Committee 2
Symmetry In Its Various Aspects:
Search for Order in the Universe

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ISSUES OF SYMMETRY AND UNITY IN MUSICAL PERFORMANCE

by

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What We (They) Talk About When We (They) Talk About Music

In Raymond Carver's short story, "What we talk about when we talk about Love," two couples sit around a kitchen table. The stories they tell are striking—tender, disturbing, heroic—even violent. One story provokes the reaction, "That's not love!" which of course provokes a response to the contrary. A neutral party, when asked their opinion, offers, "I wouldn't know, you'd have to know the particulars." Sorting out two such inflexible opinions leads finally to silence, the main combatants sitting with chins resting on cupped hands. As the evening shadows lengthen in the kitchen, the author's characters speak again:

"Maybe we'll just go eat. How does that sound?"

"Sounds fine to me," I said. "Eat or not eat. Or keep drinking. I could head right on out into the sunset."

"What does that mean, honey?" Laura said.

"It just means what I said," I said. "It means I could just keep going. That's all it means."

The story finishes as night falls, the author recording his thoughts and feelings: "I could hear my heart beating. I could hear everyone's heart. I could hear the human noise we sat there making, not one of us moving, not even when the room went dark."

A short story titled "What we talk about when we talk about music" might follow a similar story line. Like the characters in Carver's story, no one could ever say "That's not music!" and make it stick—without killing the conversation, turning everyone inward. But the urge to "head right out into the sunset," to "just keep going" would remain: presumably towards a fuller understanding or maybe just because there is a need to talk about things whose exact definition or meaning continually eludes us. We can only describe in part what *happens* in a musical composition: In the end what we are left with are the sounds themselves and the resonance they find in our human beings.

Performing musicians tend to talk about beauty when they talk about music. That beauty is self-evident does not preclude discussion of its various attributes even though

musicians, being "close to the action," try in general not to divert attention from music onto discussion about it. The discussion about music centers, in general, on its basic elements: rhythm, melody, harmony, texture and instrumentation. Some of these elements are more fundamental than others and excite our perceptions as listeners in different ways. There is also a discussion of form, the symmetrical and asymmetrical shapes which provide models on which composers exercise their creative actions.

Unity is an issue that is always at the heart of both composition and interpretation. Like the eternal city, all roads lead to it, unless the composer intends discontinuity as was the case in the so-called *aleatoric* music of the 1950s and 60s. Arnold Schoenberg, that twentieth-century law-giver, considered the "absolute and unitary perception of musical space" to be his number one principle. (Schoenberg, 1975) In 1947, toward the end of his career, the composer wrote, "Form in music serves to bring about comprehensibility through memorability. Evenness, regularity, symmetry, subdivision, repetition, unity, relationship in rhythm and harmony and even logic—none of these elements produces or even contributes to beauty. But all of them contribute to the organization which makes the presentation of the musical idea intelligible." (Schoenberg, 1975: 399) "Comprehensibility through memorability" may be interpreted very broadly. Memorability certainly means more than just leaving the concert hall whistling the main themes. It can refer to holding main ideas in the mind while listening in order to follow the composition as it unfolds.

Issues of Form

Sonata "form" or "style", arch form, song form, rondo form are all familiar shapes to musicians which basically involve the idea of departure and return. A sonata movement is variously described as in two or three sections, with its constituent parts: exposition, in which themes are introduced; development, in which the composer destabilizes the harmonic center; and recapitulation, the return of harmonic stability or musical *denouement*. Although themselves symmetrical, it is not the forms and sometimes not even the

content which is of interest to musicians, but rather the way in which the sounds move. (Copland 1957)

The study of musical form and analysis, standard in any musician's schooling, traditionally looks at the norms of musical structure, reveals order, unity and symmetry in ways that have the effect of making composers' works, especially classic composers, seem alike. Classic sonata is reduced to a rather quotidian form, the components tallied until the sum is achieved. But, as has been pointed out by Schoenberg, Charles Rosen and others, the sonata in the hands of Beethoven, Mozart and Haydn is practiced in various ways often running counter to the norm, in order to meet individual expressive needs and perhaps to hold their own interest. (Schoenberg, 1970 and Rosen, 1972)

Commentary by Aaron Copland makes this clear:

> Close examination of most masterworks, however, will show that they seldom fit so neatly as they are supposed to into the exteriorized forms of the textbooks. The conclusion is inescapable that it is insufficient to assume that structure in music is simply a matter of choosing a formal mold and then filling it with inspired tones. Rightly understood, form can only be the gradual growth of a living organism from whatever premise the composer starts. It follows, then, that 'the form of every genuine piece is unique.' (Copland 1957: 75)

It is impossible for a performer to interpret a musical composition without a clear sense of the overall structure. It is equally impossible to form a conception based only on the norms of musical construction. If this is so then the performer is called upon to plot the "gradual growth of a living organism" by crafting an interpretation which weighs each variant, each elaboration, each diminution, each peroration, each musing, each trivializing, each absence and each return in terms of its relation to the original idea (Copland's "premise").

