

# **ANTHROPOCENTRIC AND NON-ANTHROPOCENTRIC PERSPECTIVES OF *PROTEUS ANGUINUS*, AXOLOTL, *VAMPYROTEUTHIS INFERNALIS*, AND THEIR ENVIRONMENTAL SYSTEMS**

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## *Abstract*

The article addresses the axolotl, the human fish, and the deep see squid, their living environments, and the relationships with man or man with these animals that live in different worlds than man, but that at the same time inhabit the same planet, where we coexist in mutual dependence. The author examines human approaches to these animals, which expand from exhibiting the fear of the unknown, of the “power of Nature,” and the theoretical admiration to the exercises of human dominance, be

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it in the form of hero fairy tales or biopower of regenerative medicine. The author reflects upon the question, how to conceptualize relations between entities in non-anthropocentric terms. She questions the eventual posthumanist perspective, which leads to the comprehension of the functional living and non-living systems as connected machines. While classical relationships between man and animals are based on non-equal power forces and are anthropocentric, the recognition of the environments of different species, which first marked the alienation particularly of some species from man, is at the same time the key to finally recognize the operability of various systems, which are actually connected.

*Keywords:* posthumanism, postanthropocentrism, regenerative medicine, biopower, animal aesthetics, axolotl, *Proteus anguinus*, *Vampyroteuthis infernalis*, dragons, ecosystem.

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### **Antropocentrični in neantropocentrični pogledi na *Proteusa anguinusa*, aksolotla, *Vampyroteuthisa infernalis* in na njihove okolijske sisteme**

272      *Povzetek*

Članek obravnava aksolotla, človeško ribico in globokomorskega lignja, njihova življenjska okolja in odnose s človekom oziroma človeka s temi živalmi, ki živijo v drugih svetovih kot človek, vendar obenem naseljujejo isti planet, kjer soobstajamo v medsebojni odvisnosti. Avtorica analizira človeške pristope k tem živalim, ki se raztezajo od izkazovanja strahu pred neznanim, pred »močjo Narave« in teoretskega občudovanja do izvajanj človeške dominacije, najsibo v obliki junaških pravljic ali regenerativne medicine. Avtorica se ukvarja z vprašanjem, kako konceptualizirati odnose med entitetami na ne-antropocentričen način. Za ta namen premisli posthumanistično perspektivo, ki vodi k dojetanju dejanskih funkcionalnih živih in neživih sistemov kot povezanih mehanizmov. Če so klasični odnosi med človekom in živalmi osnovani na ne-enakih razmerjih moči in so antropocentrični, je ravno prepoznanje okolij različnih živih vrst, ki je sprva zaznamovalo odtujenost zlasti določenih vrst od človeka, hkrati tisti ključ, ki omogoča končno prepoznanje operativnosti različnih sistemov, ki so pravzaprav povezani.

*Ključne besede:* posthumanizem, postantropocentrizem, regenerativna medicina, biooblast, živalska estetika, aksolotel, *Proteus anguinus*, *Vampyroteuthis infernalis*, zmaji, ekosistem.

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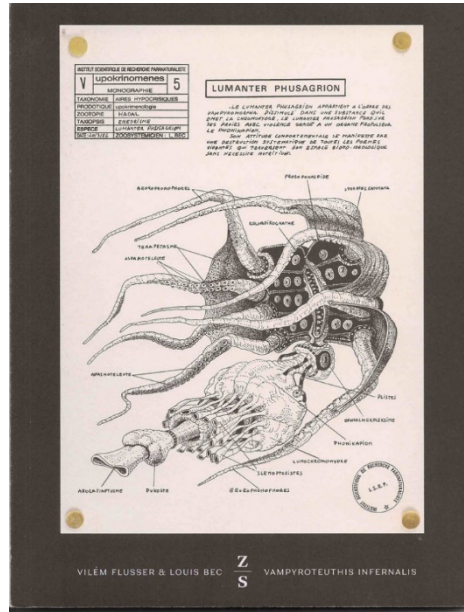


Image 1

The cover of Vilém Flusser's book *Vampyrotheuthis Infernalis*, illustrated by Louis Bec.

