

A natural history of the satyr: a dialectical history of myth and scientific observation since 1550*

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This article uses the mythological figure of the satyr to examine European attitudes towards incorporating mythical creatures into zoology and, more broadly, to survey attempts to reconcile the relative status of myth *vis-à-vis* modern science. Evidence is used from the past five hundred years to argue for the longevity of these debates, which continue to repeat the same arguments based on the same sources. It is argued that scholars' attitudes towards Ancient civilisations play a significant role in explaining whether they decide to consider the satyr as the product of the imperfect observation of monkeys or as a creature on its own right.

“Sed quid nobis cum fabulis, historiam qui cogitamus?”¹

* An earlier, much shorter version of this article appeared as Dániel Margócsy. "Szatírok a természetrajzban a Reneszánsztól Darwinig: A mítosz és a tudományos hálózatok." *2000* (April 2015): 60-68. This version makes a novel argument based on new research since the appearance of that publication, but some overlaps remain. The author wishes to thank Edit Mikó, István Margócsy, Fabian Krämer, Kärin Nickelsen, Simon Schaffer, Anna Winterbottom, and students, audiences, colleagues and the anonymous reviewers. The first version of this article was written partially while the author was a fellow at the Cullman Center for Scholars and Writers at the New York Public Library, recent research was supported by a Cambridge-LMU Partnership Grant.

¹ Georgius Ebersbach. *De satyris disquisitio*. Leipzig: s.p., 1666, 8.

“... and there were passages in Pomponius Mela, about the old African Satyrs,
and Oegipans, over which Usher would sit dreaming for hours.”²

It is a curious fact that, in the animal world, the closest relative to the human species owes its name to a mythical God. To this day, the chimpanzee's official binomial name is the slightly oxymoronic *Pan troglodytes*, a phrase that combines the word troglodyte, which has long referred to “brutish, cave-dwelling people,” with the word for the Ancient, satyr-like divinity, *Pan*. *Pan* as the descriptor of a genus was introduced to taxonomical nomenclature by the eccentric German romantic natural philosopher and zoologist Lorenz Oken in 1816, the year he founded the equally mythologically named journal *Isis* in Jena.³ The choice of *Pan* as the name of primates was by no means a surprise. Natural historians had frequently identified apes and monkeys with mythological creatures at least since the Renaissance, and especially with the figure of the satyr. Famously, the Dutch physician Nicolaes Tulp called the first primate to visit European shores a *satyrus indicus*, an Indian satyr. The confluence of mythological and primate nomenclature continues to this day: the binomial Latin name of the Bornean

² Edgar Allan Poe. “The Fall of the House of Usher.” in: Edgar Allan Poe. *The Fall of the House of Usher and Other Tales*. London: Walter Scott, 1889, 13.

³ On Oken as a conundrum, see Nicholas Jardine. *The Scenes of Inquiry: On the Reality of Questions in the Sciences*. Oxford: Clarendon Press, 1991; For his naming of the chimpanzee, see Lorenz Oken. *Oken's Lehrbuch der Naturgeschichte*. Jena: August Schmid und Comp., 1817, III/2, 1230-31; Oken was probably improving on Blumenbach's naming of the same species as *simia troglodytes*.

orangutan is *Pongo pygmaeus*, which combines the Congolese appellation for apes with the Ancient name for mythical people of short stature, putatively living in Africa. The bonobo is called *Pan paniscus* and the gorilla owes its name to the hirsute creatures mentioned in the Ancient Carthaginian traveler Hanno's *Periplus*.⁴ This article examines the long history of these confluences between biology and mythology to claim that Europeans' ideas about the organisation and classification of the natural world were conditioned by their conceptualisations of the emergence of myth in Antiquity.⁵

Importantly, the naturalists' accounts of Ancient mythological creatures were part of a larger set of scholarly inquiries that attempted to provide an historical explanation of the relationship of mythical wisdom to various types of observation-based natural knowledge. I review a long series of disagreements on how to reconcile the differences between Ancient descriptions of mythical creatures and the first-hand study of modern-day apes. I argue that, across the centuries, some scholars took a euhemerist approach, i.e. they considered myth as the somewhat dubious source of degraded observational knowledge, which needed to be evaluated and potentially corrected before it could be put to proper scientific use.⁶ These scholars tended to claim that the Ancient satyr was, in

⁴ Sebastian Kroupa. "Humanists and Travelers, Gorgons and Gorillas: Hanno the Navigator's 'Periplus' and Early Modern Geography (1530-1630). *International History Review* 41 (2019): 793-820.

⁵ In its approach and aims, this article is hoping to imitate Fabian Kraemer, Kärin Nickelsen and Dana von Suffrin. "Botany and the Science of History: Nature, Culture, and the Origins of Civilization, circa 1850-1900." *Isis* 113 (2022): 45-62.

⁶ On euhemerism, see Luc Brisson. *How Philosophers Saved Myths: Allegorical Interpretation and Classical Mythology*. Chicago: University of Chicago Press, 2004; Syrithe Pugh. *Euhemerism and Its Uses: The Mortal Gods*. New York: Taylor and Francis, 2021. See also Jean Seznec. *The Survival of the Pagan*

fact, an ape. On other occasions, however, philosophically-minded scholars, including those working with Oken, rejected the argument that mythical descriptions were the result of the imperfect observational skills of the Ancients. Instead, they posited that myth was a particularly valuable and unique type of knowledge, which was perfect on its own right, and they charged that observational knowledge therefore had its limits. Consequently, these scholars, including Oken, rejected the straightforward identification of satyrs with the orangutan or any other primate. Ultimately, the question at stake was the relative epistemological value of Ancient myth *vis-à-vis* modern-day, observational knowledge, a peculiar variant of the *Querelle des Anciens et modernes*.⁷

Through its focus on early modern and modern debates about the relationship between science and myth, this article brings into conversation the history of science with the history of the humanities, offering some insight into how these two fields of inquiry have come to co-constitute each other. In doing so, it engages in conversation with recent work on the early modern history of chronology and Ancient knowledge, or with the tangled history of the physical sciences, physical and social and cultural anthropology in

Gods: The Mythological Tradition and Its Place in Renaissance Humanism and Art. Princeton: Princeton University Press, 1953. For related discussions in Antiquity, see Greta Hawes. *Rationalizing Myth in Antiquity*. Oxford: Oxford University Press; and, more generally, Paul Veyne. *Did the Greeks Believe in Their Myths: An Essay on the Constitutive Imagination*. Chicago: University of Chicago Press, 1988.

⁷ Joseph M. Levine. *The Battle of the Books: History and Literature in the Augustan Age*. Ithaca: Cornell University Press, 1994. On the French context, see Joan DeJean. *Ancients against Moderns: Culture Wars and the Making of a fin de siècle*. Chicago: University of Chicago Press, 1997; Marc Fumaroli, *La querelle des anciens et modernes*. Paris: Gallimard, 2001.

the past 150 years.⁸ In recent years, scholars have also successfully investigated the complex history of early modern and modern interpretations of Ancient myth.⁹ Here, instead of reconstructing the successive changes in these interpretations, my more limited focus is on the stubborn persistence of one particular debate surrounding the satyr. The article's decision to center its attention on one mythical creature is certainly not novel.¹⁰

⁸ Anthony Grafton. "Kepler as a Reader." *Journal of the History of Ideas* 53 (1992): 561-572; Daniel Rosenberg and Anthony Grafton. *Cartographies of Time*. New York: Princeton Architectural Press, 2010; Jed Z. Buchwald and Mordechai Feingold. *Newton and the Origin of Civilization*. Princeton: Princeton University Press, 2022; Dmitri Levitin. *Ancient Wisdom in the Age of the New Science*. Cambridge: Cambridge University Press, 2015; Gianna Pomata and Nancy Siraisi. *Historia: Empiricism and Erudition in Early Modern Europe*. Cambridge: MIT Press, 2005; Simon Schaffer. *From Physics to Anthropology - and Back Again*. Cambridge: Prickly Pear Press, 1994; George Stocking, Jr. *Victorian Anthropology*. New York: The Free Press, 1987; Richard Staley. "Conversions, Dreams, Defining Aims? Following Boas and Malinowski, Physics and Anthropology, through Laboratory and Field." *History of Anthropology Newsletter* (December 2012): 3-10.

⁹ For summary accounts, see Bruce Lincoln. *Theorizing Myth: Narrative, Ideology, and Scholarship*. Chicago: University of Chicago Press, 1999; Eric Csapo. *Theories of Mythology*. Oxford: Blackwell, 2005; and, for more modern scenarios, Ivan Strenski. *Four Theories of Myth in Twentieth-Century History: Cassirer, Eliade, Lévi-Strauss and Malinowski*. London: Macmillan, 1987. On the difficulties of distinguishing religion from mythology or, indeed, defining religion, see Brent Nongbri. *Before Religion: A History of a Modern Concept*. New Haven: Yale University Press, 2015.

¹⁰ See the now classic Brian Ogilvie. *The Science of Describing: Natural History in Renaissance Europe*. Chicago: University of Chicago Press, 2006; Karen Reeds. *Botany in Medieval and Renaissance Universities*. New York: Garland, 1991; Sachiko Kusukawa. *Picturing the Book of Nature: Image, Text, and Argument in Human Anatomy and Medical Botany*. Chicago: University of Chicago Press, 2012. For recent work, see Lorraine Daston and Glenn W. Most. "History of Science and History of Philologies." *Isis*

In recent years, Fabian Krämer, Bernd Roling and Harriet Ritvo have performed brilliant analyses of how natural historians integrated into their works accounts of the animals of myth, such as centaurs and satyrs.¹¹ Significantly, Roling and Ritvo have also shown how the scientific interest in these mythological creatures survived well into the nineteenth century. My article builds on this historiography to make the point that, throughout several centuries, natural historians, historians and philosophers shared a discursive space that forced them to repeatedly confront the question whether Ancient ways of knowing were superior, or inferior, to modern-day scholarship and, more specifically, how knowledge circulated across Eurasia in Ancient and prehistoric times. They were convinced that, without answering these questions, it was impossible to determine the

106 (2015): 378-390; Minakshi Menon. "What's in a Name? William Jones, 'Philological Empiricism' and Botanical Knowledge Making in Eighteenth-Century India." *South Asian History and Culture* 13 (2022): 87-111; Luke McMullan. "Philology and the Progress of Knowledge in the Mid-Eighteenth Century." *ELH* 88 (2021): 605-627. For general work on the transmission of Ancient knowledge, see Paul Kristeller. *The Classics and Renaissance Thought*. Cambridge: Harvard University Press, 1955; James Hankins. *Plato in the Italian Renaissance*. Leiden: Brill, 1990; Charles B. Schmitt. *Aristotle and the Renaissance*. Cambridge: Harvard University Press, 1983.

