

SEA SECRETS BEHIND THE EYES

I

The Cardinal Points

For most of us, humbly trained as terrestrial animals, the cardinal points are clearly four. Namely, North and South as fixed points on both ends of the Earth's axis, and East and West, depending on whether we are facing dawn or dusk, in this unimaginative planet of ours, always turning in the same direction.

For new epicureans (please allow me to include myself in that category too, but only as a seasonal visitor), cardinal points are, once again with certainty, five. Namely, sight, which allows to see the wonders of nature (including human beings, of all possible colours); taste, with which we can taste both exotic and familiar flavours; smell, so subtle in its refinement despite its almost total atrophy due to the mixture of burnt gases we breathe every day; hearing, which reveals cries for help or calls, musics in all different pitches and desperate or joyful cries, cries of celebration or condemn; and finally touch, the most nostalgic of all senses, alleviating those moments of intimate blindness.

For marine creatures (I would like to be one of them in the future, or maybe I feel a call from my lung-bearing ancestors), born in the estuaries or in the ocean world, the cardinal points are of course six, because a third axis of reference must be added to those I mentioned for terrestrial beings. It extends from the abyssal depths where the lanternfish lives to the surface of the oceans where plankton peacefully floats.

Finally, for sailors (I count myself amongst them due to past and future odysseys, whether true or false) there are seven reference points, since seven seas must be sailed so as to travel the world. Regards to the oceans, there is no doubt whatsoever: the Arctic ocean with its northern lights, the Antarctic with its penguins and frozen continent; the Atlantic, said to

hide in its womb of abyss and crests many underwater cities; the Pacific, where Magallans stopped breathing with a spear through his heart, and finally the Indian ocean, which was sailed by the Waqwaq in search for the shores of Africa to escape poverty. Among the remaining two seas up to seven, we undoubtedly are to included the Mediterranean because of the myths and legends it bears. I never learned, please bear with my ignorance, whether the seventh one could be the Black Sea, with the cultural crossroads of Constantinople as its natural outlet, the Baltic sea you can walk on in very cold winters, or the China Sea, full of rush and sampans or even the Red Sea, where in the midst of its coral reefs, Moses allegedly parted the waters with the help of a staff. Let me be true to my admired fellow writer Don Álvaro Cunqueiro and thus be loyal to the waves of the Red Sea in which old Sinbad sailed or said he had sailed around looking for the Cotovías islands.

As you can already imagine after all I have already said, I am extremely lucky that my co-ordinates vary depending on the perception of each day. Thus, I have days when I cannot tell north from south and abyssal days, I have days when I can float on the fluid surface or long for the south as an exotic reference. Dream with my eyes set on the rising sun or feel the gentle touch of the breeze coming from the west. Listen to the waves in Vigo or feel the call of whales in the Pacific, which got to me once trapped in the waves of Conrad or Coloane's writings.

I would like to wholeheartedly invite you to change your co-ordinates and be free, open to diverse tastes and expressions. This is the celebration of our five cardinal senses and of the three axis limiting shapes and designing a new space for freedom. Here you are my contribution, these seven notes on the seven seas, I hope you enjoy them and that they open up your perception. So that you are happy. So that you are free. So that you celebrate the freedom of others as if it was your own. So that you are good and generous.

II. Artic

Intelligent dolphins in boreal latitudes

Thousands of years ago, ice advanced from the North Pole towards the Equator, covering plains and mountains, freezing whole seas and lakes, inevitably progressing in a frenzy of cold and despair.

In the times when sailors looked for a passage to India through the north, when the Dutch established their first whaling factory in the Spitzbergen islands, written accounts of a species of sea mermaids, hairy and agile-swimming, who used whistle language and had

amphibian habits were found in the ship-log of Cornelius Rijsp and Wilhem Barents

Baron Carl Von Hagman, who only heard of those mermaids through written references and who eventually never watched such a specimen, decided to name them, already in the mid 19th century, as *Sirenus cianeus*, Von Hagman 1824, and this name was used thereafter.