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For centuries there were stories told and depicted about giant squid or octopus ship attacks. The first known photograph of the giant squid (*Architeuthis*) from Logy Bay, Newfoundland, 1873, shows a dead squid hung on a stand. It is a picture of a powerless corpse and not of a powerful monster as portrayed in the tales. When Vilém Flusser was working on his book *Vampyrotheuthis Infernalis*, on the vampire squid from hell, he wrote in a letter to Dora Ferreira da Silva from January 29, 1981: "Please let me tell you of the project that moves me at

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The article is motivated by the art project *Neotenous dark dwellers (Lygophilia)*, curated by Annick Bureaud, in which Robertina Šebjanič researches the culturalization of the Mexican axolotl and the Slovenian *Proteus anguinus* as animals that love darkness and places inhospitable for humans.

the moment. Twenty or thirty years ago, a giant cephalopod was fished out of Pacific waters, of difficult taxonomic classification (among the octopi and decapods), which received the name *Vampyroteuthis Infernalis*.” (Flusser 1987, 136) Flusser then wrote, in continuation of that letter, that the “beast,” as he called it, inhabits the abysses between 3 and 8,000 meters. The first pictures of an 8-meter-long adult giant squid to be taken in the wild were only produced in 2004 and 2006, in Japan, at a depth of 900 meters. In 2006, the first video of a 12-meter-long animal in its natural habitat was recorded in California. Before that, in 2005, the Melbourne Aquarium bought a 7-meter-long squid preserved in a block of ice. Adult giant squid measures up to 13 metres in length, which is the maximum length of the males; the females reach up to 10 meters. Claims about the existence of a 20-meter-long specimen of the giant squid, therefore, have not been proven. Compared with the giant squid, the vampire squid is a small animal—it measures about 30 centimetres in length. It is estimated that the natural habitat of the giant squid is in the range of 300 to 1,000 metres below the water surface, while the vampire squid lives at a depth of 600 to 900 meters.

274 Both squids survive deep sea conditions, within the oxygen minimum zone. Some giant squids live captured in aquariums worldwide, while the vampire squid survives only up to two months in captivity. The vampire squid belongs to the class cephalopod, but is not a squid. The inner side of the arms and tentacles of the giant squid are covered with suction cups, while the vampire squid has suckers only on the distal half of the arms. The vampire squid is actually a passive animal that feeds mostly on bits of organic debris. When attacked, in order to save energy, it diverts the attack away from the central areas with glowing arm tips far above its head. When a predator eats off an arm tip, the vampire squid regenerates it.

This quality, however, is not so relevant for human society, because the animal is not able to live in captivity and scientists cannot do regenerative medicine research. In this regard, it is different to the axolotl. Axolotl is a sort of salamander, the natural habitat of which—the swampy, dark freshwater lakes of the Mexico Valley—is endangered because of urbanization. Axolotl, therefore, is an endangered species in the wild. Axolotl is a close relative of the tiger salamander, but has external gills and a caudal fin. And yet, even though it is colloquially called a walking fish, it is not a fish. Today, axolotls

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are extensively used for scientific research because of their ability to regenerate limbs. Axolotl has been researched for over 150 years.