¹¹ Fabian Krämer. *A Centaur in London: Reading and Observation in Early Modern Science*. Baltimore: Johns Hopkins University Press, 2023; Bernd Roling, *Drachen und Sirenen: die Rationalisierung und Abwicklung der Mythologie an den europäischen Universitäten*. Leiden: Brill, 2010, with a special chapter on the satyr, 289-392; Harriet Ritvo, "Shifting the Line between People and Other Animals," *Social Research* 62 (1995): 481-500, esp. 492; Benjamin Hübbe. "Trapped and Lost in Translation: The Moose in Early Modern Zoology and Biblical Philology in Northern and East-Central Europe." in: Bernd Roling and Bernhard Schirg, eds. *Boreas Rising: Antiquarianism and National Narratives in 17th- and 18th-century Scandinavia*. Berlin: De Gruyter, 2019, 229-262.

identity of the satyr. The way you thought about the mobility of knowledge conditioned the way you wrote about the creatures the Ancients described.

In the rest of this article, I will first discuss how the satyr entered professional works of natural history in the sixteenth century. The second section moves to the seventeenth century to examine how some scholars came to identify the satyr with African and Asian apes in the wake of colonisation and global commerce. In the third and fourth sections, I will examine the opposing views of other early modern and Enlightenment scholars who rejected the identification of satyrs with modern-day animals. The fifth section turns to Oken, who continued to believe that the knowledge of the Ancients could not be simply reduced to that of modern science, despite his act of naming the chimpanzee *Pan troglodytes*. Oken's work is contrasted in the sixth section with followers of Darwin in Victorian Britain, who revived the argument that Greco-Roman mythical creatures were the result of faulty observation on the parts of the Ancients. The conclusion reminds us of the continued relevance of mythical creatures for the 20th- and 21st-century sciences. The repetitive nature of the sections of this article serves to show how mythological creatures generated the same debate again and again throughout the course of several centuries, even if understandings of mythology and observational knowledge certainly changed. One of the claims of modern, observation-based science is that it facilitates progress through the accumulation of new data. It is therefore interesting to see that, despite the emergence of novel information on apes, and the transformations in European approaches to myth, the foundational philosophical arguments about the possibility of integrating satyrs into zoology have remained fairly constant.

1. Introduction: Satyrs enter Natural History

It is well known that many Renaissance naturalists aimed at resolving the identity of plants and animals mentioned in the writings of the Ancients by the combination of humanist philology and first-hand observation. Yet, when it came to the satyr, the task became rather overwhelming. What do you do with a creature whose main features are easy to determine, but its peculiar details are hard to agree upon? Ever since Antiquity, everyone had agreed that satyrs, together with their divine leader *Pan*, were humanoid creatures with hairy, horse- or goat-like feet, pointy equine ears or caprine horns on their head, and an insatiable desire for human women or other animals. Yet this is where agreement had ended, as shown by the highly diverse artistic and scientific iconographic tradition of depicting this creature, ranging from the hirsute figures of Albrecht Dürer to the almost human character of the paintings of Jacob Jordaens [Fig. 1]. Some claimed that satyrs may well be the stuff of fancy, as Lucretius did, but these creatures were also featured in the credible, and venerated, reports of Plutarch, who claimed they lived in Egypt near Chemmis, and Pliny the Elder, who situated them near the African city of Magium.¹² Combine these contradictory reports with the uncanny similarity of satyrs to the Earthly shape of the devil, whose iconography in Western Europe, as art history tells us now, was indeed strongly influenced by Greco-Roman satyr images from 1000 AD

¹² Lucretius. *De rerum natura*. IV.580-9; Pliny the Elder. *Natural History*. Cambridge: Harvard University Press, 1967, Book V. Chap. 8, Book VIII. Chap. LXXX; Plutarch. *Moralia: Isis and Osiris*.

onwards.¹³ And, if possible, do not forget Aesop's fable of the *Satyr and the Peasant*, in which the satyr is presented as the best exemplar of naiveté because it expresses incredulous astonishment at the peasant's ability to use his breath both to warm up his fingers and to cool down his soup, as exemplified by a painting of Jordaens [Fig. 2].

What is the solution to explain away the contradictory nature of these numerous accounts, which sometimes claim that satyrs are simple and ignorant creatures, and sometimes say that they are cunning and highly intelligent devils?

During the sixteenth century, when this question was explicitly raised, humanist scholars explained the complexity of these historical accounts by splitting satyrs into two or three distinct categories, a solution that would have important repercussions for the following centuries. For example, the Swiss humanist scholar Conrad Gessner (and his English translator Edward Topsell) argued, thanks to the careful analysis of a variety of sources, including mythical accounts, poetical works and artistic depictions, that satyrs were primarily a kind of monkey, though sometimes they were monsters [Fig. 3]. They emphatically mentioned that, in addition, the devil also had a predilection for taking the shape of this animal, just as, on other occasions, it also disguised itself as an *onocentaurus* or a donkey. The task of the natural historian, like that of an exorcist, was to establish the proper boundaries between these categories.¹⁴

¹³ Alexander Kulik. "How the Devil Got His Hooves and Horns: The origin of the Motif and the Implied Demonology of 3 *Baruch*." *Numen* 60 (2013): 195-229; Luther Link. *The Devil: The Archfiend in Art from the Sixth to the Sixteenth Century*. New York: Harry N. Abrams, 1996.

¹⁴ Edward Topsell. *The History of Four-Footed Beasts and Serpents*. London: E. Cotes, 1658 [1607], 10.

This partial identification of the satyr with the devil made it the paradigmatic creature for exploring myth's relationship to natural history because the supernatural powers of devilish satyrs, who aimed to confuse humankind, offered a satisfactory explanation why earlier generations could not agree on the exact shape of these creatures. In Gessner's brief account, Ancient myths, and the contradictory evidence on satyrs, were born out of the confusion of the sightings of the devil in a satyr-like form (with its horns and hooves) and the encounters with the real monkey. As the famed Swiss humanist wrote, "some think satyrs to be demons (while others think them to be human), for which reason the poets and painters attached caprine feet and horns to them, though nothing suchlike can be seen in the monkeylike satyrs."¹⁵ Monkeylike satyrs stood erect, their skin was covered with hair, they lived in the desert, and they coveted human women.

Gessner was not on his own when it came to combining demonology with philology to make sense of the satyr. Little known today, François Hédelin d'Aubignac, a nephew of the teratologist Ambroise Paré, was probably the first author to devote an entire treatise to satyrs. In his *Des satyres brutes, monstres, et démons* from 1627, Hédelin d'Aubignac agreed with Gessner that satyrs could be monkeys, they could be hybrid monsters born from the sexual intercourse of humans and goats, and they could be

¹⁵ "Quemadmodum cynocephali simiae occasionem fabulae dederunt, ut homines quidam tales putarentur: sic satyri rarius etiam et maioris admirationis simiarum genus, daemones quidam crediti sunt (ab aliquibus etiam homines, ut dicam in B.) quibus poetae et simij eorum pictores plastaque caprinos pedes et cornua affinxerunt, ut admirationem ac superstitionem augerent, nam in satyris simijs nihil tale spectatur." Conrad Gessner. *Historiae animalium libri IV*. Zürich: Froschouer, 1551-1555, I/974.

demons, though, the author insisted, they were surely not humans.¹⁶ As he argued, there was an abundance of evidence for the existence of demonic satyrs. The heathen god Pan, fauns, satyrs and all similar creatures of Ancient myth were the creation of the devil, who duped the Greeks and “made them pay impious reverence to so many deities that, in adoring more than one God, they would not truly adore any.”¹⁷ Diabolic agency explained many of the curious characteristics of mythical, but not monkey-like, satyrs, which gave rise to confusion amongst those who wanted to treat the two creatures as one. To give just one example, satyrs often evoked panic, which literally meant the fear of Pan. People caught panic when the devil, in the shape of a satyr, created a sudden terror in their hearts so as to vanquish them by fear.¹⁸ It was deucedly difficult to tell whether a monkeylike creature was an irrational brute, without language or reason, or whether it was the devil, fully equipped with language and wily reason, skills that he used to pose as an irrational brute without language or reason.

¹⁶ François Hédelin d’Aubignac. *Des satyres brutes, monstres, et démons*. edited by Gilles Banderier. Grenoble: Jérôme Millon, 2003. On Hédelin d’Aubignac, see the recent William Theiss. “The Abbé d’Aubignac’s Homer and the Culture of the Street in Seventeenth-Century Paris.” *Journal of the History of Ideas* 84 (2023): 77-102.

¹⁷ “Le Diable par ses maudits artifices était celui, qui les tenant aveuglés en la lumière de leur propre philosophie, par laquelle ils apprenaient d’eux-mêmes l’unité d’un vrai Dieu, les charmaient et arrêtaient en la révérence impie de tant de déités, afin qu’adorant plus d’un dieu, ils n’en adorassent point de tout” François Hédelin d’Aubignac. *Des satyres brutes, monstres, et démons*. edited by Gilles Banderier. Grenoble: Jérôme Millon, 2003, 126.

