrêmes : c’est l’énoncé mélodique du thème; d’autre part, le registre moyen : c’est son énoncé harmonique. De la conjonction de ces deux plans naissent les caractéristiques contrapunctiques et rythmiques de ce fragment.

Tout d’abord, le thème. Son énoncé fait entendre les douze sons de la gamme chromatique mais seuls les six premiers auront un caractère structurel. Les six derniers sons ne sont que le renversement transposé des six premiers, à une variante près... Puis l’harmonie : les accords sont construits sur un mode catalogué naguère par Olivier Messiaen... Il existe un rapport entre ce mode et le thème : les six dernières notes de celui-ci font aussi partie du mode. L’aspect contrapunctique de ce passage est caractérisé par le traitement en imitation de ces deux plans sonores.” Jacques Hétu, “Pour un style composite,” *Vie musicale* 11 (1969): 12-15. Author’s translation.

<sup>7</sup> Ibid.

invariant 12-tone row), and the superimposition and integration of multiple musical planes. This paper will examine how these two elements are manifested throughout the *Prélude*, specifically how the two sonic planes, manifested as modes of limited transposition and atonal 0126 tetrachords, ornament an underlying structure based on the augmented triad.<sup>8</sup>

I will begin my analysis of the *Prélude* by outlining the basic elements of the motivic and modal layers. Measures 1-4, shown in **Figure 1**, present in octaves the series of pitch classes  $\langle D, D^\#, E, B^b \rangle$  and  $\langle G, G^\#, A, E^b \rangle$ . These pitch class series share the same sequence of interval classes,  $\langle 1, 1, 6 \rangle$ , and belong to the same set class, 0126.<sup>9</sup> In fact, they are  $T_5$  transpositions of one another, just as measures 1-2 and 3-4 are  $T_5$  transpositions of one another. The motive

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<sup>8</sup> A few conventions of pitch-class set theory will be identified here for those readers unfamiliar with the standards used in this document. 1) Any transposition  $T_x$  indicates a transposition  $x$  semitones higher than the original form.  $T_5$ , for example, indicates a transposition five semitones higher, and is thus synonymous with "transposition by perfect fourth". 2) Pitch class sets will be categorized by prime-form labels; for example, (D)(I) 0126, where D indicates the starting pitch class of the set, "I" indicates that the intervals occur in descending form – inversion – rather than ascending form (which is assumed if no "I" is present), and the set class number indicates the distance in semitones of each constituent pitch class from the starting point, D. See Joseph N. Straus, *Introduction to Post-Tonal Theory* (Englewood Cliffs, NJ: Prentice Hall, 1990), for more information.

<sup>9</sup> Note that any set sharing the same ordered interval series will belong to the same set class. If we start on any pitch class (for example, C) and apply the ordered interval series  $\langle 1, 1, 6 \rangle$  semitones (in ascending form, C, C#, D, Ab), set class 0126 will result (in this case, (D)(I) 0126).

is immediately repeated in the upper voice of measures 5-8 as a melodic motive, distinguished from the surrounding material by register. This pitch motive,  $\langle C, C^\sharp, D, G^\sharp \rangle$ , is given in **Figure 2**. Instances of this motive, a member of set class 0126, recur extensively throughout the *Prélude*, and thus this material may be considered the main motive of the work.

**Figure 1** Introduction, measures 1-4

**Figure 2** Main motive, from mm. 5-6, upper voice

**Figure 3** examines the saturation of measures 5-8 with instances of the 0126 motive. Within measures 5-8, the slurred motivic group heard in measures 5-6 is repeated twice. Each repetition presents several instances of the 0126 motive, indicated in the figure through pitch-class names horizontally aligned with the score. These tetrachords are not immediately audible within this passage

because instances of 0126 interweave with one another; **Figure 4** will assist in explaining this relationship. Given any chromatic trichord, a 0126 tetrachord can be formed by adding another pitch-class either four semitones above or four semitones below this trichord. The two resulting 0126 tetrachords are inversions of one another: the centre of the chromatic trichord acts as an axis about which the added pitch class is inverted, and thus the union of the two sets forms a symmetrical set. Theorists call this sort of operation a "contextual inversion," and I will refer to this particular one as "J".

