

The Music of the Spheres*

by Robert R. Reilly

I took my family to the National Gallery of Art a couple of weeks ago. Having received a somewhat late vocation to the marital state – my children are 5, 3, and 1 – we were going through the galleries and seeing some of the magnificent things created over the past 1600 or so years.

We finally found our way into the new wing of the National Gallery, downstairs where there is 20th century American art. We were immediately surprised by the scene of an accident, because what we saw had obviously no correlation. There was no sense of continuity with what we had just spent hours viewing and with what, all of a sudden, we had just confronted.

At the end of one particularly large room, the entire wall was dominated by a giant canvas – I can't say it was an abstraction, because you'd have to say what it was an *abstraction of* – but it looked like some kind of volcanic fissure with shades of gray and rubble, and it was called "Study Number 32."

My three-year-old daughter, who was holding my hand at the time, looked at it and said, "Daddy, is it a monster?" And I thought for a second, and said, "Yes, Katherine, it is a monster."

The Monster in Music

Ladies and gentlemen, I am here this evening to talk about the "mon-

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ster” – not in the visual arts, but in music. I’m going to talk about how this musical Frankenstein was created, and why, and against what background, and how this monster has finally been brought to bay.

During dinner I was having a delightful conversation with one of your tutors, Dr. Molly Gustin. She reminded me that some of the problems I diagnose began actually a lot earlier than I was saying. She noted that famous event, the French Revolution, and how long it took to work its way through the arts and unravel them.

So in deference to her, I thought I would begin by quoting from a French anti-Wagnerite by the curious name of Gasperini, who in 1865 predicted the following future:

The music would resemble that of a crazed sculptor, who would do exactly the opposite of what had been done before him; in place of a mouth parallel to the chin, he would chisel a perpendicular mouth. In the place of the nose, he would put a cheek, and in the place of the generally-accepted two eyes, a single eye in the middle of the forehead.

But enough about Picasso. It just shows you that there were antennae up that could forecast the coming crisis in western classical music, which reached its culmination in the early 1920s, when music’s Dr. Jack Kevorkian, Arnold Schoenberg, attempted an assisted suicide. Why did he do that? He did it because according to his diagnosis, the tonal resources of western music had been exhausted. There was nothing more that could possibly be said through the means of tonality that had not already been said.

Arnold Schoenberg, Music’s Jack Kevorkian

It’s interesting that this was a material diagnosis. It was as if you were in the energy business and you said, “The anthracite vein is run out, there’s no more coal; we have got to get some atomic power; we have to change it.” So tonality is exhausted to that extent. We have to find a new language.

In fact, in speaking of language, it’s like saying language is exhausted – all these words have been used before. See if you can juxtapose two words together that haven’t been juxtaposed before. It’s pretty hard to do. So, we must come up with some kind of Esperanto that replaces language.

Schoenberg thus proposed a material diagnosis. He came up with a

material solution to what he saw a material problem. And that was something that I will discuss with you in greater detail later, called the “twelve-tone system”, “serial music,” or “dodecaphony.”

To construct this system he had to take music outside of the realm of nature into an abstract ideological system. Not surprisingly, his system of mandatory atonality broke down and did so, coincidentally, around the same time that we saw ideologies of a political character coming down, as when walls were breached in East Berlin and the Soviet Union came crumbling down. In each case, whether the ideology is expressed in an artistic or political way, eventually, reality breaks through.

Now Schoenberg’s attempted solution was to replace consonance with dissonance and to say that dissonance was the new norm. How could he do that? He could do it only by saying that consonance and harmony do not exist in nature, but are a human convention to which you have been habituated and conditioned from centuries of listening to tonal compositions. His solution was to construct a musical system that avoided any harmonic combinations and provided unrelieved dissonance.

Dissonance, you see, was always in the language of music. Hayden, in his great oratorio, *The Creation*, used dissonance to portray chaos before the *Fiat lux*. One of the most powerful scenes in music is in his *Overture to the Creation*, when he portrays chaos through use of dissonance. Dissonance was popularly used before that in Baroque music to portray battle scenes and other scenes of chaos and mayhem. It was an expressive medium and could only be understood in terms of its relationship, of course, with consonance. It would never have occurred to anyone before Schoenberg to propose a system of unrelieved dissonance.

Pythagoras’ discovery: Music has a *Ratio*

Before I address why he undertook this somewhat quixotic enterprise of foisting upon us the attempted suicide of western music, we have to go back and see music’s roots in nature as it was first developed and introduced, as far as we know, according to legend, by Pythagoras.