¹⁸ François Hédelin d’Aubignac. *Des satyres brutes, monstres, et démons*. edited by Gilles Banderier. Grenoble: Jérôme Millon, 2003, 128. This etymology is already present in Plutarch’s *Moralia*.

Significantly, Hédelin d'Aubignac also introduced an alternative interpretation of why there was a lack of agreement on what satyrs were before he appeared on the scene. Shifting agency from a cunning demon to his fellow humans, he argued that superstition and forgetfulness could also explain why previous generations had failed to realize what the satyr really was. Take, for example, the story of Bacchus, god of wine and merriment, always accompanied by a number of satyrs. Following the Ancient Greek historian Diodorus Siculus, Hédelin d'Aubignac claimed that Bacchus was identical with the old Egyptian king Osiris, who used to keep a number of monkeylike satyrs at his court.¹⁹ After his death, the Egyptians regularly organized processions to commemorate their beloved ruler, and made sure that monkeylike satyrs were also part of the show. But as the centuries passed, the fading memories of the naive and idolatrous locals slowly turned this king into a deity and, by consequence, they began to erroneously treat the monkeys of Bacchus as demonic creatures. Myth and fables were born when strange animals were mistaken for devils and heathen gods, and, conversely, when devilish appearances for mistaken for animals. The question was only whether human superstition or a supernatural agent was the reason for these mistakes.

When the Devil Became a Drunken Sailor

The seventeenth-century expansion of colonisation and commerce, which facilitated the transportation and observation of apes across the globe, brought with itself the explosion of explanations that blamed myth's inconsistencies on the excesses of

¹⁹ The source for these claims was Diodorus Siculus. *The Library of History*. Book I chs. 18-19.

human imagination, naive superstition, and imperfect information transmission in global communication circuits. A crucial source for these explanations was Nicolaas Tulp's description of a living satyr brought from Angola to the Netherlands, published in 1641, the year the Dutch West India Company captured Luanda. Tulp's first-hand account of this animal in his *Observationes medicae* was peppered with detailed philological analyses of Biblical, scholarly and poetical sources **[Fig. 4]**.²⁰ As he wrote, the animal, which he named the *satyrus indicus*, originated in Africa but it belonged to the same species that his countrymen found in the East Indies, where the locals called it the *orangutan*, or a man of the forest. Tulp argued that the *satyrus indicus* was the same creature that the Ancient authors called satyr. Significantly, he did not rely on the devil to explain the differences between his observations and earlier accounts. He instead blamed the Ancient poets' "ingenious figments" of imagination for these discrepancies.²¹ Simply

²⁰ Nicolaes Tulp. *Observationes medicae*. Amsterdam: Elzevir, 1652, III/283-291. On Tulp, see S. A. C. Dudok van Heel. *Nicolaes Tulp: The Life and Work of an Amsterdam Physician and Magistrate in the 17th Century*. Amsterdam: Six Art Promotion, 1998. On the history of orangutans, Robert Cribb, Helen Gilbert, and Helen Tiffin. *Wild Man from Borneo: A Cultural History of the Orangutan*. Honolulu: University of Hawaii Press, 2014; Miriam C. Meijer. "The Century of the Orangutan." *New Perspectives on the Eighteenth Century* 1 (2004): 62-78; Silvia Sebastiani. "A 'monster with human visage': The Orangutan, Savagery, and the Borders of Humanity in the Global Enlightenment." *History of Human Sciences* 32 (2019): 80-99.

²¹ "Sed quo minus id potuerit, obstitere fortassis Viro Diligentissimo [i.e. Plinius], hinc ingeniosa poetarum figmenta, circa eis illecebris ita fucata: ut nescio quos non fallerent sensus." Tulp. *Observationes medicae*. Amsterdam: Elzevir, 1652, 274.

put, Dutch colonial travel was better equipped for the production of trustworthy observations than the poetical world of Antiquity.

Yet, if Ancient poets were one source of error in the transmission of knowledge from Borneo to Europe, Greek and Roman travelers could become another. Take, for instance, Edward Tyson, the pre-eminent anatomist of the early Royal Society. Tyson was one of the main proponents of the idea that Ancient global networks lay behind the flourishing of Greek and Roman natural philosophy, arguing that Aristotle's scientific works were the direct result of Alexander the Great's imperial exploits.²² For him, the colonial voyages of early modern Europeans and the novel discoveries of natural philosophy served to reconstruct and improve upon a world of knowledge established in the age of Greek imperialism, much diminished and forgotten since those glorious days. As Tyson wrote, his aim was to "repair the Ruines of so decrepit an Edifice."²³ Tyson

²² "And that great Conquerour of the world, who wept that there was but one for his ambitious Rage to spoil, at length more nobly had his desires in these, and with greater Glory hath eterniz'd his Name, when after he had ravag'd the Air, Sea and Land, at last committed to Aristotle to write the History of his Trophies." Edward Tyson. *Phocaena or the Anatomy of a Porpess*. London: Benj. Tooke, 1680, 3. For an interpretation of Topsell's introduction to the *Phocaena*, see Neil Moxham. "Edward Tyson's *Phocaena*: A Case Study in the Institutional Context of Scientific Publishing." *Notes and Records of the Royal Society* 66 (2012): 235-252.

²³ Tyson, *Phocaena*, 3. On the necessity of imperialism, he made that claim that "nor were it [the natural history of animals] difficult, were there more Alexanders to find out Aristotles." *ibid.*, 8. On Tyson and colonial knowledge, see also Whitney Barlow Robles. "The Rattlesnake and the Hibernaculum: Animals, Ignorance, and Extinction in the Early American Underworld." *The William and Mary Quarterly* 78 (2021): 3-44.

relied upon this framework of imperial history to explain his method of integrating myth into the fabric of natural history in an essay on the anatomy of the orangutan. His *Orang-outang sive Homo silvestris* revealed that he had originally thought that myths, such as those of satyrs, were simply the stuff of fancy. Yet he was struck that,

“if the whole was but a meer Fiction, that so many succeeding Generations should be so fond of preserving a Story, that had no Foundation at all in Nature; and that the ancients should trouble themselves so much about them.”²⁴

Fiction had no staying power, only facts based on nature could survive the ravages of time. Long-standing myths therefore must have contained at least a modicum of truth, which was then diluted through corrupted, mercantile exchange. This is how stories about the various wild races of men gained currency in Antiquity, Tyson thought. Greeks and Romans maintained a trade with the far East and Africa, from which merchants brought embalmed specimens of apes, “exposing them for the Men of the Country, from whence they brought them.”²⁵ Just as seventeenth-century sailors were considered untrustworthy “giddy Travellers” who would invent a continent in exchange

²⁴ Edward Tyson. *Orang-outang, sive Homo Sylvestris, or, the Anatomy of a Pygmie*. London: Thomas Bennet, 1699, Preface. On Tyson, see Justin E. H. Smith. “Language, Bipedalism, and the Mind-Body Problem in Edward Tyson’s *Orang-Outang* (1699).” *Intellectual History Review* 17 (2007): 291-304.

²⁵ Edward Tyson. *Orang-outang, sive Homo Sylvestris, or, the Anatomy of a Pygmie*. London: Thomas Bennet, 1699, 36.

for a drink, so could Tyson charge the navigators of Antiquity with “imposture.”²⁶ Yet commercial interests still only told half the story. Religious naiveté was the other reason for transforming facts into myths. As Tyson explained, satyrs were not orangutans originally, but bonobos, whose features were embellished by the local population, because they considered them divine. And then, to prove that superstitious peoples corrupted information not only in Antiquity, but sometimes also in his own age, Tyson quoted the Dutch traveler Jan Huygen van Linschoten’s contemporary report on Ceylon, where apes were similarly taken for gods. Hidden behind a veil of myth, Tyson therefore discovered the Ancient circulation networks of natural historical knowledge, with some distortions along the way.

Divine Satyrs and Ancient Wisdom

Tulp, Tyson, and many other natural historians were united by their shared belief that recent medical and zoological observations served as the gold standard of evidence, even in cases when these observations served to validate the valuable but imperfect accounts of less than perfect Ancient travelers. Yet not all seventeenth- and eighteenth-century scholars agreed with the emphasis on using contemporary observation to verify the claims of Ancients. If Ancient wisdom was divinely inspired, as some claimed, it could not be so easily disproved. Statements about the satyr had to be true, either literally or, at the very least, as a mysterious allegory that expressed deeper wisdom. If, in the sixteenth century, the malevolent supernatural agency of the devil was the reason why not

²⁶ Tyson, *Phocaena*, 4.

all satyrs could be classified as monkeys, this reason was now the benevolent supernatural agency the divine.

Within England, one early version of an allegorical explanation came from Francis Bacon's *The Wisdom of the Antients*, which argued that, having a “concealed and secret meaning,” poetical fables were our best sources to understand “the earliest antiquity.” They were “sacred relics, gentle whispers, and the breath of better times,” which were transmitted to the Ancient Greeks from even more Ancient nations. In these myths, the satyr-like god Pan was used as an allegory of nature.²⁷ As Bacon explained, in those days, myths were used to conceal hermetic wisdom from the vulgar, just as Solomon's House would keep natural philosophy secret in the utopian *New Atlantis*. They served to illuminate the secrets of nature in an allegorical conceit.²⁸ For Bacon, the myth of Pan, the goat-footed, horned and bearded, half-brute, half-human God, was therefore not a distorted account of natural or civil history. Rather, Pan was an allegory of nature itself, and each element of the myth of Pan served to illuminate a particular aspect of the curious workings of nature. To understand the myth of Pan, instead of observation, one needed the skills of poetic interpretation. Mythical knowledge and modern natural knowledge were separate domains of inquiry, and they could not be made to cohere in one discipline.

²⁷ Francis Bacon. “The Wisdom of the Antients.” in: Francis Bacon. *Bacon's Essays and the Wisdom of the Ancients*. Boston: Little, Brown, and Company, 1886, 321.

