H. Floris Cohen

INVITED 15 MINUTES ADDRESS TO LISSA ROBERTS

on November 25, 2019, at her farewell symposium in the Museum Boerhaave

[NB Each speaker selected a fruit or vegetable, in view of Lissa's early career as founder of a catering company 'Leave it to Lissa']

➢Figure I

'Shall I compare thee to an avocado pear?'

This question may, like every other question, receive answers from more than just one perspective. Let us consider first of all whether Shakespeare could even have known about the avocado pear, going on to select it for the first line of his Sonnet no. 18 if only it had not occurred to him in time to cross out, with a well-deserved sigh of relief, that avocado pear and replace it with the endlessly better ending 'a summer's day'? Yes, he could have known about the existence of the avocado pear, albeit, as so often with him, through hearsay only. Wikipedia is sufficiently enlightening on the subject:

> "The **avocado** (*Persea americana*), a tree with probable origin in south-central Mexico, is classified as a member of the flowering plant family Lauraceae. The fruit of the plant, also called an avocado (or **avocado pear**), is botanically a large berry containing a single large seed.The earliest known written account of the avocado in Europe is that of Martín Fernández de Enciso in 1519 in his book, *Suma De Geographia, Que Trata De Todas Las Partidas Y Provincias Del Mundo*. The first *detailed* account that unequivocally describes the avocado was given by Gonzalo Fernández de Oviedo y Valdés in his work *Sumario de la natural historia de las Indias* in 1526."

Even so, Shakespeare could not possibly have used the name 'avocado pear' for a sonnet or (for that matter) for any other piece of writing at all. To quote Wikipedia once again:

> "The first written record in English of the use of the word 'avocado' was by Hans Sloane, who coined the term in a 1696 index of Jamaican plants."

Aha, with that observation we leave poetry definitively behind us, having meanwhile entered an arena more familiar to us, historians of science. We may not have heard before of Gonzalo Fernández, but most of us are familiar with Hans Sloane, that late 17th / early 18th century naturalist and Secretary of the Royal Society under the demanding Presidency of Sir Isaac Newton.

This revelation, then, opens another perspective — the one to which the remainder of my talk is dedicated. This second perspective is in the nature of a research question, and it runs thus: who or what, in the history of science, is the 'thee' to whom or to what to compare said avocado pear? To which question another one has to be added at once, since any act of comparison is, by its very nature, a two-way affair: in respect of what specific properties are we to compare that still undefined subject and/or object?

Here is the first comparison to be made in connection with the history of science. I encountered it during a visit I happened to pay last Thursday, in the company of my three grandsons, to recently renovated 'Naturalis' , the Leyden Museum of Natural History (less than a mile from where we are now). The museum appears to regard the history of plate tectonics as resting solidly within its domain of expertise. Indeed, it offers an explanation, felt to be fit for kids, of a rift that runs halfway the rocky surface of the island of Iceland and that widens every year by a few centimeters. What we were facing in the museum hall in question is well described on the museum's website:

> "In a typical Icelandic holiday home, visitors can watch a short movie that is more reminiscent of a cooking program than a geographic film. Experiments with everyday ingredients such as avocado, vegetable soup and chocolate cake explain the geological phenomena in the rest of the room in an

> accessible and playful manner. From now on avocado is no longer just a fruit, but the skin [is] the earth's crust, the flesh the movable mantle and the kernel earth's hot core."

Here [➢ Fig. II] is one still from the short movie that we watched in Naturalis. Surely you recognize the rift that runs through Iceland well illustrated in between the pieces of the mangled skin that lay that rift bare.

Given that, as just demonstrated, you can successfully compare the avocado, though not to a summer's day, then at least to the Earth and its geological refinements — given that much, we may now with enhanced confidence seek to compare the avocado to objects and subjects closer at home. We shall distinguish between the avocado's three main constituents [➢Fig. III] — its either darkly brown or green skin; its brightly green flesh, and, finally, its light-brown, wooden kernel. With those three constituents given, I shall now compare each of them to one selected subject or object.

