The Love Affair of a Late Bloomer

(or "Teaching Music Composition at the University Level")

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Culture is activity of thought, and receptiveness to beauty and humane feeling.
Scraps of information have nothing to do with it.
Alfred North Whitehead

Like many composers who have been fortunate enough to find employment in the post-secondary educational system, I joined the academia as a means of subsidising what I considered to be my only life purpose: to compose classical music. Music was a demanding mistress and, given her history with some of her great lovers from the past, she was also an intimidating one. From the beginning of our affair I felt wanting and secretly ashamed of my insufficient creative virility. When I left my native Greece for music studies at the Eastman School of Music, there were serious gaps in my music education, particularly in my knowledge of repertory, music history as well as practical knowhow in general. On the contrary, my theoretical grounding was quite advanced and, as a result, I was offered advanced placement to the junior year. Even though this promotion boosted my habitually insecure ego, it made the knowledge differential between my colleagues and me even more pronounced and had a paralyzing effect on my creativity from the very start. This creative paralysis, plus a strong grounding in humanism which made me resentful of what I considered to be a nihilistic core in the academic modernism of that time were mainly responsible for my acting as a rebel without a cause through my entire post-secondary education—all eight years of it. I rejected the complacency of the "academic music" of the 1970s *en masse* and was often prone to self-righteous fits of anger which tested my teachers' patience, often to the limit.

The causes and effects for this lack of communication were not entirely a one-way street. My desire to define my ideas in opposition to established ones has been a widely shared desire which has defined Western European history from the outset. Almost singlehandedly, this desire has defined my models: the great composers of the past who, likewise, pitted themselves and their musical language against the prevailing ideas of their time and often with an increasing ferocity, particularly during the twentieth century. The fact that I chose to do my doctorate with one of the most controversial composers of that time, the American composer Morton Feldman who taught at SUNY at Buffalo, meant that I would be learning from one of the toughest

gladiators in the aesthetic arena. Feldman turned out to be even tougher than I had anticipated. I felt quite traumatized by his relentless assaults on me, particularly during the composer's forum, a required weekly group meeting of all the composition students which he moderated, and at points I seriously considered quitting school altogether. Feldman already had a record of traumatized students, especially but not exclusively male ones, and my own high mindedness touched raw nerves and invited verbally aggressive responses. I resented his insistence that abstraction and social disconnectedness was the only pure way to walk the path of the *avant-garde* and my socialist beliefs of that time often put him on the defensive. A couple of times things got so rough that I seriously feared for my mental and emotional well being. After a while we were not on speaking terms. Towards the end of my studies, I left the school to pen my thesis composition without an advisor. Another professor, composer and computer music pioneer Lejaren Hiller, signed off on my thesis and I defended in front of a committee which did not include Feldman.

The practical and immediate result of these educational experiences steeped in elitist abstraction was that I was completely unprepared for life after university. This conflicted experience also instilled in me a strong aversion for anything academic and aesthetically dogmatic. Career-wise, my situation was unenviable. I had a lot of catching up to do after my Ph.D. I moved to Toronto and, for the longest time, I made a living as a keyboard player in clubs and coffee houses on Danforth Street, a hothouse of multicultural activity. I was playing mostly pop and world music, the kind of music that I had not been exposed to during my college education while trying to get commissions from new music soloists and ensembles in the city. Having no idea how to go about soliciting commissions and having relatively poor social skills, it took a long time before the first requests for new works from me started coming in. My ideas about spiritual connectedness and social inclusion were still suspect within the Canadian new music scene of the 1980's but my reputation as a young Feldman apprentice highly thought of by his mentor[1] was a *bona fide* credential which initially opened some doors, that is until *avant garde* practitioners got to know me and my newest ideas. As soon as I started becoming known for my work instead of the Feldman apprenticeship, quite a few of these doors discretely closed. In this artistically ambivalent environment, I had to find time and energy to develop proper compositional skills, which I could have developed during my former education had I been more conciliatory towards the academic culture of the institutions where I studied. On the positive side, my learning, no longer under any academic supervision, could be customized by me alone:

[1] I only became aware of Morton Feldman's expressed opinion about my music just before he passed away in 1987, when a confidential letter of reference of his sent to a prospective employer mistakenly ended up in my mailbox.

no curricula, no aesthetic pressures, at least not during the early years when no one knew or cared about what kind of music I was writing. My only teacher was my ears. There were hardly any scores to study, particularly since a lot of the music that interested me belonged to oral traditions and most of its practitioners could not read Western European music notation. All along, I continued to resent the complacency and introspection of the academic music scene while, in the most conflicted manner, I continued to pursue opportunities within that scene. This love/hate relationship persisted for many years and there is still faint residue of it even now that I am making my living as a full-fledged academic and a composer of so-called "academic" music.

After fourteen years of freelancing as a composer and keyboard player in Toronto, the opportunity for a tenure-track position presented itself in 1994 and I was shortlisted for the job. Still, after such a long time, my trauma with my academic education was so pronounced that, before my interview with the search committee, I withdrew my candidacy. I feared that teaching would sap out of me whatever little creativity I possessed. In my conflicted existence, I had managed to demonize the idea of an "academic composer" to the point that I could not imagine myself becoming one of "them." My life during that period was in shambles: I had no steady job, hardly any income and was surviving financially mostly on the charity of friends. As if by higher purpose, all the commissions that I had during 1994-95, which would have kept me close to being solvent, disappeared *en masse* almost immediately after withdrawing my candidacy for the UoT position. I was in dire straits. Incredibly, the UoT position reopened and was upgraded the following year. The search committee had decided not to hire on the first round. Beyond all expectation, I was asked to reapply by members of the search committee and, feeling that I was at the end of my rope, I did. Soon afterwards I was offered the position. Most people would call this an inauspicious beginning for a teaching career. I joined the academia for all the wrong reasons and against my innermost desires.

There was no single watershed moment that marked my transformation from a composer who taught out of necessity to one who feels validated as a human being by the difference he makes with his teaching. The transformation was more or less a continuous curve and an exponential one at that, starting almost imperceptibly and gradually gaining momentum with considerable acceleration during the past few years. Already by the end of the first year, I saw my compositional output double from the previous year when all I did was compose music. The myth that spending a lot of time teaching left precious little time for composing was thus dispelled and that put my mind partially at ease. I didn't have to worry about losing the

composer part of myself in the process of discovering the teacher. Still, my desire for radical change within the academia was intense and my patience in short supply, so I ended up antagonizing several colleagues and completely alienating a couple of them. Political savvy in building consensus was not one of my strong suits (it still isn't) and I didn't know how to pick my battles. There was no battle too big for me to engage in and, after a short while, I was fighting on all fronts without gaining any ground. This phenomenon is not atypical with classical music composers in academic settings or anywhere else, for that matter. Composition is a solitary activity and composers spend a significant part of their lives exploring their own depths. Because of this, they are traditionally ill equipped to acknowledge, let alone share, other people's concerns or help develop a consensus. The saying "a camel is a horse designed by a committee" resonates strongly with composers, unless they compose mostly in collaborative contexts, like music in media, where the composer's will must bend to the will of other creative and financial interests and the most successful practitioners in this field are the ones who do just that. Whatever the explanation is for this solitude, I was quite disenchanted with my working environment during my first few years at the university but still very energized and hopeful that it was a matter of time before the walls of Jericho would come tumbling down. They never did. I realize now that they never had to. There are other ways to deal with the roadblocks of intransience. Besides, more often than not, intransience may be caused by our own ambition which can be perceived by others as threatening. When we reach such a situation it is often because we have overlooked something important and fragile about our relationship with other people.