²⁸ Rhodri Lewis. “Francis Bacon, Allegory and the Uses of Myth.” *The Review of English Studies* 61 (2010): 360-389; Anna-Maria Hartmann. “Light from Darkness: The Relationship between Francis Bacon's *Prima Philosophia* and his Concept of the Greek Fable.” *The Seventeenth Century* 26 (2011): 203-220.

Don Cameron Allen noted already fifty years ago that arguments such as Bacon's remained influential throughout the seventeenth century, at least for those who believed in the superiority of Antiquity.²⁹ As Allen pointed out, the German philologist Andreas Eschenbach explained with verve that the poetic fables of the Ancients were inspired by God, and they could not be reduced to simple figments of the credulous imagination.³⁰ *Pace* Allen, these claims also continued to receive eager attention in the eighteenth century. For instance, William Stukeley, the leading antiquarian of that age, is nowadays mostly renowned for his explorations of Stonehenge and Avebury. Yet Stukeley was equally active in deciphering the textual sources of myth and poetry, based on his increasingly strong and literalistic belief that the Bible's accounts of early history should be considered the gold standard that both the science of modernity and the accounts of the heathens needed to be evaluated against.³¹ Greco-Roman, or Druidic, antiquity

²⁹ Don Cameron Allen. *Mysteriously Meant: The Rediscovery of Pagan Symbolism and Allegorical Interpretation in the Renaissance*. Baltimore and London: Johns Hopkins Press, 1970; see also Daniel Stolzenberg. *Egyptian Oedipus: Athanasius Kircher and the Secrets of Antiquity*. Chicago: University of Chicago Press, 2013; Margaret Geoga and John Steele, eds. *The Allure of the Ancient: Reception of the Ancient Middle East, ca. 1600-1800*. Leiden: Brill, 2022.

³⁰ “Quin potius poeticas fabulas non mera figmenta esse, sed divini quiddam fictis istis involucris subesse, omnino persuasus sum; ut eas Alcibiadis Silenis haud incongrue comparare quis possit.” Andreas Eschenbach. *Ethica mythologica*. Altdorf: literis Henrici Meyeri, 1684, sig. A2.

³¹ On Stukeley's relationship to the Bible, and the Christianity, see Ronald Hutton. “The religion of William Stukeley.” *The Antiquaries Journal* 85 (2005): 381-394; on his empiricism, see Katharina Boehm. “Empiricism, Antiquarian Fieldwork and the (In)Visibilization of the Past in the Early Eighteenth Century.” *Word & Image* 33 (2017): 257-266. On Stukeley's life, see Stuart Piggott. *William Stukeley: An Eighteenth-Century Antiquary*. London: Thames and Hudson, 1985; David Boyd Haycock. *William*

mattered more than eighteenth-century natural philosophy, however, because it closely reflected the contemporaneously unfolding divine history of Christianity. Consequently, in his interpretation of Horace's *Ode to Bacchus*, Stukeley came to equate Bacchus with Jehovah, arguing that Ancient myth and poetry were but a distorted version of the Bible's divinely warranted stories. Having read Diodorus Siculus carefully, Stukeley argued that Bacchus' travels to India in the company of satyrs and nymphs, "half deities, more than human, inferior to the gods," had to be a slight misinterpretation of the travels of Moses and the Israelites from Egypt to the promised land. Consequently, these putatively super-human satyrs had to be identified with the Jews, the elect people of God, who, after having

"liv'd 40 years in a desart, rought and unpolite, clad with skins of wild beasts, must needs make that very appearance which we see in all antique sculptures of Bacchinalians."³²

The poetic truth of Horace could not be elucidated by the observation of apes; it had to be interpreted through studying the word of God. Consequently, the satyr of myth could not be reduced to an irrational animal, because the Roman poet was close enough

Stukeley: Science, Religion and Archaeology in Eighteenth-Century England. Woodbridge: Boydell, 2002.

See also Anne-Marie Roos. *Martin Folkes (1690-1754): Newtonian, Antiquary, Connoisseur*. Oxford: Oxford University Press, 2021.

³² William Stukeley. *Palaeographia sacra ... Number I. A Comment on an Ode of Horace*. London: William Innys and Richard Manby, 1736, 18.

to Judaic teaching to correctly claim that “satyrs had a more than ordinary wisdom and knowledge of things.” Greco-Roman myths were a slightly inferior, but still mystically inspired version of the Bible, more trustworthy than the natural history of Stukeley's age.³³

Linguistics and Anthropology around 1800

The arguments of the supporters of Ancient wisdom gained strong, if contested, popularity in the late eighteenth century, when the renewed colonial fascination of Europeans with the antiquity of the Sanskrit language and knowledges of India necessitated a reassessment of the world of Greco-Roman antiquity.³⁴ The evidence that

³³ Stukeley. *Palaeographia sacra*, 20.

³⁴ On Sanskritic philology, see Kapil Raj. “Refashioning Civilities, Engineering Trust: William Jones, Indian Intermediaries and the Production of Reliable Legal Knowledge in Late Eighteenth-Century Bengal.” *Studies in History* 17 (2001): 175-209; Minakshi Menon. “What's in a Name? William Jones, 'Philological Empiricism' and Botanical Knowledge Making in Eighteenth-Century India.” *South Asian History and Culture* 13 (2022): 87-111. On the complexities of such engagements, and their interactions with observation and metrology, see Simon Schaffer. “Oriental Metrology and the Politics of Antiquity in Nineteenth-Century Survey Sciences.” *Science in Context* 30 (2017): 173-212; and, more generally, Catherine König-Pralong. *Écrire l'histoire de la philosophie aux XVIIIe-XIXe siècles*. Paris: EHESS, 2019. On earlier engagements with comparative history, and comparative religions, see Lynn Hunt, Margaret C. Jacob and Wijnand Mijnhardt. *The Book That Changed Europe: Picart and Bernard's Religious Ceremonies of the World*. Cambridge: Harvard University Press, 2010; as well as Jan Peter Schouten. *The European Encounter with Hinduism in India*. Leiden: Brill, 2020.

was supposed to resolve these debates came, at least in part, from the philological study of mythical accounts of satyrs and the scientific observations of apes. Consider Lord Monboddo, an influential if eccentric Scottish author of the late eighteenth century, whose numerous works provided a complex historical, linguistic and philosophical account of the historical formation of knowledge.³⁵ Like Stukeley, Monboddo believed in the superiority of at least some Ancient peoples over the world of the eighteenth century. He was convinced that postlapsarian human history began in barbaric conditions, but then, he thought, human civilisation soon reached its summit in Ancient Egypt, a feat never to be repeated in the millennia coming afterwards.³⁶ It was from Egypt that language, the arts and the sciences traveled to Greece, India and Japan, Monboddo argued on the basis of Ancient writers and the reading of more recent observations, including William Jones' studies of the relationship between Sanskrit and Ancient Greek.³⁷ He filled volume after volume with evidence and argument about how the rich agricultural areas of the Nile river, and the country's strongly hierarchical structure, were ideal for the formation of knowledge and wisdom. It was in Egypt that sociable humankind first

³⁵ On Monboddo, see E. L. Cloyd. *James Burnett: Lord Monboddo*. Oxford: Clarendon Press, 1972.

³⁶ R. J. W. Mills. "Egyptomania and Religion in James Burnett, Lord Monboddo's 'History of Man.'" *History of European Ideas* 47 (2021): 119-139.

³⁷ Rosane Rocher. "Lord Monboddo, Sanskrit and Comparative Linguistics." *Journal for the American Oriental Society* 100 (1980): 12-17; for a reprint of the correspondence, see Garland Cannon. "The Correspondence between Lord Monboddo and Sir William Jones." *American Anthropologist* 70 (1968): 559-562. On Monboddo's use of evidence, see Silvia Sebastiani. "Monboddo's 'ugly tail': The Question of Evidence in Enlightenment Sciences of Man." *History of European Ideas* 48 (1) (2022): 45-65.

acquired language, the most important invention in the history of humankind.³⁸ For Monboddo strongly believed that earlier humans did not actually possess language. The barbaric humans of prehistory had the capacity to acquire language, but they did not actually come to learn it until the age of the wise Egyptians.

Monboddo's belief in the primacy of Ancient knowledge, which trickled down from Egypt to Greece, Rome and India through somewhat faulty lines of transmission, meant that, for him, ancient Egyptian myth could not be reduced to an imperfect version of modern science, because modern science itself was erroneous. This was partly because natural science was always subordinate to poetry, partly because Newton was clearly inferior to Aristotle, and, even more importantly, because the sages of Egypt were inspired by God. In his account of the superiority of the Ancients, Monboddo retained the role of the supernatural in guiding human history, following in the footsteps of Gessner, Bacon or Stukeley.³⁹ For Monboddo, the first rulers of Egypt were benevolent demons, halfway between humankind and divinity. If Egyptian wisdom was therefore divine, there was no reason to conflate the perfectly trustworthy Ancient accounts of satyrs with modern-day observations of orangutans. This was not because Monboddo was ignorant of zoology. He studied orangutans extensively, just as he was an ardent admirer of Diodorus

³⁸ On Monboddo's theories of language, see Stephen K. Land. *The Philosophy of Language in Britain: Major Theories from Hobbes to Thomas Reid*. New York: AMS Press, 1986, 159-192; Nadja Noldin. *Are we then no better originally, they will say, than the brute beasts? Lord Monboddo im Kontext der Sprachursprungdebatte und Naturgeschichte des Menschen im 18. Jahrhundert*. Würzburg: Königshausen & Neumann, 2013.

³⁹ James Burnett, Lord Monboddo. *Antient metaphysics: or, The Science of Universals*. Edinburgh: J. Balfour and co., 1779-1799.