Humans aim to obtain the knowledge and the techniques to be able to achieve that kind of regeneration for the human species. This objective is oriented towards the notion of the regenerative body, which is supported by the recent rise and promises of biotechnology. Eugene Thacker was among the first to point to the new comprehension of the body introduced with tissue engineering: “Tissue engineering is able to produce a vision of the regenerative body, a body always potentially in excess of itself.” (Thacker 1999, 183) Because tissue engineering is able to surpass current transplantation problems, it is our tomorrow. With regenerative medicine, the economy of body parts (transplantations, xeno-transplantations) has been replaced by the economy of auto-regeneration (regeneration of tissues from one’s own cells), which is cyclic and proliferative (productive of a great number of cells with their division) (ibid., 182). Perhaps even the bold ambition to re-grow whole human organs or limbs is not so remote. Salamander, axolotl, human fish, and vampire squid have the ability to re-grow a whole limb if cut. It is a challenge to comprehend this function, but the interesting thing is that it is actually not foreign to humankind. During foetal development, while the foetus is immersed in a wet milieu similar to that of salamander, this function is in full operation. The human liver can re-grow after damage. The function of re-growth is related to the process of scarring, which protects the body from its dissolution into the external environment and the invasion of the world into the body. Re-growing and scarring stand in opposition, they are dialectical identities. There have been reports (as for instance by Lee Spievack from 2008) that a cut finger has successfully re-grown with matrix treatment. As reported, it was important that the body, wounded during the process of “healing,” was preserved opened. Such acknowledgements force us to rethink the issues of identity, body, growth, healing, life, etc., which are, at least within the Western context, generally comprehended as self-contained entities and not according to their structural relations. Such is also the prospect of the regenerative body, a body able to re-grow its own parts and treat its own diseases, a body in a constant process of rejuvenation (cf. Tratnik 2017, 77–94).

The regenerative body, which some animals have, is for humans a wish to be possibly attained with biotechnology, which has become a relevant instrument

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of biopower as the power over life. In his famous examination of biopower, Michel Foucault highlighted the importance of the historical shift regarding the relations between politics and life, which he located between the ancient era of sovereign power and the modern era of biopower, “when the life of the species is wagered on its own political strategies” (Foucault 1978, 143). In the modern era of biopower, the social body has the right to ensure, maintain, or develop its life: “the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death” (Foucault 2009, 138). The new regime supported the affirmative politics of life and over life:

Power would no longer be dealing simply with legal subjects over whom the ultimate domination was death, but with living being, and the mastery it would be able to exercise over them would have to be applied at the level of life itself; it was the taking charge of life, more than the threat of death, that gave power its access even to the body. (Foucault 1978, 142–143)

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The political technologies that ensued—investing in the body, health, modes of subsistence and habitation, living conditions, and the whole space of existence—only proliferated. Therefore, regenerative medicine, which is oriented towards regeneration of life, is particularly relevant for modern society. Foucault recognized such relevance already for medicine in general (he paid much attention to the birth of the clinic): “for capitalist society it is the biopolitical that is important before everything else; the biological, the somatic, the corporeal. The body is a biopolitical reality; medicine is a biopolitical strategy.” (Esposito 2008, 27) Foucault analyzed the emerging institutionalization of medicine in the context of normalizing society, when power took possession of life, or at least took life under its care, in the course of 19<sup>th</sup> century, a time when “medicine becomes a political intervention-technique with specific power-effects. Medicine is a power-knowledge that can be applied to both the body and the population, both the organism and biological processes, and it will therefore have both disciplinary effects and regulatory effects.” (Foucault 2003, 252) The role medicine gained for biopower has only been intensified with the emergence of biotechnology.