(C) 0126 = C C# D F#

(D) 0126 = C C# D G#

A# B = (A#) 0126

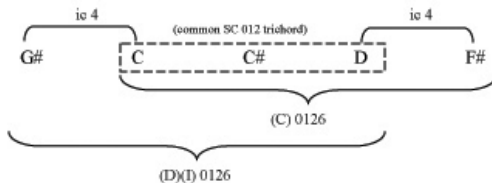
A# F# = (CX) 0126

C# G = (GX) 0126

B G = (F) 0126

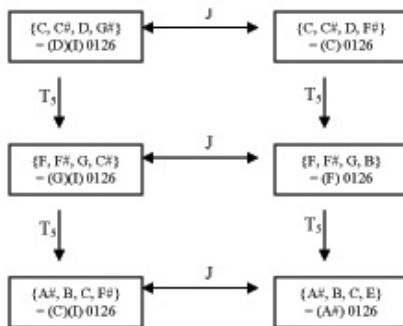
(in this and similar figures, the pitch classes of the 0126 tetrachords are vertically aligned with their occurrence in the score)

**Figure 3** Measures 5-8 (SC 0126 tetrachords are each outlined once within dotted boxes – n.b. not all occurrences of these tetrachords are indicated).



**Figure 4** The J contextual inversion

**Figure 5** gives a network illustrating further relationships among the 0126 tetrachords in measures 5-8. Observe how pairs of J-related tetrachords, aligned horizontally on the diagram, are transposed by  $T_5$ , shown by downward-directed arrows.  $T_5$  was prepared for this structuring role by the introduction of the *Prélude*, where measures 3-4 were related to measures 1-2 by  $T_5$ . In addition, the repetition of  $T_5$  implies a symmetrical construction: sets (D)(I) and (C) 0126 are the same distance from sets (G)(I) and (F) 0126 as the latter are from (C)(I) and (A $^\sharp$ ) 0126.



**Figure 5** Transformations among 0126 tetrachords within measures 5-8

Now that the motivic layer of the *Prélude* has been described in terms of 0126 tetrachords, let us examine how these tetrachords interact with the modal layer. For reference, a list of symmetrical collections (i.e. modes), including Messiaen's modes of limited transposition, are listed in **Example 1**. Note that each mode repeats at a transposition determined by the total span of the interval sequence. For example, mode 3, the enneadic collection, has a repeated interval sequence that spans 4 semitones, and thus repeated transpositions of  $T_4$  ( $T_4$ ,  $T_8$ , and  $T_0$ ) will generate the same collection of pitch-classes. Most modes are also inversionally symmetric; however, note that modes 4 and 5 are inversionally symmetric with one another rather than with themselves.

## Messiaen's modes of limited transposition

(adapted from *Technique de mon langage musical*)

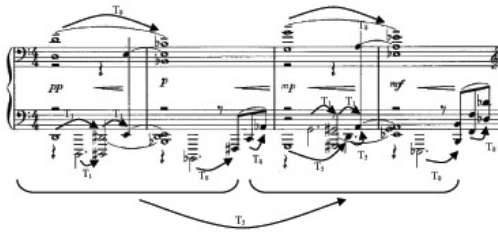
	Mode 1 (whole-tone collection) Interval Sequence: <2> Unique Transpositions: 2
	Mode 2 (octatonic collection) Interval Sequence: <1,2> Unique Transpositions: 3
	Mode 3 (enneadic collection) Interval Sequence: <2,1,1> Unique Transpositions: 4
	Mode 4 Interval Sequence: <3,2,1> Unique Transpositions: 6 (subset of Mode 2)
	Mode 5 Interval Sequence: <2,3,1> Unique Transpositions: 6 (subset of Mode 2)
	Mode 6 Interval Sequence: <2,2,1,1> Unique Transpositions: 6
	Mode 7 Interval Sequence: <1,1,1,1,2> Unique Transpositions: 6
Another mode of limited transposition (not described by Messiaen):	
	Hexatonic collection Interval Sequence: <1,3,2> Unique Transpositions: 4