Siculus. Yet he never made the claim that the two species were identical, even though he discussed both in the same chapter of his *Antient Metaphysics*.⁴⁰ As it is well-known, Monboddo was adamant that all types of orangutans were actually humans, including what he called the Pongo, the Chimpenza, and the Itzena.⁴¹ These creatures served as the crucial piece of evidence that some humans possessed only the capacity to learn language, but had not actually learned to speak just yet. Satyrs served as an additional piece of evidence for this claim, but they were treated as a separate and distinct variant of humankind. While orangutans and satyrs both had tails, satyrs also had “the feet of goats, and horns on their heads.”⁴² These features were not the embellishments of poets, but actual historical truth, as attested by authorities such as St Jerome, St Augustine, Strabo, and especially the trustworthy Herodotus, who also confirmed the existence of the cyclops. As Monboddo wrote, “we must not therefore treat as a fable what Homer has told us of the Cyclops, any more than what is related, by other antient authors, of Satyrs.”⁴³ While ancient historians and poets could certainly be wrong on occasion, Monboddo admitted, his default position was to believe in them precisely because of their close relations with Egyptian wisdom.

Monboddo's works emerged in conversation and debate with other scholars, both in context of the Scottish Enlightenment, where he was an ardent opponent of David Hume, and in the context of continental natural philosophy where he disagreed

⁴⁰ James Burnett, Lord Monboddo, *Antient Metaphysics* IV, 43-54.

⁴¹ James Burnett, Lord Monboddo, *Antient Metaphysics*, IV, 51.

⁴² James Burnett, Lord Monboddo, *Antient Metaphysics*, IV, 45.

⁴³ James Burnett, Lord Monboddo, *Antient Metaphysics*, IV, 46.

vehemently with the French philosophers Georges Leclerc Buffon and Jean-Jacques Rousseau.⁴⁴ An important part of these discussions queried precisely Monboddo's highly controversial claims about the supremacy of Ancient myth over modern knowledge. The Dutch naturalist Petrus Camper, nowadays mostly known for his racial theory of the facial angle, certainly disagreed with the Scottish philosopher's assessment. He started his discussion of the orangutan with the claim that

“the sciences all have such a tight relationship with the Ancients that it is completely impossible to discuss a topic, without calling the help the writings of the honorable Antiquity, and to use the nomenclature, which it has given to many things, and especially to animals.”⁴⁵

⁴⁴ Silvia Sebastiani. “Civilisation and Perfectibility: Conflicting Views of the History of Humankind?” in: John Robertson, ed. *Political Thought, Time, and History*, Cambridge: Cambridge University Press, 2023, 194-215; R. J. W. Mills. The ‘Almost Wilfully Perverse’ Lord Monboddo and the Scottish Enlightenment’s Science of Human Nature.” in: R. J. W. Mills and Craig Smith, eds. *The Scottish Enlightenment: Human Nature, Social Theory, and Moral Philosophy. Essays in Honour of Christopher J. Berry*. Edinburgh: Edinburgh University Press, 2021, 49-70. On the highly relevant conjectural histories of the period, and the relevance of Giambattista Vico, see Frank Palmeri. *State of Nature, Stages of Society: Enlightenment Conjectural History and Modern Social Discourse*. New York: Columbia University Press, 2016, 27-58; on Adam Smith's version and its origins, see István Hont. “The Language of Sociability and Commerce: Samuel Pufendorf and the Theoretical Foundations of the ‘Four-Stages Theory’” in idem. *Jealousy of Trade: International Competition and the Nation-State in Historical Perspective*. Cambridge, MA: Harvard University Press, 2005, 159–84.

⁴⁵ “De Wetenschappen hebben alle zulk een naauw verband met die der Ouden, dat het zelfs tegenwoordig geheel en al onmogelyk is over eenig onderwerp te handelen, zonder de gedenstukken der achtebaare

Despite his respect for Antiquity, Camper argued for the superior powers of modern natural history. As Camper explained, *pace* Monboddo, Ancient myth was not divine. It was only valuable because it relied on first-hand observations obtained through a complex chain of commercial networks, which connected Siam and Sumatra with Ceylon, Ceylon with Alexandria through the Red Sea, and Alexandria with Rome through the Mediterranean.⁴⁶ Such distorted sightings could easily be reconciled with the observations of modern naturalists as long as one did not forget that, already in Antiquity, most travelers were merchants and sailors who, “then as now, because of the abundance of their imagination” pictured exotic creatures as “animals with human heads, or as people without heads.”⁴⁷ That is why Camper could argue that stories of satyrs, Pans, and

Oudheid te hulpe te roepen, den de benaamingen te gebruiken, welke zy aan veelerleie zaaken, en aan de Dieren inzonderheid gegeven heeft.” Petrus Camper. *Natuurkundige verhandelingen van Petrus Camper*. Amsterdam: De erven van P. Meijer en G. Warnars, 1782, 1.

⁴⁶ On Camper, see R. P. W. Visser. *The Zoological Work of Petrus Camper (1722-1789)*. Amsterdam: Rodopi, 1985; Miriam C. Meijer. *Race and Aesthetics in the Anthropology of Petrus Camper (1722-1789)*. Amsterdam: Rodopi, 1999; J. K. van der Korst. *Het rusteloze bestaan van dokter Petrus Camper (1722-1789)*. Houten: Bohn Stafleu van Loghum, 2008; Teunis Willem van Heiningen, ed. *Wouter van Doeveeren and Petrus Camper in Paris*. The Hague: DWC – Huygens ING, 2014; Klaas van Berkel, Mart van Lieburg and Bart Ramakers, eds. *Petrus Camper: The Groningen Meteor*. Hilversum: Verloren, 2015.

⁴⁷ “De Reizigers naar die vreemde gewesten, meest Kooplieden, of Varensgezellen zynde, hebben toen, even als nu, gedaan, en door eene weelderige verbeelding de onbekende, en vreemde dieren van verre, nauwlyks half, althans niet duidelyk gezien, beschreeven als Dieren met menschen hoofden, of als menschen zonder hoofden.” Petrus Camper. *Natuurkundige verhandelingen van Petrus Camper*. Amsterdam: De erven van P. Meijer en G. Warnars, 1782, 3.

sphinxes were really stories about the orangutans and other apes that the Dutch East India Company had brought back to the Netherlands. Going further, the Dutch naturalist charged that, if Ancient myth could not provide incontrovertible evidence that some humans possessed tails, then Monboddo also had to be wrong about the capacity of orangutans to speak. Since Camper was able to dissect five orangutans during the course of his life, an observational record unparalleled since Galen, he was able to anatomically show that the organs of voice of Asian orangutans were not fit for speech [Fig. 5]. For Camper to be right, he had to reject Monboddo's philosophical claims about the history of early humankind as well as his zoological observations of eighteenth-century orangutans.⁴⁸

Transcendental Science: Lorenz Oken and the Naming of the Chimpanzee

The last volume of Monboddo's *Ancient Metaphysics* came out in 1799, the year Monboddo died. A year later, a young Lorenz Oken began his medical studies at the University of Freiburg, in the midst of the Napoleonic wars. The scientific work of Oken, which included the naming of the genus *Pan* that biologists still use today, emerged in a world dominated by the divergent historical approaches of philosophers and natural historians, such as Monboddo and Camper, but it reached its full maturation in the nineteenth century when natural history turned into biology. This massive transformation, however, did not make obsolete the early modern and Enlightenment debates about the

⁴⁸ Petrus Camper. "Account of the Organs of Speech of the Orang Outang." *Philosophical Transactions* 69 (1779), 139-159.

role of myth in the formation of natural knowledge. Within Germanic lands, many natural philosophers would continue to assert the claim that Ancient knowledge could not be reduced to modern scientific observation. In a significant development, however, these philosophers no longer made claims about the inherent superiority of the Ancients over the Moderns. Instead, they argued that the world of Antiquity was incommensurable with the Romantic age.

Historians usually associate the emergence of romantic natural philosophy with the figure of the German transcendental idealist Friedrich Wilhelm Joseph Schelling, a close friend and mentor for Oken.⁴⁹ Schelling's philosophy was an attempt to give a comprehensive, philosophical, religious and scientific account of the historical unfolding of the transcendental subject, i.e. the emergence of a self-conscious *I* that could give a retrospective account of its own development.⁵⁰ Much of Schelling's actual oeuvre was devoted towards examining how to make sense of mythology and the natural sciences from such a perspective, including studies ranging from electricity to the Ancient Greek gods. Schelling justified his own relentless investigations of Ancient myth, from his early studies to his late period, by pointing out that Ancient myth provided evidence of an early

⁴⁹ Michael T. Ghiselin. "Lorenz Oken." in: Thomas Bach and Olaf Breidbach, eds. *Natuphilosophie nach Schelling*. Stuttgart: Fromann Holzboog, 2005, 433-459, 439.

⁵⁰ On the natural philosophical and biological import of transcendental idealism, see Robert Richards. *The Romantic Conception of Life: Science and Philosophy in the Age of Goethe*. Chicago: University of Chicago Press, 2002; John Zammito. *The Gestation of German Biology: Philosophy and Physiology from Stahl to Schelling*. Chicago: University of Chicago Press, 2017. For the German encounter with Ancient myth, see George S. Williamson. *The Longing for Myth in Germany: Religion and Aesthetic Culture from Romanticism to Nietzsche*. Chicago: University of Chicago Press, 2004.

stage of the unfolding of the transcendental subject.⁵¹ If German philosophers, and especially Schelling, reached a stage of reflective knowledge that helped the self recognize and realize the history of its own emergence in positing its own finitude, the Ancients' myths revealed the unreflexive, sensuous encounter of the self with the non-self, in which nature and natural forces appeared in the shape of gods and demons. Importantly, while Ancient myth emerged when humankind was in its childhood, it was complete and perfect on its own terms, and irreducible to modern science. This is what made the extensive study of myth worth one's while. Schelling therefore became a historical philosopher of mythology and, to get the history right, he decided to mine the extensive treatises of the Heidelberg professor Friedrich Creuzer, whose philological work, including his examinations of the myth of satyrs, supplied more than enough evidence to buttress Schelling's more abstract treatises and claims.⁵²

⁵¹ Already in his first publication, Schelling pointed out the enormous difficulties of establishing whether myth represented absolute historical truth, a kernel of historical fact embellished with the imagination, or pure poetry, and therefore decided to focus his attention on the Baconian idea that myth, not completely unlike allegory, was philosophy presented in the narrative form of story that fit the sensual, and not rational-abstract, thinking present during the childhood of humankind. See F. J. W. Schelling. "Ueber Mythen, historische Sagen und Philosopheme der ältesten Welt." in: F. J. W. Schelling. *Sämmtliche Werke I*. Stuttgart: J. G. Cotta, 1856, 41-84.

