

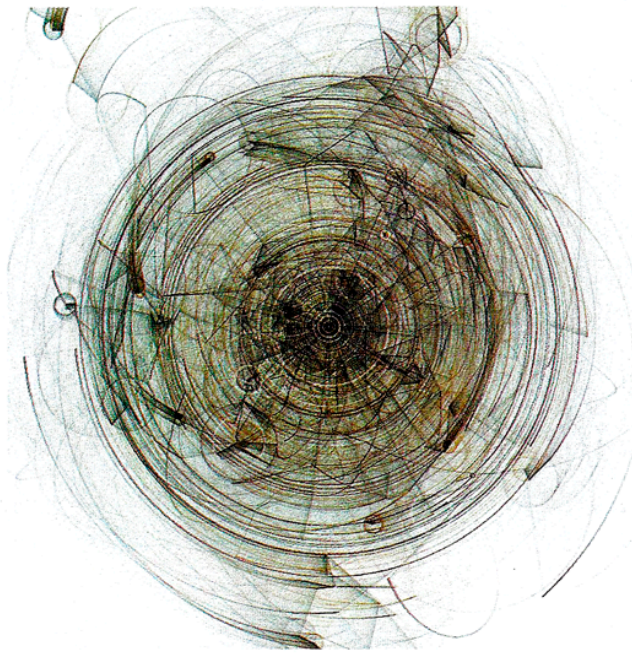
The American Organist

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MUSIC OF THE SPHERES

The Rev. Dr. Randall Bush



The following sermon was preached at a Pittsburgh AGO Chapter Service of Installation on September 26, 2011, at East Liberty Presbyterian Church in Pittsburgh, Pa.

THIS is not a sermon you'll hear on Sunday mornings. More's the pity. Sermons too often are "feel good" presentations—times to reflect on God, Jesus, life, and love by offering a tidy message that is sonorous and soothing, but rarely much more than that. *Chicken Soup for the Soul*—the Sunday edition. Tonight's sermon is about the creation story in Genesis. With apologies to J.S. Bach, I would like us to consider the Genesis Creation story as a type of musical offering, a description of how the music of the spheres got placed in the spheres in the first place. Let us begin.

"In the beginning when God created the heavens and the earth, the earth was a formless void and darkness covered the face of the deep, while a wind from God swept over the face of the waters. Then God said, 'Let there be light' and there was light. And there was evening and there was morning, the first day."

There is something unusual right from the beginning of this story. On the first day, God creates light—calling it day—and separates it from darkness—calling that night. But it's not until the fourth day that God creates the sun, moon, and stars, the actual lights that distinguish day and night. Something else, something deeper, is being described here.

For God to create, there has to be a place in which creation can take place—a space into which creation can be placed. A writer needs a blank sheet of paper; a composer a clean sheet of staff paper. God, the all-in-all, pulled back from God's fullness of being to allow

something else to be. God stepped back, as it were, and made a space in which creation could occur. So, although all around is darkness, chaos, and disorder, on the first day God established a place of light, order, and possibility. And it was good.

"And God said, 'Let there be a dome in the midst of the waters, and let it separate the waters from the waters.' God called the dome Sky. And there was evening and there was morning, the second day." On the first day, God created a space for creation, a place for order, not chaos; light, not darkness. But an infinite God far exceeds finite creation, so limits needed to be established for this place of creation. Boundaries—like the edge of the artist's canvas or the *Fine* sign at the end of the musical staff. We musicians exist between domes above and domes below—in the in-between range of tonalities and sound, scales, modes, and harmonic vibrations that turn into wonderful intervals of pleasing resonances. We may be limited to this in-between life zone, but it is still capable of an infinite amount of creative responses and aesthetic expressions.

Next: "And God said, 'Let the waters under the sky be gathered together into one place, and let the dry land appear.' And then God said, 'Let the earth put forth vegetation: plants yielding seed, and fruit trees of every kind.' And God saw that it was good. And there was evening and there was morning, the third day." Now at last we are given something tangible in this newly created order. It is described as dry land and as vegetation—rich, varied, prolific plants of all types. Bearing fruit, no less. I picture this as the creation of real possibilities. For the music of the spheres, this is the day that instruments emerged and were scattered across the land. Brass, winds, percussion; timbrels, harps, drums, cymbals, pianos, maybe an organ or two. Created were things capable of producing music that fit within this sacred range given to us. But still it was all just raw potentiality, not yet ready to be used *Soli Deo Gloria*. More was still to come.

"And God said, 'Let there be lights in the dome of the sky to separate the day from the night; and let them be for signs and for seasons and for days and years; to rule over the day and over the night, and to separate the light from the darkness.' And God saw that it was good. And there was evening and there was morning, the fourth day." Now, at long last, the sun, moon, and stars have been created. What is special about them is that, in truth, they are always together in the sky, just not always visible. And it is hard to think of one without the other; we understand the moon at night only out of comparison with the sun by day.