Another myth, that students sap your energy and there is little left for composing, was also dispelled early on. Discussing music all day long with students meant that my mind was so energized on this subject that all I needed was 10 minutes between lessons to turn to my computer and continue composing from where I left off an hour earlier. Never before during my freelance career was I able to concentrate and produce anything worth keeping so quickly without the necessary "warm-up," which often meant hours of preparation before anything of substance came along. Associating my teaching with this new kind of "turbo" concentration meant that I was becoming increasingly grateful to my students for making it possible in the first place. My warming up to them meant that in most cases it was reciprocated. The students were my friends and their interests were my primary concern. My own unpleasant experiences with Morton Feldman served as an example of what kind of relationship not to have with my own students. Some ground-rules acted as catalysts for this growing intellectual intimacy. In my early days at the Faculty of Music there was an appellation protocol. Students were expected to

address their teachers as "professor." I have always felt that formality is a means of maintaining control over a situation and in education control is counterproductive. It leads to a completely different educational paradigm than the one I believe in and feel comfortable with. I insisted that everyone addressed me by my first name in both formal and informal occasions and that they could call on me to discuss any problem, not just musical ones. Initially, some of the students felt awkward addressing me by my first name particularly in the presence of colleagues who insisted on formal address but eventually it produced the desired result. It instilled in many of the students the idea that (a) education is a process of peer discovery, the experience of one party balanced by the enthusiasm of the other and (b) music and life are inextricably connected and the one is a direct reflection of the other. This exercise in informality caused a deepening of my relationship with my students and it gradually changed the nature of our communication. Increasingly, those who opened up and trusted me unwittingly allowed me a direct glimpse into their creative engine. I can't quite describe how this works, nor do I believe that it is possible to distil it into some kind of mechanical model without chocking it in the process. Best way to describe it is that my students and I were increasingly on the same wavelength (biologist Rupert Sheldrake calls it "morphic resonance"[2]) and, as a result, strange synchronicities became increasingly evident.

Even though the concept of a "mechanical model" is a product of an entirely different mental faculty than the one we are discussing here, furthermore one closely associated with language and perhaps completely dominated by it, some kind of understanding of the non-mechanical process through ordinary language is possible. Having spent years understanding music without the intervening agency of a notated score and free of the necessity to explain my composing process to myself or anyone else meant that my compositional consciousness had gradually shifted away from ordinary language and needed no terminology to remain functional and fully aware of itself. Music had gradually evolved into its very own explanation with no further needs. This echoed Morton Feldman's approach to musical understanding (he often quipped, quoting Byron, "and who shall explain the explanation?") In my own compositions, this distilling process of extracting the essence and discarding the language resulted in radical shifts of texture, style, even ways of thinking on the compositional surface (I called this "cultural counterpoint" later on) while retaining a surprisingly bonded core that belied the contradictions of the surface. (This language-based explanation of my compositional process would have not been readily available to me or anyone else back then.) Now, however, that I was forced by circumstances to

[2] Rupert Sheldrake: *Morphic Resonance: The Nature of Formative Causation*. 1981 (2009) Park Street Press, Vermont.

discuss the scores of my students in a some intelligible fashion, I was becoming aware for the first time that, during the past fifteen or so years, my comprehension of notated music had gradually evolved into a qualitatively different process than that by most academically trained musicians. It was, for lack of a better term, "holistic." The entire set of symbols on the page was mediating an elusive and indivisible meaning, which was different than the specific breaking down into parts, labelling, categorizing, cross-referencing and summing up again that one associates with learning in formal education. The very mental faculties that wish to "get," "grasp," "acquire" or "possess" information (possessive verbs that most human languages use for the acquisition of information and understanding,) were not operative at all during this frustratingly elusive process of silent meditation on the student's notated music. After such brief meditation, and as my blind trust in this process increased, I would catch myself making statements or asking questions that to a normal person would sound unwarranted, given the information available. For example, even though the student's score revealed no objective evidence to this effect, I would catch myself making a comment like "connecting the music across this barline must have given you a lot of grief." Very often, after saying something like this, I wondered what prompted this statement in the first place. There was no external evidence that this might have been the case. I remember very clearly two circumstances during which this happened: the first was in one of my first doctoral students with whom I had developed a deep friendship and mutual understanding but the other case was with a complete stranger, a talented composition student in a different university where I was invited to give a master class. In the latter case, and to my utter surprise, the student's face lighted up in amazement and he asked how could I have possibly known this, after admitting that he had spent entire days trying to fix this problem and having considered it solved. Embarrassingly, I had no answer. In that particular occasion I was saved by the student's own confession. There were other times, however, when I was not so lucky and, during such moments, there was enough head-scratching to go around. You have to trust this process blindly to allow yourself to be vulnerable to criticism and ridicule time and again. In my defence I can only say that this is what a composer does or should be doing all the time if (s)he desires to remain artistically viable.

Seventeen years later, none of this feels like a mystery to me anymore. Of course, these synchronicity moments are not something that happens on a routine basis but, when it happens, my students and I feel that the world is somehow wired differently than deductive logic claims it is. The spiritual/artistic certainty and confidence that are engendered by experiences of this kind cannot possibly be overstated. Invariably, profound personal connections are a prerequisite. These connections may be cultivated over a considerable length of time or, as in

the case of the student in the master class, they may be seemingly instantaneous. I believe, however, that, even in the latter case, there is an eternity contained somehow in the single instant before this kind of epiphany takes place. Our metronomic sense of time does not accord us insights into the nature of time as an indivisible and unknowable whole. It accords us instead a series of ticking moments with intelligible or random relationships to each other. If we choose to consider time as something other than a sequence, the whole world changes around us as a result of this consciousness shift. Similarly, our understanding of music is conditioned by the modes of understanding that we choose to accept as real. Accordingly, music may be understood as a sequence of events with some kind of connection (or not) to one another or as a hologram of a single image, a single primordial sound, a single and indivisible "I" which exists as a whole in every single part and, in so doing, it invalidates the very concept of "part" of our conventional wisdom. Until now, and with the possible and qualified exception of Schenkerian analysis, our understanding of Western European music has adhered to the former paradigm of knowledge. With the latter paradigm, fissures in the essence of musical (or any) thought cannot be masked by patching the surface, even when the patching is done with such skill that no fissure is noticeable at that level—the transition "across this barline" that I mentioned earlier. If you start with the essence of the core directly and don't attempt to arrive at it through deductive logic from the surface, you develop a kind of X-Ray vision or hearing that allows you to see/hear the fissure below the mended surface. This is the closest explanation that I can come up with for this phenomenon which has been real enough and occurred repeatedly during my teaching career. I should mention that, when communication between teacher and student is of such purity and depth, this kind of insight is not only the privilege of the teacher. Students too surprise themselves and their teachers with similar insights, if they allow themselves to trust that such insights are possible and viable.

My philosophy for teaching composition has organically evolved from these and similar experiences. It is in harmony to a large extent with relatively recent findings about how our brain processes music versus ordinary language. Interested as I am in brain research, however, I do not believe that brain function is the primary motivating force of our behaviour. I strongly believe that brain function mirrors some deeper creative process beyond our conscious comprehension and that it represents the dimensional footprint of this deeper process within the realm that we habitually understand as reality.[3] My own view of the world and of my role in

[3] There is a parallel ("parallel" as in "not converging") to this spiritual position in the physics of hyperspace. Physicist Michio Kaku discusses these ideas in his book *Hyperspace: A Scientific Odyssey Through Parallel Universes, Time Warps, and the 10th Dimension*. 1994. Anchor Books, New York. By "dimensional footprint," I am referring to the idea that, while consciousness and brain function are wired to receive and process sensory information from within our

it as a creative individual and teacher has been intuitively arrived at through trial and error and it is only during the past few years that I have (a) been able to articulate it in words and (b) found corroborating evidence, particularly in the work of British neuropsychologist Iain McGilchrist[4] and a few other thinkers, which lends some support to my view, however implicitly. With orientations like mine, words are ultimately a trap, no matter how useful they may be in getting across some of the richness of my own experience as a composer and teacher to a student or a reader. At the centre of this trap is the discrepancy between music understood on its own terms as a self-contained language and music understood through (academic) language and/or mathematics. This is not just a discrepancy between two languages or even two species of language. It cuts deep to the very core of understanding. Choices made closer to this unreachable core project themselves on the surface in startlingly and fundamentally opposite ways, to such an extent in fact that each of the two realities projected is almost entirely invisible (or inaudible) to someone immersed in the opposite reality.