We know Pythagoras made a discovery using something called a monocord. He had one stretched cord, which he plucked. He then halved the length of that cord, and he plucked it again. And what did he

discover? That the tone made by the cord that was a full length, when combined with the tone made by the cord that was half the length, made an extremely pleasing sound. In a ratio of two to one, in whole numbers, Pythagoras had discovered the octave.

Pythagoras continued his experiments and discovered that if you had a cord one-and-one-half times the length of the initial cord, and you plucked it, you came on the “perfect fifth,” in a ratio again of whole numbers of three to two. If you had a cord one-and-one-third the length of the first cord, you created the perfect fourth, in the ratio of four to three.

What fascinated Pythagoras about this discovery was that it made something in external reality and nature comprehensible to him through numerical ratios. Why was that so important? Ratio is, of course, a Latin word, *ratio*, and it means “reason.” And the Greek word for *ratio* is familiar to you as well: *logos*. The ability to comprehend this natural phenomena through number opened up the external world to the power of one’s reason.

Not only did this occur in the realm of music, but Pythagoras and the Pythagoreans saw that the harmony they could now understand through these ratios was simply one expression of a larger harmony which took its higher form in something they called the “music of the spheres” – that the planets and the sun whirled around according to mathematical ratios that were in themselves musical. Of course, Pythagoras meant this in a completely literal way – that you could hear it, that there was a music of the spheres as the planets moved in their orbits. Indeed, the Pythagoreans, and other people well through the Middle Ages, assigned a note value to each of the planets to try to explain this theory of the music of the spheres.

This also had tremendous ethical import as we know from Plato and Aristotle. Because, not only was there the music of the spheres, and not only was there instrumental and vocal music, but there was a harmony related to the human person in terms of soul and body. In the *Republic*, Plato taught that rhythm and harmony find their way into the inward places of the soul on which they mightily fasten imparting grace and make the soul of him who is rightly-educated, graceful.

We know that Socrates’ musical authority was Damon of Athens, whom he quotes approvingly in the *Republic* when he says, “I would rather

control the modes of music in a city than its laws, because the modes of music will have a more decisive impact on the formation of the character of the citizens than will the laws themselves, so powerful is music.” So powerful as formative, but also, of course, as deformative.

Harmonious music induces harmony in the soul, which is coincident with the harmony in the music you hear, which is a lower expression of the higher harmony, which is that heavenly harmony in the music of the spheres. Discordant music will simply dislocate the soul and disconnect it from that harmony. So they were aware of the benefits of harmonious music and the ill effects of music that was disharmonious.

Music of the Spheres throughout Western Civilization

Now this idea of the music of the spheres ran through Western culture and civilization with a consistency that is really quite astonishing. And I’m going to give you some examples to convince you of that.

One is from Cicero in the first century, in *De Republica*. In the last chapter of *De Republica*, called “Scipio’s Dream,” Cicero has Scipio Africanus asking this question, “What is the great and pleasing sound that I hear?” And the answer comes, “That is the concord of tones, separated by unequal but nevertheless carefully proportional intervals caused by the rapid motions of the spheres themselves; the high and low tones blended together provide different harmonies.” Cicero goes into a very detailed explanation of the notes that various planets have and how they harmonize.

Here is the key: Cicero says skilled men imitating this harmony on string instruments and in singing have gained for themselves a return to this region, as have those who have cultivated their exceptional abilities to search for divine truths. Music is a means to transport you to this divine region. It is a way that is equivalent, as he says, to the knowledge of those, who through their exceptional abilities cultivated divine truths.

In the late second century, Clement of Alexandria baptized this whole notion of the music of the spheres as Christians had so cleverly appropriated so much of Greek thought at the time. Using Old Testament imagery from the Psalms, he said there is a new song, far superior to the Orphic myths of the pagans, and the new song is Christ, *Logos Himself*.

It is this new song that composed the entire creation into melodious order and tuned into concert the discord of elements that the whole universe may be in harmony with it. It is Christ as *Logos* who arranged in harmonious order this great world, and yes, the little world of man, body and soul together, and on this many-voiced instrument, he makes music to God and sings to accompaniment of the human instrument.

So we see here Clement appropriating the Greek idea of the music of the spheres, but changing the idea of the ultimate source of this *ratio* to *logos* as Christ, Himself. He was saying that the object of music was no longer so much the harmony of the spheres as it was understood by the pagans who of course had no view of transcendence, of something above the heavens that they themselves could observe, but that music is something higher now. Why? Because Christ is higher. And the purpose of music is to make now the transcendent perceptible.

