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The Dragonslayer

Linnaeus is remembered as humble, pious and charming. He is the perfect lover of fair Flora. Yet, he could not have reached his fame nor achieved what he did being only that. Anyone who looks into his autobiographies meets a professor filled with self-esteem but also a person sensitive to criticism. A closer study of Linnaeus would also imply more thorough knowledge of his Swedish environment, his education in Lutheran and classic learning and how he looked upon his mission. Here focus lies on his interest in myth and his flexible attitude towards patrons and public but also how he proclaims a new natural history according to new scientific principles.

Yes, Linnaeus's origins were plain. "A great man can step out from a small cottage", he writes. In *Flora Svecica* (1745) he comments on the name of the Linnaea-flower: "just as humble as the person after which it is named". He was anxious to be connected with this flower, *Linnaea borealis*, which he is holding on all pictures and paintings from his lifetime, from the first circa 1730 made by Anonymus to the last by Roslin (1775). (Thus all portraits would have been painted during the blooming season of *Linnaea* which is not likely.) His coat of arms is crowned by a *Linnaea* creeper.

This is not Linnaeus's only attempt to use symbols for himself or his science. Here I will focus on his use of the dragon, seemingly

a total contrast to the Linnaea. Dragons are still popular and were so also when Linnaeus was young. In Småland the concept “lindorm” – i.e. a perhaps smaller but still dragonlike snake – was alive as late as the second half of the 19th century, when the pioneer ethnologist Hyltén-Cavallius announced for specimens.¹ The Lindorm could be called wheelworm, also take on gigantic forms and be connected with old Norse myth. To my knowledge Linnaeus never mentions the Lindorm, but he must have heard about it as a young boy. Both, by the way, had something in common, the linden-tree supposedly is to have given both their names.

Linnaeus began his university studies with one year at Lund University where he lived in the house of professor Stobaeus and thanks to him could borrow books from the academic library. According to receipts he borrowed large folios by Ulysse Aldrovandi, which he was allowed to carry to his room. There the young student could look at the famous dragon owned as a *piece de resistance* in his museum in Bologna. Aldrovandi’s fame and authority depended on this creature. Later on, Linnaeus compared figures of Cuba, Aldrovandi as to what his favourite artist Ehret could accomplish, and found that they were like “spöken vs änglar”, ghosts versus angels. He found that they insulted the Creator and that they represented the old and ugly natural history, which he wanted dead.

As a student at Uppsala he got a remarkable offer. Let us follow him, now twenty-five years old, on his journey 1732 to Lapland, land of wonders.² One famous passage in his travelogue treats the Andromeda. He writes about it – with the old bulky name “Chamaedaphne Buxb. or Erica palustris pendula, fl. petiolo purp.”,

¹ G.O. Hyltén-Cavallius, *Om draken eller lindormen* (Wexiö 1884).

² I have treated the motives for Linnaeus travelling to Lapland and why he wrote what he did in ‘Varför reser Linné? Varför springer samnen?’ in *Så varför reser Linné. Perspektiv på Iter Lapponicum 1732* (Stockholm 2005).

what would become with the Linnean binomen *Andromeda polyfolia*, Bog Rosemary, in Swedish “rosling” (fig. 1) – that it

was at the height of her beauty and adorned the bogs with her splendour. I noticed that before she opens she is as red as blood but, when she flowers, the petals become flesh-pink. I doubt whether any painter could put such comeliness into a maiden’s portrait or adorn her cheeks with such beauty. There is no rouge that can match it. When I saw her I thought of Andromeda as the poets portray her. The more I thought, the more she seemed to accord with this plant, so that if a poet had set himself of describing her enchanting nature there could have been no better likeness. Andromeda is described as being an extraordinary maiden, as a woman whose cheeks attain great beauty. It is a beauty she only retains as long as she is a maiden (as also happens with women) – that is, until she has conceived, which will not be long now as she is already a bride. Standing on a tussock surrounded by water in a wet bog, she is chained as if on a rock in the sea. The water reaches her knees, that is to say, above the roots. She is forever surrounded by poisonous dragons and animals, that is, nasty toads and frogs that blow water on her in spring when they mate. She stands and bows her head in sorrow. Her head of flowers with its rosy cheeks bends low, her cheeks grow ever paler; her head becomes ever paler, and so I named her Andromeda, with the pointed leaves. She is half lying, her neck is bare, so I called her flesh coloured.³

This passage has often been seen as a sudden inspiration of a young travelling naturalist poet. Indeed, the whole manuscript is generally seen as a journal, written instantly on the spot at the very moment or perhaps later in the evening. Indeed, Linnaeus himself writes “When I saw her”, he remembers the chained Andromeda

³ Translation from Peter Graves, *The Lapland Journey* (Edinburgh 1995), 87 f.

and how she was rescued by the hero Perseus.



