

Nature and natural phenomena in Thucydides' *The Peloponnesian War*: *physis* and *kinesis* as factors of political disturbance

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Any ancient historian who has not immersed himself or herself fully in the problems of ecology can have, at best, only an extremely limited comprehension of the course of history in Classical antiquity (Sallares 1991, 4).

Abstract: Thucydides' attention to natural phenomena, such as the plague, volcanoes, earthquakes, eclipses and floods, is well known. These are uncontrollable events that typically cause enormous environmental, political and military disturbance, further heightening the unpredictability and destructiveness of a war that, from the outset, is characterised by Thucydides as a great movement (*kinesis megiste*). But it is not only catastrophic natural phenomena that pique the Athenian historian's interest. Nature in all its forms, as portrayed in *History of the Peloponnesian War*, serves as much more than a setting or backdrop. As we aim to demonstrate in this study, nature and natural phenomena impose themselves as active forces that are superior to man, interfering in the Peloponnesian War with significant political consequences. On the other hand, the belligerent actions of man impose themselves upon nature with grave environmental consequences that we here seek to address. Ultimately, from the role played by nature in Thucydides' work, it is possible to draw several historical and philosophical considerations regarding the connection and interaction between man and his environment in Greece during the 5th century BC.

Keywords: Thucydides, Environment, War, Nature, Ecocriticism.

1. Introduction

Several recent studies have explored natural phenomena in the work of Thucydides (Demandt 1970; Proietti 1992;¹ Keyser 2006; Foster 2009; Es-

¹ Despite our concerted efforts it was not possible to obtain direct access to the studies of Demandt and Proietti.

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posito 2011; Munson 2015; Dobski 2017; Cusumano 2018). These studies have primarily focussed on natural catastrophes rather than nature as a whole or human interaction with the environment, neglecting important factors such as territory, climate, woodland, storms and ecological disasters. And, although not a work of science, Thucydides' war narrative is an extraordinary example of how political and active history (in the sense that Hannah Arendt attributes to the concept of action in *The Human Condition*) are inseparable from environmental history. This is proven by the fact that Thucydides has become an important literary source for authors who have dedicated themselves to this strand of history (Meiggs 1982; Sallares 1991; Morton 2001; Hughes 2006; Thommen 2012). The narrative and ideological dimensions of the events related by the Athenian historian are of little interest to these writers. Above all, they are concerned with historical-environmental testimony. While earlier studies tend to emphasise the narrative function (the meaning behind the text) of natural phenomena, scientific rigour, and the author's underlying subjectivity, ideology and mentality, the aim of the present study is to combine these two approaches to produce a more complete and comprehensive appraisal of the subject.² To use the words of Sallares referenced above, a solid and extensive understanding of classical historiography cannot ignore ecological analysis. Similarly, Hughes (2006, 17) states that: "History that fails to take the natural environment into account is partial and incomplete," further arguing that:

Environmental history is useful because it can add grounding and perspective to more traditional concerns of historians: war, diplomacy, politics, law, economics, technology, science, philosophy, art and literature. It is also useful because it can reveal relationships between these concerns and underlying processes of the physical and living world (Hughes 2006, 17).

Environmental history, as a relatively new scientific discipline, studies past relationships between humans and their environment. Modern science casts a new perspective on themes from the Classical era. Questions such as the influence of natural phenomena on human societies, the ecological changes brought about by human action, the effects of these changes on human history and the evolution of environmental thought are of great importance in the works of ancient authors such as Herodotus, Thucydides, Hippocrates, Xenophon and Plato among others (Hughes 2006, 18–20; 2014, 3–7).

The present study will provide a broad, although not exhaustive or systematic, analysis of human/environment interaction in the work of Thucydides. It is

² The intersection of history and ecology entails a methodology based on the entanglement of a storied ecology with an ecologized history. The former is linked both to the interrelationship between culture and nature, made visible in human meaning-making systems of environmental imagination, and to a history of ideas and its ecological implications. The latter takes its main impetus from ecological models, and increasingly from scientific analysis, in order to gain a clearer picture of the overall material frameworks of human–animal interactions in antiquity and how they evolved (see Schliephake 2020).

structured in two parts. In the first section we offer a general overview of the key textual occurrences of natural elements in the work of the Athenian historian, highlighting several narrative and ideological connections. In the second part we undertake a more detailed and concrete analysis of two significant episodes that are representative of the interaction between man and the natural world: the Battle of Pylos and the expedition to Sicily. This naturally leads to a series of final conclusions drawn from the hermeneutic process.