Example 1 Symmetrical collections<sup>10</sup>

<sup>10</sup> Note that modes 4 and 5 are not pitch-class subsets of mode 2 on this table, but rather set-class subsets. To make an analogy to tonal structures, modes 4 and 5 are to mode 2 as a pentatonic collection is to a major scale: the set-class of the smaller set is a subset of the larger one. The instances of each mode given in **Example 1** do not generate pitch-class subsets since each mode has been transposed to begin in C for the sake of consistency. This example is a summary of the information given in Messiaen 2000/1944, 85-99.

The analysis on **Figure 6**, which gives measures 1-4 of the *Prélude*, indicates several transformations that by repetition become characteristic:  $T_1$ ,  $T_5$ , and  $T_8$ .  $T_1$  is heard in the chromatically-ascending bass line,  $T_5$  is heard as a series of fifths overlapping this chromatic line, and  $T_8$  is heard as the transposition between the whole-notes of the right hand from measures 1 to 2 and 3 to 4, in addition to being highlighted via bass leaps during measures 2 and 4. These transformations are indicated with arrows on the figure. The passage evokes a whole-tone sonority, in particular during measures 2 and 4, which features leaps between bass notes belonging to a single whole-tone collection within each measure. How can this aural experience be explained given that  $T_1$  and  $T_5$ , neither of which is heard within the whole-tone collection, are emphasized within the passage?

Since measures 3-4 sequence measures 1-2, the analysis will be broken down accordingly into two groups. **Figure 7** lists the pitch classes present in measures 1-2, and compares them to the C whole-tone collection. Of all the pitch classes of the excerpt, only  $D^\#$  is not a member of the C whole-tone collection. It can be heard as chromatic passing motion from D to E in the lower staff, thus fulfilling an ornamental function (i.e. as a passing note not belonging to the principal tonality) rather than a structural one.



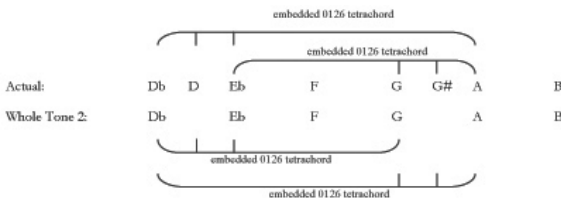
**Figure 6** Measures 1-4, with repeated transformations

Actual:	C	D	D#	E	F#	Ab
Whole Tone 1:	C	D		E	F#	Ab

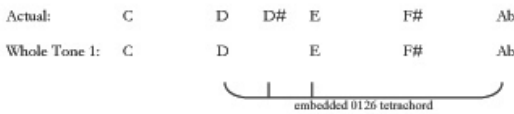
embedded 0126 tetrachord

**Figure 7** Pitch classes in measures 1-2

**Figure 8** gives the pitch classes of measures 3-4, a transposition of measures 1-2 with one extra pitch class, D. If this passage is to be interpreted analogously to measures 1-2, the pitch classes form a  $D^b$  whole-tone collection, with extra pitch classes D and  $G^\sharp$ . While the  $G^\sharp$  (analogous to the  $D^\sharp$  in the previous example) can be understood as part of a chromatic passing move, the D is not heard as such within measures 3-4. A second explanation is that the extra pitch classes form 0126 tetrachords superimposed on the whole-tone collection, indicated with brackets above and below the chart. This tetrachord type forms the main motive of the work, as examined in connection with **Figure 3**. **Figure 9** modifies our analysis of measures 1-2 to reflect this second analysis, interpreting the extra pitch class  $D^\sharp$  as a member of a superimposed 0126 tetrachord.