However, it is not until the middle of the year 2002 that the first precise scientific reference does appear. It describes a holotype of a new species, the *Delphinus gaudius* (Queipirinha & Castinheiras, 2002). The specimen described in detailed was found in some amber deposits in the Baltic Sea by Portuguese seafarer Joaquim Castinheiras de Figueiredo Torres, native of the village Cabanas de Tavira, in the Algarve, and who lived, when on shore, in the Brazilian city of San Salvador da Baía.

This scientific work is signed by Dr Carlos Quipirinha de Todos os Santos Goraz, Professor of paleoanthropology at the Faculty of Sciences in Baía, a heterodox wise man who received the specimen in amber from the hands of the very Joaquim Castinheiras.

Professor Quipirinha's description of the so called *Delphinus gaudius*, in his work is as follows:

"Elongated and slim body, more similar to a spindle than to a barrel. Completely covered by hair in all its surface except for the ends of the limbs, which are hairless. The hair varies in colour depending on the area of the body, it can be blue in the crest that goes from the forehead to the main bone, which later transforms itself into a powerful cauda. Colour is red with dark stripes in the belly and white on the flanks, ends of the cauda and in the limbs. Eyes are lateral and symmetrical to both sides of an elongated snout, one eighth the standard length. Females have eight mammary glands distributed in two rows going from the armpit to the groin. Males, on the other hand, only have two atrophied blackberries and a virile member measuring up to 1/6 of their total body length. A crest goes from the forehead to the cauda, and it is higher in the hairline, decreasing to 1/36 of the standard length. The limbs end in prensile hands and feet that may refer to a high degree of intelligence, superior to that of primates and similar to that of hominids. They coincide with the latter in cranial capacity and, curiously enough for a dolphin, they also share the capacity for bipedestation and they can even walk, as can be inferred by the callous areas in what would correspond to human feet soles. The specimen has got well developed teeth in one single row. They are covered by dentine without further specifications, which would lead us to infer they are omnivorous. This has been confirmed by the analysis of the stomach content, which revealed the presence of a species of waterweed, crushed remains

of sea owl (also called lumpfish) and some yellow pap that could correspond to a type of anemone highly abundant in the Baltic sea and, more precisely, in the Gulf of Botnia. Its existence was only recently recorded (still to be confirmed) by scientific researchers on board vessels fishing in the Seas of Irminger and Barents, in the further ends of the Arctic Ocean, where for a long time they are said to have lived.”

III. Antarctic lies from the Kerguelen Islands

If you do not remember where the Kerguelen Islands lie, please do not worry. Many teenagers who have recently studied geography do not have the slightest clue where they lie. Neither do their teachers, because geography is no longer fashionable, let alone atlases. What really is fashionable now is to surf a waiveless and foamless sea, to be as lonely as a bear during hibernation, sitting in front of a computer screen (I love using the French word, écran, but proof-readers always change it, although in Portuguese, Galician's sister language, the word is exactly the same). Even intellectuals (including MPs, although referring to MPs as intellectuals and vice versa becomes more and more confusing by the day -they are incompatible liquids-) who boast of knowing the secrets of where our fishing vessels fish would not be able to locate them either. Let us turn our attention, then, to a good universal geographical atlas. Let us focus on the Southern Hemisphere. Let us take a closer look at that no man's land between the continents and the Antarctica. Let us look for the more famous islands of South Sandwich or the Crozet Archipelago. Very soon you will find the Kerguelen Islands where Galician sailors sailing under convenience flags¹ haul from the sea a fish that scientists and legislators alike call Dissostichius, some others call it Patagonian toothfish cod (nothing to do with cod, neither the species, nor the gender or the family²) and that should actually be called sea perch, so that we can understand each other and be coherent .