Too often in the academia it is felt that music, the original language of our species, needs to be understood by languages which supplanted it, or may be parasitically riding on top of it, like ordinary language and mathematics.[5] This pervasive use of ordinary language and mathematics as a quencher for our ever-growing thirst for knowledge acquisition, the intellectual attitudes and certitudes that they engender and their occasionally arrogant confidence that they can process every kind of human experience through their own grind have been in my opinion mainly responsible for almost a century of meaningless compositional products being colloquially degraded as "academic," a synonym for "powerless," "gutless" and, ultimately, "meaningless."[6] The current scientific thinking is that "if a language is newer, it must therefore be better" so linguistic models are thought as better at describing reality than intuitive (musical) ones and mathematical models are thought as more suited for describing a relatively recently discovered microscopic reality by science than linguistic (empirical) ones. Our pseudoscientific approach to modernist composition also thinks along similar lines. Accordingly, complexity is of higher value than simplicity, even when complexity may be nothing more than the residual entropic result of the dissolution of traditional structures and simplicity may be the almost

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three spatial dimensions open to us, creativity may be a glimpse of deeper dimensions beyond our conscious comprehension and that our spirituality may be a footprint of these deeper dimensions upon our ordinary consciousness.

[4] McGlichrist, Iain: *The Master and His Emissary: The Divided Brain the Making of the Western World*. 2009. Yale University Press. New Haven and London.

[5] Academic language more so than mathematics. Thinking in higher mathematics has a deep kinship to music as does poetic use of language.

[6] By contrast, and interestingly, strong and redeeming works of contemporary art, the masterpieces of 20th and 21st Century artistic literature, are hardly ever described as "academic" in popular nomenclature.

magical "face" that our mind maps onto billions of complexly related molecules and neurons, which it recognizes instantly as a "simple" whole. Language, with an ever evolving and exponentially increasing vocabulary, is central in articulating the paradigm that ever more confidently articulates reality for us. Far from being an axiom, however, the claimed primacy of language over music is in my opinion a residue of the thinking of the Enlightenment Project, already several centuries out of date, which is no longer considered viable in cutting edge fields of research, such as Quantum Mechanics, Chaos, etc.

Don't take me wrong. I study with great interest the wonderful fruits which the Broca's area of our brain has claimed as its own accomplishments, from physics to philosophy to critical theory, and I do not reject on principle anything that has been created by the toil of dedicated thinkers throughout our brief recorded existence as a thinking species. In just about everything that I have studied, however, I keep on finding the same blind spots, which I cannot afford to not acknowledge as a creative individual and teacher if I expect to make an indelible difference in the intelligent life (or *life*, period) of my students. Just as scientific paradigm shifts are caused by mounting awareness of phenomena on the fringes of a prominent paradigm which cannot be explained or accommodated from within, a growing awareness that music in the academia cannot endlessly attempt to legitimize itself with mainstream academic culture through translation into in a lesser language is necessary for music to remain vital within the academia and beyond.[7] Anything, from standards of excellence and definitions of "research" for tenure-track positions in composition and performance, to the presumed objectivity of "peer assessment" (a cornerstone of academic evaluation) need to be rethought in startlingly new ways if music is to thrive in a natural and native habitat. Such habitat would appear to be a strange and defiant world to anyone used to scientific and/or language-based thinking and it would be certainly resistant to a number of assumptions that common-sense academics readily accept as axioms.

My own value system, which in turn informs my teaching philosophy, avoids consensus values, historical or peer certitudes and conservatory-type definitions of "compositional craft", "high art / low art" or "what is encouraged or not encouraged creatively in an academic setting." Granted, a considerable number of conservatory-type attitudes, like the top-down transmission of learning and wisdom, is alien to the ways of science and present-day university culture, even though they still thrive under the radar in university music departments. We have not yet

[7] Classical and classical contemporary music practice outside the academia is the direct result of academic training and a reflection of its postulates. The entire field of classical music today (and, increasingly, jazz) is music incubated in the academia and can be thought of as "academic music."

crossed the divide between the traditional concept of "conservatory" and the modern concept of "university" as an ideally hospitable environment for free thinking and the relentless questioning of ideas and premises. A simple "crossing" of this divide, however, may hide more dangers than it wards off. In the modern university environment, the academic blueprint for research requires a certain "distancing" between subject and research object, an ability which is a relatively recent phenomenon in human evolution attributed mainly to the continuous growth of the frontal lobes of our brains. According to this script, distancing engenders objectivity and objectivity is the best guarantee for approaching Truth independently of any agenda. Maybe. Or maybe "distancing" *is* the agenda, which causes fragmentation in our experience of the world, which in turn causes our perception of complexity, which in turn causes dissociation and, ultimately, alienation and all of the above by evolutionary desire and choice. As a thinking individual, I cannot leave this possibility off the table. However one tackles this question, the one certain thing is that this kind of distancing is less than desirable for the practice of music composition and performance. There is plenty of so-called "academic" music to be registered as evidence of this fact. On the question of distancing, music stands courageously in sharp contrast to the foundational creed of science and, consequently, academic protocol. As with "religion" (Lt. *re-ligare* = to re-connect,) music questions distancing, as it questions any kind of dialectic solutions to the problem of our ever-elusive quest for objectivity. In a fundamentally dualistic world, such as ours, objectivity is but a pipedream. To heal dualism, one has to reach the core beyond; a point where objectivity and subjectivity melt into an ever-present and all encompassing "I."

As an academic for the past seventeen years, I have undertaken a difficult quest to develop what I consider to be an effective approach to teaching composition while arguing (in a language foreign to my discipline) that it is imperative that the language of music (the language of art in general) is acknowledged on its own terms within the intellectually hostile environment of the academia in which meaning is derived by other means and according to different standards. Anyone who thinks that these fundamentally different ways of looking at the world and at Truth can be reconciled through simple translation fails to understand the fundamentally dualistic nature and structure of our brain and mind and any intellectual product that has been processed by it. Our *corpus callosum*, significantly oversized in the brain of musicians, allows for unusually fast information exchange between these two universes but ideally the exchange cannot possibly be mediated by a function (language) that is principally located on one side of this divide. I will admit that this is an oversimplification of the far more integrated manner by which the phenomenon of language operates in our brain. Moreover, the scientific view of the

brain as two independently conscious hemispheres has lost ground in recent decades. However, no matter how one interprets the experimental data of brain research (there are competing theories,) the glaring fact remains that our brain *is* divided and the two hemispheres are structurally and chemically quite different from one another. The awareness of the conceptual > ideological > political > economic implications of the possibility that our brain may be housing two competing, mutually exclusive and nearly equally legitimate worldviews[8] cannot be lost to the worldview espoused by the left side of our brain which is currently dominant within the academia and beyond. The arts, especially *vital* artworks, and spirituality are the only critics left standing defiantly against this worldview. The prominent paradigm has tried to either dismiss them out of hand or incorporate them into its fold by "translating" them into the only kind of language it understands, rendering them impotent in the process. There is a reason why this sounds like a conspiracy theory: hemispheric appropriation by the left hemisphere in our days may be the mother that has given birth to all conspiracy theories. Usurpers, particularly those who do not completely understand that which they are usurping, have to discredit everything outside their understanding and at the same time keep on looking over their shoulder. The left hemisphere of our brain, according to McGilchrist, is acting as such an usurper in our days.