A musical work may be said to provide its own symbolic gestures, stored at different levels of consciousness. We remember not only melodies but rhythms, particular harmonies or the sound of instruments played in different combinations or in sequence. There are, then, a host of possibilities that contribute to "comprehensibility through memorability." For example, the opening tympani ostinato of the Brahms Symphony #1 leaves a powerful impression on the memory of the listener, though not at all in the same way as does the equally memorable opening melody of his Symphony #4. One repeats the same notes emblematically, so to speak, and the other arches in an extremely long-breathed melodic curve. Before the fourth and final movement of the Symphony #1, a dramatic tympani roll takes us back, in a sense, to the beginning of the piece, our memory activated without having to remember a particular melody. Because we have traversed three complex movements already, the expressive affect of the tympani has been transformed to include release and reconciliation of dramatic tension. The point of greatest dramatic tension takes place before the point of greatest release, the sublime theme of the last movement.

This is an instance of large-scale formal symmetry going beyond surface markers of form such as exposition, development and recapitulation. One can even point to large-scale unifying elements between works by the same composer. Surely none, for instance, gets more use from repeated-note motives than does Beethoven. We can speak, in a sense, of musical "footprints" which take the notion of "comprehensibility through memorability" to massive, tectonic proportions.

If we accept the notion of music proceeding from an idea then we can follow the composer's process of elaboration as the work unfolds. The challenge lies in realizing an interpretation that reconciles local events with overall structure. Since sonata is only a framework for construction, a performer needs a way to view a composer's freedom within this sphere, rather than his or her adherance to its conventions. Some first movements of Mozart's sonatas, for instance, break the symmetry found between exposition and recapitulation by reversing or otherwise mixing the sequence of themes, introducing further modulations, or leaving out themes altogether.

Composers on Unity and the Compositional Process

Because composers "lead the way" in any healthy musical era, it is worth dwelling on their writings about music—both the process and the result. Fortunately, they have written a great deal about music in our century and despite the fact that they are not always comfortable writing or speaking about their own music, one can find a consensus on several important issues, especially the issue of unity.

Elliot Carter has written about the difficulty inherent when a composer speaks of his own works:

> Because inevitably his compositions are the result of innumerable choices—many unconscious, many conscious, some quickly made, others after long deliberation, all mostly forgotten when they have served their purpose. At some time or other, this sorting and combining of notes finally becomes a composition. By that time many of of its conceptions and techniques have become almost a matter of habit for the composer and he is only dimly aware of the choices that first caused him to adopt them. Finally, in an effort to judge the work as an entity, as another might listen to it, he tries to forget his intentions and listen with fresh ears. What he is aiming at, after all, is a whole in which all the technical workings are interdependent and combine to produce the kind of artistic experience that gives a work its validity and in so doing makes all its procedures relevant. If, in discussing his own works, therefore, he points out a procedure, he is bound to feel that he is drawing attention to something of secondary importance and by dwelling on it misleading others into thinking of it as primary. (Carter 1977: 200)

Igor Stravinsky wrote often of the creative process—in 1942 he wrote:

> All art presupposes a work of selection. Usually when I set to work my goal is not definite. If I were asked what I wanted at this stage of the creative process, I should be hard pressed to say. But I should always give an exact answer when asked what I did not want. To proceed by elimination—to know how to discard, as the gambler says, that is the great technique of selection. (Stravinsky 1970: 69)

What is interesting to a performing musician in these two quotes is the idea of composition as sorting, combining, selecting, discarding: an empirical process in which a composer consciously or unconsciously makes his way towards a whole in which all the procedures are relevant.

Schoenberg uses analogies to grammar, especially to the flow of ideas as "musical prose." The composer's use of the phrase "upper class minds" may be interpreted as "experienced listener," someone who, to Schoenberg, could hear music with a type of global awareness, keeping a tenacious hold on the "complex" of ideas. Here we see the demands the composer placed on his audience:

> Great art must proceed to precision and brevity. It presupposes the alert mind of an educated listener who, in a simple act of thinking, includes with every concept all associations pertaining to the complex. This enables a musician to write for upper-class minds, not only doing what grammar and idiom require, but, in other respects lending to every sentence the full pregnancy of meaning of a maxim, a proverb, of an aphorism. This is what musical prose should be—a direct and straightforward presentation of ideas, without any patchwork, without mere padding and empty repetitions. (Schoenberg 1975: 414)

Schoenberg's dictum of the "absolute unity of musical space" is a challenge to the interpreter to embark on a path of instrumental study, history and theory with imagination and powers of association awakened. The realization of unity in a performance of a musical work means, in a very real sense, that the performer must inhabit the same mindset as the composer. The balance of relations within a composition must be presented in "real time" by performers who recreate the work in order to bring it to life. This is the central problem of interpretation.

