The Vegetable Lamb of Tartary in the Renaissance: Philosophy, Magic, and Botany

By Fabrizio Baldassarri

Working paper published on the Blog of the *Journal for the History of Ideas*

In the entry "Agnus scythicus" in their famous *Encyclopédie* (1751), Denis Diderot and Jean d'Alembert present a plant growing in the land of Tartary, which was a vast region of Asia bounded by the Caspian Sea, the Ural Mountains and the Pacific Ocean, therefore including Machuria, Siberia and several other countries. This plant, they assert, produces fruits that "look exactly like that animal [i.e., a lamb]—it has the same legs, hooves, ears and head." An astonishing body with a long tradition, the animal-plant known as the Tartary lamb was first described in medieval texts and later revived by early modern authors in the Renaissance (see Fig. 1). Conceived either as a zoophyte or a mythological body, the figure typically entails a combination of a plant and an animal; it even represents a transformation of a plant into an animal by means of procreation, insofar as the lamb is a fruit of the plant.

From the mid-sixteenth to the mid-seventeenth century, scholars engaged with the Tartary lamb as a case study to explore nature. Indeed, some of them conceived it as possibly existing. The frontispiece of John Parkinson's *Paradisi in sole Paradisius Terrestris* (1629) depicts a Tartary lamb in terrestrial paradise according to sixteenth-century poems describing God's creation of nature (see Fig. 2). But the vegetable lamb did not only exist in paradise, as Parkinson also devoted a chapter to the vegetable lamb in his *Theatrum botanicum* in 1640. During the Renaissance, fascination for fabled beings abounded, and the lamb of Tartary gained momentum not as a celebration of strangeness but as an epistemological tool to understand the hierarchy of natural bodies and the Aristotelian scale of beings. In this sense, the various reflections on the zoophyte that developed between the 1550s and the 1650s, which ranged from philosophical debates about its existence to its magical or natural interpretation as well as the naturalistic investigation of its nature, ultimately highlight its role as a heuristic.

Within the context of philosophical discussions in the 1550s, the Tartary lamb appeared in two well-known texts. The first was Girolamo Cardano's *De rerum varietate*, in which the Italian polymath deals with the entirety of the universe and all its bodies. In the chapter devoted to strange or wondrous plants, Cardano describes an imaginary animal that lives in Tartary. According to the travel reports Cardano drew on, something similar to a lamb in all its parts grew from a specific plant—the eyes, the ears, the mouth, the legs, the hair, the flesh and blood. In his description,

Cardano dismisses the Tartary lamb as a fable but also claims that "we receive no less benefits from fables, than histories." (p. 120) Suggesting that the fable of the Tartary lamb may still be a useful exercise, in that it requires the reader to recapitulate the order of nature in order to discard it, he finally rejects the existence of this plant for two main physiological reasons. The first reason is based on the sixteenth-century conception of the differences in generation between plants and animals: while all the limbs of animals can grow dynamically, plants only grow in one direction. Moreover, Cardano argues, animals need a great quantity of heat to be generated, which is provided by their heart and womb, while "the soil is unsuitable for providing both pulsation and heat." The second reason is that the plant has no flesh, heart, or blood, and it can thus not pass these to the lamb or produce it in a material way.

That same year, the Italian scholar and physician Julius Caesar Scaliger readily replied to Cardano's claims. In exercitation 181 of the *Exoticarum exercitationum … de subtilitate* (1557), a text written to oppose Cardano's philosophy, Scaliger devotes a section to the Tartary lamb, which he conceives as an admirable fruit and an incomparable case of *lusus naturae*—a Renaissance expression defining those phenomena extending outside the order of nature, such as monstrosities. In this section, he describes the plant in detail, starting with the seeds, which are similar to but smaller than those of melons. As the plant grows, he goes on, its fruit takes the shape of a lamb without horns; connected to the soil by its roots, its stalk is attached to the navel of the lamb. Scaliger also describes the plant's skin and flesh: "[T]he flesh is like the one of cray-fish," and its blood flows from incision, "whose sweetness is admirable." (p. 597 While being still fastened to the plant, the lamb survives by grazing the herbs in its vicinity, but as soon as it has consumed these, the lamb withers and dies, ultimately entailing that the lamb consumes the food in the soil while it grazes it, so that the plants dies. Consequently, the roots of the plant would not be able to acquire nourishment.