Given the emphasis on technique in the previous training of most of my students before they come to study with me and my own predisposition described above, it would appear that my teaching philosophy must necessarily be deconstructive before it can become constructive. This may be true to some extend but not entirely. I am not interested in deconstructing a system only to replace it with another. Consistent with my rather cautious attitude towards left hemisphere conceived certitudes and categorizations, my entire teaching philosophy is focused on the only real element of the educational equation: the *student*: as a complex and wondrous being, not as a position in an educational flowchart. Since our minds are as different from one another as our fingerprints, any formal educational philosophy would tend to make us (behaviourally) more similar to each other and this nearly always happens at the expense of compromising one's individuality, creative and otherwise: the assembly line thinking. My private teaching, particularly in recent years, starts with me initially being mostly a listener and trying to understand from what the students say or do something about their inner structure as individuals. Once I have some inkling or epiphany about who my students truly are, at a *human* as much as a musical level, I start assembling a custom-made set of problems and ideas that

[8] As McGilchrist points out the two views are actually not equally legitimate. Experimental evidence suggests that the right hemisphere is connected to and directly aware of the body and the environment, whereas the left hemisphere (the seat of language and rationality) is only aware of the right side of our body and mostly *re-presents* reality, whereas the right hemisphere directly *presents* it.

they might react to and learn from. I cannot discuss goals and means of accomplishing them before this process of familiarizing myself with each student is complete. The goals are always set by the students, not me (I occasionally steer these goals so that they can fit within the larger degree requirements, however loosely,) and since these goals will be as different from each other as the students are, it would require a great deal of intellectual "shape-shifting" on my part. After this initial determination or appraisal, things become even more complex. Artistic choices are hardly ever independent of psychological predisposition, innate or environmentally induced, and, while it is general practice to discuss artistic problems as independent phenomena that can be categorized, enriched by added information, and developed independently of the forces that form the individual human being in question, I find that this type of instruction and the creative fruit that it produces only scratch the surface of what is possible creatively and educationally. I am a firm believer that composition cannot be taught this way and produce anything of significant artistic value. One has to first gain the student's deep trust (and treat this trust as sacred) to be allowed to probe deeply and sometimes uncomfortably until something of significance is coaxed out of the student, or rather is brought to bear by the student him(her)self.

It is difficult to introduce complete examples of students and their creative transformation during their studies and protect their identities at the same time. To protect the identity of my students and preserve their trust expended on me, I will therefore do the very thing I have warned against: extrapolate the particulars of my teaching experience, break them down, categorize them and put them back together again as a set of independent observations and insights into the process of teaching composition. It is the only way to say anything about my experience and keep it divorced from the young men and women who have imparted it on me.

Originality

One of the driving forces that I detect in young composition students and, in retrospect, recognize in my own experience as a student back in the 1970's, is the driving desire to be original. It is instilled in all of us by academic culture in high school or college and by an endless series of "success stories" fed to us constantly by family, peers and the media. "Music history—history in general—is the story of originals" we are told. The students' idea of success and professional legitimacy heavily relies on the belief that one needs to be original at any cost. It does not even occur to them that they may already be authentic and original to start with and that they need to look inward to recognize and express this quality, instead of trying to learn from other "original" thinkers. Granted, there is a deeper evolutionary protocol that pushes for

innovation and originality in individuals and groups of people, which has to do with diversity as a prerequisite for survival and, to the extent that culture may cause evolutionary pressure, originality in the arts may serve a legitimate purpose. As the ensuing discussion will show, however, this natural instinct for originality is being perverted in our days by simply teasing this protocol in a similar way that various forms of the "pleasure" industry (including commercial music) teases similar evolutionary protocols for self-aggrandisement and profit. The fact is that, by the time they enter university or graduate school, students have already learned how to conform in the name of originality. This conformity with academic pressures is what nowadays is understood as the *"avant garde"*. We generally accept as "contemporary music" just about every compositional innovation since 1950 or earlier without giving a second thought to the fact that the musical pioneers of the 1950's would have not considered anything older than twenty years from their time to be "contemporary" in any respect. (I had firsthand experience of this from my conversations with Morton Feldman during my studies with him.) We should also factor into this equation the fact that the rate of cultural change is exponential. In the last sixty years it has accelerated to a degree that it has become increasingly difficult to comprehend in depth any single component of this process before it gives way to the next thing that claims the spotlight. Given this state of affairs, our current *avant garde* should have rejected anything that is more than sixty *days* old, let alone sixty years. This clearly does not appear to be the case. What is happening instead is a new conservatism based not on ideals of greatness and intrinsic value but on the idea of constantly replacing a largely disposable culture. Since no great, groundbreaking ideas have emerged in the field of composition since minimalism (a rather intriguing phenomenon that deserves a separate examination,) the cult of the "new" has traded substance for appearance: if you can sell it as "new," it *is* new. In this new world, substantive, evolutionary change has been replaced by arbitrary fashion. Your legitimacy depends on you belonging with the "in" crowd and convincing everyone else that *you* have the "in" ideas.

Students, in this phase of their creative lives which is riddled with insecurities, crave a sense of security that comes with belonging. Even the slightest suggestion by a teacher or a colleague that "originality means doing things in an appreciably complex manner" is enough to send the student in this direction even though there is no perceived pressure by either the teacher or the student to conform with the suggestion. And here is where the problem begins. Originality can never be described by its external markings. These can be repeated by others but not originally. If you are the first to write a book about how to become a millionaire perhaps *you* may become one but none of your readers will and your imitators will not be as successful as you will be. In essence, the entire pyramid you have built with the readers of your best selling book will be

working for your success, even if others inhabiting lower layers of the pyramid may think that they are working for theirs. You face a similar situation if you are in a position of influence, like a trusted teacher invariably is. You are naturally tempted to build your own legitimation pyramid consisting of your disciples and, down the road, theirs, and eventually reach critical numbers that may one day dominate the language games of our postmodern society. This is not necessarily a conscious decision on your part. It may be something driven by insecurity and you may not even be aware of doing this. The history of the arts and ideas is full of such pyramids consisting of masters, disciples and followers. If, however, you have the student's best interest in mind, you transfer the centre of gravity on the student and this is a safe way of avoiding the kind of exploitation that these top-down structures entail. Pyramids may still form but they will be driven from the base, not the top and this makes all the difference in the world. There has been hardly any student of mine who has not heard at one point or another my favourite line: "You are as unique a composer as your fingerprint. You are already original. The only way you will not be original is if you *try* to become original, in which case your music will start sounding like everyone else who is trying to become original and, nowadays, this includes pretty much *everyone*."

Listening

Listening, real listening, is an educational component that is not given proper emphasis in the training of young composers. Through their undergraduate training, composers learn harmony and counterpoint and analysis and get most of their information from studying scores and analytically scrutinizing them. When they listen to music, many students treat the listening component as an aid to score studying. What little creative engagement they are accorded during their training in harmony and counterpoint is like painting by numbers, mostly due to the limited time devoted to mastering tools which in the past were taught to aspiring musicians since childhood. Ear training consists mainly of learning how to distinguish various intervals and chords on the piano and assign names to them. Students are also taught to assign syllables to the pitches of the twelve-tone equal temperament tuning system through *solfège*. Like Adam in the proverbial Garden of Eden, students are taught to master their material by naming it. It is the kind of mastership that the left hemisphere of the brain understands, as it has evolved to derive meaning by naming and taxonomizing individual parts of dismembered wholes. Whatever else this may be, it is not real listening or, at any rate, not conducive to deep compositional engagement. It is more like rearranging furniture than building a home.