In the early sixth century, two distinguished proponents of this view were Romans in service of the Ostrogoth King Theodoric. One was Cassiodorus, who wrote a monumental work called *De Institutiones*. In it he said, “Music indeed is the knowledge of apt modulation. If we live virtuously, we are constantly proved to be under its discipline. But when we sin, we are without music.”

The most famous musical theorist of the 6th century, also working for Theodoric, was of course, Boethius. He wrote a famous book called *The Principles of Music*. In it he said:

Music is related not only to speculation but to morality as well, for nothing is more consistent with human nature than to be soothed by sweet modes and disturbed by their opposites.

Thus we can begin to understand the apt doctrine of Plato, which holds that the whole of the universe is united by a musical concord. For when we compare that which is coherently and harmoniously joined together with our own being with that which is coherently and harmoniously joined together in sound, that is, that which gives us pleasure, so we come to recognize that we ourselves are united according to the same principle of similarity.

I’m not going to give you any further examples because *The Principles of Music* was so influential that it held sway as standard music theory text at Oxford until 1856. Isn’t that a textbook publisher’s dream!

But something did happen at the time of Schoenberg. At the same time it happened, I hasten to add, there were those who kept the essence of what was meant by music, that music’s mission is to make the

transcendent perceptible. For example, Ferruccio Busoni, in the early 20th century, said: “Our tonal system is nothing more than a set of signs, an ingenious device to grasp somewhat of the eternal harmony.”

More prominently, Jean Sibelius, one of the great composers of the 20th century, and who was anything but an Orthodox Christian, nonetheless echoed Clement of Alexandria, when he said: “The essence of man’s being is his striving after God. It, the composition of music, is brought to life by means of the *logos*, the divine in art. That is the only thing that has significance.”

Sibelius wrote his fifth symphony, which is one of the great works of the last century, and he said it was as if a piece of floor had fallen out of heaven and lay broken on the ground and God had asked him to reassemble it to its original appearance. You can’t find an image that’s more Platonic than that used in the 20th century.

One final example: Stravinsky proclaimed, “the profound meaning of music and its essential aim is to promote a communion – a union of man with his fellow man and with the Supreme Being.”

20th Century Music: Tonality and God are Dead

A very popular California composer, probably the most performed American composer today, lives here in California; his name is John Adams. John Adams said that he learned in college that “tonality died somewhere around the time that Nietzsche’s god died. And I believed it.” And the connection is compelling, isn’t it? The same time at which God disappears, so does intelligible order in creation. The disappearance of God is not simply a problem for moral philosophy, it is an enormous problem for the arts. Tonality is the pre-existing principle of order in nature in the world of sound and music. When you lose the *logos* of Clement of Alexandria, you also lose the *logos* of Pythagoras. The connection is very direct.

It was in this context that Schoenberg was able to purport that tonality was not a natural acoustical phenomenon, but a matter of human convention. Now, had there been some new scientific discovery that showed that Pythagoras was wrong? No. There had in fact been studies of frequencies that confirmed a great deal of what Pythagoras had said existed as physical principles in the world. It was not a new discovery in science that led Schoenberg to deny the existence of tonality. It was

a decision.

What did he base his decision upon? Schoenberg once said: “Tonality does not serve; it must be served.” That is what irked him about it. He must place himself at the service of tonality in order to utilize it, rather than having tonality be at his service as its creator. This is a fundamental moral question for anyone who confronts reality. Are you going to conform your own will to reality, or are you going to conform reality to your will?

That’s the essence of every moral choice we make, and I would suggest to you it is the essence of every artistic choice that is made, and was made, in this instance. The essential character of modernity and modern ideology is to accept as real only those things which you can change. Why? Because then you can place all things in subjection to yourself. As they were once thought to be in subjection to God, you can now start all over again, *de novo*, if you are willing to deny those parts of reality which cannot be changed, in this case, tonality. All of which meant that melody, harmony, and actually rhythm, are gone.

And in its place was this Rube Goldberg creation of Schoenberg’s, in which he said you must take the twelve semitones on the chromatic scale and then order them in such a way that you must use all twelve before you repeated any one of the twelve, because, if you did repeat any one of the twelve, you might create a tonal association with a preceding note, and that would create a harmonic anchor for you to follow what the hell was happening in the music.