**Figure 8** Pitch classes in measures 3-4



**Figure 9** Pitch classes in measures 1-2, with bracket indicating superimposed 0126 tetrachord

Elements of three common collections (the whole-tone, hexatonic, and octatonic ones) appear regularly throughout the work. Many passages allude to a particular modal collection via characteristic melodic or intervallic patterns, but contain extra pitch classes that undermine this interpretation. Like the previous example, these can be understood as superimpositions, where a form of the 0126 tetrachord is overlaid on the modal materials. **Figures 10** through **15** give several examples of overlapping modes and 0126 tetrachords elsewhere in the work.

Measures 9-12 are given in **Figure 10**. In this example, two different types of musical material are heard, differentiated by duration, dynamic level, and register: the right hand repeats a single-line melody (with slight variations) featuring eighth-durations in a high register; this motive is also heard in the left-hand beginning in measure 11, beat 4.5. In measures 9-11

the left hand repeats material featuring symmetric elements; specifically, the motive  $\langle C, D^b, D \rangle$  is registrally symmetric about  $D^b4$ , and the  $\{B^b, G\}$  dyad is registrally symmetric with the  $\{F^\#, A\}$  dyad about  $A^b3$ . **Figure 11a** gives the pitch classes in the upper staff of measures 9-12. This material features repeated interval classes 1 and 3. While these intervals feature in several symmetric collections, including the octatonic, enneadic, and hexatonic collections, the total pitch-class collection of this material lies closest to that of a hexatonic collection, with only one extra note. Aurally, the isolated semitone dyads, in addition to the interval class 3 leaps, support this interpretation. The bracket below **Figure 11a** indicates a 0126 subset that includes the non-hexatonic note.

**Figure 11b** lists the pitch classes in the lower staff from measure 9 to the fourth beat of measure 11. This material repeats interval classes 1 and 3 once again, generating a sense of unity with the right-hand material. In this case, however, the hexatonic collection does not seem as well suited because the semitones within the passage are spaced via interval class 3 (characteristic of the octatonic collection) rather than interval class 4 (characteristic of the hexatonic collection). The total pitch-class content of this passage reveals that these pitch classes form a portion of the octatonic collection plus one additional note. The non-modal note can once again be understood as part of a 0126 subset, indicated with brackets below the chart.

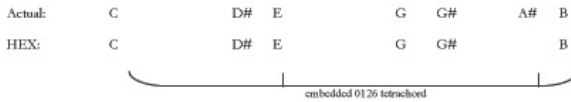
In measure 11, beat 4.5, the lower staff begins to imitate material from the upper one. One can see by the vertical alignment on **Figure 11c** that this imitation, beginning with the pitch classes  $\langle E, A^\#, B \rangle$ ,

combines the two collections, taking semitone dyads from each;  $\{E^b, E\}$  is derived from the octatonic collection,  $\{B^b, B\}$  is derived from the hexatonic collection, and  $\{F^\#, G\}$  is shared by both.

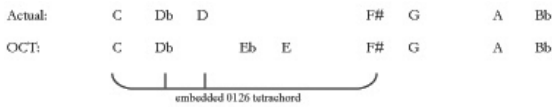


Figure 10 Measures 9-12

a) Pitch classes in measures 10-12, right hand



b) Pitch classes in measures 9-11, left hand



c) Pitch classes in measures 11-12, left hand (shading indicates common semitone dyads between the actual pitch class collection in comparison with the octatonic and hexatonic collections)

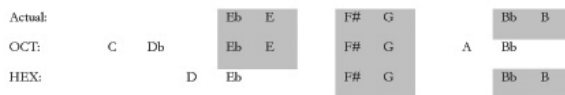
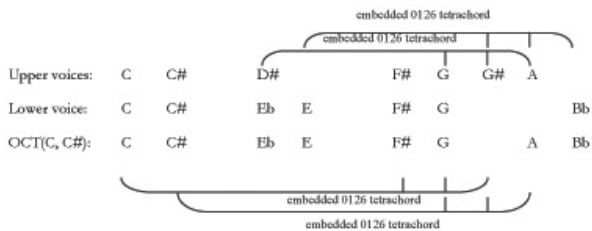


Figure 11 Common collections in measures 9-12

Measures 13-16 are given in **Figure 12**. The passage has three separate voices made distinct by register and duration: voice 1 occurs in the highest register as quarter notes, voice 2 in the inner register as eighth notes, and voice 3 in the lowest register as quarter-note dyads. Semitone motion in the lowest voice, in addition to interval classes 2, 3 and 6 in all voices, imply an octatonic collection. The total pitch class collection, shown in **Figure 13**, corresponds to OCT (C, C<sup>#</sup>), with G<sup>#</sup> as an extra pitch.



