why stop at overthrowing the laws of harmony
the official avant garde
missed the boat
it's not in essence about quantities of tones
per octave or second
about control or improv
it's about sound in and as essence

contact microphones

a sound source
not an existing instrument invented newly with only a future

past arrives in time no doubt between rehearsals and the night performers starting nowhere suddenly capture a piece innocent of theory blessed with essence

structures and forms grounded in acoustical discovery music design designing a music not intended
but found even better than objet trouvé and musique concrète because it's found in a brand new place

more than that it works as a regenerator as a music that takes us to a brand new place

all this because mario talked to us in language profane and inspired cut the crap conquer the bullshit rescue the fallen angel felled by love sweet music
music design
all this
and more
the rides in the van
up no park avenue

sound sources aeolian suspended cymbals
and disbelief
the ancient roman himself
secret
love
of chopin
caught fleet-handed
with the keyboard studies of terry riley
playing
the piano

alone in the room
wanting no one

to hear
not the point
virtuosity
about
this time
he left for berlin
what else
to do
start sonde
charles
pierre
andrew
charls who's now dead

and more friends
who gave each
other
room to listen
together

who built
wired
rehearsed
travelled
performed
music design
because
marlo
has never left
the building

Mario Teacher

When Mario Bertoncini came to McGill in 1975 he proposed a course called Musical Design. I signed up because Bengt Hambraeus encouraged me to do so. This was courageous of Bengt, since no one seemed to know much about what Mario planned to do with us. As we got started, I was not even sure Mario knew. There was no apparent educational program, no syllabus or reading list. It seemed that Mario intended to take us on a journey into a process he had been experiencing in his own life. The two pillars of the process were (1) Improvisation on any instruments at hand, and (2) Building some sort of physical sound source to eventually be used in place of the conventional instruments.

There was only one rule of improvisation: continue until Mario could no longer tolerate the result. His declamatory interruptions made it easy to know when the rule was triggered. His style was opinionated and disruptive; his opinions were brilliant and entertaining; his timing seemed designed to put us and keep us off-guard,
dependent on intuition over logic; he seemed to hope to induce in us more a sense of balance than any accessible knowledge. He taught us improvisation the way a kid might teach an irritatingly clueless but nonetheless lovable younger cousin how to ride a two-wheeler bicycle: basically, by pushing us forward and picking us up when we fell. He talked or listened, we played; doing preempted discussing.

The sound source designing and building had, relative to the improvisation teaching, a more discernable objective: make something that could eventually be used to play a piece of music. Without ever taking on the weight of theory, one strong principle emerged: the things we built could not be separated from the pieces we would play with them. As we realized this, I came to see that the words “instrument” and “composition” were insufficient. The process embraced a broader exploration. Broader, and more integrated than expected. The improvisational training, it turned out, was not a separate exercise; nor was it a performance technique, a compositional resource, or a form or style. It was an essential tool in the overall project, essential to realizing the potential of the newly built sound sources. How else to know the unknown than by sailing through it as ideas crash on the rocks? How else to meet new adventures than by building an unknown sea?

So Mario’s plan turned out to be surprisingly simple and ambitious: to teach invention of new musics.

**Music Design**

I have made various attempts at a formal definition of music design over the years. (I used to use “musical design” but now prefer “music design”.) A typical rendition is this one from 1984:

The exploration into the sonic possibilities of various materials in various formats, the design and construction of sound sources based on these findings and suitable for performance, and the re-exploration into the sonic worlds of the sound sources during performance through exquisite improvisation (from seeking, not providing) is a compositional process called musical design.

Here’s something from 1988:

The music designer researches the sonic natures of various materials in various formats, designs and constructs sound sources suitable for performances and/or installation, and develops activity interfaces that allow the energies of the players to inform the sound sources.

Typically, I wrote these definitions to introduce audiences and critics to a way of making music that was little known. (The situation is still true, and regrettable, and not only because of the musical opportunities lost for listeners.) Looking back, I now find them too linear and narrow. They imply that invention of new devices is essential to the process. Indeed that is what audiences often find most memorable. But music is made three ways these days: on paper, in the studio, and through invention and construction. To me there are important concepts within music design that apply to all three, transcending the one that features construction. A new definition of music design should embrace all three.

Music design is a comprehensive activity of individual or collective experimentation, invention, composition, performance, installation and recording that continuously seeks a renewal of the musical creative process. The comprehensive capabilities of the music designer actively examine all
aspects of music making, questioning all forms, theories, and tools, consciously accepting and using, or rejecting and designing around, all musical practices and technologies.

This definition says more about the process and less about the result. It is aesthetically independent. It does not discredit the acceptance and use of existing practices and technologies, so long as they are critically and consciously pre-examined. It encompasses partial processes that do not re-invent the entire sequence of music making — such as the composition of a string quartet, or the building of a sound sculpture, or the recording of a CD by a band of musicians — provided the accepted components are accepted under advisement.