Fig. 1: *Two aspects of nature and of flower. Linnaeus' drawing of Andromeda polyfolia in Iter lapponicum 1732. Andromeda ficta et vera, mystica et genuina, figurata et depicta.*

But this is to romanticize matters we do not know much about. It is doubtful whether Linnaeus would have “seen” this – or written it down – on any of his later journeys closer to central Sweden. Linnaeus was commissioned by the Academy of sciences in Uppsala, and expected to answer a large number of its *quaerendae* in order to fulfil his mission. Especially important behind this was Linnaeus's patron Olof Rudbeck *filius*, professor of medicine, who had been to Lapland in 1695. His travel report remained unpublished, only the first volume out of a planned dozen came out, filled with mythological and patriotic passages along the Gothic tradition. Thus, crossing the river Dalälven, Rudbeck is struck by its similarity of

the scene with the Charon at Styx. After twenty pages of linguistic juggling on the similarity between Charon and Swedish “karl” i.e. “man” he continues his expedition, entering into a foreign land of myth. To him, as to his generation of baroque academics, it was important to show that the muses did not shun Sweden but loved it.⁴ See fig 2.⁵

One example: Rudbeck understands Kung Karls Spira or Pedicularis Sceptrum-Carolinum (“the flower is similar to a golden helmet, with a pale and bloodred mouth and bloodstained leaves”) as a symbol of the Swedish realm, stretching its spectre at least as far North as to Luleå were it was found. Linnaeus quotes this passage in a thesis he wrote (but which Johan Olof Rudbeck, son of Rudbeck, defended as his) *De planta Sceptro carolino*.⁶ This is a sort of political natural history connected to Swedish territorial claims and a part of a more general exploration of unknown land on the eve of colonization. Writing in the same vein Linnaeus wants to show his competence as well as veneration to his teacher-mentor. Elsewhere he is very keen to show the economical aspects of his science, here he also expands natural history into political language.

There were Dragons all over. Linnaeus could also have been inspired by Bernt Notke’s sculpture in Stockholm (which he visited in 1730) of St. Göran or George and the dragon, put up in the end of 15th Century in memory of how Sweden was saved from foreign or Danish rule. The dragonslayer is an important figure in history from Hercules, Perseus, Bellerophon to St George, always saving virgins, nations, mankind. The snake in paradise is in a sense the first dragon. Dragon stands for Sin, or simply Satan, the evil forces let

⁴ On this theme see Hans Helander, *Neo-Latin Literature in Sweden in the Period 1620-1720: Stylistics, Vocabulary & Characteristic Ideas* (Uppsala 2004).

⁵ Here Rudbeck’s passage and Linnaeus’s encounter with the Furia before he enters into the wilderness could be compared. See *Varför reser Linne?* p. 24-29.

⁶ Printed in Linné, *Skrifter* 4 (Stockholm 1908).



Fig. 2: *Lapland land of wonders*. Frontispiece in Rudbeck *Fil*, Nora Samolad (1702). In front four emblems, a Sami drum, the gate to the North, the left field the glorious religious future, in the middle Lapland sceneries. Note to the right that Noahs ark has stranded on the top of an unspecified mount – the Rudbeck school excelled in identifying Nordic places, names, etc. with biblical and classical literature and vice versa. The midnight sun, polar star, Royal monogram add to the symbolism.

loose as in St John. To Lutherans, still in Linnaeus time, the Catholic church and the Pope were dragons. As the name indicates the Lernean Hydra, killed by Hercules, belongs to a monster living in water or swamps. However, the Draco and the Hydra as well as bigger snakes were used more or less as synonyms.