You may think that this introduction has been lengthy and confusing. It is, indeed, but I did it on purpose. Writers are quite within their rights to select their readers by way of mutual selection right, or is it only readers who have the right to choose this writer or the other

- 1 Euphemism used to designate vessels of Galician capital under some thirld world country's flag. They do not comply with conservation norms, because convenience flags can be any flag, those of sovereign states, colonies, developed and developing countries –one of the most hipocritical euphemisms-, countries in the making but not allowed to be, international organizations and non governmental organizations.
- 2 Lahuerta and Vázquez in their book “*Vocabulario multilingüe de Organismos Acuáticos*”, published in the year 2000 under the lead of staff from the Ramón Piñeiro Institute for the Galician language and published by the Galician regional government, the Xunta, call it “Pescada austral negra” (“black austral hake”) or “Pescada antártica negra” (“black antarctic hake”). They may know why.

whereas we, writers, are deprived of our rights?. The aim is to place you in the right time and space where this recalling takes place. The time is now itself, although the story started thousands of years ago. The space, I have already mentioned it, but just in case you have already got lost, is in the Southern Hemisphere.

It actually happens that in the Kerguelen islands flies do not have wings. Seriously: they do not have wings, and thus contradict the general idea we all have about flies. This case is recorded by Irenäus Eibl-Eibesfeldt, a much respected etologist who in his work “Liebe und Hass- zur Naturgeschichte Elementarer Verhaltensweisen”³ states: “In the Kerguelen Islands, where hurricanes constantly roar, there are flies and butterflies unable to fly, who must have been born by virtue of that law; on the other hand no insects are able to fly because the wind easily carries them away. In those most unusual conditions, those who cannot fly are better “adapted” to the environment. That is, the mutations producing wingless animals result in a positive selective value.”

The law Eibl-Eibesfeldt refers to, is the law which regulates which variations (mutations) of the genetic code take place in animal populations. Those mutations are experiments with new hereditary variations competing with the most common features. In certain extreme circumstances (such as the almost permanent storm in the Kerguelen Islands) mutants are favoured because they can easily adapt to the environment. Flies unable to fly in Kerguelen are, for example, *Amalopteryx maritima* and *Calcopteryx moseleyi*⁴, between 2.5 and 5.3 mm long. They only have some traces of wings which they would use as swings.

This example clearly illustrates the value of differences and the importance of being different, the adaptation to a hostile environment and the scarce value of generalizations. A fly is still a fly, even if it has no wings, and a butterfly can be a butterfly without necessarily being a treasure for compulsive collectors (I am still looking for examples in which a rose is no longer a rose, but I have little bibliography on botany or on the obvious).

This example leads to too many potential reflections such as those related to the prejudices as far as naming are concerned and to our preconceived ideas. Are there just preconceived ideas while knowledge is nothing more than memory, as the classics used to say? What on earth is a classic? How do you explain to a child that there are wingless flies? Would not other classmates make fun of him/her, and even the automated teacher, who repeats and

3 Irenäus Eibl-Eibesfeldt , “*Amor y odio: Historia natural de las pautas elementales de comportamiento*”, Siglo XXI editores S.A., Mexico 1972

4 Eibl-Eibesfeldt himself presents a drawing of one specimen of each of these flies by C. Chun. The drawings first appeared in the book “*Aus den Tiefen des Weltmeeres*”, published in Berlin in 1903.

does not innovate, who conveys certainties and not the capacity to explore knowledge? If there are flies without wings, could there also exist a species of fish without fins? And reptiles who do not crawl? And amphibians who cannot live outside the water? Certainly, because to the deep joy of naturalists, the world is full of exceptions.

IV. Pacific Ocean.

Report on the atolls based on a text by Robert Louis Stevenson⁵

Atolls have always been completely fascinating to me. Their structure of dead coral, their central lagoon of calcareous and cobalt blue waters in which phosphorescent jellyfish swim, those isolated palm trees, somehow sad, the paradigm of those islands where castaways live, all that makes them real in my recurrent dreams. That is why, maybe, I could not help recoding in my notebook a definition I once found reading a book by Stevenson. I shall transcribe it here should it be of any use.