Crossroads of the Disciplines

Besides mustering the facility necessary to play an instrument, standard in the musician's training are classes in theory, history, eartraining, form and analysis and more recently, historical performance practice. Also required is the development of style: That is, the ability to differentiate between a sonata by Mozart, for instance, and a prelude by Debussy in terms of sound, syntax, ornament, articulation and a host of other performance issues. It follows that the task of students is to integrate these disciplines with instrumental study in order to present interpretations that penetrate the spirit and essence of a work. Having looked already at form, a brief look at these disciplines studied by performers may help to understand how and if they contribute to the process of interpretation.

Musicology is the "scholarly study of music, wherever it is found historically or geographically." (*The New Harvard* 1986: 520) The methods of musicology become more varied as the number of musics studied increase. Musicologists, whose relation to performers earlier in this century has often been characterized by a kind of mutual, cordial dislike (Schoenberg groused that they were "interested only in dead things") is much closer today. This is evident by a preponderance of concert series which include not only music but lectures, often given by musicologists, on a composer's style or artistic milieu. With the persistence of 18th and 19th century music on concert programs and the recent, though specialized, addition to the repertoire of previously inaccessible music from the

Middle Ages and Rennaissance, there is, apparently, a perception on the part of concert organizers that the public wants to know "what's going on" as well as hear the music. The term "performer-scholar" has recently surfaced and applies to a musician who blurs the line between the two disciplines.

The relation of music theorists to performers has always been and remains problematic. Since the Middle Ages, the theorist ("musicus") and the performer ("cantores") have followed seperate pursuits (Harnoncourt 1984). Today, music theory and performance are related remotely, their pursuits seperated by both subject matter, methodology and terminology. The gulf between theory and other musical disciplines is easily observed by reading articles from theory journals or books in which analysis consists not of notes but digital grid patterns and other quasi-mathematical operations. Here, Pierre Boulez observes sharply that, "This is a return to the medieval concept of music as a science demanding a scientific, rational approach: everything must be defined as clearly as possible, demonstrated and formed on models already existing in other disciplines based on the exact sciences. What a pious illusion!" (Boulez 1981: 73)

Models of unity in tonal compositions were presented by theorists starting in the nineteenth and early twentieth century in the form of graphs layered on top of one another, showing "foreground," "middle ground" and "background" of a composition. The idea of such graphs was to show a hierarchy of important structural tones leading in the end to an understanding of the composition as basically an elaboration of a tonic triad. Schoenberg, when shown one of these graphs, was heard to exclaim, "Where are my favorite notes?" Many performers and composers shy away from such reductionist views of music. Naturally, a performing musician with no knowledge of theory would be as useless as a painter with no knowledge of color. This does not change the fact that they need to apply theory to a progression of actual sounds, not numbers and graphs.

In the course of their study, performers come to terms with music belonging to eras often quite remote from their own. They are expected to play not only new music but music from the previous two centuries to a standard that meets the imprimatur of

"stylistic" or "historical" authenticity. This standard has traditionally been met by the successful oral transmission from teacher to student of an unbroken line of performance practices originating, presumably, in the composer's own day. The sticking point for a performing artist seems to be in the area of understanding the work "as the composer intended it," an often nebulous phrase. Given the remoteness of both the music and the eras from our own time, oral tradition has a tendancy to break down.

Adding to the problem of interpretation is the existence of handed-down traditions from various national schools."National schools" here refers not only to the teaching practices of different Eurasian musical institutions, but the charactersitics of the composers and performers from these countries and the influence they exert on the "canon" of western art music. Considering the spread of middle European art music to America and the Asia during this century, the problem of oral tradition and historical continuum can become bafflingly complex.

For example, an Asian pianist, who receives early training in Tokyo from a teacher who studied in Vienna, continues studies in America with a Russian teacher. How much more complex would the problems of interpretation of a Mozart sonata be for such a person than for even a contemporary Viennese, who himself already lives in a world drastically removed from the 18th century. Making allowances for individual levels of artistic sensibility, imagination and talent, one could argue that "stylistically authentic performances" are will'o'the'wisps which become more elusive with each passing generation.

"Historical performance practice" has attempted to answer the shortcomings of stylistic performance based on oral tradition and has become an umbrella term applied at first to the realization of music from the Middle Ages and Renaissance but increasingly to any music removed in time from our own era. It may be defined, generally, as an attempt to recreate the performing conditions or "spirit" existing at the time a work was written through the use of period instruments, consultation of primary and secondary treatises on the art of performing, uncovering other primary sources such as

manuscripts and fair copies on which to base reliable performing editions and so on.