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Humans subject the world and use it for its own production. Martin Heidegger paid attention to the being of entities encountered in the environment. The world is for one “present-at-hand” (German *vorhanden*), or it is “ready-to-hand” (German *zuhanden*). The first option means a “simple awareness of something present-at-hand in its sheer presence-at-hand.” (Heidegger 1962, 48) The second is remarkably interesting for this discussion. Heidegger resisted calling different entities in the world as just things, because some “‘things’ never show themselves proximally as they are for themselves” (ibid., 97–98). The equipment, for instance, of a room—inkstand, pen, ink, paper, furniture, etc.—has its equipmentality, in terms of its belonging to other equipment. It has an assignment, or reference, of something to something—the “in-order-to.” Equipment thus shows itself only in dealings, cut to its own measure. The “in-order-to” is therefore constitutive for the equipment we are employing in time. The hammering uncovers the specific *manipulability* (German *Handlichkeit*) of the hammer. The kind of Being the equipment possesses Heidegger called “*readiness-to-hand*” (German *Zuhandenheit*). If one just looks, one cannot discover and understand the readiness-to-hand at the outward appearance. But, “when we deal with them by using them and manipulating them, this activity is not a blind one; it has its own kind of sight, by which our manipulation is guided and from which it acquires its specific Thingly character” (ibid., 98). Does human body also comprise the “readiness-to-hand” and what does this kind of sight at the human body, directed by the “readiness-to-hand” mean? How does it lead to the eventual manipulation of it? And finally, has the “present-at-hand” ever existed for the researchers of the human body? These were some of the central questions I addressed at another occasion (cf. Tratnik 2017, 1–54). For this discussion, the relevant questions are similar, but applied to the animals addressed here. Do the *Proteus anguinus* and axolotl comprise the “readiness-to-hand” and is it possible at all to look at “Things just ‘theoretically,’” as Heidegger supposed, so that “we can get along without understanding readiness-to-hand” (Heidegger 1962, 98), in the case of these animals?

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Heidegger furthermore linked the “ready-to-hand” with the notion of work. Equipment has an orientation, a “towards-which” of its usability, to the work. One is at work on something. The “ready-to-hand” leads to production. “The production itself is a using *of* something for something.” (Ibid., 99–100)

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Heidegger also referred specifically to the notion of nature and explained how the “ready-to-hand” applies in this case:

“Nature” is not to be understood as that which is just present-at-hand, nor as the *power of Nature*. The wood is a forest of timber, the mountain a quarry of rock; the river is water-power, the wind is wind ‘in the sails’. As the ‘environment’ is discovered, the ‘Nature’ thus discovered is encountered too. If its kind of Being as ready-to-hand is disregarded, this ‘Nature’ itself can be discovered and defined simply in its pure presence-at-hand. (Ibid., 100)

Speaking in Heidegger’s terms with reference to our case, we can formulate the question: what is the readiness-for-use of axolotl? For humans, as we’ve seen, it is its instrumentalization for scientific research because of its regenerative ability. And, another question arises: what would be the bare presence-at-hand in the case of axolotl?

278 *Proteus anguinus*, or the human fish, also has regenerative abilities and exhibits neoteny, similar to axolotl. It lives in the caves of the Karst regions of Slovenia, Croatia, and Herzegovina, reaching high age, up to sixty or even seventy years. It is rather rare to find in its natural environment. It gets sexually mature only after fourteen years and it takes four months for the larva to resemble the adult animals. Statistically, only two embryos out of several hundred eggs survive in the wild. In captivity, the first time they managed to get progeny was in 2016, when twenty-two whelped, twenty-one of which they have managed to keep alive until today. The human fish is actually no fish, it belongs to the family Proteidae and to the genus *Proteus*. Because it lives in total darkness, it has adjusted to these conditions. It has very sensitive photoreceptors, chemoreceptors, mechanic- and electroreceptors, and can orient itself using the Earth’s magnetic field. It has stunted eyes. Charles Darwin mentioned it as an example of the reduction of bodily structures due to disuse. The first scientific description and the name *Proteus anguinus* were given by Joseph Nicolai Laurenti in 1768. The first anatomical examination was conducted not much later by Carl Franz Anton Ritter von Schreibers, in Vienna, to whom the specimens were sent by Žiga Zois. After von Schreibers exhibited the animal in London and Paris, it became globally

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known and specimens were then sent, from Slovenia, worldwide. However, the animal was mentioned about a hundred years earlier, in 1689, by Janez Vajkard Valvasor in his work *The Glory of the Duchy of Carniola* (Slovene *Slava vojvodine Kranjske*) as the whelp of the dragon.