Increasingly over the years, I have been teaching a number o students whose primary training and practice is in jazz. I have found that jazz musicians receive much better ear training than classically trained ones. For quite a few years, I have been teaching a second year undergraduate course called "Topics in Composition." I have often given dictation exercises to the students as part of the course requirement. These assignments are generally excerpts of mostly world music, often improvised passages which confront the students with both listening and notational challenges. Intonation other than equal temperament, microrhythmic complexity and timbral modulation are aspects of music the students have not been trained to address notationally elsewhere in their training and, since I do not give them much guidance on this kind of problem solving beforehand, they are forced to rely solely on their ears to come up with a notation that, if someone else reads and performs, should be able to capture as much of the essence of the original as is notationally possible. In these and similar situations, jazz students statistically outperform their classical colleagues. I have been impressed by the ability of even undergraduate jazz students to notate in minute detail a complex, improvised saxophone solo passage with seemingly little effort, even though in the charts that they usually work with only basic musical information is provided and a lot is left to the imagination and cultural conditioning of the performer. Naming inversions of complex five, six and seven-note chords can be done on the fly by a jazz student, unlike classical composers and performers who have not been given enough opportunity to develop such ability as part of their skill base in the formal educational curriculum. Most jazz students and faculty find triadic harmony used in classical music rather simplistic and are more fascinated by the sonic and harmonic complexity of some of the 20th Century *avant garde* than with the hidden harmonic complexity of the classical masters. To many of them classical composers are the "three-note-chord people."

It took me a while and some in-depth discussions with a small number of students with a jazz background to begin to understand that, like the training of our classical contemporary composers, the jazz practitioners' training also assumed a high degree of acculturation for communication to ensue between composer/performer and listeners. Like with many other musical genres, listeners who either studied jazz or subjected themselves to protracted exposure to the music learned to appreciate the genre. Familiarity breeds understanding and additional interest, which in turn breeds further familiarity. In all musical genres that are heavily depended on acculturation, extensive familiarity and/or training is a prerequisite to understanding. In nuclear cultural contexts this has never been a problem but in an electronically random access world, such as ours, a viable cultural practice needs to depend more on elements that are

somehow hardwired in our perceptual mechanisms at a species level rather than on geographically and chronologically local practices that are laden with preconditions. (More than marketing hype, this lack of preconditions may be the main reason why pop music has spread like a forest fire during the past century across the world, alternatingly feeding and being fed by the ever expanding communication technologies.) Finding myself in a situation whereby an increasing number of students with jazz and other musical backgrounds desired to study composition with me, I became increasingly entangled with questions of musical perspective, how people hear music and, more to the point, whether jazz musicians as a whole listened to music in qualitatively different ways than classical musicians and what these differences might be.

Generalizing is always fraught with danger but it is the only way to see the larger picture, the paradigm, which legitimizes the more detailed and smaller questions and is in turn legitimized by them. These smaller questions are answered by theories which, in turn, are defended by treating the paradigm as an axiom. You need a foundational stone upon which to build and, once your building project is underway, you can no longer question the foundational stone for to do so would be detrimental to your building project. If you detect a vacuum of ultimate authority in the schematic of the previous three sentences, you would probably begin to doubt the prevailing culture of scientism and its certitudes as much as I do. Chaos pioneer Robert Stetson Shaw has said "you don't see something until you have the right metaphor to let you perceive it."[9] (By "metaphor," Shaw means "paradigm," a term that did not have as much currency during the time this statement was made as it has now.) After decades of understanding music and the world through metaphor, I have been intuitively drawn to Iain McGilchrist's theory that, in Western European cultural history, there has been a pendulum-like swing between right hemisphere and left hemisphere dominated historical eras and their corresponding philosophies and cultural products. McGilchrist identifies a left hemispheric dominance during the periods of the Reformation and the Enlightenment and a sharp swing to the right hemisphere of our brain during the romantic era and an even sharper swing to the left during the modernist era which covers most of the twentieth century.[10] It appears that, contrary to the tendency of an active pendulum to decrease its span due to friction, the span of this theoretical pendulum is constantly widening. After reading McGilchrist's book, it occurred to me that jazz, as a musical genre, came into prominence and evolved rather quickly completely within an era when western

[9] Gleick, James: *CHAOS: Making a New Science*. p. 262. 1987. Penguin Books. New York.
[10] McGilchrist, Iain: The Master and His Emissary. This theory is outlined in detail in the chapters "The Rennaissance and the Reformation" (pp. 298 - 329,) "The Enlightenment" (pp. 330 - 351,) "Romanticism and the Industrial Revolution" (pp. 352 - 388) and "The Modern & Post-modern Worlds" (pp. 389 - 427.)

culture was going through a modernist (left hemispheric) phase. Fragmenting wholes into segments, examining, naming and defining, sorting, categorizing, reassembling, systematizing and abstracting are all processes and attributes of the left hemisphere according to McGilchrist. Cubism in art and music (as in Picasso and Stravinsky,) deconstructing of wholes and reassembling from constituent parts (as in free atonality followed by the twelve-tone system,) naming and defining creative processes by language and defending them through language (the aesthetic wars of the twentieth century) and, last but not least, the claim by science that everything in this world can be understood as a mechanical system of some kind, all these are symptoms of the left hemisphere's most recent and historically unprecedented *coup d'état* to usurp absolute power and legitimacy from McGilchrist's "Master," the right hemisphere.

So, if jazz is unusually systemic in its thinking, is it so because its entire span so far has coincided with a far-left position in the span of the greater cultural pendulum of western civilization? This of course would be a gross generalization because every era and every musical genre within it has an internal range encompassing left and right hemispheric mental attributes spanning all the way from intuitive approaches to dry intellectualism. Numerous examples in each artistic practice can be called upon to demonstrate such coexistence of diametrically opposite, even mutually exclusive, attributes. That being said, McGilchrist's theory examines the *centre of gravity* of each of these larger historical eras in terms of hemispheric dominance without squeezing their own internal span into monolithic practices consistent with the position of the pendulum at any given time. It may be possible to visualise this historical process as a fractal or a hologram, whereby each musical genre, regardless of its position on the span of the larger historical pendulum, contains within itself the information of the entire pendulum. Similar mutually exclusive and not historically separated oppositions reside at the heart of science too. Referring to physics, science writer Margaret Wertheim mentions in a recent essay,[11] "Where quantum theory describes the subatomic realm as a dominant individual *quanta*, all jitterbug and jumps, general relativity depicts happenings on the cosmological scale as a stately waltz of smooth flowing space-time. General relativity is like [Johann] Strauss—deep, dignified and graceful. Quantum theory, like jazz, is disconnected, syncopated and dazzlingly modern."

Support for the idea that jazz may be unusually systemic may be inferred from an arguable discrepancy between jazz harmonic principles and recent advances in psychoacoustics. I have often wondered why classical (tonal) music has not advanced from triadic harmonies to seventh,

[11] Wertheim, Margaret: "Physics's pangolin" published on the online magazine *Aeon*. http://www.aeonmagazine.com/world-views/margaret-wertheim-the-limits-of-physics/

ninth, eleventh and thirteenth chords as harmonically stable sonorities? Jazz has done just this and, in the process, it has created considerable harmonic complexity by logically extending the principle of superimposed thirds for chord production, which jazz practitioners and theorists first saw operating in classical music. In contrast to this process of complexification by superimposition of intervals, classical chromaticism evolved from the triadic harmonic system all the way to free atonality when jazz was still very young but it did so not by stacking superimposed thirds. Instead, triadic harmony organically disintegrated through a process known as the emancipation of dissonance following a dissolution towards maximal entropy just like any closed dynamic system (in this case, equal temperament) always does, according to the second law of thermodynamics. This metaphor for a musical process patterned after real physical behaviour in the real world is very apt, when one considers the ways of the right hemisphere, which *presents* reality by direct neurological connection with it, versus the left hemisphere which *re-presents* it by means of some form of abstraction. I believe that, in classical music, a major harmony is not derived from the superimposition of a major and a minor third but rather from the first five partials of the overtone series—the mind's response to a natural phenomenon. Its triadic nature probably has something to do with the fact that the mechanism of the basilar membrane of our inner ear is able to "resolve" (hear as separate acoustic entities under certain circumstances) only the lower harmonic partials up to between partials 5 and 10.[12] Since for some people the fifth partial will be the upper limit of resolved harmonics, it would be natural for a harmonic practice that is abstracted from this acoustical phenomenon to base itself on a sonority which is contained within the first five partials of the harmonic series: a (triadic) major chord.