2. Natural elements in Thucydides' *History of the Peloponnesian War*

2.1 Seasons of the year

Nature, in the work of Thucydides, is both theme and narrative instrument, serving as chronological marker. Indeed, at the beginning we are informed that the war narrative will be told according to summers and winters (*kata theros kai keimona* II.1), and so the author proceeds. The twenty-seven years of war recorded by Thucydides unfold along these significant seasonal axes. In V.20 and V.26, this unusual method of dating is justified, as it satisfies a need for precision (*akribeia*) that is apparent from the prologue (I.22). More conventional forms of dating, such as the name of the ruling archon or other figures of social and political prominence, are excluded due to lack of rigour (*ou gar akribes estin* V. 20).³ In this way, books I to IV conclude with a refrain (reminiscent of Homeric poetry) that encompasses the end of a narrative block, the end of a year and the end of a season, always winter:⁴ “So ended this winter, and with it the third year of this war chronicled by Thucydides” (II.103).⁵ The following book begins with another chronological formula that is repeated on numerous occasions throughout the work: “In the following summer” (III.1). Thucydides is, at times, even more specific, referencing spring as the beginning of summer. For example, the catalyst of the conflict, the invasion of Plataea by the Thebans, takes place “at the beginning of spring” (*eri archomeno* II.2). Moreover, during the expedition to Sicily, it is common to find expressions such as “at the beginning of spring in the following summer” (VI.8 e VI.94) or simply “at the very beginning of the following spring” (VII.19). As well as chronological markers, natural cycles are used to separate narratives, signalling the end of a military

³ Smart (1986) states that Thucydides' chronological model, resting on the poles of summer/winter instead of traditional political calendars, serves to accentuate *physis* in detriment of *nomos*. For more on the origin of Thucydides' dating method see Pritchett and Van Der Waerden 1961 and Hornblower 1991, 235–36, who suggest it stems from an ancient form of military record. See also Dewald, 2005, 193.

⁴ The end of Book V does not coincide with the end of a year of war. This instead corresponds to the beginning of the following book, which retains the formula used up to this point: “So the winter ended, and with it the sixteenth year of this war chronicled by Thucydides” (VI.7). For more on this subject see Esposito, 2011, 6–8.

⁵ All English quotations from Thucydides are taken from Hammond's 2009 edition. The Greek text has as its reference Romilly's *Les Belles Lettres* edition (2009).

intervention in one given setting and the beginning of another elsewhere. As demonstrated by Dewald (2007), Thucydides uses seasonal markers to displace action and change topic. Furthermore, the historian achieves a greater level of precision by referring to natural events, typically related to agriculture, in addition to the changing of seasons. The invasion of Attica, under the command of Archidamus, happened “in summer when the corn was ripe” (II.19). The seventh year of war began in summer, “about the time when the corn was coming into ear” (IV.1). A new narrative unit is subsequently introduced in the following way: “all about the same time in the spring, before the corn was ripe” (IV.2).⁶ The rhythm of war follows the rhythm of agricultural labour: more intense in the spring/summer and halted in the winter. On the other hand, it is not uncommon to find agricultural labour conditioning military action. In III.15, the Spartans’ allies delay battle due to the harvest of crops and in IV.84 an important military event is impeded by the grape harvest.