Emblematic thinking was natural to Linnaeus's time and to him. There are several examples of his active interest in the frontispieces, "covers", and typography of his books. One detail supporting this: in contrast to other illustrations in the manuscript the Andromeda illustration is framed, as if ready to become a copperplate in an edition of Ovid's *Metamorphoses*. Linnaeus travelling into the wilderness as a gothic knight, a missionary of science, or the poet on his exile far away from Rome, Perseus trying to find the Golden fleece. In the vignette to *Systema naturae*, second edition 1740, there are four small emblems (meaning a picture with an aphorism: a bee-hive, a pearl and so on.⁷ Linnaeus never published his *Iter lapponicum* (the Andromeda episode was however published in *Flora lapponica* 1737) but this small sketch could have been his idea for a title such as *Andromeda salvata*. When *Iter lapponicum* was published for the first time, posthumously in 1811, it was given the title *Lache-sis lapponia*, i. e. after one of the goddesses of Fate.

Another episode. On his way to Holland Linnaeus stopped in Hamburg he visited the drugdealer Natorp's collections. Then they went to look at the famous Hydra. This seven-headed monster with lineaments similar to ET in Steven Spielbergs movie had been depicted with a full portrait in the rich pharmacist Albert Seba's enormous *Thesaurus* (vol. 1 1734, plate 102). To Linnaeus it was Seba's Hydra as Seba had lent it his prestige and authority. Linnaeus writes that it once was in "einer päpistischen Kirche zu Prag auf den Altar gestanden" and that it without doubt was made by monks in order to depict the dragon of the Apocalypse. It was of

⁷ See the illustration on page 86 in this volume.

importance to Linnaeus to stress the Catholic aspects. The German language because Linnaeus published his “discovery” in Kohl’s magazine in Hamburg. Then it had been taken from Prague by the Swedish general Köningsmark, later on to be sold somewhere else. Linnaeus’s report was written on the spot. Obviously Linnaeus was dramatizing when he tells how he had to escape from Hamburg because of the threat he experienced from the owner. The monster had been very expensive to buy and Linnaeus was warned against staying, the Burgermeister wanted revenge.⁸

Linnaeus had easily recognized the hydra as a combination, a mixture, the teeth coming from some animal in the genus *Mustela* and the skin from snakes. In his autobiographies he proudly claims that “he was the first who discovered from the teeth that this monster was not by nature but an *artis miraculum*.” This case meant that natural history cabinets no longer could focus on marvels but instead must deal with “normal”, although often very rare, nature. Such collections now needed new localities, not in the homes of pharmacists as Natorp or Seba but in scientific museums. And the collector himself must become scientific according to Linnean standards.

In *Systema naturae* (1735), published in Leiden and seminal in Linnaeus’s career as well as in the history of taxonomy, he introduces the group “Paradoxa” within *Regnum animale*, obviously indicating that its creatures either do not belong anywhere or are prob-

⁸ *Hamburgerische Berichte*, June 10th 1735, in F. Bryk, *Linnaeus im Auslande* 105f and 193f. There are uncertainties of who owned the hydra and which were the claims. See also A.Hj. Uggla, ‘Den sjuhövdade hydran i Hamburg’ *Harald Nordenson 60 år* (Stockholm 1946) which also gives details about the earlier circumstances connected with the hydra. Linnaeus tells the story in two of his autobiographies (*Vita Caroli Linnaei* (1957), 69, 104 and to his young German visitor Johann Beckmann (Schwedische Reise 1765-1766, hrsg. Th.M Fries *UUA* 1911), 106.

lematic in some other sense. This group is headed by the Hamburg hydra, said to resemble the dragon in the Book of Revelation. It is a fraud, as “we have seen ourselves”. Nature does not allow creatures with more than one head or with less than two horns. Other creatures within this condemned group are the unicorn, the pelican (because of its alleged habit of giving its blood to its offspring), the Phoenix (dying and reviving on the fire), and a Draco with snake body, two feet, two batlike wings which is a *Lacerta alata* or could be identified as a dried and rebuilt ray. Several of these creatures had been used for centuries as moral examples and proofs of the diversity of nature and the unfathomless wisdom of the Creator.

