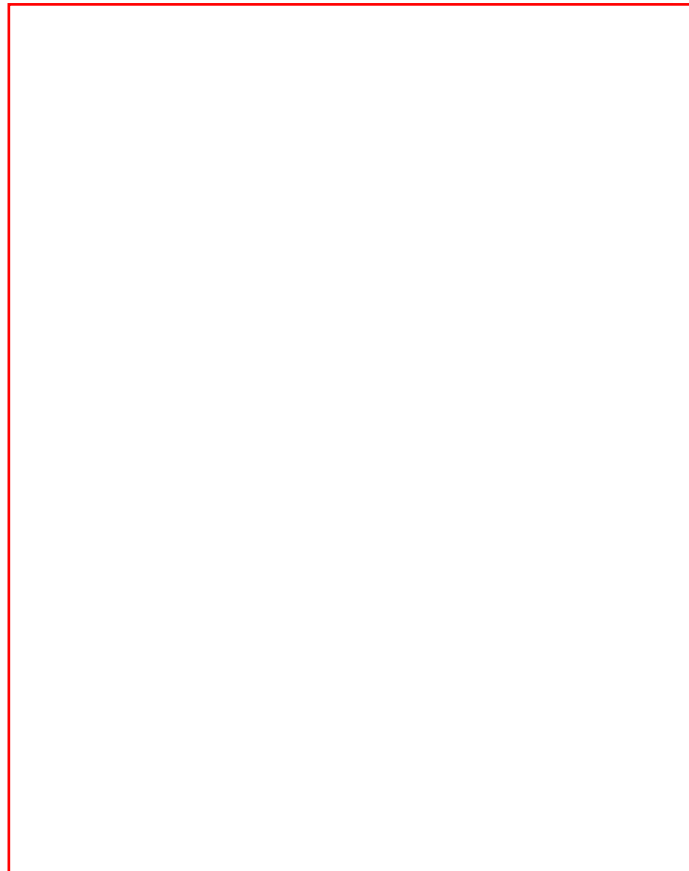


Bernard le Bovier de Fontenelle, *Conversations on the Plurality of Worlds* (1st published Paris, 1676), transl. William Gardiner (London, 1715). via googlebooks



The text is cast in the form of a series of dialogues between a philosopher and a countess as they stroll in her garden at night. In this section, the Philosopher describes how the ancients saw the universe:

our Sight. Upon this Principle they imagin'd the Earth rested in the Center of the Universe, while all the Celestial Bodies

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Bodies (which were made for it) took the Pains to turn round to give Light to it. They plac'd the *Moon* above the *Earth*, *Mercury* above the *Moon*, after *Venus*, the *Sun*, *Mars*, *Jupiter*, *Saturn*; above all these they set the Heaven of fix'd Stars, the Earth was just in the Middle of those Circles which contain the Planets, and the greater the Circles were, they were the farther distant from the Earth, and by Consequence the farthest Planets took up the most Time in finishing their Course, which in effect is true: But why, says the Countess (interrupting me) do you dislike this System: It seems to me very clear and intelligible. However, says I, Madam, I will make it plainer; for should I give it you as it came from *Ptolomey* its Author, or some others who have since studied it, I should fright you, I fancy, instead of diverting you. Since the Motions of the Planets are not so regular, but that sometimes they go faster, sometimes slower, sometimes are nearer the Earth, and sometimes farther

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farther from it; the Ancients invented I don't know how many Orbs or Circles, involv'd one within another, which they thought would salve all Objections; this Confusion of Circles was so great, that at that Time when they knew no better, a certain King of *Aragon*, a great Mathematician, (but not much troubled with Religion,) said, *That had God consulted him when he made the World, he would have told him how to have fram'd it better.* The Saying was very Atheistical, and no doubt, the Instructions he would have given the Almighty, was the Suppressing those Circles with which they had clog'd the Celestial Motions, and the taking away two or three superfluous Heavens, which they plac'd above the fix'd Stars; for these Philosophers, to explain the Motion of the Celestial Bodies, had above the uppermost Heaven (which we see) found another of Crystal, to influence and give Motion to the inferiour Heavens; and wherever they heard of another Motion, they presently clap'd up a Crystal Heaven