Obviously, different problems exist for music from different eras, and would-be performers of a given repertoire are faced with varying amounts of scholarship, certainty and guesswork. At first, historical performance practice was suspect among performing musicians who did not necessarily hold the view that oral tradition was lacking in the correct transmission of style. "Historical authenticity" conjured up, for many musicians, an image of rigid academicism, in which practitioners, especially those playing Bach, Mozart, Haydn or Beethoven, used instruments that sounded far inferior to those presently in use. In the past twenty years or so, however, historical performance practice has made inroads into practically every serious music department in academia and is essentially a fixture, at least in terms of its adoption as core subject matter for undergraduate music students.

At best, the tools of historical performance practice provide musicians with ways to enter into the composer's milieu in an imaginative way, causing them to reconsider issues of sound, touch and aesthetics. The work of pianist Robert Levin, for instance, shows a remarkable internalization of a composer's (Mozart's) spirit and characteristic gestures; harmonic, decorative, rhetorical, etc. There is no need, in his case, to reduce the discussion to the level of simply "which instrument is most correct?" One feels that he could enliven Mozart's music in an extraordinary way on any instrument.

At worst, historical performance practice polarizes musicians by creating the impression that it is possible or even desirable to strive for a stylistic orthodoxy. An insistence on the use of period instruments, for instance, can make an argument for so-called "authentic" approaches lose force, especially when one considers the modern media of the recording studio. For instance, a fortepiano, the all-wooden instrument of Mozart and Beethoven's day, sounds misleadingly loud when heard on a compact disk. Fortepianos simply cannot sound as loud live as they do when put in front of a microphone in the recording studio.

There are plenty of musicians, of course, who can fall back, with varying degress

of legitimacy, on the notion that if a work is still part of the repertoire after 50, 100 years or more, then it technically "belongs to the ages" and is capable of "speaking" to an audience on its own terms without the need to remove layers of varnish, smoke and candle wax accrued during season after season of performance.

Historical performance practice may perhaps be most useful as a way of enlivening the dialog about music that has been in the active repertoire for a very long time. It represents, in essence, a new collaboration between performers and musicologists, or at least a situation in which aspects of the two disciplines are used for performance. Maybe it is a comfort to some musicians, in the end, to conclude that there is not now, and may never have been, a map for the distant shore of "authenticity."

Seperation of two disciplines

Performers, like composers, usually have the word "artist" affixed to their professional title. Presumably this means then that there is a substantial requirement for the possession and use of imagination. It is not, nor has it ever been possible to view imagination as a "kit" which can be obtained, for the price of admission, at a conservatory or university. There is no guarantee that instrumental, historical or theoretical studies will automatically translate into imaginative performance. This is why it is curious that composition, the study closest to the art of performing, has played a minimal to non-existent part in the training of performers in at least the last half of the twenetieth century. Nikolas Harnoncourt sums up today's performing musician as follows:

> Musicians today ordinarily have no knowledge of the art of composition; they have a downright slavish relationship to the written music they receive from the composer. (Harnoncourt 1984: 9)

In the Baroque, performers were most often composers as well. Composers had the opportunity for intuitive-artistic connection of a very intimate kind with performers

and could rely on them not just for literal interpretation of their music but rather for a creative sensibility which "fleshed out" often sketchy parts and scores. Anyone who has not seen manuscripts or fair copies of early operas, for instance, will be astonished to find them consisting of two staves only, one for the vocal line and one for the bass line. Harnoncourt singles out the early Baroque to illustrate the relationship enjoyed by the composer Claudio Monteverdi with his performers:

> The composer regarded certain details of the execution of his work as being of secondary importance. Thus we come once again to the conclusion that the arranger, the performer who himself is involved in shaping the work is indespensable in the realization of the piece. (Harnoncourt 1984: 35)

Performance in the 17th and 18th centuries meant performance of new music, which meant that style was almost a non-issue, or at least one that was subject to the limitations of a given individual or performing force. A contemporary analog might be found among jazz musicians who are likewise counted on to "fill in the blanks" in the composer's script, basing their choices on a sense of style and their own creativity. It has been related, for instance, that Duke Ellington was not averse to transmitting musical ideas to his band via a brown paper bag or scrap of paper.

Of course, the composer hoped that the taste and talent of the performers would be up to his own standard, a troublesome proposition in any era. An often-related story of Handel dealing with his performers is a case in point: After the first violinist in his orchestra concluded a rather lengthy cadenza *ex tempore*, the composer was heard to exclaim, "You are welcome home, Mr. Dubourg!" (Dean 1982)

The ability to improvise well was indeed an important stake in a performer/composer's claim to be heard in public, not only in the Baroque, but well into the nineteenth century. The lives of Bach, Handel, Beethoven, Mozart and Liszt contain well-docu-

mented accounts of their abilities to improvise in public. Improvisation was also important in the working life of the composers mentioned above, as perhaps it remains for many composers today: Schoenberg's description of composition as "slowed down improvisation" illustrates this connection. Wynton Dean gives an account of Handel's improvisational skill and its connection with his compositional process as recorded by Jean Morell, his librettist for the oratorio, *Judas Maccabaeus*.