I start with the avocado's skin, and I compare it to the history of science. As just noted, the avocado comes in two different colors, very dark brown and somewhat darkish green, respectively. But it also comes in numerous different sizes [➢Fig. IV]. It has for a long time been common to regard the history of science as coming in two colors only — so-called internal history of science, which deals with the concatenation of ideas over time, and so-called external history of science, which is supposed to deal with ... yes, with what, really? With the local situatedness of those ideas but also of certain practices and the often material quality thereof? That has been the customary way to practice the history of science for some three to four decades now. As the just stepped-down editor of the journal *Isis* I have over my five years' term accepted over seventy manuscripts of (in the large majority of cases) that particular description, and I have done so with pleasure and often with admiration. Even so there is another variety, of much larger size and yet quite rare. It is the variety where its practitioners deal with the large-scale societal and cultural conditions under which, in various civilizations, certain big ideas could come about and flourish or perish or get a chance to engage with other big ideas. That variety of history of science, which need not be cultivated the Marxist way it once used to but is best done the comparative way, has found itself almost completely sidelined. Luckily, the profession of the history of science is, at bottom, avocado-like in its pluralist variety, so I am confident that a desire to look at the history of science in a grander, on occasion even universalizing frame will at some time in the near future begin to capture a larger number of practitioners than so far.

On, now, to the next constituent of a fully-grown avocado. I skip the flesh for a little while and leap to the kernel. I compare it to a scholarly journal of high reputation that goes by the appropriate title of *History of Science*, and that has from 2014 onward flourished under Lissa's editorship. If you want to get an article published there, then on your way in you first of all encounter a kernel of entrance rules in the journal's 'Manuscript Submission Guidelines'. Having been for five years Lissa's colleague for another journal, I was curious to find out how she has drawn up her Guidelines. Well, I confess that I am a little taken aback by where Lissa has chosen to locate her journal's entrance kernel. Whereas we at *Isis* cared above all for receiving well-written work with engaging opening paragraphs and ditto abstracts, in *History of Science* the aspiring manuscript author finds himself treated, I must say, as a potential criminal. That aspiring author seems to be deviously out to omit the names of (and I quote) "all those who can legitimately claim authorship", with the Guidelines going on in their next numbered point to tell you in exhaustive detail what names you should, what names you might, and what names you had better not list in your

acknowledgments section — a section I was used to leaving entirely to the author's own discretion. In any case, I am confident that, thus properly intimidated, no aspiring author of *History of Science* will dare submit his or her manuscript without a prior act of the profoundest possible self-searching.

So much for the avocado's kernel. I now finally arrive at its brightly green flesh, and I ask the heroine of this afternoon: 'Dear Lissa, shall I compare thee to an avocado pear?' Yes, I shall, and here is how.

First of all, let me confess that I am fond of avocado's. When in a grocery store facing one, I am forever tempted greatly to buy at least one of the mass so attractively put on display, and often I do let myself be so tempted. The comparison now almost dictates itself. At the University of Twente, due to the passing away at far too young an age of Casper Hakfoort, a vacancy turned up in what was then my 'vakgroep'. I realized soon enough that I had a chance to hire a most avocado-like historian of science. Boy, did I know one! I first met Lissa at a party given by a colleague, Henk Bos, and when I introduced myself to her, her truly endearing, her really unforgettable opening line was: "Hey, you look much younger than I thought you were!" So I did not hesitate for long and, after due consultation with her future colleagues, I grabbed my chance. That is how Lissa, thus far employed very far, really half the globe away from home, became an at least professionally fully Dutch person. It is only today that that blessed state comes to an end. Just speaking for myself, and admitting that I quit my Twente job within a few years of hiring Lissa, though with no causal connection in any way, I have never come to believe that I should even for one minute have come to regret the choice then made.