In a similar way, music is dependent on the interplay between consonance and dissonance as the sun and moon counterbalance one another in the sky. We understand the clash of a minor second, the tension in a tritone, the painful need to resolve a major seventh out of our awareness of what a unison, a perfect fifth,

or an octave sounds like to us. Some have wondered why God didn't simply make a perfect world without evil, without pain, without any shadows or darkness at all. But we forget that light is known out of its contrast to darkness; health and joy are grasped more fully because of their difference from sickness and sadness. Music needs dissonance to be music. It needs incompleteness and tension in order to move into resolution and beauty. Consider an appoggiatura in Bach or the climax to the Liebestod in *Tristan and Isolde*. Only after the space is created, the boundaries established, the tonalities and potentialities laid out before us can at last the sun and moon and stars be placed in the heavens—and the eternal ebb and flow of dissonance and resolution become part of our created order.

Two more days of creation remain. Next came the living creatures of the air and the water. "And God said, 'Let the waters bring forth swarms of living creatures, and let birds fly above the earth across the dome of the sky. Let the earth bring forth living creatures of every kind: cattle and creeping things and wild animals of the earth of every kind.' And it was so and God saw that it was good." If the vegetation of the earth represented the potential for making music of all types, then the wildlife of the earth represents the forms by which music is expressed. Not random notes scattered over a page like a Jackson Pollack painting or a John Cage "chance" composition. The next day of creation saw the notes come together into forms—the plainsong chant, the polyphony and regimentation of a fugue, the vertical harmonies of a chorale, the comfort in the ABA form or the whimsy of a good theme and variations. Somewhere deep in the musical forms we take for granted are God's fingerprints—the internal clock for all of creation that beats in us and causes us to gravitate to even-numbered measures and phrases, to sense intuitively when a melody is precisely the right length. Some go farther and tell us about Pythagoras and mathematical perfection in certain intervals, or about the Fibonacci series and the Golden Mean with their links to the best in Mozart's compositions. In the end, we humbly acknowledge

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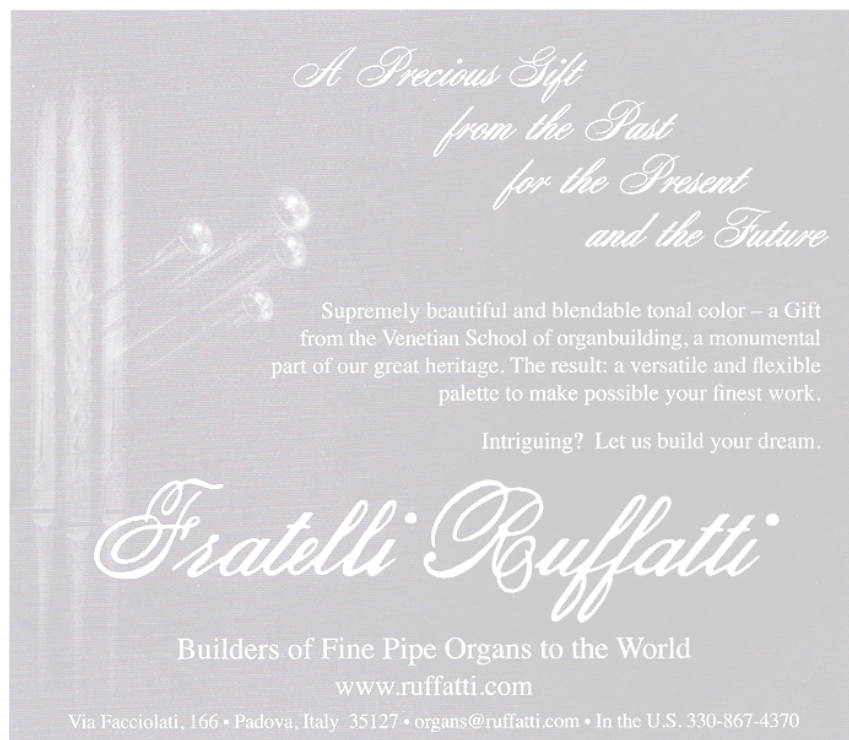
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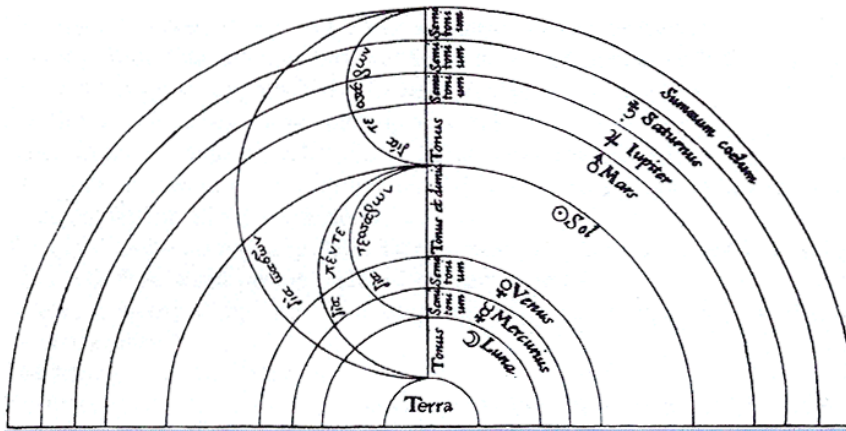
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that there is something in the form of music that creates music, and that something can be traced back to the larger form of life itself—and therefore life's Creator as well.