2.2 Natural resources and relationship with the earth. The plague

This information is not irrelevant. As highlighted by Rosado Fernandes in the introduction to the Portuguese edition, “agricultural production is considered in its true political and economic sense, whether to end abundance or promote poverty and hunger” (2010, 16). Hughes (2014, 152) corroborates this: “Armies typically targeted cities, but war also exacted toll from agriculture, as campaigns devastated the countryside, slaughtered farmers and their families, and requisitioned or destroyed crops and buildings. Armed conflict had direct effects on the environment”. E Thommen (2012, 2) is of the same opinion: “The most conspicuous interventions of the Greeks in nature were first of all forest clearing and mining, as well as the common wartime tactic of devastating the enemy’s farmland to rob him of his sustenance, at least temporarily”.⁷

Indeed, we see this happen repeatedly throughout the entire conflict. Expressions such as “they ravaged the territory” (II. 19), “ravage the land” (II.47), “devastated the territory” (II.56), “ravage the fields” (III.78) or similar are commonplace. Generally, the first action carried out by the invading army entails the destruction of territory. This is the case during the first invasion of Attica by Archidamus’ troops, and from then on until the end of the war, whenever an army seeks to cause damage to its opponent. Even before any military conflict, the destruction of land functions as the first line of attack, a blow with extremely adverse economic, psychological and environmental effects (Kagan 2003, 75, 106, 299). The impact would be even more harmful if, instead of a quick raid, the in-

⁶ Fernandes (2010, 16) understands these chronological formulae and their poetic contours as an element of contrast and attraction: “connecting the reader to the calm cycle of Nature is one way in which the historian draws them in, as this pastoral tranquillity counters violent scenes of warfare, with the unforeseen obstacles of battle that are to be described within this same calm setting marking times of clamour and bloodshed”.

⁷ See too Hanson 1998, 4, 55ff and again Thommen 2012, 36ff.

vading army decided to install themselves permanently on the territory to prevent peasants from farming. This is what happens in Athens with its army away in Sicily. (VII.27).

Although Thucydides does not specify, it is possible to deduce what this destruction of land entails. The verbs used by the writer in most cases are *temno* (τέμνω) and *deioo* (δηϊόω), normally followed by the direct object *ten gen* (τὴν γῆν, 'the land'), *ten choron* (τὴν χώραν, 'the country') or *tous agrous* (τοὺς ἀγρούς, 'the fields'). The verb *deioo* means "to kill with a spear", "to wound", but also "to devastate" and "to destroy", including with fire. The verb *temno* translates as "to cut down". Thucydides uses it in II.75 and II.98 to refer to the felling of trees. In this way, according to Bailly's dictionary, the verb also means to devastate or destroy through the cutting down of trees or harvests. Be it through felling or fire or any other destructive measure, the first aim of such an act is to rob the enemy of food and drive them to poverty, bringing about a quicker surrender and defeat. On the other hand, an act of this nature also has a tremendous psychological effect. We have already seen the reluctance with which men abandon their fields to go to battle. To see their harvests in flames or trampled would necessarily provoke enormous dismay and anguish among those who laboured and suffered so to cultivate them, and upon which they depend for sustenance.

From this perspective, the first invasion of Attica is particularly illustrative. It was at great cost that the Athenian peasants obeyed Pericles' orders to abandon their land and *demoi* to take refuge in the walls of Athens (II.13). Thucydides says that "this upheaval was hard for them, as most had always been accustomed to living in the country" (II.14). He then dedicates a lengthy passage of text to explain the (mythical) reasons for this pain (II.15–6). The Athenians, more than any other people, had a long tradition of country life which gave them freedom and independence. Until the reign of Theseus each city was independent, with its own council and ruler. The synoecism initiated by the legendary hero sought to put an end to these autonomous governments and concentrate all political bodies in one united Athens (Hornblower 1991, 259–69). However, Theseus' centralism was not enough to stop Athenian families from continuing to reside in the countryside. Thucydides goes on to state that they did not readily accept this change ordered by Pericles (*ou radios tas metanastaseis epoionto*) because they had only just finished rebuilding their houses after the Greco-Persian Wars, and because it would mean abandoning the temples and institutions of their ancestors which gave them rights and citizenship (II.16). Archidamus is aware of the psychological and emotional impact of the destruction of fields, and so employs this strategy in Acharnae as a means of coaxing the Athenians to battle. The peasants contained themselves at great cost. When they saw their land destroyed, they were furious, and wanted to abandon the city walls to defend what was theirs. Stopped from doing so by Pericles, they turned against the statesman, blaming him for their suffering (II.21).