I move now from my fondness for the avocado pear to more object-derived grounds of comparison with Lissa. I discern two such grounds. First of all, the girl and the pear share a good measure of versatility. Just like Lissa now examines 18th century French chemistry, then steam engines in the Enlightened Dutch landscape, and the next moment the cultural history of science and technology in and around Tokugawa Japan, just so the typical avocado taste can be brought out in a remarkably large variety of ways, always preserving its very typical, very outspoken, very characteristic taste. As with Lissa, there is just no possible way to spoil it. You may decide to morph your avocado into guacamole. You may do that the easy way [➢Fig. V]:

> "Peel and mash avocados in a medium serving bowl. Stir in onion, garlic, tomato, lime juice, salt and pepper. Season with remaining lime juice and salt and pepper to taste. Chill for half an hour to blend flavors."

Or you may opt for what, according to Wikipedia at least, passes for the original recipe[➢Fig. VI]:

> "Mash avocados in a bowl until creamy. Mix tomatoes, onion, cilantro, lemon juice, and jalapeno pepper into mashed avocado until well combined; season with salt and black pepper."

Purists, still using Wikipedia [➢Fig. VII] for their sole source of information, may observe here that the truly authentically Mexican way to do it is by preparing your authentic guacamole, not in just any bowl, but in an authentic 'molcajete' that allows you to grind all your ingredients in prescribed succession [➢Fig. VIII].

Frankly, my own way of dealing with a freshly purchased avocado pear is taken from quite another part of the globe — I leave the pear unpeeled, just halve it longitudinally, remove the kernel using a little spoon, and fill the two oval holes thus created almost to the brim with a tasty, definitely non-sweet, Japanese variety of common soy, which goes by the name of tamari [➢Fig. IX]. The ground for comparison is obvious: Lissa's versatility as a historian of science has soon enough moved beyond the Western world and become

truly global, the way you may derive your avocado recipe from anywhere on the globe. The parochialism that has marked too much of the history of science ever since (with World War II) the heart of the profession got settled in the US, is just nothing for you, Lissa — avocado-like, your professional concern can settle anywhere, be it with tamari or in a molcajete or in any other global way that catches your unpredictable fancy.

Hey, did I say 'unpredictable'? Yes, I did, and with very good reason. I have now reached my second, my final ground for comparison. Beside its versatility, the most empirically demonstrable property of the avocado pear is its unpredictability. Its outside may look great, with just a fine dark brown or, with other varieties, a freshly green skin color tempting you to purchase one. But the experienced avocado buyer knows what may then transpire in the kitchen — its flesh need not turn out the way required for the mouth-watering recipes I have just cited, but either too hard and unyielding for consumption, or, in radical contrast, morphed into greyish, truly unedible dreadlocks that may even form a menace to your very health. If only we could tell from the outside! But we can't, we just have to wait and see. And so it is, Lissa, with you. While in conversation with most friends and even acquaintances, I have a reasonable expectation of how the conversation will, by and large, go. They are definitely not bores, and they may well come up at times with some quite unforeseen but interesting observation or turn of phrase. And yet, on the whole they are to a certain extent predictable. You, Lissa, are not. I have no other friend who is so radically, so refreshingly unpredictable as you are. This has even gone beyond our conversations, which may every single second yield remarks that tend to leave me speechless for seconds longer than I am used to. The unpredictability has extended to when we even have those conversations. The distance between your house and mine can easily be covered in 7 minutes on bike. Even so, in practice our seeing each other has become confined to two types of occasion, both dependent on unpredictable agendas not our own. One agenda is that of Lissa's dentist, which, painful business done, may inspire her on her way back home to call on my door and see whether I am home, as sometimes I am. The other agenda is that of the History of Science Society, with for consequence that these two befriended Amsterdam colleagues see each other about once every year, not in Amsterdam but in Chicago or Vancouver or wherever the next annual meeting is taking us, always in different airplanes. In short, with you, Lissa, never a dull moment, and I thank you for that. Nonetheless, now that you, too, have reached the status of Professor Emeritus, I hope that our next extended talk over a cup of coffee will not be in September next year in New Orleans but quite a bit earlier at either the Gerrit van der Veenstraat or the Warmondstraat or in some café half-way. For now, however, I congratulate you wholeheartedly on your wise decision to leave the University of Twente behind you and become, even more than so far, just your own fine person.