At last there came the time when we entered the world's stage. "Then God said, 'Let us make humankind in our image, according to our like-

ness.'" The Bible speaks of male and female creatures. But from a musical perspective, something more was created on that sixth day. As God is best known as a Trinity—Father, Son, Spirit—Homo Sapiens Musicalis is best known in three roles: the composer, the performer, and the listener. The creator, the



The Intervals and Harmonies of the Spheres

In the Pythagorean concept of the music of the spheres, the interval between the earth and the sphere of the fixed stars was considered to be a diapason—the most perfect harmonic interval. The following arrangement is most generally accepted for the musical intervals of the planets between the earth and the sphere of the fixed stars: From the sphere of the earth to the sphere of the moon, one tone; from the sphere of the moon to that of Mercury, one-half tone; from Mercury to Venus, one-half tone; from Venus to the sun, one and one-half tones; from the sun to Mars, one tone; from Mars to Jupiter, one-half tone; from Jupiter to Saturn, one-half tone; from Saturn to the fixed stars, one-half tone. The sum of these intervals equals the six whole tones of the octave.

From Thomas Stanley's *The History of Philosophy*

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omnia (infinita in potentia) permeantem actu: id quod aliter à me non potuit exprimi, quam per continuam seriem Notarum intermedia- CAP. VI

rum. Venus ferè manet in unifono non æquans tensionis amplitudine vel minimum ex concinnis intervallis.

Kepler's modal natures of planetary orbit

Johannes Kepler (1571–1630) published his work *Harmonices Mundi* in 1619. This work, in which he attempted to explain the harmony of the world, was a series of five books and contained what is known today as his third law. The work was founded on geometry, from which Kepler derived first a theory of musical harmony and then a cosmology of the heavens and the earth.

Kepler was attempting to find common rules between music and movement in the solar system. His music of the spheres is based on the relative maximum and minimum angular velocities of the planet measured from the sun. Using his theories, Kepler allotted to the planets musical intervals and musical motion.

He describes these ideas as his attempt "to erect the magnificent edifice of the harmonic system of the musical scale . . . as God, the Creator Himself, has expressed it in harmonizing the heavenly motions."

incarnator, and the recipient of what has been created and made flesh. All are necessary, just as all are intertwined. Music reminds us that no one made by God is ever meant to be alone. The composer needs a performer—and both need an audience, a listener. The culmination of creation came at this point—not because we are the pinnacle of all God's works, but because finally, the Holy One who carved out a space for order, beauty, and life now had people in God's own image who could participate in that very God-designed order, beauty and life. And it was so, and indeed it was very good.

The Bible story concludes this way: "Thus the heavens and the earth were finished, and all their multitude. And on the seventh day, God finished the work God had done and rested from all the work God had done in creation." We often think of this Sabbath as a negative thing—the absence of things—that that is what "rest" is about. But really the seventh day was the last day of creation because God, just as was done on the first day, again created space for something creative to happen. In this case, God created space in which we did not have to work, did not have to do things or make things. Rather God created a space for silence—active silence, like that moment when the final chord has been struck and the vibrations have finally evaporated, but still we hold our breath and rest in that living moment and feel ourselves as fully alive. And God-blessed. And knowing that it is good.

All music, all that you work to compose, to produce and perform, all that you listen to and enjoy, emerges out of the space from God's first day of creation, using all the wonder and creativity and power of the rest of creation, until at last it finds that place of rest, of vibrant aliveness, from the seventh day. And that's part of God's gift to us, a special gift for musicians and music lovers alike—and a gift that you weekly share through your leadership in worship. You may not have heard this preached to you before. More's the pity. Amen.

The Rev. Dr. **Randall Bush** is pastor of East Liberty Presbyterian Church in Pittsburgh, Pa.