The following summer, at the beginning of the second year of conflict, the Athenians will suffer the consequences of this government within the over-

populated space of the city.⁸ The impressive and much-discussed episode of the plague (II.47–54, III.87) is shocking not only in the vivid nature (*enargeia*) of its descriptions, but in its similarity to modern times. The pandemic has a catastrophic effect on the Athenians from physical, moral and political standpoints, causing a true social *metabole* (II.53) which can be understood metaphorically as a biopolitical disease (Munson 2015, 52; Fialho 2018). It is estimated that it reached 50% of Athenians, killing between 25 and 30% of the population (Hughes 2014, 203). The author himself classifies the plague as “one of the most destructive causes of widespread death” (I.23). He claims that the causes and origin of this terrible calamity, which fell so suddenly upon Athens, were unknown. Some even accused the Peloponnesians of poisoning the wells. (II.48). The historian highlights the excessive concentration of people in Athens and their unsanitary living conditions (“forced to live in huts which at that time of year were stifling”) as one of the key reasons behind rapid spread and high mortality rate of the disease (II. 52). Within this causal nexus of disease and habitat it is possible to discern the influence of the Hippocratic treatise *Airs, Waters, Places*, which establishes a relationship between human health and environmental conditions.⁹ Living conditions and political constitutions were understood as being determined by the location, soil composition, climate, atmospheric conditions, water quality, sun exposure and cosmic influences. (Thommen 2012, 29–30; Dueck 2012, 84–90; Hughes 2014, 62; Kennedy 2016). Interestingly, the fact that the Athenians were isolated within the city walls meant that the disease did not spread the Spartans, sparing them from the epidemic.

One thing we can take from this episode is that the displacement of the peasants provokes a traumatic fracture in Athenians’ historical and mythological relationship with the earth, as a space of labour, memory, identity and autochthony.¹⁰ It is not for nothing that Thucydides opens the work with an archaeological preface in which he develops a theory of the environment’s influence on history, reminiscent of the environmental determinism of Hippocrates, his con-

⁸ The arrival of the peasants would have doubled the population of Athens (Hughes 2014, 201).

⁹ The possible influence of Hippocrates on Thucydides has been the subject of great controversy. This is almost always centred on the repercussions of the method of analysis (*autopsia*), and the Hippocratic medical language in the physical descriptions of the plague rather than environmental determinism. Studies that make a case for the direct influence of the Hippocratic school include Cochrane 1929 and Page 1953; some of the first to argue the contrary include Parry 1969 and Grant 1974. This complex and controversial issue remains unresolved but has found a middle ground in the work of Craik 2001 and Thomas 2006. For a bibliographic overview of the subject see Hornblower 1991, 316–18. For the *status quaestionis*, see Foster 2009, 1–2.

¹⁰ On Thucydides’ use of the autochthony *topos* see Pelling 2009. On the concept of autochthony in ancient Greece see Leão 2012 and Clements 2016. On the subject of nomadism and displacement (*metanastaseis*) in Ancient Greece see Kellogg 2016 and Kaplan 2016. In this study, Kaplan argues that the Greeks’ relationship with land and the environment is dependent on a process of diachronic evolution and adaptation rather than primordial autochthony. The case of Athens is an exception. See Clements 2016, 316ff.

temporary. It was the poor soil that defended Attica from war and depopulation (I.2). Other regions of ancient Greece were constant targets of attack due to their rich soils. This generated instability and forced their inhabitants into continual displacement, meaning that they did not cultivate permanent crops or accumulate any wealth. In Attica, immobility gave rise to stability, peace and wealth as it became a refuge for those who had fled war, leading to an exponential population increase that exceeded the earth's capacity to feed its inhabitants, and consequently to a movement of colonisation. This supports the idea that the wealth of some contributes to the poverty of others and vice-versa.

