

T-Birds Under the Milky Way: Thelma and Lousie and the Music of the Spheres.

Thelma: Louise, did you just see that shooting star?! And there's the big dipper! This is amazing! I'm so glad Darryl's not here to ruin this!

Louise: You and me both. Do you know what Pythagoras said about the cosmos?

Thelma: The math guy? No.

Louise: Yes, he's best known for the Pythagorean theorem. But he also talked about something called the "Music of the Spheres." He proposed that there was a sort of mathematical symbiosis between the stars, the planets, and us which kept everything humming along in perfect harmony. These mathematical principles, or musical spheres, produced a melodic sound that contained the laws of the universe.

Thelma: Oh, Louise! I'm on vacation! I don't want to talk about math!

Louise: Thelma. Calm down. It's not just math, though. It's also geometric shapes. The arc of Orion's bow is arranged in such a way that it sings. And while Pythagoras had a lot of great ideas, he was wrong to think that the Earth was the center of the universe. This geocentric model of the cosmos was also shared by Aristotle and other great thinkers of their day. Aristotle believed that celestial bodies were created and moved in a "perfect unison motion."

Thelma: You know who has a perfect body and moves in perfect motion?

Louise: JD

Thelma: Yep. You know who doesn't?

Louise: Darryl

Thelma: Yep.

Louise: Anyway... Aristotle believed the celestial bodies formed the four elements. But more importantly, the celestial bodies formed a fifth incorruptible element called ether. These bodies moved in a natural motion in accordance with the laws of the universe, and in a violent motion only when an external force acts upon them.

Thelma: I kinda feel like you're an external force right now.

Louise: And then there's Plato

Thelma: Again with the names! Plato or play-dough?

Louise: He believed everything was formed by a craftsman called a demiurge, which is not a god. The demiurge creates the universe and the gods, who then create humans. The demiurge is part of the universe, not above or outside it, and is a constant. The world was divided into the sensibles, the tangibles, the senses; and the intelligibles, things like thought, mathematical principles, forms. There is the state of being and the state of becoming. The Forms or Ideas were unchanging, eternal, abstract things which transcended time and space. For Plato, the good is ahead of the metaphysics of the universe. Whereas in Christianity, God is ahead of the metaphysics. Everything the demiurge does is to essentially “cull” the good and bring humans into a state of goodness.

Thelma: Speaking of urge, we’re gonna need to stop and pee soon. So Pithy, Play-dough, and Ari walked into a bar and bore everyone to death yammering on about math, demiurges, and celestial bodies. But look where we are? Out here in the southwest near the Grand Canyon. Surely indigenous populations had ideas about the stars, right?

Louise: They sure did. The Native Chumash of California had a layered cosmology. And cave drawings from the Cherokee to the Vikings show the same “star pattern” on their respective bull drawings that are too specific to be accidental. The same holds true for the role of shamans found throughout history. Their role in facilitating people through the spirit world guided by the stars is also too random and specific to be accidental. In other words, there is a sort of “celestial blueprint” in our DNA. These things have shaped human cultures for as long as humans have existed. Some of the monuments, like Stonehenge, were built to align with the patterns of the sun and the moon. And there’s even a theory now that the advent of farming was caused primarily due to shifting star patterns.

Thelma: Is all this from this book you have back here? “The Human Cosmos: Civilization and the Stars,” by Jo Marchant?

Louise: Yes! It’s excellent! You should read it.

Thelma: Nah. I’d rather look at the stars than read about them. But go on ahead and tell me.

Louise: The stars have influenced our notion of time and inspired the invention of the clock, preceded by sundials of course. And our fascination with the stars led to the invention of the telescope.

Thelma: Galileo! I know that much.

Louise: Well, actually ... sorry to mansplain but Galileo did not invent the telescope. That would be a dutchman by the name of Hans Lippershey.

Thelma: Lippershay?! Are you just making up names now?

Louise: Nope. Look, what I'm trying to say here is that the search for our origins is inextricably tied in with our search for origins of the universe. So understanding our place in the universe is important. It leads to better scientific discoveries and even smaller things like better navigation. The greater number of people who understand something like the big bang, the greater the likelihood they'll believe in evolution, and we can stop this nonsense about banning Darwin and have accurate science teaching in classrooms.

Thelma: I agree. Don't forget about aliens.

Louise: Exactly! Are we so arrogant to think that we are the only species in our galaxy, or our universe? One theory as to why we have not encountered extraterrestrial life yet, is because other beings don't think we're intelligent enough to make contact.

Thelma: You know who's not intelligent?

Louise: Darryl

Thelma: Yep. After listening to you talk while cruising through the Milky Way, I feel awake. Do you feel awake?

Louise: I'm driving so I hope I'm awake.

Thelma: No, I mean really *awake*. I feel a kinship with the stars. I feel more connected to them and the universe just by looking at them in a dumb-struck awe. This cosmic hunt we're on makes me want to take care of the earth better. I mean, we are being evicted off this planet because we trashed the apartment. So maybe we should tidy up a bit because we're taking a bunch of innocent species with us. I think it was Beethoven who said, "Music is the electric soil in which the spirit lives, thinks, and invents." I hear the music of the spheres, the stars, and the planets in the soil beneath me and the wind blowing through me. To me, Louise, this is *the* most important reason to study the cosmos. And now, can we please stop to pee?

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