> As soon as the librettist suggested the text of the chorus 'Fall'n is the foe' he sat down at the harpsichord and began to improvise on a theme clearly suggested by the image in the words, 'and immediately carried on the composition as we have it in that most admirable chorus'. (Dean 1982: 79)

With the music of J.S. Bach, performers are provided with an "inside track" on the art of improvisation in the Baroque. It has often been observed by performing keyboard players that Bach's music does not need much, if any extra ornamenting because the ornamentation is contained in the phrases themselves, many of which are written out embellishments of a fundamental line. Harnoncourt points out that the composer's keyboard works render unnecessary the performers' practice of ornamenting and embellishing a musical score according to their own skill and taste.[1]

Performers, then, would not need to ornament nor would they even have the room to do so as they would in the keyboard works of other composers such as Handel or Purcell.

The nineteenth century is teeming with performer-composer-improvisors, who could gauge the effectiveness of their works in the laboratory of the salon or concert hall, or in the intimacy of small gatherings of musicians. Unlike today, a nineteenth-century concert goer could applaud both composer and performer, even as recently as the 1940s, when Rachmaninov dazzled audiences with his richly inventive, romantic piano con-

certos. One could argue that his status as an interpreter of other composers' music was automatically raised as a result of this. Although the composer and performer began to become separate entities in the early part of this century, most performers were still composers, whether they performed or published their own works or not.[2] If not composers, they may have been at least arrangers or transcribers.

One reason performers stopped writing music may be explained by the nineteenth-century concept of music and the musical genius. The writings of E.T.A. Hoffmann, the early 19th century composer, music critic and novelist, are often cited as a primary source for understanding the musical aesthetics of Romanticism. Hoffmann characterized Mozart, Haydn and especially Beethoven as romantic geniuses whose instrumental music penetrates the essence of an art that "discloses to man an unknown realm, a world that has nothing in common with the external sensual world that surrounds him, a world in which he leaves behind him all definite feelings to surrender himself to inexpressible longing." (Strunk, 1950: 775-6) Hoffmann goes on to delineate the position of the composer as anything but commonplace: "Romantic taste is rare, romantic talent still rarer, and this is doubtless why there are so few to strike that lyre whose sound discloses the wondrous realm of the romantic." Quite a contrast to a musical world in which performer/composers were the norm.

Until the age of Beethoven, the general public was less willing to accept instrumental music as capable of conveying meaning. The force of Beethoven's personality and skill in symphonic writing worked powerfully on the concert-going public to accept instrumental music in a much different light, capable of conveying profound drama and emotion.[3] Sonata form, itself, which was the primary style of instrumental writing in every genre, was partially responsible for the new importance of instrumental music. Robert Winter makes an interesting connection between sonata and the Napoleonic era: "An inherently dramatic style, it embodied the revolutionary spirit of the age." (Winter, 1992: 267)

Given the concept of an exalted, composing genius and new public demand for

purely instrumental music as the nineteenth century got underway, performers who no longer wrote music were provided with a *raison d'être*. Olympians needed priests to bridge the gap between them and the rest of humanity.

The sheer volume of piano music in the nineteenth century is staggering. If one adds to this the fact that nineteenth century music stretched the limits of virtuosity, then non-composing performers could justify their claim as legitmate musicians based on long hours in the practice room, coming to terms with the etudes of Liszt and Chopin and the sonatas of Schumann and Brahms. The nineteenth century became, then, the century of the conquering virtuoso who thrilled the public with music that was suited for display. By mid-century, a rift existed between "serious" musicians and virtuosos.

"Serious" may be defined as those who place substance above show—or as Schumann characterized the adversaries, David *contra* the Philistines. Virtuosos were called out onto the carpet, so to speak, for various abuses including programming of shallow repertoire designed to show their instrumental prowess and especially for their presumably lax, even negligent realtionship to the printed page. In an era when improvisation was expected, it was not unusual for a virtuoso to change the notes on the page during a performance as an example of his artistic veracity. Although the public may have delighted in this display, the practice of leaving anything in the score up for grabs—even the notes—eventually caused a backlash among "serious" musicians and may have consigned improvisation itself to a kind of oblivion.

The response to concerns about fidelity to the composer's wishes brought about the development and dissemenation of *urtext*, or authentic editions. In Germany, the Bach *Gesellschaft* was formed (with Brahms as one of its founders) in an attempt to bring out a complete and reliable edition of the master's works, based on original sources. Prior to this time, Bach's works suffered not only decades of neglect but from "rediscovery" by the Romantics, who actually altered them with cuts and reorchestrations to suit contemporary audience expectations.

After about one hundred years of development and use, the importance of urtext

editions to performing musicians today cannot be overemphasized. Comparing editions of the standard repertoire from the early part of this century to contemporary ones is quite revealing and shows the extent to which editors are now at pains to document not only sources but editorial method.