The plague episode concludes with the dramatic and moving image of half-dead bodies (*emithnetes*) roaming the streets in search of water fountains (II.52). Water is, in fact, one of the natural elements that features most in the war, putting aside the obvious fact of sea water constituting the backdrop for countless battles. If salt water abounds in a territory made up of hundreds of islands, fresh water appears to be a scarce and precious commodity throughout much of Ancient Greece. Thucydides makes some reference to fountains, essential in the supply of water (II.15, IV.31). Even winter was not enough to impede combat when, following the first invasion of Sicily, the Athenians were obliged to attack the Islands of Aeolus during the cold months due to the demands of the climate, such a manoeuvre being impossible in summer due to lack of water. (III.88). Furthermore, the Athenian occupation of Pylos became difficult due to lack of drinking water. With only one broken water fountain in that place, soldiers had to resort to digging in the sand to satisfy their thirst (IV.26). In the deserted island of Sphacteria, there was only brackish water. However, the historian informs us that when the Athenians attacked it, most troops were concentrated "in the middle and most level part of the Island, round the source of water" (IV.31). Excess of water can also prove problematic and lead to conflict between neighbouring peoples (5.65). In Sicily, a system of underground pipes supplying drinking water to the city was destroyed by the Athenians, wanting to cause damage to the enemy (VI.100). This act does, however, come back to haunt the Athenians, as it they who suffer from water shortages during their disastrous expedition to Sicily (VII.4, 13, 78, 87).

2.3 Climate

In a general sense, we can say that climate is the factor with the greatest impact on the actions of war, thwarting expectations and changing the course of events in the tradition of the tragic *metabole*, of which Aristotle speaks in *Poetics* (1451a, 12–5).¹¹ Among the many examples that we could cite, we have selected some that are particularly representative. From the very beginning of the conflict, we are made aware that the Thebans were twice affected by bad

¹¹ Important information about climate and geography in the Peloponnesian War can be found in Meigs 1961.

weather and that this contributed greatly to the disastrous outcome of their failed attack on Plataea. When surrounded and trying to flee Plataea, rain, darkness and mud acted against them (II.4). Those who came to their rescue were delayed by overnight rain that strengthened the current of the river Asopus, hampering their efforts to cross (II.5).

Later, the palisade used by the Spartans against Plataea becomes a notable case of skill in attack and defence as materials taken from nature are used to create it. It is at once a significant example of Spartan *hybris* (pride) and *ate* (blindness) that they expect to easily defeat the Plataeans by means of nature. The excavation of the ground for the palisade (like an open wound in the ground, an offense against nature) and the enormous effort expended in doing so, transforming soldiers into bearers of earth, is revealed to be insufficient, as observed by Foster (2009, 373): “the Spartans have overestimated their power over nature and are paying the penalty”. He further states that: “the Spartans’ attempts to be as powerful as nature are costing them enormous struggles and will fail at the end” (375). Nature’s lack of cooperation with the Spartans is particularly evident in their desperate attempt to set fire to Plataea. Intense rain and thunderstorms put out the great fire lit by the Peloponnesians, who had been relying on the help of a wind that never came, saving the city from imminent destruction (II.77).¹²

This episode is also memorable due to the comparison drawn by Thucydides, referencing a rare atmospheric phenomenon. When describing the magnitude of the fire lit by the besiegers, the historian compares it to the fire that blazes spontaneously in the mountains when one tree brushes against another. (II.77). Moreover, we are made aware that the vulnerability of the Greek territory to natural fires goes back many years. Indeed, according to the writer, these can be sparked by the simple friction of wood.¹³ The climate, the forest and the terrain generate favourable conditions for these sorts of natural disasters, which to this day are frequently recorded in the Mediterranean region.

Finally, the epic flight of the Plataeans narrated from III.20 to III.24 is remarkable due to the daring and intelligence of the escapees, not least in their ability to use weather conditions in their favour. The same conditions that impeded the Thebans’ escape, a rainy winter’s night (*nykta cheimerion hydati*), wind (*anemo*) and darkness (*aselenon* ‘without moonlight’), and disappoint the Spar-

¹² This episode is noteworthy in its proximity pre-Socratic philosophical culture (Foster 2009). For example, the story of the palisade entails the four famous natural elements that Empedocles identifies as the constituent parts of the world (earth, air, fire and water), which are at times in conflict with one another.