⁵² Despite having a relatively small library, Schelling owned an impressive number of Creuzer's works and translations, many of which were a personal gift of the author. See cat. nos. 113-118, 124, 162, 187, 353, 399 in Anna-Lena Müller-Bergen, ed. *Schellings Bibliothek. Die Verzeichnisse von F.W.J. Schellings Buchnachlaß*. Stuttgart: Frommann Holzboog, 2007. On the influence of Creuzer on Schelling, esp. on the Gods of Samothrace, see Marc-Mathieu Münch. *La "symbolique" de Friedrich Creuzer*. Paris: Ophrys,

It was within the philosophical and mythological context of Creuzer's and Schelling's work that Oken began to write his work on the emergence of the natural world, which offered a parallel history to Schelling's account of the emergence of the transcendental self through Antiquity to modernity.⁵³ Oken borrowed both the overall framework and the specific elements of Schelling's transcendental philosophy to establish the metaphysical foundations of an organic science, which was based on the laws of polar forces. Oken agreed with his fellow German philosophers that Ancient myth was the expression of the sensuous, natural knowledge of the childhood of humankind, writing that “oracles and prophets, and the colourful swarm of gods and fables, mark the childhood of our race in its anxieties and happiness.”⁵⁴

What was this natural knowledge that was expressed through myth in Antiquity and through abstracted, transcendental laws in the time of modernity? Presenting himself as the heir of Pythagorean thought, Oken posited that the history of the universe and the emergence of humankind were the parallel and analogous unfolding of God as self-

1976, 31; see also now Fernando Wirtz. *Phänomenologie der Angst. Symbolik und Mythologie bei F. W. J. Schelling und F. Creuzer*. Tübingen: Mohr Siebeck, 2022.

⁵³ On Oken, see Olaf Breidbach et al. *Lorenz Oken (1779-1851): Ein politischer Naturphilosoph*. Weimar: Verlag Hermann Böhlaus Nachfolger, 2001; Olaf Breidbach and Michael T. Ghiselin. “Lorenz Oken and *Naturphilosophie* in Jena, Paris and London.” *History and Philosophy of the Life Sciences* 23 (2002): 219-247; Andrea Gambarotto. “Lorenz Oken (1779-1851): *Naturphilosophie* and the Reform of Natural History.” *British Journal for the History of Science* 50 (2017): 329-340.

⁵⁴ “Orakel und Fabeln, bezeichnen dieses Kindes-Alter unseres Geschlechts in seiner Furcht und Freude.” [Lorenz Oken]. “Vergleichung alter Sagen und Ueberlieferungen mit Okens Ansicht von der Entstehung des Menschen aus dem Meere.” *Isis von Oken* 1821: 1113-1115, 1113.

consciousness.⁵⁵ As a result, there were direct homologies between the development of the solar system, the development of minerals, the development of animals, the development of human embryos, and the development of the sensory system of the nerves, which all culminated in the reflexive intellect of humankind. Consequently, the study of developments in zoology also served to reveal the fundamental building blocks of the human body stage by developmental stage. In Oken's view, the five senses of the human body were equivalent to the five classes of vertebrates, because the emergence of the sensory system in human embryos recapitulated the evolution of the senses in animals. Such a developmental system of the gradual unfolding of the senses, both in humans and in zoology, was wholly analogous to Schelling's idea of the historical unfolding of the reflexive self, which underwent a stage of sensuous childhood during the age of Antiquity. What could then be the name of the most developed ape, which was already able to perfectly coordinate the five senses necessary for the sensory understanding of nature, then the name of the god from the sensuous childhood of humankind that, as Creuzer had explained, was held responsible for the coordinated movement of the planets and the waters on Earth? Pan was partly the personified nature and the natural law of the Ancients, but it was also the ultimate stage in the development of the animal kingdom, perfect in its non-reflexive *naïveté*.⁵⁶ Therefore, the name “*Pan, Troglodytes* or *Pongo*”, was justly given to the last and most developed animal discussed

⁵⁵ Lorenz Oken. *Über das Universum als Fortsetzung des Sinnensystems. Ein pythagoräisches Fragment*. Jena: Friedrich Frommann, 1808.

⁵⁶ I borrow the concept of the naïve here from Friedrich Schiller's *On Naive and Sentimental Poetry*.

in the *Lehrbuch der Naturgeschichte*, while the other apes received the name of the *faunus* and the *satyrus*.⁵⁷

Oken decided to call the chimpanzee *Pan* because both entities held homologous roles in nature, and not because he believed that the imaginative and untrustworthy Ancients mistook apes for gods. He never claimed that ancient accounts of Pan actually referred to the chimpanzee. This logic of homology also explained Oken's next curious decision, which was to name the four races of humankind after the very same creatures of Ancient myth. According to him, these four races formed a developmental chain, just as vertebrates could be arranged according to their development of the sensual apparatus. In the *Lehrbuch der Naturgeschichte*, Oken stated that the four races could be arranged as the black *Sylvanmensch* (forest people) of Australia and Africa, the red *Satyrmensch* of America, the yellow *Faunmensch* of Asia and the white *Panmensch* of Europe. According to Oken's highly racist system, satyrs represented the second, childish stage of humankind's development, reliant on myth, while the white humans of Germany could be equated with the ultimate, reflexive state of humankind. In this variant of transcendental idealism, Pan thus represented the completion of historical development whether it came to mythology, to philosophy, to zoology, or to anthropological racism.

Satyrs in Neanderthal

⁵⁷ Lorenz Oken. *Oken's Lehrbuch der Naturgeschichte*. Jena: August Schmid und Comp., 1817, III/2, 1230-31.

Schelling's model of the unfolding of the transcendental self was a monumental developmental history, which posited an irreducible difference between the Ancient, sensuous encounter with nature and the reflexive study of natural philosophy in early 19th-century Germany.⁵⁸ I have argued that this version, shared by Schelling and Oken, was a story of development that nonetheless placed an emphasis on the perfection of Ancient Greek knowledge on its own terms. A few decades later, however, another version of evolutionary theory would emerge in Victorian Britain that, in its popular formulation, tended to place a stronger emphasis on the concept of progress and on the commensurability of different cultures across time.⁵⁹ This was Darwin's evolutionary theory. Soon after the publication of the *Origin of Species*, Darwinian natural selection inspired many to return to earlier arguments about how myths provided evidence about how the Ancient Greeks and other peoples traveled across the globe, but were unable to provide observations that were as accurate as that made by modern-day Britons.⁶⁰

⁵⁸ Robert Richards. *The Romantic Conception of Life: Science and Philosophy in the Age of Goethe*. Chicago: University of Chicago Press, 2002.

⁵⁹ Peter Bowler. *The Invention of Progress: Victorians and the Past*. Oxford: Basil Blackwell, 1989. While Bowler contrasts cyclic understandings of history with linear progress, he ultimately argues that both present a version of progress. See also Jonathan Conlin. *Evolution and the Victorians: Science, Culture and Politics in Darwin's Britain*. London: Bloomsbury, 2014. While most Victorians viewed Darwinian theory from a progressive lens, this is not necessarily the only interpretation, see Staffan Müller-Wille. "The Dark Side of Evolution: Caprice, Deceit, Redundancy." *History and Philosophy of the Life Sciences* 31 (2009): 183-199; John Beatty. "Chance Variation: Darwin on Orchids." *Philosophy of Science* 73 (2006): 629-641.

⁶⁰ For accounts of the complex relationship between, myth, art, natural history and especially paleontology, see For the British context, see Harriet Ritvo. *The Platypus and the Mermaid and Other Figments of the*

As Ageliki Lefkaditou has shown, an important undercurrent of Darwinian thought focused on addressing the heyday and decline of Ancient Greek civilisation from an evolutionary perspective.⁶¹ Darwin and his contemporaries pondered in much detail how to explain the course of written human history as an example of the workings of natural and sexual selection, and therefore had to address the question of how the fall of a near perfect civilisation appeared to clash with expectations about the Spencerian principle of the “survival of the fittest.” This was an important question not the least because it appeared to hint that the British Empire may disappear at one point, too. As Lefkaditou has explained, a partial answer to this pressing conundrum included the claim that the Greeks may have been intellectually advanced, but their political institutions, and especially their religion, hampered their full development. In this framework, with the presumed negative effects of religion, it was hard to argue for Darwin's supporters that

Classifying Imagination. Cambridge: Harvard University Press, 1998; Heather Brink-Roby. “Siren canora: The Mermaid and the Mythical in Late Nineteenth-Century Science.” *Archives of Natural History* 35 (2008): 1-14; Jim Secord. “Prophesying Backwards.” in: Daniel Margocsy and Richard Staley. *The Mantis Shrimp: A Simon Schaffer Festschrift*. Cambridge: The Cambridge HPS Collective, 2022, 209-213; Jim Secord. “Monsters at the Crystal Palace.” in: Soraya de Chadarevian and Nick Hopwood, eds. *Models: The Third Dimension of Science*. Stanford: Stanford University Press, 2004, 138-169; Béatrice Laurent. “Monster or Missing Link? The Mermaid and the Victorian Imagination.” *Cahiers victoriens et édouardiens* 85 (2017), <https://doi.org/10.4000/cve.3188>.