(...) atolls, of difficult history and origin, are supposed to be a creation of one unidentified insect; they have a ring shape, with a lagoon in the middle, their highest extension is usually less than half a kilometre, during its high peak it rarely reaches the height of a human being. Its most important inhabitants are human beings, rats, earth crabs; no special proliferation of plants can be witnessed and it does not offer to our eyes, despite its perfection, more than a ring of shining beach and greenery surrounding the sea and being surrounded by it.

(...) One last indication of horror to the image of that narrow passage is the fact that such a limited ring placed on the sea is not formed by rock, but by organic substance, half alive, half rotten: the clean sea and the fish living in it are poisoned, the most solid rock is nibbled at by worms and the slightest dust is poisonous as drug from the apothecary".

There you have old Robert L. Stevenson, the author of "Treasure Island", labelling a horror what we at present consider a natural wonder. He also thought that the centre of the world was and would continue to be his beloved England, homeland of righteous men who conquered the seas of the world. It will not be me to contradict him and perhaps things were defined in that way at that time, although the centre of the world is no longer the City, due to changes in power strategies, but an indetermined and variable place, also in the

5 Robert Louis Stevenson, *"Relato de las experiencias y observaciones efectuadas en las islas Marquesas, Pomotú y Gilbert durante los cruceros realizados en las goletas Casco (1888) y Equator (1889)"*, included in the volume *"En los mares del sur"*, Ediciones B, Barcelona 1999.

Northern Hemisphere, where a group of illuminated humans decide on war and peace, on invasions or embargoes.

V. Indian Ocean Geodrosia's Ictiophagous ⁶

Geodrosia lies to the West of the Indus river. Its present name is "Baluchistan". This is a region made up of arid mountains and sandy plains: "Crossing its deserts, the armies of Samiramis and Cyrus the Great were practically destroyed; and the soldiers of Alexander the Great suffered intensely due to the heat and the lack of water".

On its shores, fish and turtles can be as easily found as in the times in which Plinius the Old recorded its abundance in his monumental Natural History. Old inhabitants of Geodrosia were thus called Icthyophagi by the Greeks, that is, fish eaters and Chelanophagi, that is, turtle eaters. Nearchus, Alexander the Great's admiral, sailed these coasts in his celebrated travel between India and the Euphrates.

One could thus claim, as the summit of this gastronomic-geographic anecdote, that eating fish and turtles is good for people's health, especially, to increase their ability to defeat their enemies during the battle.

These reflections have got a clear didactic objective, if you may allow such a not always well considered intention. In our small country without a state many try to forge a sounder national consciousness by establishing all sorts of precautionary norms. Thus, they present citizens with epic categories according to which Galicians would be on top of present and past civilizations, we would be an energetic and entrepreneurial people, fond of travelling and disseminating our millenary culture, symbol and paradigm of respect for tradition and peculiarities.

Lies. Do not trust a word. There are peoples in this world who also eat fish, who can fish as well or even better that we do, who prepare wonderful crepes absolutely comparable to our filloas, who can blow into a pipe and keep the air in a bag, who conquered worlds and distances, who travelled to know and not out of necessity or hunger, who can live better or worse than we do, but who are not better or worse, they are just different.

6 Other references used the name Gedrosia

VI. Atlantic

Fish who fluctuate with their bellies towards the sun: The Diodon case

When we talk about fish we tend to think of those enthusiastic red beings permanently swimming in a circle in classic balloon-shaped fish bowls. You must agree with me that this hierarchy is absurd and just the result, as such, of a biased observation and based on an empirical experience wrongly considered to be a universal truth. One does not need to go away from our Galician coasts to hear of flying fish such as the Cheilopagon, fish living in caves such as congers or morays. Or about those spending half their lives filtering the sand of the river to travel later to the sea and suck the blood of other fish, as lampreys do. There are also others who would rather live attached to a rock by their fins transformed into suckers, such as the sea owl or several goby species, stuck to the ventral face of sharks such as suckerfish or hidden underneath the sand, such as rays and soles. Thus it is not at all surprising in this variety of behaviours (our more canonical colleagues would call this adaptation strategies, ecological niches or some other theoretical delicacies) that would be a group of fish swimming with their bellies upwards. That is the case of the diodon, of which Charles Darwin made a singular description in his book *Journal of Research into de Geology and Natural History of the various countries visited during the voyage of Her Majesty Ship Beagle round the World* ⁷.