**Figure 12** Measures 13-16



**Figure 13** Pitch classes in measures 13-16

The next passage evocative of a symmetrical collection is heard in measures 31-37, given in **Figure 14**. In this example, two voices present a unison melody featuring isolated semitone dyads and interval class 3 leaps. An interpretation based on the HEX (C, C<sup>#</sup>) collection, which as previously explained features

the same elements, is given in **Figure 15**. In this case, D<sup>#</sup> is the extra pitch class.

**Figure 14** Measures 31-37

			embedded 0126 tetrachord					
Actual:	C	C <sup>#</sup>	D <sup>#</sup>	E	F	G <sup>#</sup>	A	
HEX (C, C <sup>#</sup> ):	C	C <sup>#</sup>	E	F	G <sup>#</sup>	A		

**Figure 15** Pitch classes in measures 31-37

To summarize the analysis thus far, the importance of the 0126 tetrachord is substantiated through its repetition in instances of the main motivic material (**Figure 1**), the introduction (**Figure 2**), and linking material such as measures 9-12 (**Figure 10** and **Figure 11**). Interestingly, this tetrachord can be formed by adding any pitch class to the whole-tone, octatonic, and hexatonic collections. See **Figure 16**, which illustrates this property. The whole-tone and octatonic collections are the only modes of limited transposition in which set class 0126 is not a subset, but which appears as a subset after the addition of any one note; the hexatonic collection, not identified as a

mode of limited transposition by Messiaen, also shares this property. Note that due to the symmetric structure of these collections, the same set class will result regardless of the choice of added note for each symmetric collection. Thus the 0126 tetrachord provides a motivic link between the three commonly-used modes of limited transposition in this work.

Collection:	Set Class:	Set Class after adding any one pitch class:
Whole-Tone	0246t	 0 1 2 4 6 8 t embedded 0126 tetrachord
Octatonic	0134679t	 0 1 2 3 4 6 7 9 t embedded 0126 tetrachord
Hexatonic	014589	 0 1 2 4 5 8 9 embedded 0126 tetrachord (inverted)

**Figure 16** SC 0126 tetrachords superimposed on symmetric collections

The connection between two sonic planes within the work, modal and motivic, has been demonstrated. However, these materials are only one aspect of the *Prélude's* large structure. Let us explore how other elements are involved in this process.

We saw previously in measures 5-8 how J-related 0126 tetrachords were sequenced by  $T_5$ .

**Figure 17** gives measures 16-20, a passage employing similar motivic material to these earlier measures. Observe how the musical material in bars 16-17 is transposed twice by  $T_8$ , ending with the motivic group first heard in measures 5-8. **Figure 18a** illustrates these  $T_8$  transformations graphically. **Figure 18b** shows the  $T_8$  transformations that are characteristic of the augmented triad. Note that graphs (a) and (b) are

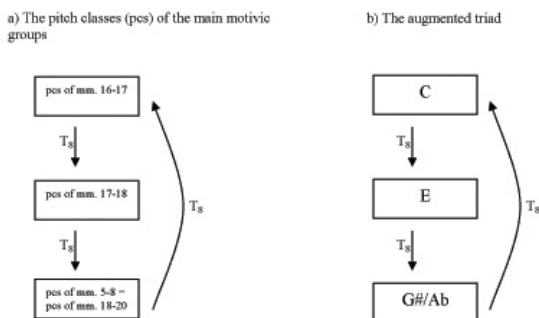
identical: this shows that the progression of the main motivic group is modelled after the augmented triad. The association between these two structures is further substantiated by the repetition of the augmented triad at the end of each statement of the motivic group within measures 16-20 (and analogously within measures 5-8).