Atonality: The Past has no Meaning

Pierre Boulez was a premier disciple of Arnold Schoenberg, and he is still with us. He made a penetrating remark about why one would embark on a case like this: “Once the past has been got rid of, one need only think of one’s self.” How is that pertinent? Because the tone row that Schoenberg set down in the new Moses of music. Schoenberg wasn’t going to subject himself to tonality. He delivered the *non-serviam* of the world of music. He said, “I can create rules for anything.” And he did.

The problem is that by banishing all audible overtones, you cannot remember the tone row series. People have done blind listening tests with professionals and played a twelve-tone row, and said, “What is it?”

Can you write down the tone row?” And they can’t; they can’t remember it. (Now, I’m not saying it’s impossible; if someone had the gift of perfect pitch, they could do it.) So along with this replacement of tonality goes a massive denial of memory. Now I’m going to give you three quick examples of that.

One of the composers of the 20th century died in a horrible car accident about seven years ago; he was a dear friend, Steve Albert. He had just premiered a magnificent cello concerto with Yo-Yo Ma and the Baltimore Symphony Orchestra. When I first talked with him, he talked about his education, and he said:

Starting back in the early 60s, I felt I was fleeing from a cultural funeral. People didn’t see the caskets yet, but I saw them. The only honest thing was not to be part of it, to resist it. Once you bought the cultural Bolshevism of the time, you were down the mindless trail of the avant-garde. Twenty-five years down the line I suspect that one will look back with mystification as to how people took the 50s to the 70s seriously except as some kind of sociological aberration.

He said that what offended him most particularly was the implied premise of twelve-tone music. “The past has no meaning. What was going on was a massive denial of memory. No one can remember a twelve-tone row; the very method obliterates memory’s function in art.”

Nicholas Maw, a famous 20th century composer – he’s still alive; he lives in Virginia; he’s an English composer – says, “The problem for me was that serialism rejected whole areas of musical experience. I later realized the difficulty was that it’s an invented language that deals only with the moment as it passes. There is neither long-term nor short-term memory. You could even say that the memory is suppressed.”

George Rockberg is a pretty famous American composer. He’s in his eighties now. He was the premier serial composer, the preeminent disciple of Schoenberg in the United States, through the 1960s. I’ll tell you in a moment why he changed. But he did experiments in teaching his students. He’d say, “Ok, gang! Hum me the opening bars from Schoenberg’s fourth string quartet. Give me the row. Who can do it?” And I quote him from a recent conversation I had at his home:

The poor kids couldn’t remember Schoenberg’s tone row. Serialism is the denial of memory. You can’t internalize it, you can’t vocalize it, it can’t live in you. Real music remains what it has always been, a sign that man is capable of transcending the limits and constraints of his material existence. Now the tone row can be taken through

every manipulation that a conventional theme can, in retrograde, inverse retrograde; every kind of musical manipulation that was known from classical music, from the 19th century or before, can be done to a tone row. But it's meaningless, because you can't follow the row. It doesn't function as a melody.

The consequence is that all twelve-tone music sounds like all other twelve-tone music, because it is just undifferentiated dissonance. Because it does not allow consonance, it is the language of permanent irresolution, and therefore produces angst. When people talk about "the agony of modern music," this is what they're talking about.

The Return to Tonality

Now John Adams, who made that remark about tonality having died around the same time Nietzsche's God died, said, "I believed it." And he, like almost every composer living today, became indoctrinated in serialism, accepted it, attempted to practice it, and – the good news is, almost like every composer living today – he abandoned it, and returned to tonality. Why did he do it? Well, all Adams is willing to say is that it takes a very powerful experience to undo that.

But we do know from other composers what experience changed them. In the case of Ellen Zwilich, one of the most famous composers in New York, it was the death of her husband. In the case of George Rockberg, it was his son's death from brain cancer. When Rockberg's twenty-year-old son died, he said, "I could not continue writing so-called "serial music;" it was finished – hollow, meaningless. It made it virtually impossible to express serenity, tranquility, wit, energy."

Rockberg went on to compose a series of string quartets, and he published a manifesto with his third string quartet in which he returned to tonality. It created a scandal. He was denounced; he was vilified. He was called a ventriloquist, a fraud, a traitor, a turncoat, because he had been the most prestigious practitioner of serialism. So in defence of himself he said the following, and forgive me for an extensive quotation, but I think it's very moving:

The pursuit of art is much more than achieving technical mastery of means or even a personal style. It is a spiritual journey towards the transcendence of art and of the artist's ego.