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Heaven which cost 'em nothing. But



Methinks, *says the Countess*, your Philosophy is a kind of Out-cry, where he that offers to do the Work cheapest, carries it from all the rest. This, *says I*, is very true, Nature is a great Hufwife, she always makes use of what costs least, let the Difference be never so inconsiderable; and yet this Frugality is accompany'd with an extraordinary Magnificence, which shines through all her Works; that is, she is Magnificent in the Design, but Frugal in the Execution; and what can be more Praise worthy, than a great Design accomplish'd with a little Expence? But in our Ideas we turn Things topsy-turvy, we place our thrift in the Design, and are at ten times more Charge in Workmanship than it requires, which is very ridiculous. Imitate Nature then, *says she*, in your System, and give me as little trouble as you can to comprehend you. Madam, *says I*, fear it not, we've done with our Impertinences: Imagin then a *German*

man call'd *Copernicus* confounding every Thing, tearing in Pieces the belov'd Circles of Antiquity, and shattering their Crystal Heavens like so many Glas Windows, seiz'd with the noble Rage of Astronomy, he snatches up the Earth from the Center of the Universe, sends her packing, and places the *Sun* in the Center to which it did more justly belong, the Planets no longer turn round the Earth, nor inclose it in the Circles they describe; if they give us Light, it is but by chance, and as they meet us in their way. All now goes round the *Sun*, even the *Earth* herself; and *Copernicus* to punish the Earth for her former Laziness, makes her contribute all he can to the Motion of the Planets and Heavens, and now strip'd of all the Heavenly Equipage with which she was so gloriously attended, she has nothing left her but the *Moon*, which still turns round about her: Fair and softly, *says the Countess*, I fancy you your self are seiz'd with the Noble Fury of Astronomy; a little less Rapture,

ture, and I shall understand you better. The *Sun* you say is in the Center of the Universe, and is immoveable; *Mercury*, says I, follows next, he turns round the Sun, so that the Sun is in the Center of the Circle wherein *Mercury* moves; above *Mercury* is *Venus*, who turns all round the Sun; after, comes the Earth, which being plac'd higher than *Mercury* and *Venus*, makes a greater Circle round the Sun than either of them; at last comes *Mars*, *Jupiter* and *Saturn*, in the same Order I name 'em, so that *Saturn* has the greatest Circle round the Sun, which is the Reason he is a longer Time in making his Revolution than any of the other Planets. You have forgot the *Moon*, says the Countess, we shall quickly find her again, says I, the *Moon* turns round the Earth, and does not leave her, but as the Earth advances in the Circle, which she describes about the Sun; and if the *Moon* turns round the Sun, it is because she won't quit the Earth; I understand you, says she, and I love the *Moon* for
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staying with us when all the other Planets abandon us; nay, I fear your *German* would have willingly taken her away too if he could; for in all his Proceedings, I find he had a great spight to the Earth. 'Twas well done of him, says I, to abate the Vanity of Mankind, who had taken up the best Place in the Universe, and it pleases me to see the Earth in the Crouds of the Planets. Sure, says she, you don't think their Vanity extends it self so far as Astronomy! Do you believe you have humbled me, in telling me the Earth goes round the Sun? For my part I don't think my self the worse for it. I confess, Madam, says I, it is my belief, that a fair Lady wou'd be much more concern'd for her Place at a Ball, than for her Rank in the Universe; and the Precedence of two Planets will not make half such a Noise in the World, as that of two Ambassadors; however, the same Inclination which reigns at a Ceremony, governs in a System; and if you love the uppermost
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