Because they did not have scientific knowledge at their disposal, the compatriots of Valvasor had their own explanations of natural phenomena. For them, it was best not to disturb the supernatural beings in power in order to avoid their outbursts of rage. Local people told Valvasor that a dragon in the mountain intermits the flow of the spring water of the creek Bela near Vrhnika and that it would be dangerous to disturb it. Valvasor aimed to find a scientific explanation for the phenomenon in question. He was also told that white water that issues twice a day from the mountain had healing effects for scabies and itching. He suggested the spring should be used. He recommended removing the rocks from the source of the springs to get the water running constantly and to be able to water the cattle. Yet the locals told him that this would outrage the dragon who would then come out with the mountain collapsing about him. Indeed, a peasant told Valvasor that a young dragon had, in fact, once emerged from the source causing a collapse of the mountain. Thousands of people saw this (he claimed). In his book Valvasor commented that he could not stop himself laughing, when he heard this “new Cartesian or Paracelsus and fairy-tale-teller” who was even referring to witnesses (Valvasor 1977, 96). Afterwards, Valvasor talked to the postman Hoffmann from Vrhnika who informed him that it was he who had caught the dragon and had taken it home where it was hung on display. Valvasor wrote: “it turned out, as I had already conjectured myself: that the alleged dragon was barely a foot long and resembled a lizard. In short, it was a kind of worm and vermin [...]. And simple folk want to create a dragon out of it, by all means!” (Ibid.) This is to be believed to be the first mention of the *Proteus anguinus*.

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However, according to folk tales, there were many other frightening dragons thought to be living in the mountains of Slovenia. A dragon from the underground cave of Menina planina in Styria was supposed to cause many problems for people from Bočna because the river Dreta floods when the dragon opens its mouth (cf. Zupanc 1960). The dragon from Žirovski vrh (Žiri in the Upper Carniola) was said to be an enchanted lord of the castle—under

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a spell which caused heavy flooding of the Sora river—and still waiting to be released from the cave (until which time he frightens children). Another tale recounts how a bandit was given a choice between a death sentence and a visit to the cave of Huda luknja in Peca, Carinthia. He chose to go to the bottom of the cave, where he met the dragon and was only just rescued from it (cf. Brenkova 1992, 31–32). The unknown world of caves and incomprehensible phenomena were formerly explained in non-scientific terms. Valvasor, in contrast, aimed to scientifically study such phenomena. With his research on the Cerknjiško jezero, the intermittent lake that had always created agitation (“The Fourth Book” of *The Glory of the Duchy of Carniola*), he achieved international scientific recognition—becoming a member of the Royal Society, London, in 1687. The investigation of the Bela spring was part of this research. Valvasor’s modern approach asserted rational reasoning. With the preposition to make good use of natural features, i.e., recognizing their “readiness-at-hand,” he as well exhibits instrumental reasoning.

280 Today, the *Proteus anguinus*, the human fish, is a hallmark of Slovenia’s natural heritage. It is a symbol of the natural beauty of the country and, because the animal is extremely sensitive to pollution, of the intactness of Slovenia’s nature. Reconsidering the human fish in Heideggerian terms, its usefulness applies to tourism and for political goals—it is the hallmark for a mountainous unpolluted country. Linked to that and also because of its rareness it is also a national signifier. Furthermore, it serves political strategies to promote protection of natural heritage and sustainable economy. These cases of usefulness are not exactly accordant to the notion of readiness-to-hand as discussed by Heidegger regarding the cases of equipment and their use in a rather physical form of work, actually to be done with the use of hands, but the notion of usefulness was taken more broadly. However, in all cases the usefulness applies to producing benefits for the human species. The question remains, how to conceptualize the relations between entities in non-anthropocentric terms?