Although his contemporaries have read this text as a testimony of the existence of this plant-animal, Scaliger has a more sarcastic aim here, which is to refute Cardano by corroborating the possibility that nature *could* produce the Tartary lamb. By the time the text appeared, Cardano and Scaliger had been engaged in a long-standing controversy. Accordingly, Scaliger concludes his investigation by challenging Cardano (but erroneously, as Cardano had deemed the lamb to be non existing) to explain "how four distinct legs and their feet can be produced from one stem." In contrast to Cardano, who provides a clear rejection of its existence, Scaliger describes the entire fable as fantastic but not entirely improbable, at least from an analogical perspective, comparing the parts of plants to those of animals. By suggesting a direct comparison with animals, based on the story of the taste of its flesh and blood, Scaliger ultimately leaves it open whether this plan-animal

exists or not.

A different perspective on the vegetable lamb surfaced in the natural magic investigation of nature, as well as in work on spontaneous generation. In Book 4 of the Italian polymath Giovanni Battista Della Porta's *Phytognomonica* (1588), a text focusing on analogies between plants and animal bodies, Della Porta describes a plant in Tartary that bears a lamb as its fruit. According to Della Porta, the flesh of the plant and its fruits are sweet and similar to that of a lamb, and the juices of the plant appear similar to blood. Here, he repeats the words of Scaliger, as it is clear that he had not directly observed this plant himself.

Della Porta's point In *Phytognomonica* is to highlight the therapeutic powers of plants by means of the analogies between plants and animals. According to the Doctrine of Signature, analogical resemblances between a plant and a part of the body of a human or animal implied a sign of the healing power of that plant in relation to the disease affecting the corresponding organ, or the healing power of that plant which is similar to the animal it represents—in this case, a lamb. It is in this context that Della Porta discusses the horticultural possibility to produce the vegetable lamb, although it is not clear in the end how far he saw this possibility extending.

This hypothesis also appeared in *Magiae naturalis libri viginti* (1589, the first edition in four books was published in 1558), a book on the secrets of nature explored from a philosophical perspective, where Della Porta presents a few recipes disclosing ways how to produce new bodies through copulation or grafting. While grafting as a way of "bringing two disparate things in nature into close conjunction [may also] result in something extraordinary, [...] and a plant should look like something it was not meant to be," vegetation can also be produced through magical copulation. In chapter 18 of book 3, Della Porta discusses the case of fruits: "Fruits that grow in diverse forms, and impressions," he claims, such as pomegranates, pears, and apples, are also able to acquire the form of animals. Whether this transformation of plants into animals is substantial or merely external, however, remains a matter of investigation. Della Porta further suggests that one may mold the fruit's external form to resemble that of an animal by sculpting the fruit by putting a clay shape around it. He then claims that the flavor and color of fruits may also be transformed by means of copulation—although it remains unclear whether it is possible to produce the vegetable lamb by copulation, as Della Porta does not refer to this plant specifically in the text.

Thirty years later, in *De spontaneo viventium ortu* (1618), Italian physician and philosopher Fortunio Liceti devoted a paragraph to the Tartary lamb in chapter 67 of book 4, where he argues that "the vegetable lamb shall not be counted among the fabulous." In this chapter, Liceti proposes a historiography of the plant, presenting the diverse interpretations of scholars who had previously

investigated it, before recapitulating Scaliger's and Cardano's dispute. According to Liceti, Scaliger's final question about the physiological causes of the vegetable lamb does not intend "to deny its existence, but it is a question through which he hopes to engage physiologists about the knowledge of its cause." Liceti ultimately suggests that the Tartary lamb is neither a pure vegetable nor a pure animal; if an animal grows from a plant, he argues, a new zoophyte results, which is partly an animal and partly a plant.

Yet if the fruit of this plant does not have sensation, Liceti further hypothesizes, it cannot be a case of a spontaneous generation. In chapter 46 of book 3, Liceti previously defined four kinds of the spontaneous generation of animals. While not discussing the Tartary lamb specifically, he made clear that spontaneous generation through plants is possible under certain circumstances, such as when some parts of a dead animal are interred among the materials that nurture a plant. This may be the case of the Tartary lamb. Yet while discussing the latter in the subsequent book 4, the Tartary lamb raises the question for Liceti whether the fruit can also display sensation and motion like an animal—i.e. whether the fruit *is* a lamb, or merely constitutes an image of it.