In my time of turning, I have had to abandon the notion of originality, in which the personal style of the artist and his ego are the supreme values – the pursuit of the one

idea, uni-dimensional work in gesture which seems to have dominated the aesthetics of art in the 20th century, and the received idea that it is necessary to divorce one's self from the past.

And in these ways I am turning away from what I consider the cultural pathology of my own time, toward what can only be called a possibility: that music can be renewed by regaining contact with the tradition and means of the past, to reemerge as spiritual force with reactivated powers of melodic thought, rhythmic pulse, and large scale structure. And as I see it, these things are only possible with tonality.

Steve Albert, of whom I have already spoken, was a student of George Rockford's, and as he said, "Tonality was the only thing that could create a sense of moving from points of artificially-induced conflict to a sense of settling, of moving to an epiphany, tension and resolution." Of his works, Steve Albert said, "It is a matter of trying to find beauty in art again, for art is about our desire for spiritual connection."

The devastation that Schoenberg visited upon the musical world would be hard for those of you who have not studied it to grasp. It ruined careers. Composers stopped composing. They couldn't get commissions. They weren't given faculty positions. Their works weren't performed, unless they adhered to the serial avant-garde. Steve Albert, Rockford, all these were educated in the system, and they overthrew it.

One of the most famous moments in the rejection of the twelve-tone serial system came from John Adams, who, as I said didn't explain what powerful experience in his life turned him against it, but it was manifest in a symphony he wrote, called *Harmonielehre*, theory of harmony. It's an ironic title to a completely tonal symphony because *Harmonielehre* was the title of Arnold Schoenberg's book that he wrote in which he propounded the twelve-tone system.

Adams took this opportunity, rhetorically, I think, to denounce Schoenberg and to restore the world of tonality. He said that this work, *Harmonielehre*, powerfully reconnects with the great Western tradition. Adams, like Pythagoras, said that "he found that tonality was not just a stylistic phenomenon that came and went, but that it is really a natural, acoustic phenomenon." In *Harmonielehre*, he said, "there is a sense of using key as a structural and psychological tool in building my work." "Even more importantly," he explained, "the other shade of meaning in the title has to do with harmony in the larger sense, in the sense of spiritual and psychological harmony."

Adams' description of the symphony is explicitly in the terms of spiritual health and sickness. He explains that "the entire second movement is a musical scenario about impotence and spiritual sickness. It has to do with an existence without grace. And then in the third movement, grace appears, for no reason at all. That's the way grace is, the unmerited bestowal of blessing on man. The whole piece is a kind of allegory about that quest for grace."

Music's Spiritual Recovery

Arnold Schoenberg was wrong in both his diagnosis and his cure. The tonal resources of Western music were not exhausted; western Europe was spiritually exhausted. Serialism is a symptom of a spiritual collapse and crisis, just as much as I would suggest to you that the return to tonality is part of a spiritual recovery from that crisis.

One of the composers in the Baltic, a pretty popular composer, Peteris Vasks, son of a Baptist minister who was living under Soviet tyranny and wasn't allowed education in Soviet schools, nonetheless in 1979 wrote a piece called *Cantabile*. Why? He says it was to tell in eight minutes how beautiful and harmonious the world is. Would you have been able to do that in Latvia under Soviet oppression in 1979? Would you write a piece about how beautiful the world is?

Vasks talks about the choice he made: "Is there any point in composing a piece that only mirrors our being one step away from extinction? To my mind, every honest composer searched for a way out of the crisis toward affirmation and faith." Well, ladies and gentlemen, beauty is the language of faith, and that is why beauty has been restored to the works of composers such as these, and why they echo Dostoevsky's famous remark that beauty will save the world.

There are other composers that I could talk about: Henryk Gorecki, his *Third Symphony of Sorrowful Songs* from Poland, Arvo Part from Estonia, John Tavener in England. I could tell you about many more American composers writing today, but I'm going to close just with remarks from one of them, John Tavener, who, again, raised completely in the serial system, wrote serial music, and then converted, curiously enough, to the Orthodox Russian Church:

In everything I do, I aspire to the sacred. Music is a form of prayer, a mystery. I wish to express the importance of the immaterial realism of transcendent beauty.

My goal is to recover one simple memory from which all art derives. The constant memory of the paradise from which we have fallen leads to the paradise which was promised to the repentant thief. The gentleness of our sleepy recollections promised something else.

That which was once perceived as in a glass darkly, we shall see face-to-face, and we shall hear it as well.