Again, the hydra was a testcase for what to believe. He who reveals its true nature, or rather art, is a bold knight or the torch-bearer for truth. Nature’s plan is simple according to Linnaeus. To liberate Nature would make it clean and regular, to believe in exceptions would seem as blasphemies, as if the Creator did not follow his own rules. Still, it is not right to make Linnaeus a rationalist. Other examples give way to the fact that he himself was open to myth, e.g. the Siren, which attracted Linnaeus and Petrus Artedi, his friend who drowned in 1735 in Amsterdam.⁹ But this time he is enlightened, an Apollo or a Prometheus.

Another case. We find the dragon/hydra on the elaborated frontispiece to Linnaeus’s *Hortus cliffortiannus* (1738) of Jan Wandelaar. This is a splendid work showing the variety of plants in the garden of the rich banker George Clifford’s estate at Hartecamp where Linnaeus was employed. As was the case with Rudbeck and the Lapland journey we must remember the patron relation. The frontispiece (fig. 3) is full of detail, possible to interpret (with the help of the explanation connected to it) as Flora being unveiled by Apollo, putting his foot on the dragon’s head.

⁹ For the Siren, Troglodyte etc, see Gunnar Broberg, *Homo sapiens L* (Uppsala 1975) chapter 4.

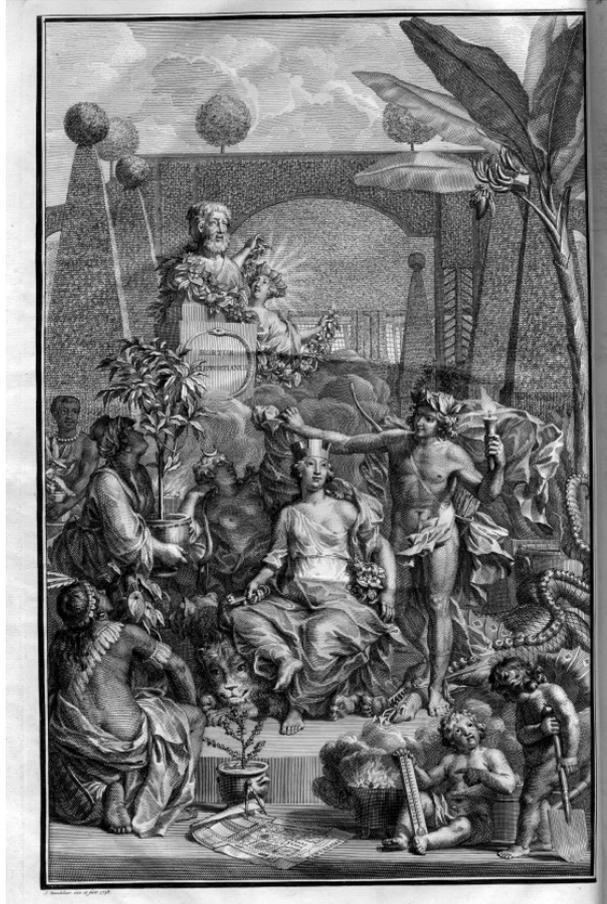


Fig. 3: Hortus cliffortianus (1737) frontispiece: In centre Natura, Flora, Cybele or Mother Earth, standing on the dragon or hydra of Hamburg is Apollo, Perseu or Linnaeus surrounded by representatives of the different continents. The Urobueros or wheel of life on the plinth is a recurring theme in Linnaeus' later writings, what he called *Oeconomia naturae*. Note the Banana tree, subject of Linnaeus book *Musa cliffortiana* (1737) (right) and the thermometer with a centigrade scale (bottom right).

A banana tree testifies Linnaeus's success (to be repeated later on in Uppsala) to have it blossom and give fruit. Natura holds two keys which will open doors to the garden and to the secrets of nature. Representatives of the different continents gather at this happy occasion. Another detail is the thermometer at the bottom right being graded according to the centigrade system, thus preceding Celsius and giving Linnaeus credit.¹⁰ This arrangement is not original, you find dragon and Apollo on Mathias Lobel's *Kruytboek* (Antwerpen 1681), which would have been familiar to both Linnaeus and Wandelaar, still the particulars are very Linnean.