The "serious" performer, then, becomes a breed apart from his composer/performer counterpart of the previous centuries. His or her main role seems to be one of service to the generally deceased, genius composer. Hoffmann's definition of the performing artist, written nearly 200 years ago, shows a remarkable staying power, making allowances for the heady metaphors:

> The true artist lives only in the work that he has understood as the composer meant it and that he then performs. He is above putting his own personality forward in any way, and all his endeavors are directed toward a single end—that all the wonderful enchanting pictures and apparitions that a composer has sealed into his work with magic power may be called into active life, shining in a thousand colors, and that they may surround mankind in luminous sparkling circles and, enkindling its imagination, its innermost soul, may bear it in rapid flight into the faraway spirit realm of sound. (Strunk, 1950: 780-1)

Of course, it may be argued that even a quick glance at big-budget concert brochures contradicts the image of the selfless performer. For Hoffmann, though, the issue at hand was the performer's image of himself as part of an artistic legacy, not the steady drumbeat of concert promotion.

In summary, the performer has gradually and steadily lost contact with the spontaneous creative side of music and therefore may not know what it is like to write even a simple song or to improvise a simple tune. The printed page, with its notes, dynamic

markings, articulations, etc. is inviable and represents an almost exclusive connection between the composer and interpreter. To be sure, discussion of style and technique are also essential to the shaping of a valid interpretation but "fidelity to the score" or "playing just what's on the page" becomes a constant refrain regardless of the music or style period. The assumption is that musicians will know *how* to read a score: to know, using just one of many examples, the difference in execution of articulation marks from one period to the next when they *look* the same. Performers depend on theory, history, form and analysis, and most recently historical performance practice as a compensation for the intuitive connection they formerly enjoyed through the practice of composition improvisation and performance of contemporary music. The fact of unity in a composition remains, however, asserting itself with a steady force that demands creative illumination in any performing era.

Performers look for what seems to have been occupying composers' creative energies at the time of composition. Having looked already at some of the potentials and limitations of both theory and history, already standard in the curriculum of most music schools, it is perhaps helpful to seek a more flexible approach to interpretation which might have as its goals an intuitive apprehension of structure and a sense of immediacy and inevitability, reversing Schoenberg's definition of composition as "slowed down improvisation" to performance as "sped up composition."

Jean Piaget's *Structuralism*, a sketch for a musical analogy

Before embarking on a brief discussion of Jean Piaget's book, *Structuralism*, and its possible applications to formal considerations in music, it is useful to quote Pierre Boulez on the subject of using the language and techniques of other disciplines for the study of music—in this case mathematical, philospohical and scientific.

> All reflections on musical technique must be based on sound and duration, the composer's raw material; and imposing some alien

> 'grid' on these reflections can result only in a caricature... Philosophical and scientific ideas are equally useless when misapplied. In each case misapplications arise from the same weakness, a weakness of the purely musical imagination aggravated by submitting the data of music to wholly alien systems of ideas and priorities. This amateurish approach therefore gives a kind of legal status to a misapprehension which is both honest and sincere. We must reject, without too much sentiment, these sham solutions whose charm lies in the fact they often present facets of what is undeniably the truth. I believe that music warrants its own individual field of study and must not be submitted to mere arrangements of fundamentally alien methods of thought, which have in fact proved a dangerous threat to the freedom of musical thought. (Boulez, 1986: 73-75)

Fortunately, Boulez does not advocate a kind of musical isolationism but acknowledges that "contact with other disciplines can be extremely fruitful, in introducing a different order of vision and providing us with glimpses of what we should never have dreamed, stimulating our inventiveness and forcing our imagination to a higher degree of 'radioactivity'."(Boulez 1985: 75)

Although not about music , *Structuralism* provides musicians with a stimulating approach to formal analysis. Piaget regards structure as defined by wholeness, transformation and self-regulation; terms which are easily applicable to a musical work.

It is not difficult to accept the idea of wholeness in a musical composition. Piaget's statement of the problems of structuralism are themselves analogous to those of musical structure: "It would be a mistake to think that, in all domains, the epistemological alternatives reduce to just two options: either admit wholes defined in terms of their structual laws, or allow only for atomistic compounding of prior elements." (Piaget, 1967: 7)

Much of musical analysis is based on just these two alternatives: "structural laws," such as those observable in sonata, and "atomistic compounding of prior elements," such as phrase, motive and harmonic analysis as the content that creates the form. Beyond these two approaches, a "different order of vision" might be provided by looking instead at the *way* a composer transforms motives, phrases, etc. An analysis of the Twelve Etudes of Claude Debussy (below) will offer this vantage point.