An early 20<sup>th</sup> century zoologist and one of the first theoreticians of ecology, Jakob von Uexküll, who was also a relevant reference for Heidegger, discussed different sorts of environments (1934). He differentiated between the subjective world of animals, *die Umwelt*, and the rather objective environment, *die Umgebung*, which he did not find of interest because he emphasized that there

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is no objective space *per se*. Instead, there is only a forest-for-a-woodcutter, a forest-for-a-botanic, a forest-for-a-wanderer, etc. The animals, however, operate within their respective *Umwelts*. The bee, the tick, and the fly that we observe neither move in the same world nor share the same world with us—the observers. In *die Umwelt*, the world and the animal are intrinsically, or existentially, linked. Uexküll considered the case of a tick. The fundamental aspects of the structure of *die Umwelt*, the environments that are valid for all animals, can be derived from the example of the tick. Out of the egg crawls a not yet fully developed little animal that, even in this state, can already ambush cold-blooded animals such as lizards, for which it lies in wait. Once the female has copulated, it, the eyeless and deaf creature, finds its way to the warm-blooded animal from which it pumps a stream of warm blood. Uexküll ascertained that the tick uses its sense of smell and has no sense of taste. It takes in any liquid, so long as it has the right temperature. For the tick it is existentially relevant to get the meal: after getting it, the tick will fall to the ground, lay its eggs, and die. The tick gets into a “functional cycle as a subject and the mammal as its object” (Uexküll 2010, 50).

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More precisely, in *die Umwelt* there are carriers of characteristics, or of significance. In semiology, these would be marks (German *Merkmalträger*), which are also carriers of meaning (German *Bedeutungsträger*). These carriers are everything that interests an animal. An animal has receptive organs that are assigned to perceive the mark (German *Merkorgan*) and to react to it (German *Wirkorgan*). If one would exchange the tick with a giant squid, one can easily imagine that the squid would have an interest in the ship in the same way the tick is interested in the mammal. The squid would take the ship as an object in its *Umwelt*. It would suck on it with the numerous suckers on its tentacles. Finally, it would take it down into its world. Flusser considered the vampire squid in its environment, which is the very depths of the ocean, and the ocean as a place that is “brimming with life,” where four-fifths of the biomass is found and where the largest organisms live:

The lowest level, the ‘benthos,’ is the ultimate destination of all life on earth. It is there where all vital energy generated by plankton goes, and where all fertilizing cadavers go. The organisms that inhabit

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the 'benthos,' such as walking, swimming and digging animals, form the final link in the chain of life that encircles the planet. There are no plants in this region, only animals that are similar to plants. And Vampyroteuthis dominates this region: he is the lord of all life. So this is the vampyroteuthian environment, his habitat: the centre of the world. The great hole that sucks in all of life. It is permanently vivified by the manna rain that falls constantly. It is eternal night, illuminated by the living rays emanated by the living creatures. And eternal 'son et lumière,' a show of infinitely variable luminosity and sonority. (Flusser 1987, 69)

The squid and its environment are in this case not ready-at-hand and not merely present-at-hand. This perspective presents human fear of the unknown and the inhabitable, as well as admiration of the unusual and the powerful.

282 With the concept of dynamically sublime Immanuel Kant reflected upon nature as power. He defined power as "a capacity that is superior to great obstacles" (Kant 2000, 143). It is called force (German *Gewalt*), or domination—if it is also able to overcome the resistance of something that itself possesses power. "Nature considered in aesthetic judgement as a power that has no domination over us is dynamically sublime." (Ibid.) The aesthetic judgement of the sublime is essentially related to relations of power. When Kant enumerated the cases from nature, such as the threatening cliffs, thunder clouds, volcanoes with their all-destroying violence, hurricanes, etc., he concluded that "the sight of them only becomes all the more attractive the more fearful it is, as long as we find ourselves in safety" (ibid., 144). According to Kant, this takes place because we "discover within ourselves a capacity for resistance of quite another kind, which gives us the courage to measure ourselves against the apparent all-powerfulness of nature" (ibid., 144–145). Therefore, as Kant continued, this analysis of the sublime as ascribed to power seemed to run counter to the imagined representation of God as exhibiting himself in anger in the forms of thunder, storm, earthquake, etc. Furthermore, if we were to, then, imagine, in our minds, having any superiority over the effects of such power, it would seem sacrilegious. In submitting to religion, generally, it seems that adoration with bowed head,