⁶¹ Ageliki Lefkaditou. “This Wonderful People”: Darwin, The Victorians, and the Greeks.” *Journal of Modern Greek Studies* 36 (2018): 97-124. On the general Victorian engagement with Antiquity, see Simon Goldhill. *Victorian Culture and Classical Antiquity: Art, Opera, Fiction, and the Proclamation of Modernity*. Princeton: Princeton University Press, 2011; Edmund Richardson. *Classical Victorians: Scholars, Scoundrels and Generals in Pursuit of Antiquity*. Cambridge: Cambridge University Press, 2013.

myths were the fountain of deep, ancient knowledge. Instead, they thought that these myths revealed the dangerous distortions that superstitious religion introduced to the rational mind. Ancient Greece was an impressive, but ultimately inferior version of Victorian Britain, which was the reason why earlier arguments of Tyson and Camper became relevant once again.

Consider, for instance, Darwin's bulldog, T. H. Huxley, who was equally at home in discussing zoology and the history of religions, and who began his famous *Evidence as to Man's Place in Nature* with a discussion of how Ancient myths were "presaging" modern science in imperfect form:

"Ovid foreshadowed the discoveries of the geologist: the Atlantis was an imagination, but Columbus found a western world; and though the quaint forms of Centaurs and Satyrs have an existence only in the realms of art, creatures approaching man more nearly than they in essential structure, and yet as thoroughly brutal as the goat's and horse's half of the mythical compound, are now not only known, but notorious."⁶²

Why did the myths of Antiquity resonate so well with the discoveries of the modern Age? As Huxley argued, myths were a powerful tool for a naturalist because they

⁶² T. H. Huxley. *Evidence as to Man's Place in Nature*. New York: D. Appleton and Company, 1863, 9.

Note that the quote is followed by a detailed analysis of the relevant sources for the history of apes, including Tyson and Camper.

emerged from the global circulation of knowledge in Antiquity.⁶³ They brought evidence from distant lands to Western Europe, but in a distorted form only. This was nonetheless an important source of information, because the interior of equatorial Asia and Africa was still deadly for most Europeans even in the age of Empire, Huxley believed. If they did not wish to risk their lives, white naturalists had to content themselves with “collecting and collating the more or less mythical reports and traditions” of the indigenous populations. That was how one could realize that “in such a manner most of the earlier accounts of the habits of the man-like Apes originated.”⁶⁴ Myths were the products of long-distance networks, and, to some extent, British natural history still had to rely on the philological tools of collation to reconstruct the true stories of animal life Ancient and local peoples told.

⁶³ See also T. H. Huxley. “Mr. Gladstone and Genesis.” in T. H. Huxley. *Science and the Hebrew Tradition: Essays*. New York: Appleton and Company, 1897, 164-200. On Huxley's relationship to the German philosophical tradition, see Mario A. Di Gregorio. “Thomas Henry Huxley and German Science.” in: Alan P. Barr. *Thomas Henry Huxley's Place in Science and Letters: Centenary Essays*. Athens and London: University of Georgia Press, 1997, 159-181; on Huxley's racist understanding of civilisational progress, see Mario A. di Gregorio. *T. H. Huxley's Place in Natural Science*. New Haven: Yale University Press, 1984, 160-184. For a more general perspective, see now Alison Bashford. *An Intimate History of Evolution: The Story of the Huxley Family*. London: Allen Lane, 2022.

⁶⁴ T. H. Huxley. *Evidence as to Man's Place in Nature*. New York: D. Appleton and Company, 1863, 36.

Myth did not only provide distorted linkages across large distances. It also provided nineteenth-century naturalists partial access to deep time.⁶⁵ Charles Kingsley, Darwin's other ally, argued that satyrs provided evidence for the prehistory of humankind because, as Kingsley wrote in a letter to Darwin, with strong echoes to Tyson, "every myth has an original nucleus of truth."⁶⁶ In this case, myth provided the missing evolutionary link between apes and humans. Fables and tales about "Fauns, Satyrs, Inui, Elves, Dwarfs" were oral reports about a species that had gone extinct in the race for natural selection, as Kingsley emphasized repeatedly, including in his famous *The Water Babies*, a novelistic popularisation of the progressivist version of Darwinian evolution for children.⁶⁷ Since these myths were omnipresent across the world, they offered testimony of the global circulation of knowledge even before the invention of writing, and served as proof for cataclysms in human prehistory, such as the extinction of semi-human races that

⁶⁵ Martin Rudwick. *Scenes from Deep Time: Early Pictorial Representations of the Prehistoric World*. Chicago: University of Chicago Press, 1992. On Darwin and deep time, see Peter Dear. "Darwin and Deep Time: Temporal Scales and the Naturalist's Imagination." *History of Science* 54 (2016): 3-18.

⁶⁶ Charles Kingsley to C. R. Darwin, January 31, 1862, Darwin Correspondence Project Letter 3426. On Kingsley, see Piers. J. Hale. "Darwin's Other Bulldog: Charles Kingsley and the Popularisation of Evolution in Victorian England." *Science and Education* 21 (2012): 977-1013; Jonathan Conlin and Jan Marten Ivo Klaver, eds. *Charles Kingsley: Faith, Flesh, and Fantasy*. London: Routledge, 2020; for Kingsley's scientific and historic pursuits as part of the same project of progress, with the danger of degeneration, see Jonathan Conlin. "An Illiberal Descent: Natural and National History in the Work of Charles Kingsley." *History* 96 (2011): 167-187.

⁶⁷ Piers J. Hale. "Monkeys into Men and Men into Monkeys: Chance and Contingency in the Evolution of Man, Mind and Morals in Charles Kingsley's *Water Babies*." *Journal of the History of Biology* 46 (2013): 551-597.

looked half-human, half-ape. When responding to Kingsley, Darwin agreed about the plausibility of such a theory, although he was not fully sure that “classical & old world knowledge” provided sufficient evidence about these cataclysmic events, partly because it was a field of study he was not fully conversant with. Yet he freely speculated that, in a few centuries, “the Anglo-saxon race will have spread & exterminated whole nations,” just as humans may have killed off the Neanderthal-like satyrs of Ancient myth.⁶⁸

Importantly, satyrs were not the only mythical creature to reveal the imperfections of Greek thought and culture. Pygmies and fauns could be employed for similar purposes, too, especially in the aftermath of the French-American Paul du Chaillu's travels in Africa.⁶⁹ Embarking on several expeditions during the 1850s and 1860s, Paul du Chaillu created quite a stir on both sides of the Atlantic thanks to his encounters with gorillas, which he identified with the creatures described by Hanno. His writings were probably the inspiration for the musings quoted above from Huxley's *Evidence as to Man's Place in Nature*.⁷⁰ The French-American traveler became even more famous for his putative discovery of the Ancient race of pygmies, which was supposed to provide evidence that myth could not only describe apes and extinct peoples, but also about still surviving human races. As Du Chaillu claimed, upon finding the peoples he would name pygmies,

⁶⁸ C. R. Darwin to Charles Kingsley, February 6, 1862, Darwin Correspondence Project Letter 3439. On this exchange, see Heather Brink-Roby. “*Siren canora*: The Mermaid and the Mythical in Late Nineteenth-Century Science.” *Archives of Natural History* 35 (2008): 1-14, 8.

⁶⁹ On Du Chaillu, see Stuart McCook. ““It May Be Truth, But It Is Not Evidence.” Paul du Chaillu and the Legitimation of Evidence in the Field Sciences.” *Osiris* 11 (1996): 177-197.

⁷⁰ Joshua Olivier-Mason. ““These Blurred Copies of Himself”: T. H. Huxley, Paul du Chaillu, and the Reader's Place among the Apes.” *Victorian Literature and Culture* 42 (2014): 99-122.

“It was true the great historian Herodotus had described a nation of Dwarfs as living on the head waters of the Nile. Homer had spoken of the cranes and of the land of the Pygmies; and Strabo thought that certain little men of Ethiopia were the original Dwarfs, while Pomponius Mela placed them far south, and, like Homer, spoke of their fighting with cranes; but then nobody had believed these stories.”⁷¹

What the Ancient Greeks described in confused and uncertain terms, Du Chaillu would now prove thanks to his accurate skills of observation, which were as trustworthy as a photographic camera [Fig. 6].

By reading the texts of the Ancients against his own observations of Africa, Du Chaillu hoped to achieve eternal fame. A few years later, when the anatomist and archaeologist Bertram Coghill Alan Windle decided to re-edit and re-publish Edward Tyson’s earlier work on the *Orang-outang*, he called attention to the fact that the great Buffon had been heavily indebted to Tyson when he made the euhemeristic claim that fables of pygmies and other such creatures were the result of observational mistakes made by earlier travelers. Yet, however praiseworthy Tyson was in general, Windle explained, he had been wrong in his particular claim that pygmies were apes, for

“we now know, not merely that there are pigmy races in existence, but that the area which they occupy is an extensive one. ... Moreover, certain of these races have

⁷¹ Paul Belloni du Chaillu. *The Country of the Dwarves*. New York: Harper and Bros., 1874, 218.

been, at least tentatively, identified with the pigmy tribes of Pliny, Herodotus, Aristotle, and other writers.”⁷²

A good Victorian scientist used modern observation to correct the early modern interpretation of Ancient sources, and to argue that pygmies were humans. If you believed in the superiority of the moderns, and in the superior knowledge of European explorers, progress never stopped, not even with Tyson. The pygmies of myth were not the subject of zoology, they were now the subject of racial anthropology.

Conclusion

It would be erroneous to conclude with a claim that the progressive Victorian era created a closure about the role of myth and that, ever since then, we have been in agreement that mythical creatures can be interpreted only in the light of modern, ever improving scientific evidence. It is certainly true that some scholars, such as Adrienne Mayor, continue to argue that mythical knowledge contains fragmentary evidence about Jurassic dinosaurs, reflecting the Ancient Greeks' encounter with gigantic fossil remains.⁷³ Yet, now and again, the satyrs of Ancient myth also return as a preferred type of knowledge that is superior to the science of the moderns. In the 1950s Soviet Union,

⁷² Edward Tyson. *A philological essay concerning the pygmies of the ancients*. London: David Nutt, 1894, xiv.