The image shows a musical score for measures 16-20. It consists of two staves, treble and bass clef. The music is in 4/4 time. There are three main phrases, each ending with an augmented triad. Brackets and arrows labeled 'T3' indicate the intervallic structure of the motifs. A larger bracket above the score identifies the 'motivic group from measures 5-8 (Figure 3)'. The notation includes various dynamics like 'mp' and 'p'.

Figure 17 Measures 16-20<sup>11</sup>

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<sup>11</sup> Please note that there is a possible error in the score. In the lowest voice of measures 19-20, a C appears to be tied to a B; the system break (eliminated here in order to condense the example) makes it unclear whether this is a tie, or whether the markings are intended as slurs.



**Figure 18** Similar network structures between representations of the augmented triad and instances of the main motivic group

Another passage rich in augmented triads, measures 21-24, is given in **Figure 19**. Measure 21 begins a canon at the octave between two voices, rhythmically displaced by an eighth-duration. Repetitions of the canonic theme in measures 22-24 vary and transpose the theme, each time adding a new voice. By measure 24, the original two canonic voices have been built up to eight voices, presenting a canon between two sets of parallel augmented triads. The end of this measure is the dynamic and registral climax of the *Prélude*, and thus the emphasis of the augmented sonority at this point implies an important role for this sonority throughout the work.



**Figure 19** Measures 21-24

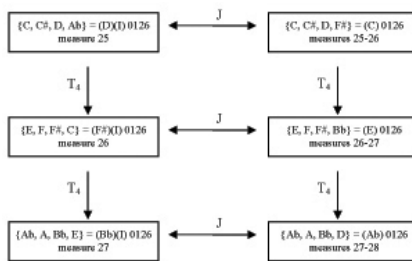
Further evidence of the structural role of the augmented triad can be seen in measures 25-28, given in **Figure 20**. Three augmented triads are featured in this passage: the recurring  $\{A^b, C, E\}$  and  $\{E^b, G, B\}$  on the last quarter duration of each bar, and the  $\{D, F^\#, B^b\}$  arpeggiated through whole-note durations in the bass. These refresh the idea that the augmented sonority motivates transformations throughout the work. Several other factors support this hearing. Observe the 0126 tetrachords indicated on the figure. **Figure 21** shows that these tetrachords once again relate by J, and also that J-related pairs are transposed by  $T_4$ . This is the same transposition heard from one measure to the next within measures 25-28. **Figure 22** changes the order of the tetrachords shown on **Figure 21**. Since both  $T_8$  and  $T_4$  are pitch class transformations characteristic of the augmented triad, this order reversal will allow a comparison to processes seen in **Figure 18** while still retaining the analogy to the augmented triad. The two graphs of **Figure 18** are identical (isographic) to the graph of **Figure 22**: in other words, both have the same structure as the augmented triad.

The figure shows a musical score for measures 25-28. Above the score, two augmented triads ( $T_4$ ) are indicated with brackets. The first  $T_4$  spans measures 25-26 and contains the notes  $F\sharp, F, E$ . The second  $T_4$  spans measures 27-28 and contains the notes  $Bb = (E), 0126$ . Below the score, four boxes describe tetrachords and their transformations:

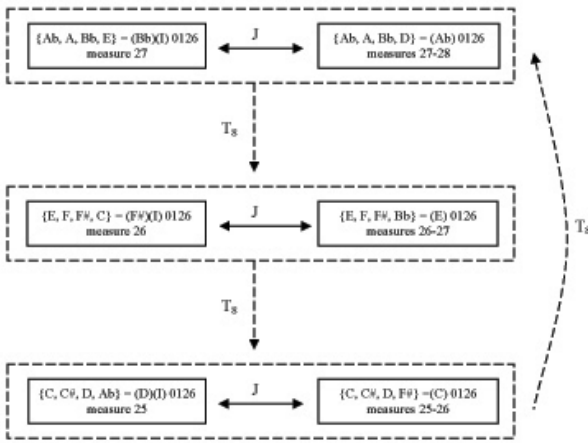
- Box 1 (left):  $D, C\sharp, C, Ab$  - (D)(I) 0126
- Box 2 (right):  $Bb, A, Ab, E$  - (Bb)(I) 0126
- Box 3 (left):  $D, C\sharp, C, F\sharp$  = (C) 0126
- Box 4 (right):  $Bb, A, Ab, D$  = (Ab) 0126

Arrows labeled  $T_4$  indicate transformations between these boxes. A label "arpeggiation of augmented triad" is placed below the boxes.

