A teaser for **Moving Earths** Prepared to celebrate James Lovelock's 100<sup>th</sup> birthday Blenheim Palace, 26<sup>th</sup> July 2019 Bruno Latour

[The director of a London theater has an appointment with a playwright] The director: So, what's the plot?

The playwright: It's called Moving Earths, it's about how people react to the news that the Earth is not fixed and they are not at the center of the universe.

D: Pfft, this has been done already, by no less than Bertold Brecht! Do you want to stage "The Life of Galileo"? There's no public for that anymore!

P: That's the point, sir, I wish to show that it is again very much in fashion, that we are back where Galileo was, that the Earth is moving again, and...

D: Why should I waste my time with Galileo? It's past, it's known, it's settled.

P: That's my point, sir, the Earth is being moved out of its place, once again, and it offers a fantastic opportunity to have "The Life of Galileo" restaged! It's a replay, but with a new twist.

D: A replay? Are you telling me that we are reliving the time of the Inquisition; that there is a new famous character that we are silencing and condemning to house arrest, "Eppur si muove" and all that?!

P: Yes, yes, exactly, and this character has been mumbling more than once: "And yet it is moved" just like the other one, Galileo Galilei: "And yet it moves".

D: Where do you get this "and yet it is moved", does the Earth has emotions by any chance?

P: Yes, emotion in addition to motion. From a French philosopher, sir, he died recently: Michel Serres.

D: A French philosopher! And you think it will convince me?

P: Forget the frogs, look at the plot: I will make the audience feel just like the cardinals in Brecht's play; they are frightened by the changes Galileo forces planet Earth to undergo; they contest his evidence, and above all, they contest his worldview, his cosmology, they want their Earth back where it was, at the center, with them on top of it, under God's watchful and protective eye.

D: I am not a cardinal, I am not part of any Inquisition, I don't believe in any God, I don't want anything to do with your moving earth stuff, what is this? A popish plot?

P: That's my point sir, respectfully, you don't want to hear that planet Earth is moving under your feet, and that it reacts to your actions! You want to save your cosmology, to protect your social order, you want to stay on top, in the center, and master everything.

D: You bet I want to stay on top! Who is this character who is supposed to frighten me so much that I'll end up looking like an ayatollah?

P: James Lovelock, sir, a great scientist, and a much maligned one.

D: Lovelock, the Gaia man? And you want me to make him the counterpart of Galileo, our great Galileo, the man of the scientific revolution?

P: Revolutions have many turns, sir, especially when they are scientific, and this one, believe me, is just as big.

D: But if what you say is true, I'd know it; everyone will say there is a new Galileo and a new scientific revolution!

P: Remember, sir, this was my point: I wanted to put you, you and the audience, in the shoes of people in Venice in 1610 or in Florence in 1630: they have heard of a major shift in Earth movements — Copernicus, heliocentrism and all that —, and they wonder: "How could this happen in my time? Is this true? Is this proven? How could I find out more"?

D: Hum... Galileo's affair was a deep, radical subversion, it made everybody change their views, the whole human race was propelled into a new infinite universe, with no bound anymore, it was...

P: Yes, yes, we all know that, but may I add, sir, and still very respectfully, that it was a big shift for astronomers, but brought really *no change whatsoever* for the rest of the "human race" as you said?

D: Come on, no change?

P: Can't you see the sun rises and sets just as it did for the Neanderthals? Heliocentrism is a nice trick for sure, just as when you are on a train platform and don't know which train is moving and which one is at rest. But it's not such a big deal.

D: While your "Lovelockian revolution"?

P: Changes everything for good, sir, yes and for everyone: Earth very existence, at least the Earth we are in, the tiny crust, the thin biofilm we call Gaia, in which "we live, we move and have our being" has been made, engineered, tailored, maintained, activated, by life forms, over the eons of time; nothing of Galileo's planetary vision is being kept.

D: I am still in the same damn objective world, am I not?

P: Not quite, sir, no, a planet swarming with Lovelockian agents is utterly different from a planet made of stubborn Galilean objects.

D: How, why, who cares?

P: On Galileo's planet Earth, humans cannot do much harm, sir, the planet is stable, robust and fixed — to be sure, it is in motion, but it cannot be put out of whack, at least not by you, the "human race"...

D: Whereas on "your" new planet Earth?

P: It is yours as well, sir, I am afraid; well on "my" planet, humans are perfectly able to push it out of its present balance and shift it into another state — and a fairly unpleasant one, undoubtedly.

D: And you hope me to make money with this? How do you think the audience will react to your story of an Earth sick with "emotions", as you say.

P: With horror, sir, no doubt. Horror, contempt, fury, passion, enthusiasm, fascination...

D: And that makes you happy, it seems.

P: Sir, I am a playwright! That's what's called theatre! Exactly the state Brecht reconstructed in his Carnival scene. Yes, chaos and fury, the only real way to understand the present situation, Facing Gaia for God's sake.

D: The parallel will never work, and for one good reason, you know why? Because the audience is absolutely convinced that Galileo has been right all along and that's why they like him... P: ...and ridicule the Inquisition, the Cardinals, and all those silly clerks, yes I know, but that's much too easy; Brecht is taking us for a ride. I want to make things more fair.

D: Does this mean you have no confidence in Lovelock's proofs?

P: Don't forget, he is a major scientist, at the center of everything in Earth System Science, there are sixty years of work behind him...

D: Sixty years and I have not heard about it?

P: You have, but don't know where it came from. I just want to make the parallel so powerful that the audience doesn't know which science is right, just as happened in the 17<sup>th</sup> century, I want the audience to shake when faced with the Earth's emotion.

D: Oh, they might be shaken alright!

P: Are you not convinced that this is a great, a civic, a scientific, a theatrical project worth your betting your money on? We could even make an opera out of it.

D: Don't get overexcited. Suppose I say yes, do you have at least one scene written to show the parallel?

P: One? Sir, I have dozens! For instance: this one [looking up] and this one [looking down]

D: What the hell?

P: Don't you see? The stage is set: Venice, 1610, Grand Canal, Galileo lifts his telescope to the Moon, and here it is, mountains and valleys, shadows and craters, it is a planet like the Earth. No: better than that, Earth too is a planet, a falling body among hundreds and thousands of falling bodies.

D: I know the scene, I have acted in it in the old days, scene 3; "Keep your eye glued to the telescope, Sagredo, my friend. What you're seeing is the fact that there is no difference between heaven and earth. <u>Today is 10th January 1610. Today mankind can write in its diary:</u> <u>Got rid of Heaven</u>." But what about your side?

P: 1965, Jet Propulsion Lab, Pasadena, California, Mars mission, exactly the opposite move, a man looks down from Mars.

D: From Mars?

P: It's a thought experiment: what a Martian Galileo would see if he was turning his telescope on the Earth?

D: What does he see then?

P: That the Earth behaves as if it was alive, that its atmosphere is far from equilibrium, that it is engineered by life forms, that it is a unique and limited, and not a planet like any other one that we know. Quite an inaugural scene, is it not? "Today 15<sup>th</sup> of October 1965: Mankind is back on Earth".

D: Impressive. Well, suppose I consent to have your script reviewed by experts, where will I find anyone to give me informed advice?

P: Ah! that's the easiest thing in the world, sir: they are all there, here, in Blenheim palace, and, believe it or not: with the great man himself! [ovation]