The explanation to the frontispiece, "Verklaaring van de Tytelprint", begins "So Hartecamp flourishes, where the Dragon lies put to death not any longer harming herbs, trees and men with its breath. Thanks to sunlight, also to the moon, Mother Earth is revealed and opens her bosom through her keys" etc. The similarity to the scene in Lapland is obvious. Linnaeus, Apollo or Perseus is liberating Flora/Nature. In so doing, taking away old presuppositions and superstitions, he was opening up for research – and for exploitation and utilitarian science. Linnaeus is a classical hero, young, almost naked, a new star on the scientific firmament. The dragon is there mainly to introduce him in this heroic rôle. There had not been any real or symbolic monster to kill in the garden of Hartecamp.

At his return to Stockholm and Sweden Linnaeus was greeted with a long poem written by Olof von Dalin, the greatest author of his generation, sometimes coming close to Enlightenment ideas. His *Then Swänska Argus* (1732-34), framed on Addison and Steele's *The Spectator*, inaugurates modern Swedish. This poem in honor of the successful naturalist's arrival Dalin called "En wisa om Herr

¹⁰ This frontispiece is interpreted by O. Gertz & C. Callmer in *Svenska Linnésällskapets Årsskrift* 1953. A funny but not very trustworthy version is Lars Forsberg, *Linné och den sjuhövdade hydran* (Uppsala 2004 – also English version).

Lodbrok” using the letter “L” as a link. It is a sort of pastiche of a medieval ballad with the chorus, “Have you heard that Lodbrok (Linnaeus) saved the fair maiden?” It might of course refer to Linnaeus wedding but more important is the fact that he now successfully had married Fair Nature. The poem must have pleased Linnaeus as it fits very well into how he wanted to be understood. A short passage:

Nu vele vi kväda om Orma-land,/ Och om stolts Jungfru Natura./ Hon var ett skönt viv i rövare-hand,/ som satt i tornet och lura:/ I haven väl hört, att Lodbrok han frälste den Fagra.//....Och drakarna fingo sitt sista slut,/ med ormedikterna många./ Och var och en orm fick nu veta hut,/ han tog dem alla till fånga./ I haven väl hört etc// Han river dem upp, drar av deras skinn,/ Och räknar så grant deras ringar./ I spiritus vini han lägger dem in,/ och sina klasser dem bringar./ I haven väl hört etc// Herr Lodbrok steg upp i den jungfru-bur,/ allt på stolts jungfrun att hälsa:/ ”I sitten i fred, I sköna Natur,/ Jag har haft den äran Er Frälsa.” I haven väl hört etc//... Naturen hon axlade kappan grön:/ ”Herr Lodbrok, mitt hjärta må brista./ Till tack ger jag Eder mig självan till lön,/ med allt vad jag har i min kista.” I haven väl hört etc.//¹¹

¹¹ Olof von Dalin, *Witterbetsarbeten*, vol. 5 (Stockholm 1767). A very rough translation: “Now we will sing on snakeland and noble miss Nature. She was such a pretty maid kept by robbers, and sat in tower waiting. Have you heard that Lodbrok saved the fair maiden?//... and the dragons got their ends at least together with their poems. And all the snakes was taught to behave, when he to them into prison. Have you heard etc// He cuts them up, draws off their skin, counts their rings, puts them into alcohol and into glasses and orders. Have you heard etc// ...Knight Lodbrok enters the tower, greets the fair and says: “Now you sit in piece, you beautiful maid. My honour was to save you.” Have you heard that etc//...Nature brings her green jacket on. “My heart will burst. As gratitude I give you myself and all I have in my

Dalin's poem is fairly long – in all ca 100 lines – but with good points all the way. Its warlike allegory and songlike character makes it similar to contemporaries say, Gunno Dahlstierna's *Göta Kämpavisa* celebrating Charles XII. Linnaeus parallels the Viking story of Ragnar Lodbrok who won his bride Tora by killing a lindorm, which could not hurt him because of his thick cloak. Ragnar and Tora marry, just as Linnaeus and Natura. (According to another story Ragnar is thrown into a snake-pit by the British king Ella where he succumbs – this is what Saxo Grammaticus tells us.) In this playful way Linnaeus's generation enjoyed themselves, in Academies and literary circles. He and Dalin were friends who later on co-operated at the Royal court. And the description in the poem on how to range snakes is accurate. A detail: later on Dalin, who was a good draughtsman, would make pictures of snakes in the impressive *Museum S:ae R:ae M:tis Adolphi Friderici* (1753).

