

The Pale Blue Dot

The *Pale Blue Dot* is a photograph of the earth taken from about 6 billion kilometers on February 14th, 1990 by the Voyager 1 space probe. After Voyager 1 had completed its primary mission (leaving our solar system), NASA ordered – at the request of the late astronomer Carl Sagan – that its cameras be turned around to face the earth. Sagan, one of the most influential scientists of the 21st century, wrote a book in 1994 entitled “*Pale Blue Dot: A Vision of the Human Future in Space*.” In this book, he expresses the deeper meaning of this image, which appears as merely a pixel blanketed by an incomprehensible amount of space.

The first time I heard the “Pale Blue Dot” was on the television series hosted by Neil deGrasse Tyson, “Cosmos: A Spacetime Odyssey.” I was deeply moved by the power of Carl Sagan’s words, and felt compelled to set his words to music. Below is the excerpt from Sagan’s book:

“From this distant vantage point, the Earth might not seem of any particular interest. But for us, it's different. Consider again that dot. That's here. That's home. That's us. On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. The aggregate of our joy and suffering, thousands of confident religions, ideologies, and economic doctrines, every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant, every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every "superstar," every "supreme leader," every saint and sinner in the history of our species lived there – on a mote of dust suspended in a sunbeam.

The Earth is a very small stage in a vast cosmic arena. Think of the rivers of blood spilled by all those generals and emperors so that in glory and triumph they could become the momentary masters of a fraction of a dot. Think of the endless cruelties visited by the inhabitants of one corner of this pixel on the scarcely distinguishable inhabitants of some other corner. How frequent their misunderstandings, how eager they are to kill one another, how fervent their hatreds. Our posturings, our imagined self-importance, the delusion that we have some privileged position in the universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity – in all this vastness – there is no hint that help will come from elsewhere to save us from ourselves.

The Earth is the only world known, so far, to harbor life. There is nowhere else, at least in the near future, to which our species could migrate. Visit, yes. Settle, not yet. Like it or not, for the moment, the Earth is where we make our stand. It has been said that astronomy is a humbling and character-building experience. There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another and to preserve and cherish the pale blue dot, the only home we've ever known.”

The text for “*The Pale Blue Dot*” is all taken from the above excerpt. No words were added, although many were taken away.

beariations

“*beariations*” derives its musical material from an old scout song that i frequently sung in elementary school, “i met a bear.” it’s a rather silly song that tells a story about a person encountering a bear in the forest and the events that follow. the tune is remarkably simple; it begins with **A** – a pointed and playful verse which features a soloist stating the lyrics which are then echoed by the rest of the song’s participants. **A** is followed by **B** – a smoother, more sustained refrain sung by the entire cast. **B** restates the lyrics of **A**, but removes the echo, which divides **B**’s length in half relative to **A**, causing each line of the lyrics to occur one after another. in the song’s traditional form, this sequence repeats many times, but variation is only applied to the lyrics.

it was not until well into writing this piece that i realized the irony of my writing a piece about a bear when i, too, am a bear.

Droste Dances

In 2013, my high school saxophone teacher, Roy Allen, commissioned me to compose a saxophone quartet to be performed at the national NASA (North American Saxophone Alliance; not to be confused with NASA, the government agency responsible for space exploration in America) conference in Champaign, Illinois. My instructions were essentially nonexistent and as a result, I was afforded a tremendous amount of creative liberties. The quartet for whom the piece was originally composed was a collection of advanced high school, undergraduate, and master’s students.

The Droste Effect, in art, is a technique in which a single picture appears within itself. What this means, essentially, is that a single picture pervades the foreground, but in a logical place inside that picture, is a picture of that picture. And, yet again, inside *that* picture, is a picture of that picture, etc. The idea is that this process could continue infinitely.

The implications of this effect are both structural and conceptual. Musically, I was intrigued by the concept of presenting a melodic line, adding counterpoint (another simultaneously sounding melody), and then, later, returning the melodic line, but changing the counterpoint. This changes the way the music feels to the listener, but still achieves an element of continuity. “*Droste Dances*” is a through-composed piece of music that develops off of itself.

I have some people not listed in the program that I need to thank (in no particular order):

My parents: for loving and supporting me for *longer* than I’ve been alive, despite everything (including me wanting to be a music composition major [because it’s *sooo* practical])

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for setting the stage for introspection

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