As an alternative to the two methods mentioned above, Piaget offers a third, "operational structuralism," in which "it is neither the elements nor the whole that comes about in a manner one knows not how, but the relations among elements that count. In other words, the logical procedures or natural processes by which the whole is formed are primary, not the whole, which is consequent on the system's laws of composition, or the elements." (Piaget 1967: 9) This statement may be considered in relation to the central problem of interpretation—bringing a musical work to "life" in real time: For musicians in the act of performing are about "natural processes" and "relation among elements."

Self-regulation means that "transformations inherent in a structure never lead beyond the system but always engender elements that belong to it and preserve its laws."(Piaget 1967: 11) The elements in a musical structure form a type of confederation which functions within a self-regulating system closed under transformation and acts according to its own laws.

The analogy of a composition to a "self-regulating system" implies the composer as guide, directing the music according to its character and potentialities. Here, we may consider Schoenberg's words as a way to understand this analogy:

> The most important capacity of a composer is to cast a glance into the most remote future of his themes or motives. He has to be able to know beforehand the consequences which derive from the problems existing in his material, and to organize everything accordingly.

> Whether he does this consciously or subconsciously is a subordinate matter. It suffices if the result proves it. (Schoenberg 1975: 422)

> Again, it does not matter whether an artist attains his highest achievements consciously, according to a preconceived plan, or subconsciously, by stepping blindfolded from one feature to the next. Has the Lord granted to a thinker a brain of unusual power? Or did the Lord silently assist him now and then with a bit of His own thinking? (Schoenberg 1975: 275)

Piaget's notion of structure, as applied to music, allows for a dynamic perspective, suited to the needs of performers who already know that a given work is in sonata "form" and is therefore expected to behave in a certain way. By focusing instead on the way that the constituent parts (themes, motives, progressions) relate to one another, the performer is able share in part the composer's "remote glance into the future of his themes and motives."

Unity and Symmetry Considered in Claude Debussy's Twelve Etudes

N.B. The following section is meant as a background for the presentation to be given at the conference in November. Since much of the presentation will take place at the piano, playing and speaking, the description of the musical works in question is kept to a minimum here.

As an example of unity and symmetry, I have chosen the Twelve Etudes of Claude Debussy, written in the summer of 1915 in an astonishing matter of weeks. Considered for many years, incredibly, to pale in comparison to his earlier works for the piano,[4] the Etudes have become very popular in the past fifteen years and indeed exhibit a profound unity from piece to piece that is set into motion at the very beginning of the first Etude, *pour les "cinq doigts."* (Cheek, 1991) The unifying elements, explained

below (and in the Notes), are presented in an everchanging variety of characters, some very obvious, others more subtle.

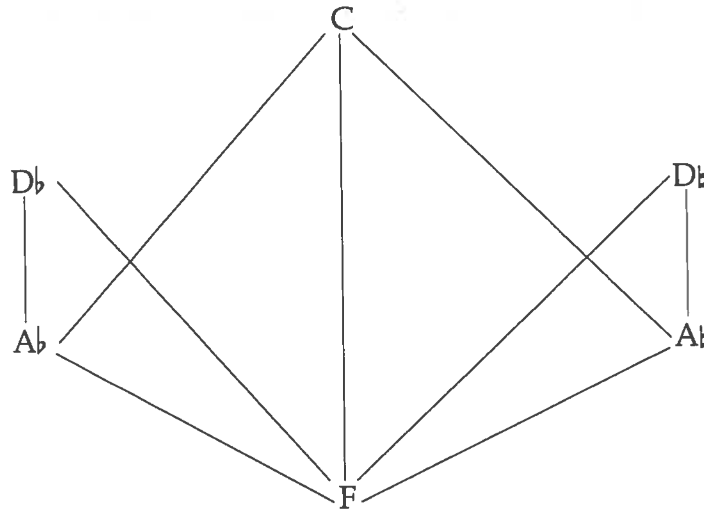
For pianists, the sense of unity seen on the page must be translated into an inner connectedness to the other etudes, informing especially the choice of order in which to play the them. If this selection is done with care, taking into consideration not only the fundamental relatedness of the set, but the individual character of the Etudes and their rhythmic, harmonic, timbral or durational expression of the basic unity, then a performance of the complete Etudes is like an arrow in flight, finding its target even as the bowstring is drawn.

The extremely simple opening of the first Etude carries associations of finger exercises and the doldrums of building a basic facility at the piano. Out of this five-fingered rumination on C, the composer pokes a humorous A flat. The wry humor is sustained in the next five-finger entrance (on G) which is decorated more elaborately than with just a single note. This play continues until the composer opens the sonority of the piano in a glorious wash of pure, C major tonality. However, here he adds yet another "decoration", not A flat, which "contradicted" the initial opening on C, but now a rather more euphonious A natural.