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remorseful and anxious gestures, and voice are the only appropriate codes of conduct in the presence of God. Therefore, Kant concludes, “sublimity is not contained in anything in nature, but only in our mind, insofar as we can become conscious of being superior to nature within us and thus also to nature outside us (insofar as it influences us)” (ibid., 147).

It was very relevant for folks in the past times to express the capacity for resistance in the tales, where they measured themselves against the all-powerfulness of the supernatural creatures and situations. The brave third son to identify with had the courage to enter the other, underground world, when the ground opened up before him and was then able to rescue the trapped princess and, perhaps, also the old woman under a spell. The brave juvenile defeated the dragon from the cave or the monster from the lake that was about to eat the princess. The production and circulation of these hero tales were modes of operating with the unknown and horrible dark world full of beasts and monsters, a way of overcoming, in the folk’s minds, the resistance of something that possess power and a way of establishing man’s domination over something horrible, which also meant overcoming man’s own fears.

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For Flusser, however, the objective is not to resist or to “defeat” the squid/ the beast. He assumes different perspectives of the environment, where *Vampyroteuthis* lives, whereat “[e]nvironments are just as much mirrors of the organism as the organism is a mirror of the environment” (Flusser 1987, 70). Flusser unfolds three perspectives. According to one, the abyss is a Paradise with shiny red, yellow, and silver crabs, a garden that whispers, shines, and dances, a delight of *Vampyroteuthis*, where he can enjoy the fruits. According to the second perspective, the abyss is Hell—for us, who “see a cold black hole under a crushing pressure, full of fear and turmoil, inhabited by viscous and repugnant creatures that eat each other with pincers and teeth” (ibid.). And then there is the perspective of “objective” science. The abyss is a particular habitat inhabited by *Vampyroteuthis*, but inhabitable for man. To “discover” the vampire squid, we first need to get used to the unusual (cf. ibid.). So, how can these two species meet, if they do not live in the same world?

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It is difficult for us to catch Vampyroteuthis in nets for fishing as well as those for knowledge. Both of us live separated by an abyss. The atmospheric pressure that he inhabits would crush us, and the air we breathe would suffocate him. If we manage to incarcerate his relative in aquariums in order to study them, they tend to commit suicide, devouring their own tentacles. But we are ignorant of our own behaviour, should he manage to drag us to the deep and incarcerate us under his glass domes in order to observe us. (Ibid., 23)

284 We literally live in different worlds, Flusser concluded, which also explains why he took up and subjected the case of the vampire squid to examination. “There is no ‘general world’ or ‘objective universe’ which is common to both. Such abstract world of science does not exist. If we find Vampyroteuthis, it is within our world that we find him. We do not find him as existence, but as object.” (Ibid., 73) The drawing of the giant squid found in Newfoundland in 1877 speaks of this kind of meeting of man and squid well. Flusser even wrote about existential difference, which is the difference between, said in Heideggerian terms, both of our beings-in-the-world, for which no mutual embrace could ever alter such difference, and thus: “Every attempt to transform Vampyroteuthis into a human complement is a betrayal of human existence, a dangerous romanticism. It is pointless to try to minimize this: Vampyroteuthis is our Hell.” (Ibid., 79)

Here, we are confronted with the impossibility of these two species meeting in any manner other than in a subject-object relationship, which is a relationship of subordination, be it from the human’s or from the animal’s perspective. It is no coincidence that Flusser—who had been influenced by Heidegger, who built upon Uexküll’s theory, which corresponded so well with that of Kant—came to such a conclusion. Uexküll believed that with the interconnectedness of the subject with the object, in *die Umwelt*, biology finally connected with Kant’s philosophy by emphasizing the decisive role of the subject, because there can be no time and no space without a living subject (cf. Uexküll 2010, 52).