But now the hydra theme was consumed. The dragon was *entzaubered*, its powers gone and dead. It had been identified as a fraud or as something much less dangerous, a harmless lizard and Linnaeus had had his breakthrough. In his oration on the marvels in insects (*Märkvärdigheterna uti insecterna*, 1739) he claims that “no marvels are greater than the smallest”. *Paradoxa* is still part of *Systema naturae* in 1740 but gone in later editions. Travelling in the southern provinces of Sweden in the 1740:s he doesn't give room to such embellishments. In *Systema naturae* the impressive *Draco* becomes a small lizard, *Draco volans*. The Hydra-name had a more interesting future because it became central in experiments on revitalization made by Abraham Trembley (1741). They inspired Linnaeus to similar discussions on the character of the tape-worm and the non-ending character of life. If one cuts this small organism into pieces it will still live as new individuals with new heads. Although he is not the first to use the name Hydra – all lived in a world filled with

chest/ kista, morning-gift). Have you heard etc.”

references to Antiquity with Ovid as the favourite poet – it was Linnaeus who called it *Hydra viridis*.

The Dragonslayer is not the only role for Linnaeus or the only personal symbol used by him. As mentioned the humble *Linnaea borealis* is another, the only exception being the *Hortus cliffortianus* allegory, but some details are unclear. The artist might also have misinterpreted Linnaeus' instructions. Such things happened.¹² Also, there is the happy natural man, i. e. the sami (on the frontispiece to *Flora lapponica*, 1737) and the portrait of Friedrich Hoffman (1738) reproduced on innumerable occasions. Sometimes he is an adeptus following the footsteps of the master or trying to find the keys to the Temple of Nature and all its secrets (*Clavis medicinae duplex* 1766). He was even Adam in the paradises or garden and Jesus sending out his apostles, the Linneans, to preach the new gospel all over the world. Undoubtedly, Linnaeus is one of the great mythologizers of Science.

In later days Linnaeus was proud of his feat: "The dragon in Hamburg had fooled all curiosii in the world until Archiater Linnaeus arrived and found him made by art". All in all he did not like amphibians and expressed his satisfaction that the good Lord had created so very few of them.¹³ The dragon epitomized in more than one way old superstition, not least Catholicism. Linnaeus's rôle was to make nature clean. In doing so he is playing with aliases. They could show him as a learned person and as somebody who had been around. They added classical varnish to his ambitions. They connected his undertakings with great classical drama and they claimed more than he could express in plain words, i.e. that he was reforming science and promised happiness and wealth to mankind.

¹² See Gunnar Broberg on the *Fauna svecica* (1746) frontispiece in *Lychnos* 1979-80.

¹³ Linné, *Föreläsningar öfver djurriket* (Stockholm 1913), 162.

Linnaeus had a mythological mind and all through his career (but mainly in the beginning) he used classical myth. Fauna and Flora, Pan, Vulcanus, Adonis, Lachesis, Nemesis give their identities to his works; later on for instance the butterflies borrowed their names from the heroes in the Trojan war. In this way Linnaeus both charges and uncharges – by giving facit or keys – Nature.

In a sense Linnaeus was both an oldfashioned and a modern figure. *Oldfashioned* in his trust in classical myth, in baroque emblematics and in building systems based on platonic epistemology. *Modern* in his very strong sense for public relations, in choosing logotypes for himself and in his ability to organize science. As a traveller in Lapland he was a missionary, speaking the language of the new secular creed. He was modern, but not post-modern, also in his conviction that science gave the way to build a new world on the ruins of old hearsay, gossip. In his famous oration in front of the royal couple in 1759 he paraphrases the Bible: The sciences are the light, which enlightens people who walk through the dark. The Dragonslayer was also a torchbearer who promised peace and prosperity.

This story brings a warlike element to botany. Each one of these examples – the Andromeda and its possible colonial perspective, the Hydra of Hamburg and the uniformity of nature, the PR-aspects of the frontispiece in *Hortus cliffortianus*, Dalin's poem establishing success for the Dragonslayer, all interact. This metaphor assists us in order to understand how Linnaeus conceived himself as well as how the public was supposed to understand his ambitions. But also how myth, social settings, science and literature are part of a whole and work together. Further, it is part of how science is wrapped, or could be wrapped.