⁷³ Adrienne Mayor. *The First Fossil Hunters: Dinosaurs, Mammoths, and Myth in Greek and Roman Times*. Princeton: Princeton University Press, 2000.

Boris Porshnev, the Stalin Prize-winning historian of early modern popular uprisings, turned his attention to cryptozoology and began to argue forcefully that the folklore evidence about Bigfoot was true.⁷⁴ Critiquing Western science from the perspective of lay observers in the villages, steppes and mountains of Siberia, Central Asia or the Himalayas, Porshnev argued that one could improve upon zoology by paying attention to what these people had seen with their own eyes. Once one adopted the perspective of poor peasants, it became clear that Neanderthals were actually a species of apes, neither chimpanzees nor humans, and that they were still alive. Porshnev came to fault modern bourgeois science for not being as trustworthy as the people of the steppe, making the point in a posthumous contribution to the journal *Current Anthropology* that “it is high time certain postulates in primatology and anthropology were rewritten.”⁷⁵ This was, of course, an unsurprising move from a committed communist historian who previously faulted Western European historians for only selectively engaging with the extensive

⁷⁴ On Porshnev, see Volodymyr Ryzhkovskyi. *Soviet Occidentalism: Medieval Studies and the Restructuring of Imperial Knowledge in Twentieth-Century Russia*. PhD dissertation. Washington, D. C.: Georgetown University, 2019, 322-367. On pseudoscience in the Soviet context, see especially Andy Bruno, “Atomic Visitors from Outer Space: The Tunguska Nuclear Hypothesis in Soviet Technological Imagination,” *Russian Review* 81, no. 1 (2022): 92-109; Elena Aronova, “Citizen Seismology, Stalinist Science, and Vladimir Mannar’s Cold Wars,” *Science, Technology & Human Values* 42, no. 2 (2017): 226-25; on science and history in the Soviet context, see Elena Aronova. *Scientific History: Experiments in History and Politics from the Bolshevik Revolution to the End of the Cold War*. Chicago: University of Chicago Press, 2021.

⁷⁵ B. F. Porshnev. “The Troglodytidae and the Hominidae in the Taxonomy and Evolution of Higher Primates.” *Current Anthropology* 15 (1974): 449-450, 450.

documentation available on popular unrest in early modern France, which putatively revealed that French history could be interpreted through the lens of class struggle.⁷⁶

Upon publication, Porshnev's claims came under heavy criticism from scholars, and that is when satyrs were enlisted in service of his argument. In a follow-up article in *Current Anthropology*, Porshnev's students Dmitri Bayanov and Igor Bourtsev began to cite the evidence of Ancient sources, visual evidence and myths to undo all the “erroneous shifting of the taxonomical names “Pan” and “Satyrus” to the Pongidae.”⁷⁷ If modern science was imperfect, where else would you turn to, if not to the stuff of myth, just as philosophers of yore used to do? For Bayanov, at least, myth remained essential for the rest of his career in his discipline of hominology. In 2012, when I began writing this article, he published a synthetic contribution on evidence from “1. natural history. 2. folklore and mythology” to buttress cryptozoological claims about the existence of hominoids that were distinct from apes, analyzing folklore and myths from across the globe, as well as the writings of Lucretius, Pliny and Diodorus Siculus, because these sources were more valuable and more accurate than the narrow-minded zoology of the 21st-century.⁷⁸ If we are to believe Bayanov, the ancient satyr was not an orangutan. It was instead Bigfoot, a species that once roamed across the continents. That is why

⁷⁶ Ryzhkovskiy. *Soviet Occidentalism*, 294-305.

⁷⁷ Dmitry Bayanov and Igor Bourtsev. “On Neanderthal vs. Paranthropus.” *Current Anthropology* 17 (1976): 312-318, esp. 315.

⁷⁸ Dmitri Bayanov. “Historical Evidence for the Existence of Relict Hominoids.” *The Relict Hominoid Inquiry* 1 (2012): 23-50.

accounts of its existence could be found scattered all around the world.⁷⁹ And, according to Bayanov, the Bigfoot is still a mobile agent on its own, not unlike the devil in Gessner's time. If Western science cannot confirm the existence of such a creature, that is because this cunning hominoid purposefully hides in the most distant regions of Siberia, doing its best to avoid contact with the humans of modern, corrupted civilisation.

In this paper, I argued that historians need to pay special attention to role of myth because it reveals the deep and intricate connections between European constructions of the history of humankind *as* a history of civilisation and constructions of what counts as valid knowledge in science and philosophy. Through the exploration of myths, it is possible to reconstruct how natural historians, historians of human history and natural philosophers have been united in their efforts to understand ancient Greek, Roman, Egyptian and Indian ways of thinking and writing about nature. Some philosophers and almost all natural historians considered Ancient knowledge perfectly compatible with the observational practices of their own day, while other philosophers and historians claimed that mythical knowledge, while extremely valuable on its own terms, could not be easily reconciled with the world of modern science. As such, this article has contributed to the recent literature that argues for writing a co-constituted history of science and the humanities. After all, natural historians and natural philosophers were historians and

⁷⁹ For parallel arguments about the spread of myths and cults, see Carlo Ginzburg. *The Night Battles: Witchcraft and Agrarian Cults in the Sixteenth and Seventeenth Centuries*. Baltimore: Johns Hopkins University Press, 1983.

philosophers who were hoping to disentangle the relationship between the nature and history of *nature* and the nature and history of humankind.⁸⁰

As we have seen through the case study of Pan and satyrs, the conversation between natural historians, scholars of human history and philosophers continued over a period of more than four centuries. Throughout these centuries, they had many heated debates about the exact nature of the relationship between Ancient knowledge, as revealed by myth, and the kinds of knowledge produced by modern science. This article could provide only a short and fragmentary overview of the perspectives of a select few participants in these debates. The choice of an overview, with a focus on the long history of one mythical creature, has been deliberate because it provided the opportunity to see how particular and highly specific arguments came to be repeated by scholars again and again.

Circulation has become one of the key terms of the history of science over the past two decades.⁸¹ As this article has shown, it has also been one of the key concerns of

⁸⁰ Lorraine Daston and Fernando Vidal, eds. *The Moral Authority of Nature*. Chicago: University of Chicago Press, 2013; Lorraine Daston. *Against Nature*. Cambridge: MIT Press, 2019.

⁸¹ For the recent literature on the circulation of knowledge, see Kapil Raj. *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900*. London: Palgrave Macmillan, 2007; Mary Terrall and Kapil Raj, eds. *Circulation and Locality in Early Modern Science*, a special issue of *British Journal for the History of Science* 43/4 (2010); Pamela H. Smith, ed. *Entangled Itineraries: Materials, Practices, and Knowledges across Eurasia*. Pittsburgh: University of Pittsburgh Press, 2019; Bruce Buchan, Linda Andersson Burnett & Ingeborg Høvik. "Humanity on the Move in the Era of Colonisation and Enlightenment." *Global Intellectual History* 8 (2023): 380-386, and the rest of the issue; James Secord. "Knowledge in Transit." *Isis* 95 (2004): 654-672.

historians and philosophers since at least the sixteenth century. As we have seen, almost all of the scholars considered in this article held the belief that myth often contained some elements of knowledge either about distant lands or the distant times, serving as evidence of the global circulation of peoples and knowledge in Antiquity. At the same time, these scholars remained deeply divided about how they conceptualised the circulation of this knowledge. Some natural historians and philosophers developed complex and nuanced strategies to explain how information was distorted when it traveled across large distances, claiming that untrustworthy sailors and credulous locals were responsible for errors especially in Antiquity but also in the modern world. They did not expect that natural knowledge and facts could easily be turned into immutable mobiles, traversing the distances between Europe the furthest corners of Southeast Asia. Communication needed to break down on the road, at least to some extent.⁸² Knowledge needed to become the stuff of myth. As naturalists argued, commerce and superstitions served as the engines of corruption to transform the global circulation of knowledge into a history of mythopoeia.

On the other side of the debate, however, other philosophers and historians pointed out that it was deeply problematic to retroject early modern and modern concerns about the credibility of sailors and locals to earlier time periods, because the world of Antiquity was qualitatively different from modernity. If one believed Bacon, Ancient

⁸² Contrast this with Bruno Latour. "Visualization and Cognition: Drawing Things Together." *Knowledge and Society: Studies in the Sociology of Culture and Present* 6 (1986): 1-40; Harold J. Cook. *Matters of Exchange: Commerce, Medicine, and Science in the Dutch Golden Age*. New Haven: Yale University Press, 2008.

Greece and Egypt could be considered the site of hermetic philosophical wisdom, expressed in arcane and allegorical form, or, if one believed Schelling, these lands could be considered the site of equally perfect, sensuous knowledge during humankind's childhood. In neither case were the concepts of corruption, credulity and distortion applicable to understanding how such knowledge circulated, not the least because, in such circumstances, modern scientific observation could not serve as the standard against which the wisdom of ancient myth could be measured. This was why satyrs could not be made fully identical with monkeys or apes, Hédelin d'Aubignac, Stukeley and Monboddo argued. In the best-case scenario, satyrs could be considered to fulfill analogous roles in the evolutionary development of animals and in the evolutionary development of human civilisation, the solution Oken adopted when naming both the chimpanzee and the white human race *Pan*. For Hédelin d'Aubignac or Porshnev, however, satyrs were actually cunning and potentially supernatural creatures, responsible for spreading or withholding, at their own whim, precious knowledge from the various groups of humankind across the globe. Throughout these debates, the ultimate question was whether one should blame the differences between the mythical knowledge and modern-day observation on the fallibility of humans, or whether one should rely on devilish or divine agency to explain the discrepancy between the two. Arguably, the way scholars thought about the circulation of knowledge was (and maybe still is) dependent upon their theoretical predilections about whom to assign agency in the making of history.