**Figure 20** Measures 25-28



**Figure 21** Transformations between tetrachords in measures 25-28



**Figure 22** A representation of the transformations between tetrachords in measures 25-28 (temporal order: bottom to top)

The preceding examples have demonstrated similarities between the structure of the augmented triad and the transformational structure between tetrachords within the *Prélude*. I do not believe that instances of augmented triads in the music, nor allusions to the structure of the augmented triad among tetrachords, are allusions to traditional sonorities. Rather, I believe they are one manifestation of symmetry in this work.

The two sonic planes described by Hétu have now been clearly outlined: the surface-level 0126 tetrachords (the motivic element), and the changing modes of limited transposition within each phrase or subsection (the modal element). In addition, I have outlined another sonic plane: the movement-structuring augmented triads. While it is an interesting analytical exercise to outline these three planes, the relevance of analysis to this work lies in showing how

these musical materials are connected, creating unity within the work. In David Lewin's words, "The essential and difficult analytical task at hand is not to articulate the two strata but to integrate them."<sup>12</sup> I believe the three planes are cleverly integrated via the common phenomenon of symmetry. Symmetry occurs in the internal (intervallic) structure of the augmented triad. The modes of limited transposition over which 0126 tetrachords were superimposed are also symmetrical, a defining feature of these modes. Lastly, although the 0126 tetrachord is not a symmetrical collection, the union of two 0126 tetrachords related by the J transformation form a symmetrical collection. The integration of the three planes results from both their superimposition and the sharing of structural elements from one plane to another, several examples of which have been presented in this document. First, as seen in connection with **Figure 16**, the 0126 tetrachord acts as a link between the symmetrical collections used within the *Prélude* since it is generated in the same way within each collection, by adding one note to any of the three modes. Second, the structure of the augmented trichord generates the transpositions of the motivic 0126 tetrachords. In spite of Hétu's intentional use of stratification, he has cleverly combined three layers of distinct material into a unified whole.

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<sup>12</sup> David Lewin, *Musical Form and Transformation*. (New Haven: Yale University Press, 1993), 104.

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### Abstract

The music of Jacques Hétu mixes modern and traditional elements, often using classical forms, uncomplicated rhythms, repetition, and sequence in a mix of tonal and atonal pitch structures. The opening section of his *Prélude et Danse*, op. 24, is exemplary. Pitch is organized into the “modes of limited transposition” used by Olivier Messiaen, with whom Hétu studied in Paris. However, these modes are not always apparent to the ear. More obvious are the 0126 tetrachords superimposed over the modal layer and whose reiteration unifies the piece. An analysis that focuses only on that motivic unity cannot account for the contrasts present in the *Prélude*: contrasts between different modes from one passage to the next, surface-level and background-level events, and different emphasized transformations.

The key to understanding both unity and contrast in the *Prélude* lies in Hétu’s own description of his work. He identifies two sonic planes corresponding to melodic (“motivic”) and harmonic (“modal”) dimensions of the music. This article employs a new approach to conceptualizing pitch structure – transformational theory — to interpret these compositional decisions. It demonstrates how symmetrical collections and atonal tetrachords ornament an underlying structure based on the augmented triad, and how this interpretation is strengthened through instances of this sonority on both the surface and in the background of the *Prélude*. Thus three sonic planes coexist. The change of focus between these three planes creates contrast adding interest and motivating the work. The *Prélude* manages

to present new material through repetition, and contrast through similarity, all the time effectively merging these aspects into a unified whole.