¹³ “Thucydides is the first known to us to have offered this explanation, but he was followed by others, including the architect Vitruvius, down to Quintus of Smyrna in the late Roman Empire, and it is very doubtful whether the authority of Thucydides alone was responsible for the wide acceptance of this explanation. I have tried persistently to save Thucydides’ reputation, but have not yet found any forester or timber merchant who is prepared to believe that a forest fire could possibly arise in this way. Presumably, it is an early inference from the fact that the normal way of producing fire in Greece was by rubbing two pieces of selected woods together” (Meiggs 1982, 375).

tans, are those that make the flight possible (III.22). The account is thorough and impressive, full of *enargeia*. The luck and success of the Plataeans depended on their intelligent (*gnome*) response to the challenges of *physis*.¹⁴ The gusts of wind drowned out the sound as they scaled the city walls on ladders, which were positioned away from each other to avoid the clash of weapons; the darkness hid them from the guards, and they climbed in areas they knew to be un-surveilled due to lack of rain cover. They were lightly armed and shod only their left feet to avoid slipping in the mud. The Plataeans even knew that the dark and stormy conditions (*skoteines nyktos kai cheimonos* III.22) would interfere with the guards' fire signals. The escape would not be complete without the successful overcoming of one more natural obstacle, leaving us without doubt as to the Athenian historian's knowledge of and attention to climatic concerns:

So even the last of the Plataeans managed to cross the ditch in time, though it was a difficult struggle. Ice had formed there, not firm enough to walk on, but more the watery slush which comes from an east or north wind, and during the night the snow driven by this wind had raised the water level in the ditch so they could hardly keep their heads above it as they crossed. Their escape was in fact largely due to the violence of the storm (III.23).

The success of the Plataeans, according to Thucydides, is largely due to the storm. This was, however, part of the plan. The storm did not take them by surprise. Rather, human intelligence made the best of it. Interestingly yet tragically, the Plataeans did not fall victim of *physis*, which was in fact their ally, but later to the merciless *nomos* of the Spartans (III.68).

In the majority of cases in Thucydides' work, storms break out unexpectedly, ruining forecasts and sabotaging plans, harming some and helping others. They change the course of ships and attack strategies (III.69, IV.6, VI.104, VIII.99); favour those who make use of them (IV.103); cause significant material damage (IV.75, VIII.34); cause suffering and panic among soldiers (VI.70, VI.74); and demoralise troops (VII.79).

Storms rarely appear without wind, the latter being one of the natural elements mentioned most frequently by the author. Wind features from the outset, alongside the first image of death resulting from the terrible naval battle between Corinth and Corcyra "the Corcyraens for their part salvaged the wrecks of their ships and took up their own dead, all that were carried towards them by the current and a wind which got up in the night and scattered everything far and wide" (I.54). The Athenians' experience at sea and Phormio's astuteness in foreseeing and harnessing the wind on the Corinthian fleet explains the success of the small Athenian armada against their enemy in the battle of Patras, which, while su-

¹⁴ "The appropriateness or inappropriateness of human responses to the weather signifies to Thucydides' audience whether the humans responding are acting intelligently or not. This semiosis can (among other things) characterize the individuals and groups acting precisely as acting: cities' and individuals'" (Esposito 2011, 17).

perior in number, was lacking in experience (II.84).¹⁵ Following this, however, we are told that the same commander, by virtue of “winds and seas too rough”, is detained in Crete after attacking and destroying Cydonian territory (II.85). After their first defeat, caused, as we have seen, by inexperience (*apeiria*) and by the wind itself (*pneuma*), Cnemus and Brasidas, Peloponnesian strategists, try to energise their traumatised troops for another naval battle (II.87). Aware of the wind’s adverse effect on previous combat, the strategists attribute their failure to chance (*tyche*) on several occasions.¹⁶ As such, they implore their soldiers to conquer their fear (*fobos*) of chance (*tyche*) with courage (*andreia*) and the lessons they have learnt thus far (*ha emathen*). They themselves will change their strategy of attack to avoid succumbing to the *tyche* of the wind and other external conditions, seeking to bring combat to favourable terrain. When this is achieved, the battle is won. When forced out of their comfort zone they lose much of what they had previously won. The wind’s association with *tyche* is even more explicit in III.49: “By good fortune there was no contrary wind”. In this way, the wind saved the lives of the inhabitants of Mytilene. In most cases, the wind diverts boats from their courses, overturns military strategies, or, alongside storms, destroys ships (II.25, III.69, IV.3, VI.104, VIII.31, VIII.34, VIII.99).¹⁷

2.4 Night

The night also features as a destabilising factor. The memorable scene of the nocturnal battle is particularly revealing in this respect:

The Athenians were now thrown into such helpless confusion that it has not been easy to establish from either side a detailed account of what exactly happened. Events are clearer in daytime operations, but even then the participants have no overall picture, but only a vague knowledge of what was going on in their own particular area. In a night battle—and this was the only one fought between large armies in the whole of the war—how could anyone be certain of anything? There was a bright moon, and as happens in moonlight they could see each other as human shapes from some distance, but without any confident recognition of friend or foe (VII.44).