When, by desire, or by critical rejection of an existing component of the music making process, something new is required, active design kicks in. The critical pre-examination of existing tools and practices can be referred to as passive design. Design is always present, like an additional, permanent dimension added to all the other musical dimensions.

Though it may not need saying, music too is always present. This is not a research project. Products and theories are not the goal. Music design is not thinking about music, it is making music.

Then Now Next
Demanding active doubt with respect to accepted norms, music design is an ideal way to counter the ignorance of bandwagons. Back in 1975, at least in Mario’s sparkling eyes, the bandwagon was “the current official Avant-garde”, responsible for countless self-congratulatory rules and imitative gestures that presupposed everything except the existence of beauty beyond its borders. As SONDE was once asked on its sole descent into IRCAM (in 1984), did we really expect Boulez or Stockhausen to write for our sound sources?

Over the years, music design has held up nicely as a buttressing process against a succession of crushing norms. The current boogieman is technology itself.

Marshall McLuhan suggested four decades ago that technology was replacing art as revealer of the human experience. Last year’s top music story is not a tune, it was iTunes. The current authors of the musical hot-topics are not composers; they are entrepreneurs and digital technologists, specialists joined together in enterprises trying to reach consumers. There is really no place for musicians and composers in those enterprises: they are convoluted and indirect, while the strength of an artist is simple and direct. Even so, many composers are drawn to having a prominent place at technology’s party, seeking access to the empowering cachet of technical complexity, devoting time and ambition to riding the bandwagon. Career opportunities aside, it’s a bad idea. Technology, even only music technology, is too big to comprehend individually. Technology is not so much an activity you can do as a field that surrounds you; not who you are, just where you are.

Music design offers the best process for compositional/technological synergy. The balance is correct, the path always individually accessible, the objective always within individual reach. No matter what specific technologies are employed or devised, or what aesthetic temperament prevails, music design insists first and foremost that performance, creation and invention play
together without interruption or master. Music design is how to engage technology without loss of music.

As to the future, as John Cage aptly stated, "we won't know till we get there". But given all the walls that have fallen in the past quarter century, all the styles, theories and means that no longer seem in opposition to one another, when even technology — perhaps the final obstacle — turns out to be as thin as rice paper, useable but not obstructing, we find ourselves once again in a brand new place. I see it as a very open, unthreatening and boundless space — like outer space, but not so cold, and with air for sound and breathing. What processes will emerge that assist musicians in the making of music in such an unfettered space? Well, think about what’s needed: the ability to use what works, ferret out what restricts, invent what’s missing, construct the new, reach for the reachable, enjoy each other, and play. Music design. ♫

ENDNOTES

1. The poem that accompanies this article pays homage to two of my key mentors: Mario Bertoncini and John Cage. Its content is thanks to one, its form, thanks to the other.

A mesostic is a poetic form devised by John Cage. It consists of a string of letters aligned vertically down the center of the page, and words around these letters that read normally across the page. The string down the middle is called the meso string. Meso string letters are called meso letters. Meso letters are always capitalized. The word across the page in which a meso letter appears is called a meso word. Additional words to the left or right of a meso word are called wing words.

The meso string spells out a word or phrase in its own right. This is often a person's name because Cage started writing mesostics as a response to requests that he write something about someone he knew, often to mark a birthday or other important date. However any phrase will do and Cage often wrote extended dissertations on subjects important to him using the mesostic form, with meso strings that encapsulate ideas or consist of keywords related to the subject.

An important and sometimes overlooked aspect of mesostics is that there are rules restricting the use of meso letters. The 50% rule states that a meso letter must not appear between itself and the previous meso letter. So, for example, if the meso string is “MARIO”, then between the M and the A there must not be any a’s, and between the A and the R there must not be any r’s, and so on.

The 100% rule states that a meso letter must not appear between the previous meso letter and the next meso letter, other than its own occurrence. Based on “MARIO”, the letter a must not appear anywhere between the M and the R, except the one time the meso letter A appears itself. Proofreading a long or even a short mesostic can prove fiendishly error-prone, which is why I wrote meso-proofing software at Cage's request. Anyone can write a mesostic: just decide on a meso string, and choose the 50% or 100% rule. And watch out for mistakes!

2. Dissatisfied with watered down uses of the word "improvisation", often meaning no more than extemporization on a rigid rhythmic, melodic and harmonic framework, I came up with the phrase “exquisite improvisation” to describe what we were engaged in. Etymologically, improvisation attaches a negative prefix to “provision”, and exquisite implies a result caused by seeking. From seeking not providing. Exquisite improvisation downplays conventions and emphasizes exploration.

3. Mario Bertoncini, from a letter to the MuD Group. (See the complete letter reproduced, in the article by Charles de Mestral, p. 93).