“Once I was enjoying myself watching the habits of a Diodon⁸, which had been caught swimming in the shore. This fish is very well know because it has the singular power of distending till it becomes almost spheric. After it is removed briefly from the water, and being submerged in it again, it absorbed through the mouth and probably through the gills too, considerable amounts of both water and air. This process is brought about by two mechanisms: the air is inhaled and then pushed to the cavity of the body and thus it cannot be expelled due to a muscle contraction, visible from the outside. However the water, as I could observe, entered in a flow through the mouth, which was opened and immobile. This last act must then depend on suction.

The skin surrounding the abdomen is loser that that of the back and thus, in this process of inflation, the inferior surface becomes more distended than the superior one and, in consequence, the fish fluctuates with its back downwards. There is still the doubt of whether the Diodon is able to swim in this position, but it can not only move in a straight line but

7 *“Journal of Research into de Geology and Natural History of the various countries visited during the voyage of Her Majesty Ship Beagle round the World”*, edition by J. M. Dent and sons Ltd., London 1906.

8 In their book *“Vocabulario Multilingüe de Organismos Acuáticos”*, Lahuerta and Vázquez suggest for this fish the name *“peixe bola”* (“ball fish”), undoubtedly copied from Portuguese. (How imaginative!)

also turn. This last movement is exclusively done with the aid of the pectoral fins, while the cauda hangs, useless, due to the fact that with so much air, the body is forced to fluctuate and the gills remain outside the water, although a current aspirated through the mouth constantly runs through them.

The fish, after remaining in this distension state for a short period of time, used to expel the air and the water through the gills and mouth with considerable strength. At will, the fish could expel just a certain amount of water and, thus, it seems likely that this fluid may be absorbed to regulate its specific gravity. This Diodon has many defence mechanisms. It can ferociously bite and it can expel water from the mouth at a certain distance while at the same time it gurgles with the movement of the jaws. With intumescence of the body, the papillae covering its skin turn erect and sharp. But the most curious aspect of it was that, when threatened, it can secrete a crimson fibrous liquid so beautiful that it stained ivory and paper in such a permanent way that even today the colour preserves its brilliance. I ignore the nature and utility of this secretion.”

VII. Red Sea Hyperactive octopuses

Inside a red folder (a case of dubious taste or as appeal to our senses) I had filed for years a serial from a newspaper in which the hyperactivity of octopuses was studied. Literally: “They become sexually mature very soon, at three months they already have developed their reproduction capacity. After that, they mate for three months non stop”. This alleged precocity, speaking always in strictly anthropocentric terms, should not be considered weird. Most octopuses do not live beyond their first year and a half. In a very simple comparison, their reproductive age would correspond to 14-15 years of age for humans.

What was really shocking in that folder was an article of that same period in which the homosexuality of octopuses was discussed⁹. In that article the story of Richard Lutz and Janet Voight, two American zoologists is unravelled. They were working 2,512 m deep and they could watch and film the two male octopus copulating. This lasted 16 minutes. If we apply the same comparison as we did before with reproductive ages, those 16 minutes in the life of an octopus correspond to a human coitus of 12 hours and 26 minutes, something which, in my humble opinion, rarely happens. Besides, as the other article remarked, “they spend three months copulating”. This could be justified by the hyperactivity (and hyperpassivity) of octopuses.

9 Jauregui, Pablo “Pulpos: rosas en el fondo del mar”, published in the newspaper “El Mundo”, 13th October 1994.

Mediterranean Sea

The concept of sailing the seven seas

Since I was a small child, I always believed that the expression “to sail the seven seas” only corresponded to those fearless and daring sailors who sailed all the seas in the world, amongst which I included, apart from the five oceans, the Mediterranean and the Baltic seas, in a premonitory “Eurocentrism”, maybe because of my current condition as “European citizen”.