In his description of the fruit, Liceti mostly repeats Scaliger's assessment. He claims that as the plant cannot provide a sensitive soul to the fruit-lamb, it should be seen as a spontaneous generation of an animal from a plant, comparable to the evolution of frogs from stones or the Barnacle tree, which he previously described in chapter 47 of book 3. In order to confirm whether this is a case of a spontaneous generation, Liceti investigates the ways in which the plant nourishes itself. On the one hand, he writes, it acquires nutrition through the roots, as is typical for animal fetuses and plants. On the other hand, the plant feeds through the lamb that grazes the grass in its vicinity and thus lives as an (imperfect) animal. Disclosing a combination of plant and animal, Licti thus deems the Tartary lamb a zoophyte whose origin lies in spontaneous generation, marking it as possibly existing.

Yet another approach to the Tartary lamb emerges from botanical texts, in which scholars studied the lamb in comparison and analogy with other bodies, either fantastic or real. A prime example of this genre is French botanist Claude Duret, who provides a broad description of the vegetable lamb in his *Histoire admirable des plantes et herbes* (1605), a collection of the most fantastic and wondrous plants that were ever conceived and can only be explained insufficiently by reason. Chapter 29 of the text, "*Des Boramets de Scythie….*," is devoted entirely to the Tartary lamb (see Fig. 3). Over the course of 20 pages, Duret describes the vegetable lamb in great detail, though without specifying its possible existence. While listing several fantastic and wondrous plants, Duret makes the point that, beyond the wonder that these cases evoke, they contain some seeds of truth.

Through investigations of these plants, he argues, one is able to learn about all the virtues, powers, and properties of vegetables in detail, acquiring important knowledge of nature. This applies to the Tartary lamb as well, which illustrates the ways plants grow and nurture.

A quite different interpretation is offered by Francis Bacon in his *Sylva Sylvarum* (1626). For Bacon, the Tartary lamb is "a fabulous narration [concerning] an herb that groweth in the likeness of a lamb, and feedeth upon the grass, in such sort as it will bare the grass round about. But I suppose that the figure maketh the fable; for so we see there be bee-flowers, etc. And as for the grass, it seemeth the plant, having a great stalk and top, doth prey upon the grass a good way about, by drawing the juice of the earth from it." While seeing the plant as a fable, Bacon suggests an interpretation of the Tartary lamb that is built on similar cases, such as flowers which look like bees. Since a few vegetal bodies produce a flower or a fruit that resembles an animal, he reasons, it is not impossible that the vegetable lamb exists, although no clear knowledge of its existence can be gained.

In *Magnes sive de arte magnetica* (1654 [1641]), the German Jesuit philosopher Athanasius Kircher also describes the vegetable lamb while exploring the magnetic faculty of plants to attract nutrients. The lamb as fruit has, as Kircher argues, a juice like blood under the wool-coat, suggesting that, beyond its shape of a lamb, it shares more important features with animals. Kircher claims that this analogy is neither fantastic nor extraordinary, as similar zoomorphic plants exist and are well-documented, such as orchids or flowers that resemble bees or flies, or the orchid *anthropophora*, the so-called man orchid. Like Bacon, he thus ultimately rejects an exotic explanation and accounts for this plant in common terms, finding similar cases to build analogies. Specifically, Kircher refers to plants that look similar to animals and human bodies, to plants whose juices look similar to blood (in color, consistency and taste), and finally to plants that attract nutrients with the same voracity as the vegetable lamb. Here, Kircher suggests that the absence of grass around the plant does not depend on the pasture of the lamb, but on the nature and physiology of the plant itself. Indeed, he argues, the Tartary lamb attracts a lot of liquids from the ground, ultimately depriving other surrounding plants or herbs of nutrients, similar to parasitic or invasive plants such as dodder or ivy, which can lead to the death of other species.

From the second half of seventeenth century onward, the existence of the Tartary lamb was increasingly refuted, partially due to the emerging reports of travellers from Asia. In August 1664, for example, Samuel Collins, the physician of Tsar Alexis in Moscow, emphatically rejected its existence in a letter to Robert Boyle. Between the 1550s and the 1650s, however, as the different examples discussed above show, a variety of scholars between the conceived of the Tartary lamb as

an important case study to understand living nature and basic processes of vegetation. By focusing on those living processes that are common to both animals and plants, they used the zoophyte to define the order of bodies. Even when they deemed it a fable, there was some degree of uncertainty concerning its existence, and it was ultimately considered a possibility, making it a heuristic tool to understand the nature of plants.

Fabrizio Baldassarri is a Marie Skłodowska Curie fellow at Ca' Foscari University of Venice and Indiana University, Bloomington, working on a project about the studies of plants in the early modern period. This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie Grant Agreement n.890770, "VegSciLif." This essay is the result of research conducted as a visiting scholar at Leiden University.