Is there any other way to conceive of the vampire squid, the human fish, or the axolotl as in the ways of culturalization of these living creatures as examined so far? When Heidegger considered that in the case one would understand

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“Nature” as just present-at-hand, “the Nature which ‘stirs and strives’, which assails us and enralls us as landscape, remains hidden” (Heidegger 1962, 100). Can one consider the entities in the world not only from the perspective of usefulness at all? How to think the world in non-anthropocentric terms?

If considering the usefulness of things means usefulness for man, it exhibits an anthropocentric mind-set. Another concept must be found in order to explain the mode of relations between objects in a non-anthropocentric perspective. This mode might be the functionality they have for each other and the (eco)systems.

Object-oriented ontology is a contemporary philosophical school that aims at the objective to turn away from anthropocentrism of the subject-oriented ontology, as introduced by Kant. They claim objects exist independently of human perception. Levi R. Bryant, a contemporary philosopher, who believes his notion of a machine is different from Heidegger’s, who claimed that the machine always needs a creator or an operator, is not that far from that Heidegger’s thought regarding “Nature”, which stirs, strives, and assails us, with the concept that Bryant has addressed as “a machine.” His conceptualization of machine is broad; as he claims, “a tree is no less a machine than an airplane” (Bryant 2014, 16). A machine is an entity that dynamically operates on inputs producing outputs. Bryant, as a materialist social and political philosopher, is interested in how the geographical features of the material world play an important role in social relations and organization of societies. Living and non-living structures operate as machines. For Bryant, it is crucial that machines “are formative of human action, social relations, and designs in a variety of ways that don’t simply issue from humans themselves” (ibid., 22). If we consider a tree as a machine, he believes, our comprehension is very different from the one where we consider it as an object with certain properties: “Rather than regarding the tree as a structure of qualities or properties inhering in a subject, we instead approach it as a system of operations performing transformations.” (Ibid., 38) Thus, according to Bryant, the proper question for any machine is: “What does it *do*?” (Ibid., 39) A tree is not a static object, but a processual machine that gets some inputs and produces outputs: the tree transforms the flow of water, the soil nutrients, the light and the carbon dioxide that passes through the tree.

The Karst region is the youngest geographical area of the Earth, therefore also the human fish has “arrived” to the caves relatively recently, evolving from an inhabitant of the surface waters, similar to the black salamander, into the species it is today. This most likely took place only after the withdrawal of the glaciers less than 10,000 years ago. The Karst limestone caves can be considered a good example of machines as comprehended by Bryant since they organize the life contained within them, including the human fish. Furthermore, the caves connect to other machines such as different sorts of water flows, which move in and out, and also shape them—their channels, halls, the water drips that form stalactites and stalagmites, etc. The running waters, however, further connect the machines of the caves with the machines of the outside world, thereby assuring the quantity and the quality of water. The machines of the farms and the cities are connected to the running and underground waters, the fertilizers that enter the soil, get into the waters and also get into the caves. The lives of the people are connected to the lives of the human fish. The wellbeing of the human fish in the caves depends on environmentally sustainable living of man.

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Contrary to the human fish, the vampire squid has not transformed much during its evolution, which does not mean that it cannot rapidly change or become extinct. Today, however, the vampire squid and his abyss are not the horrible man is to be afraid of; the dangers are centered elsewhere. They are to be considered relationally, i.e., as regards the quality of relations between entities, between entities and their environmental systems, between different environmental systems, and between them and the ecosystem. For instance, man is not only the greatest stimulator of a regeneration of life, but also the most invasive of all species on Earth.

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