When I was child, child-child, child beyond doubt, I believed in all the possible meanings of the verb “to believe” and not only in the blind faith of learnt dogmas. Thus, just after somebody had tricked me to believe this lie of the seven seas, I repeated it like a parrot whenever it fitted the conversation (as many other lies, I must say). I was not a very skilled conversationist at that time (maybe due to my extreme shyness, maybe due to some “early” wisdom, which was never totally confirmed) but I was fond of ornamenting my speech, scarce in itself, with learnt or heard anecdotes whose truthfulness I was never interested in checking. I have already said that I believed in everything my kin or any admired friend would say.

A few days ago I found out how wrong I was in this point. Over thirty-five years had gone by and very little traces of my childhood were left on my character, except for an unmeasured liking for ice cream and hot chocolate. It was while reading the essay “Salt” by Mark Kurlansky¹⁰ when I found the following text: “Salt was the political key that made Venice the first commercial power in the European South. (...) The distance between continental Italy and the islands was originally bigger than the present distance between them and Venice. The area between those islands and the peninsula of Commacchio used to be called then “the seven seas”. To sail the seven seas meant, then, simply, to sail this area, which entailed the wondrous task of crossing sand banks that made those twenty-five miles highly dangerous¹¹.

I must confess that almost my most solid foundations collapsed and that some of my personal mythologies were about to fall down like a castle of cards under the hand of a crawling baby. After I got myself together (all those sailors who had sailed the seven seas

10 Kurlansky, Mark, “Sal (Historia de la única piedra comestible)” (*Salt: A World History*, 2000) published by Edicions Península, Barcelona, 2003

11 Even if he is not writing this, it is most likely that Kurlansky has taken this definition of “The seven seas” from Frederic C. Lane and in particular from “Venice: A maritime Republic”, published in Baltimore by John’s Hopkins University Press in 1973, which is the only book about Venice included in the very extense bibliography quoted in its book.

had suddenly become a bunch of quacks, a biased lying lot, a handful of dull chaps) I reread the controversial paragraph and, the previous and following ones, so as to ascertain that I hadn't misread the text or taken it out of its context. . What at first sight sounded like a good idea: "hardship in sailing through such sand banks justified assimilating the "seven seas" to difficulties in navigation and thus "to sail the seven seas" became an epic image for sailors, even if they never got beyond one or two of the known oceans" became a great mistake when I read the following paragraph trying to be sure. It went like this: "The area of the "seven seas" became a very part of the continental mass, with a port named Chioggia".

Not only to sail "the seven seas" finally no longer amounted to travel round the world after Moby Dick, Treasure Island or with Captain Nemo, but also the "seven seas" had disappeared due to the action of the elements and since the 17th century the area had got attached to the shore and sailing across was no longer possible, not even amongst the sand banks separating the islands from the peninsula of Comacchio.

IX

Epilogue

It is true that hairy dolphins, hyperactive octopuses, fish swimming with their belly to the sun, the flies in the Kerguelen islands, albino tunic that swim from the beach of Canido to the Island of Toralla, pervade a fantastic mythology. Light jellyfish and striped sharks in Fisterra also have a role to play in it, as well as other animals and circumstances nobody has ever seen or will ever see, because they are the creation of story tellers, as many other false or true stories, simulated or real. Each product of a different glance. Each extracted from a different memory. Each about a particular sea. Of their own sea. Of a dreamt sea.

If the anecdotes I have presented have been of any interest to you, I will once again feel satisfied, and this is one of the most wonderful states I know. If this was not the case, if I did not provide an appropriate glance over ocean and you did not like what I wrote, then I hope you put the blame exclusively on me for it , because those who chose me for this task gave me absolute freedom of expression, which is not very common in the times we live.

Just to finish off, I would like to remember here a Korean saying which goes: "The strength of the wind stops when it meets the patience of the sea". The sea is patient and this is something it has shown in its constant renewal, in its permanent defence from aggressions (not the least those by humans), in its enviable enthusiasm, in its stubborn resilience to aggression.