If the origin of classical harmony is indeed based on the architecture of our inner ear, something that right hemispheric awareness would bring to the fore, the left hemisphere would analyze it as a mechanical system, abstract it and spin off a variety of harmonic scenarios for which it would claim and promote independent existence by encouraging their disconnectedness from their right hemispheric source. The natural ascension of overtone intervals as accepted consonances throughout Western European history, starting with octaves, fifths and fourths, to the later introduction of thirds and, even later, seconds, indicates a right hemispheric connectedness with both the human body and the environment that nurtures it. During the Enlightenment, a left hemisphere dominated era, this naturally evolving harmonic awareness was quickly transformed into the mechanical system that we now know as common practice

[12] pp. 14 - 17. Oxenham, Andrew J.: "The Perception of Musical Tones" in *The Psychology of Music*. Dianna Deutsch, *ed.* 2013. Elsevier, Amsterdam.

harmony. I believe that a fundamental transformation to the way that we understood harmony took place during the eighteenth century: from unconscious awareness of it as a spiritually binding force to a powerful mechanical system which was capable of systemic harmonic leaps—like a dominant seventh chord reinterpreted as a (German) augmented sixth chord landing suddenly into distant harmonic space. This kind of respelling indicates left hemispheric processing, whereby a real acoustic phenomenon is abstracted and translated into imaginary (common practice) harmonic space. By contrast, Romanticism, a right hemisphere dominated era, placed emphasis on harmonic and melodic affect and on the ability of music to emotionally move the listener. The ever-widening bounce of the pendulum back to the left during the Modernist era produced a further systemic expansion of the common practice harmonic system, this time within jazz, and caused the abstraction to further expand, based on the same logic that was first introduced by Enlightenment thinking centuries earlier. Having benefited from the experience of Romanticism, the classical harmonic system disintegrated into complexity through the emancipation of dissonance, a process in natural correspondence with the physical law of entropy. Conversely, jazz, having first appeared in the Modernist era, picked up instead where Modernism's sibling, the Enlightenment, left off. It did so by expanding a system of abstraction to its logical extension: adding major and minor thirds in various configurations to create harmonic complexity that no longer had any real connection to the human physiology of hearing.

It sounds like I have veered widely from my subject but all this was necessary for me to discuss what I see as different kinds of listening among composers and particularly students who are still under the influence of transmitted, and to some degree not fully digested, information. The reason that I discussed jazz to such length is because it is a genre with comparatively limited history and the kind of intellectual intent that informs a great deal of Western European music as seen through the lens of McGilchrist's theory, particularly during the left hemispheric swings of the historical pendulum. It is the phenomenon of intellectual intent sidetracking pure, non-acculturated hearing that is the central focus of this discussion. To paraphrase Robert Stetson Shaw 's statement quoted earlier, we can't hear anything, unless we have the right paradigm that will let us hear it. If you consider classical concert music, particularly romantic music, and jazz to be different musical paradigms, then perhaps modes of musical perception in the two musical disciplines must be different from each other too. My own experience with jazz and its prominent practitioners is very limited. I have hardly had enough conversations with jazz colleagues over the years about how similarly or differently we hear and understand music, and I have interfaced with far too few jazz students to be in a position to draw any defensible

conclusions about possibly fundamental differences in musical understanding between the two disciplines, beyond curricular differences, etc. In my defence, I will simply say that my conclusions are not just based on these limited conversations but, primarily, on my listening to jazz recordings or live performances and trying to understand through this process what kind of hearing lies behind the musical decisions that I hear. My preferred method for ascertaining how musicians think is by deconstructing how they sound, not how they verbally describe their creative process.

One of my jazz students, a brilliant intellectual omnivore with a profound mind which traverses categorizations and musical genres, is living proof that, as individuals, we can all transcend the culture that sustains us if we are open-minded enough. But as a teacher desiring to make as much a difference as I am capable of with as many students of diverse backgrounds as possible, I need to understand how intellectual nurture in different disciplines changes the way individuals within these disciplines listen to music and think about it. Some differences are obvious to detect. For example, we manage to follow separate melodic lines happening at once in a classical piece of music (counterpoint) by adhering to the rules of voice leading: by maintaining common tones from one chord to the next, moving concurrent melodic lines in contrary motion and avoiding false relationships. All of these rules have been empirically derived over several centuries in accord with the postulates of gestalt psychology. In a complex harmonic/contrapuntal environment, voice leading is the most fundamental aid for grouping various acoustical events into melodic and harmonic gestalts. For some of the jazz students that I have worked with, it was evident that voice leading was not a primary contributor to their understanding of musical continuity. One of the jazz students, a guitarist, created harmonic progressions by playing them on her instrument and then notating them. The inversions of each chord in the sequence had more to do with finger positions on the guitar and less with voice leading. As a result, a continuous stream of false relationships ensued that sounded wrong to a classically trained ear but not to her ear. After several conversations about this phenomenon, I realized that she had a highly developed systemic way of hearing chords. No matter how complex the chord, she could instantly name it (sometimes with more than one nomenclature) and also name its inversions with utmost facility. Chord recognition was quite strong and quick but harmonic function was cyclic and never extended beyond the cycle, which of course is typical of a lot of jazz. It seemed that her hearing consisted of instant recalls of already learned elements, each element named, quantified and understood in its proper place in the sequence. Up to this point, this skill was not different from that required by someone who sets figured bass in common practice (classical) harmony. The fact that she was able to do this cognitive process

at a speed that would have solicited the envy of her classical colleagues in our school may have a great deal to do with the improvisatory nature of jazz which depends on nearly instantaneous responses to situations that other improvising collaborators may bring into the mix at any given moment. This kind of alertness and focused attention is also a left hemispheric attribute. It has been developed through our millennia-long species existence as hunters and hunted. It is in the nature of most jazz to be constantly alert to an ever-shifting musical environment and take advantage of both its predictable and unpredictable aspects. So, besides my theory that left hemispheric predominance in jazz is the result of its relationship to the larger cultural pendulum of the McGilchrist theory, it may also have to do with the kind of individual and collective attention that is brought to bear during a jazz performance.

Rhythm and Timbre

Rhythm is another element that is symptomatic of a different kind of listening between the two disciplines. Jazz rhythm is one of the most highly developed rhythmic practices anywhere, anytime. It is certainly one of the elements that most fascinate me about this genre. It is precise, deliberate and complex in its relationship to a steady beat and is often difficult for an outsider to track, particularly during a drum solo. The steady beat of jazz, even when rhythmically loose and expressive musical passages ride on top of it, points to a predominately left hemispheric processing of jazz music. A steady beat is predominately processed by the left hemisphere. It has a motivating and, at the same time, subjugating effect on the listener. It can tune an amorphous crowd into a synchronous one by means of a kind of mechanical empathy cultivated with dopamine excretion rewards, as is the case with a stadium audience during a rock concert (the opening section of "We Will Rock You" by the rock group Queen will invariably have this effect on the audience) or repetitive clapping and rhythmic slogans in a sports game or a political rally. Conversely, steadiness of beat is often undesirable in classical/romantic music. Time (tempo) in a classical work is often fluid, more so during the romantic era than during the Baroque, classical or modernist—distinctions which is are in accord with the McGilchrist theory. In romantic music, the underlying rhythm is flexible and synchronous with the muscle flexing of the compositional thought. As in the Wertheim quotation earlier, its flexibility is a metaphor for the Einsteinian view of space-time, as something flexible that can be bent by gravity. In the case of classical/romantic music, the gravitational force which pulls the music forward is the cadence. Not accidentally, it is before a cadence that the bending of time (*rubato*) usually occurs. Since the cadence is the completion or summation point of a musical thought, this phenomenon can be understood as "thought bending time," quite a powerful metaphor even

beyond its musical application. All of the above point towards an organic, not a metronomic, understanding of time that is closer to our natural experience of life around us as opposed to abstractions, such as the Newtonian clockwork universe. Interestingly, during the mid-twentieth century two rhythm and tempo related musical phenomena in classical music appear to vindicate McGilchrist's theory about historical swings of hemispheric dominance: the tendency to reinterpret romantic music without the "excesses" (mostly time and dynamic fluctuations) of the nineteenth and early twentieth centuries and the resurgence of authentic performances of the music of the Enlightenment (Baroque and early classical) on authentic instruments and with authentic (more restrained) performance practices.