Using humor and the beauty of piano sonority, Debussy sets up the opposing forces (A and A flat) that will remain as constants, referred to here as structural tones, in every piece except for one (the reason for its exclusion will be obvious as we shall discuss) These constants appear in a number of "guises" remarkable for their particular characteristics: rhythmic, harmonic, melodic or even just as they are—two tones. Dynamics, articulation, density and registeral placement are a few of the variables which further characterize each transformation or appearance of these fundametal tones. The expressive traits of these "guises" reveal themselves at the piano. Debussy also sets up a relative relationship that is also a constant: The note A is the sixth degree of the C major scale; A-flat is the flatted sixth of the same. Regardless of the key of each etude, the sixth degree of the scale and the flatted sixth are often factors in the harmonic choices made

by the composer. As will be shown, they may also be reinterpreted as other notes in order to accomodate different tonalities (e.g. A flat becoming G sharp).

From these two notes, A and A flat, a basic matrix of key choices are derived as shown in the example below.



A♭ is flat 6 of C Major

F is 6 of A♭ Major

This representation is rather like a mandala for the set.[5] The Etudes, listed below in published order, will be shown to reflect the model above.

pour les "cinq doigts"	C Major
pour les Tierces	D flat Major
pour les Quartes	F Major
pour les Sixtes	D flat Major
pour les Octaves	E Major
pour les huit doigts	G flat Major
pour les Degrés chromatiques	A Minor
pour les Agréments	F Major
pour les Notes répétées	Quasi tonal but ending on G

pour les Sonorités opposées	C sharp Minor
pour les Arpeges composés	A flat Major
pour les Accords	A Minor/Major

Debussy valued the Etudes very highly. "I've invested a lot of passion and faith in the future of the the Etudes," he wrote to his publisher, Durand, in 1915... "I hope you like them, both for the music they contain and for what they denote... In truth this music wheels above the peaks of performance! It'll be fertile ground for establishing records ... Beyond technique, these Etudes will serve as an apt preparation to pianists in understanding better that one may not approach music armed solely with fierce hands."

Pour les 'cinq doigts' and *pour les Accords* represent the "bookends" of the set in more than one sense. Not only are they the first and the last chronologically but most directly and dramatically show the full implications of the structural tones. When these two are positioned as first and last in performance, the Etudes are one, inspired piece of music whose remaining pieces can be played in any order and still convey, through the interplay and transformation of the same structural tones, both unity and symmetry in a beautiful, profound sense.

NOTES

1. In the Introduction to his *Inventions and Sinfonias*, which Bach prepared for the musical education of his children, there is a clear connection between the arts of good keyboard playing andcomposition. The composer states that students will not only learn how to play in two and three parts but "above all" will also "achieve a cantabile style of playing and at the same time acquire a stong foretaste of composition." Bach claims the *Inventions* are an "honest method" for achieving these ends and generations of pianists have taken him at his word, carefully learning each piece. The concluding words concerning "a strong foretaste of composition" seem to have been largely ignored in our century.

2. By the early twentieth century, virtuosos were still very much lionized by the public. Ignaz Jan Paderewski was an example of a touring virtuoso who truly represented "superstardom." But Paderewski, along with Leopold Godowsky and others wrote compositions for their own use in concert while placing emphasis on the Romantic repertoire Artur Schnabel, the antithesis of the hero-virtuoso, wrote 12-tone cadenzas to Beethoven's concertos which he played in public. His other compositions remained largely unpublished.

3. Hoffmann took six months to complete a detailed review of Beethoven's Symphony #5, an effort that not only earned a letter of thanks from the master himself but established his historical place as an apologist for instrumental music.

4. *Music for the Piano*, a standard guide to the piano repertoire during the 1960s and 1970s, gives the following notation on the Twelve Etudes: "The fourth group of compositions-twelve Etudes for piano-shows Debussy concentrating upon a number of advanced technical and tonal problems. This attitude has already been displayed in pieces like 'Tierces alternees' in the second set of preludes. It now produces results that at best have a certain dry humor, but which do not achieve the poetry and imagination of Debussy's greatest creative period." (Friskin and Freundlich 1954: 201)

If anything, the summer of 1915 was one of the *most* creative periods of the composer's life. The Sonata for Cello and Piano, the Sonata for Flute, Viola, and Harp, the two-piano work *En blanc et noir* and the Twelve Etudes were all written in the latter part of that summer.

5. "Within the first twenty-eight measures of '*pour les cinq doigts*' Debussy emphasizes four tones: C, A flat, F, and A natural. (These tones) constitute a nucleus around which all subsequent tones fall into or out of orbit. They are primary material and may be viewed both as autonomous, sounds in and of themselves, and functional, able to express key areas. Throughout the course of the Etudes, their autonomous function allows them to coexist in close proximity to one another regardless of the relative "distance" of tonalities they may separately imply. By using their enharmonic spellings, Debussy allows them to be a part of flat or sharp side tonalities, depending on the context. Frequently, the two spellings can be found in the same measure. Also in this autonomous mode or function, they act to destabilize the "home key" of individual Etudes...The influence of these tones is pervasive and each combination of them both jogs the memory and provides coherence." (Cheek, 1991: 23)

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