Getting back to jazz rhythm, its complexity has clearly a lot to do with the genre's African roots but also with the fact that the natural habitat for jazz nowadays is mostly smaller, acoustically dry spaces and the sound is for the most part amplified. By contrast, classical music and its instruments were developed for larger ambient spaces, not a natural habitat for rhythmically intricate music. Ambient acoustics encourage instead the development of musical tone and instruments that can deliver tone quality of the highest order. Unlike other musical parameters, our understanding of tone quality or timbre is largely subjective. Like most musical parameters with the exception of repetitive rhythm, timbral perception is a right hemispheric attribute and is more resentful to naming, categorizing and systematizing than all other musical attributes. Orchestration is by far one of the least systemic aspects of the compositional process and great orchestration, like certain orchestral works by Claude Debussy or Maurice Ravel, or great acoustic instrument making, like seventeenth and eighteenth century Cremonese violins, are still the closest thing that we have to auditory magic. Like face recognition, timbre recognition is one of the most complex and least understood mental processes. We have a strong, albeit unconscious and primal, retention of timbre and memories associated with a vocal or instrumental timbre are enduring. Because of its resistance to verbal definition, abstraction and manipulation, timbre is usually a stumbling block for quite a few composers who have a primarily or exclusively intellectual predilection for music. I have found with quite a few of my jazz students that their ability to navigate the timbral landscape in their work is not as intuitive as that of some of their classical colleagues. Actually, it is not that cut and dry. Most students who approach music analytically, regardless of their background find timbre to be more of a challenge than those who approach music more intuitively: who feel rather than think their way into the sound of their composition.

Intellectual versus Intuitive Approach to Composition

Even though my thoughts about jazz were stimulated by jazz practitioners, mostly students, and are shared here because they have become a significant catalyst in my ever evolving capacity as a teacher of composition, it should have become clear by now that the qualities which I have described as differences between jazz and classical music, and corresponding training and compositional toolsets thereof, are in fact essential differences between the intellectual and intuitive approach to music and music making, irrespective of musical genre. Instead of decontextualizing and abstracting these differences, I chose to share them as contextual, personal experiences, hence their perhaps unfair attachment to specific musical practices. My composition studio has attracted over the years students with predilection for both intellectual and intuitive composition, mostly a combination of both. Because of outside perceptions about academic culture and a bias by the admissions process towards intellectual rather than exclusively artistic promise (bad high school grades will not get you into a good university, no matter how talented you are,) it is rather rare that students with highly pronounced intuition unaccompanied by corresponding intellectual prowess will enter an undergraduate or, rarer still, a graduate program in composition. Many young composers driven primarily by intuition are disinterested in academic education in the first place and choose to pursue careers as freelance musicians with no formal education, often becoming very successful in popular music or music for media. Their absence from the academia is our loss more than theirs. For the few that manage to survive the crushing rocks of the admissions process and enter a university environment, academic existence can be a conflicting experience that can often have a paralyzing effect on their creativity. Such students can naturally compose and tend to have a natural predilection for aspects of composition that are processed predominately by the right hemisphere, such as melody, harmony and timbre, but not necessarily all of them. Because the compositional process is very natural to them and they are not used to thinking about composing at all while they are composing, the mental distancing that is necessary for critical evaluation of one's own work is a muscle that is not habitually flexed, at least not as much as with their more intellectually driven colleagues. In the rare cases where intuition is coupled with deep spiritual predisposition, they need not flex the self-critical muscle at all: their music is a pure mirror of their soul; it is profound and profoundly felt and any intellectual interference would only compromise the purity of the music. In such rare cases, creative and constructive self-criticism is the natural state at the core of such spiritual being and needs not be engaged in

a dialectic manner in connection with any specific creative or other act; it is a condition that permeates their entire existence. In such cases, university education may actually have a corrupting influence. I have had one such student who has since moved on to study elsewhere but still stays in touch with me and I sense in her a growing frustration between her own intuitive understanding of music and spirituality and the unarticulated expectations for a certain kind of intellectual performance in her new academic environment. This was and is a strong student on all fronts, academic and creative. She is capable of tackling any kind of academic or creative challenge and I believe herein lies her Achilles heel. She can be self critical and intellectually focused if she so chooses and has a natural ambition for her age and mental prowess, which means that she is seducible by the world of the left hemisphere. In most other cases of intuitive composers, however, an anaemic capacity for self-criticism results in music that flows naturally but predictably and the latter is a stumbling block for many listeners who expect to be surprised and challenged by the music. In an academic environment where critical discourse is elevated to supreme virtue, such composers may feel unfairly misunderstood and can be easily pigeonholed by their colleagues and teachers.

Conversely, young composers who have strong intellectual predispositions are habitually too self-critical and their self-critical attitude often stands in the way of their artistic expression. Conscious self-criticism presupposes the ability for "distancing" between the "I" and its activity. This is the ability that allows us to hear our own composition from a (disinterested) distance, and this affords us perspective, but it happens at the expense of direct connectedness, which intuitive composition invariably depends upon. Achieving an ideal balance between distance and connectedness is part of a long growth process that few young composers can strike easily during the early stages of their development. Most young composers begin (or are taught to begin) with a critical approach to music. This is natural in an academic environment, where critical thinking is prized. Unavoidably, this critical attitude towards music is also extended to the music of colleagues, teachers, competitors, etc., and equally unavoidably, it invites reciprocity. People capable of this kind of intellectual distancing become more aware of the possibility that others will be equally critical of them than their more intuitive colleagues are or care to be. While the latter are more likely to consider this attitude to be a general condition of unnecessary unkindness at worst to be endured as a fact of life, their critically endowed colleagues are more likely to build an intellectual defence system to combat any perceived intellectual aggression. Such dialectic and mutually critical environment is invested with the kind of attention that is the purview of the left hemisphere, which I described earlier as the attention of the hunter/hunted. Even before airing publicly any musical thought, such

composers will be already thinking how to shield it from potential criticism. Risk taking is avoided for this very reason but, since risk taking and original thinking are part of the established academic canon, defensible substitutions such as manufactured impressions of risk-taking will probably be chosen instead. Composers claim originality but, in the same breath, they make sure they don't rock the boat and, as I mentioned earlier, they begin to sound like every composer who claims originality but does not wish to rock the boat. This attitude is symptomatic of the most cynical and least strong intellects within the academia. On the long term, it is a self destructive attitude, both artistically and morally. My own teaching experience has taught me that true intellects faced with the same dilemma are more self-consciously conflicted and least prone to easy substitutions. They see the conundrum between defensibility and true originality and are initially at a loss as to how to respond to it honestly and creatively. In some cases the composer's response to this conundrum is heavily scrutinized music, the intense scrutiny gradually evolving into an aesthetic position which both filters the music and constitutes its subsequent intellectual defence. In other cases, the intellectual scrutiny of other people's music, usually established authorities within the academia such as respected twentieth century composers, enables the student composer to threat them as compositional models to be emulated. It is hoped that the academic respectability of the model will act as defence for their own aesthetically or technically derived composition. Unfortunately, in most academic settings this works. I have participated in too many doctoral composition defences where candidates defend their compositional practice relying on the authority of an established twentieth century compositional practice. So long as the model is considered an "original," no one seems interested in questioning the emulation: the model as such constitutes a legitimate defence of a derivative project.

To all my students who approach composition from an overtly intellectual perspective, I habitually encourage more connectedness with the non-intellectual aspects of composition. It is not an easy thing for many of them. I start by searching for an opening, a crack into their heavily shielded defence mechanism which they understand as their "process." One strongly intellectual doctoral-level student had such a hard time transcending the creative limitations of his own intellectual makeup. Try as he did, he always ended up with something that sounded unusually deliberate. A brilliant writer and verbal communicator, he was also a person of deep religious conviction and, at the heart of his intellectual crisis lied his seeming inability to write something uncomplicated—"from the heart." His strongest works were always settings of strong poetry and his ability to decode the subtleties of the poetry transferred to the music the strength and power of the poetic text. By contrast, his instrumental compositions initially suffocated from too much

self-critical filtering. It is a common experience with a lot of student composers that they treat the human voice differently than instruments. Considering his dilemma, I asked him to write pop songs with his own lyrics, knowing that the result would be anything but. It took years before he was able to compose works that were primarily felt, not thought out and, as I had suspected, this accomplishment outweighed in his mind all the intellectual accomplishments of his career up to that point. Now, he not only writes "from the heart" but does so powerfully. Speaking about writing "from the heart," I have been criticized in the past by more systemic composers for using this very expression on an online forum. It was only recently, as I was pondering on the inherent dualism that exists in contemporary art and was beginning to understand it as a symptom of a left/right hemispheric contest in the brain, that I realized that the heart, an organ located decidedly in the left side of our body and therefore under the purview of the right hemisphere of the brain, is an apt metaphor for right hemispheric processing. So, to answer my enlightened colleague, Blaise Pascal was right: "The heart has its reasons of which reason knows nothing."[13]

While never at the expense of musical-spiritual connectedness, I encourage my more intuitive students to develop the kind of critical faculty that enables them to become more self-critical and master the precarious balancing act between connectedness and perspective. This is of course a life-long exercise but, seeing how many mature colleagues are comfortable inhabiting just one of these two states of being, I feel that it is never too early to inspire even an entering undergraduate student to learn how to navigate constantly this metaphorical *Corpus Callosum* and find a creative balance that is sorely missing from most contemporary music. Of course, not every student has the stomach for such an educational adventure. Some are turned off from the outset and choose to study composition with more conventional teachers. I am fortunate to be teaching in a school with a large composition department, and a number of composition faculty with very diverse ideas and interests, where students have a wide variety of choice when it comes to teachers and teaching methods. Some students who chose to study with me attempted to absorb the ideas I laid out in this essay with varying degrees of success. Some felt frustrated with my teaching methods and, at some point and with egos bruised, they decided to either move on with other teachers or finish with me but do their own thing more or less on their own. I respected all their choices of course and kept most of them as students, even when it was clear that all they wanted was confirmation as opposed to instruction.

[13] Pascal, Blaise: Pensées. p. 70 (277). Tredition Classics.

The challenge in these relationships was often my unwavering insistence on treating musical structure as a metaphor and as the maker or breaker of any serious compositional accomplishment. "Structure as metaphor" is something that makes sense to any listener without any prior musical education. It is in fact how musically untrained listeners listen to music. Music is a series of complex patterns of meaning emanating from the composer's mind, encoded into musical notation, translated into sound waves by live performers or electronic media and decoded by the hearing mechanism of the receptors. These patterns only make sense to listeners if they somehow resonate with patterns of meanings already inhabiting their minds. While the patterns that resonate may be the same or similar with those sent, their original meaning (the meaning in the mind of the composer) must be necessarily garbled. The message is encoded in languages the cipher to which the receptor does not possess. In contemporary classical music nowadays most listeners find themselves in a similar predicament and yet, to the extent that they stay engaged at all, they are still able to decode *some* meaning, regardless of whether this meaning is what the composer encoded into the musical message. The listeners' understanding of this meaning is often metaphorical. Since the message without the accompanying cipher is necessarily devoid of specifics, it is the right hemisphere of the brain that is best suited to process it and it does so in a holistic manner. The predominant aspect of language which is processed by the right hemisphere is metaphor and, if the original message is rich in metaphorical content , the right hemisphere of the receptor will be able to make sense of it and be engaged profoundly. Ultimately this is why music composed "with the heart" touches other people and may drive them to strong emotional reactions, even though they may not know why or how.

What is important from the perspective of the listener is not what composers encode into their work but what gets decoded by the listener—right or wrong. One would think that, since they are training to become musical communicators, understanding how listeners hear music would be a priority for young composers. This is not the case, however, for many of them. I am not sure what it is in academic settings that makes this the exception rather than the rule but most students do not feel that the communicational aspect of composition is as important as the independent development of compositional craft. Understanding how musical structure is perceived at the decoding end of the communications wire, as opposed to the encoding end which is loaded with aesthetic theory, speculation and self-centered interest, has been puzzlingly not a huge priority for some of my students and quite a few of the students who were studying under other colleagues. Interestingly, the more these student composers developed a solid technique for controlling foreground musical material (textures, counterpoint,

melodic/harmonic elements, etc.,) the more resentful many of them became to the suggestion that these elements should not be acting as smokescreens for weak structure. Our natural four-minute attention span cannot possibly be extended if the structure of a work cannot push you progressively into deeper continuities of meaning which in turn convincingly negotiate more attention from the listener. Perhaps the cause for such resentment was a premature (and precarious) sense of mastery where structure is relatively invisible to their overconfident self-appraisal. Or perhaps it was the result of natural fatigue from my relentless pushing. Some students may have felt that they reached a natural limit of their ability (even though I don't believe there is such a thing, and they have certainly never admitted to such a thing) and decided that what they had accomplished was enough. Quite a few of these students have moved on to significant careers and have done well for themselves. I look at their accomplishments with pride, of course, but can't shake from my mind the thought of what they could have been, if only they could have stuck with it a bit longer and tried a bit harder. From discussing our students with older colleagues at my and other universities, I realize that these feelings are nearly universal among teachers. It is these experiences which make me sometimes wonder if I too failed Morton Feldman and if what I considered then to be a hostile attitude towards me was his challenging me to strive harder for excellence. Be that as it may, experiences gained from my work with young composers have taught me to be more respectful of other people's limitations, even when self-imposed, and not poison the relationship by applying too much pressure on the students to relentlessly strive for excellence as an abstract or competitive thing. Excellence and perfection is something infinitely more complex than winning competitions while young or rising quickly towards the top of the career pyramid by a combination of talent, social skills and circumstance. Genius is usually nurtured in a lowly and shaded place often for a protracted period of time before the sudden volcanic explosion that we recognize and describe by this term manifests itself.

Using one's heart to constantly read the minutest emotional reaction from the student, however well hidden, is imperative to a relationship whereby you challenge the student to excell while soothing a fragile ego at the same time. This approach will vary in effectiveness from one individual to the next, depending on the capital your students give you to invest back on them and the complexity and uniqueness of each individual relationship, but this kind of empathy is a prerequisite to any invasion of another human being's soul, which is what teaching music composition ultimately is. Anything short of such an invasion is only transmission of information and the latter cannot by itself blossom into true knowledge or creative self-discovery. In the age of the internet and online instruction, there are certainly less expensive

means of delivering information than one-on-one instruction. But nothing less will do for the unsystematic, intuitively driven, custom-made communication that is required for the investigation of the ultimate depth of what it is that makes us human. It is at this ultimate depth that composition resides and from where it can be coaxed out. If you can reach people at such a depth and make a difference in their creative lives, then this reaching out is very similar to the reaching in that an active composer engages with. In this important sense, composing and teaching composition become one and the same. I feel very grateful to have been given the opportunity to do both as a vocation.