Other equally compelling examples could be of note here. We have already seen how the darkness and lack of moonlight negatively contributed the de-

¹⁵ Esposito (2011, 9) elaborates an interesting series of reflections on the Athenians’ relationship with the sea, linking their maritime *techne* with the skill (*gnome*) of overcoming the unpredictability (*tyche*) of the wind, concluding that: “Athens has made the sea useful, therefore they have done so by overcoming the *tyche* that is the wind”. Morton (2001, 91–7) undertakes a detailed analysis of this passage, discussing Thucydides’ knowledge of Phormio’s expertise in dealing with the wind.

¹⁶ On the role of *tyche* in Thucydides’ *History of the Peloponnesian War*, see Edmunds 1975, 143–204 and Hornblower 1996, 149–50.

¹⁷ On the impact of the wind on other battles, see Meigs 1961.

feat of the Thebans in Plataea, and positively to the Plataeans' flight when they found themselves surrounded by the Peloponnesians. It can be surmised that, as a rule, night-time combat is to be avoided (I.51). The lack of light makes military action extremely dangerous, generating great confusion and disorientation among soldiers. On the other hand, night-time is conducive to escape, stealth and surprise attacks (II.93, III.30, IV.103, 134, V.115, etc.).

2.5 Ecological damage: human life, animals, trees

Finally, we would like to draw attention to the environmental and ecological costs of a war of this scale. Costs that must be acknowledged and that primarily centre on the huge number of human lives lost in what was a long-lasting and lethal conflict. Men, women and children are the first victims of this bloody civil war; through combat, execution, imprisonment and slavery, disease, starvation, thirst and natural disasters. The numbers are devastating and are indicative of atrocious violence (Hanson 2005). Thucydides does not hold back on descriptions of the barbarity and bloodshed, at the hands of Thrace (7.29), for example, or the Corcyraens against their own people (III. 81, 84).

Animals, horses, pack mules and other domestic creatures also figure among the victims of this war (7.27). At the time of the first invasion of Attica, the Athenian peasants were forced to send their animals to Euboea and other nearby islands (II.14). Although Thucydides rarely gives indications of the exact number of horses killed (VII.51), it is not difficult to imagine the enormous scale of equine sacrifice during this conflict judging by how often they were used and their strategic importance in combat (VI.21, VI.98). Animals, furthermore, confirm the exceptional nature of the Athenian plague. Quadrupeds and birds that typically ingest human flesh refused to touch the plague-infested cadavers. The historian further states that "the dogs, being domestic animals, allowed more immediate observation of this consequence" (II.50).

Perhaps the most visible and extreme environmental impact of this war concerns deforestation. Data to this effect is not explicitly recorded, and it may not have been possible to do so, but based on Thucydides' narrative it is not difficult to estimate that thousands and thousands of trees were felled over the course of the conflict. It is understood that entire forests disappeared and that many Grecian settlements were left without trees.¹⁸ Even though other natural resources such as stone, iron and mortar were used by warring factions, wood is by far the raw material mentioned most frequently by the historian. Its status as a precious commodity is attested to by the Athenian peasants when they abandon their homes: "The Athenians were persuaded by what they heard and began to bring in from the country their children, their wives, and all their domestic goods,

¹⁸ We cannot establish a direct causal relationship because the motive there is the construction of buildings, but it is worth remembering here Plato's famous comment in the *Critias* (111a-c) on the consequences of deforestation in Mount Parnes in Attica.

even removing the woodwork from their houses” (II.14).¹⁹ It was the raw material for hundreds of boats (triremes, ships and smaller vessels for the transport of people, animals and goods), weaponry, war machines, as well as countless fortresses, shelters and palisades that were erected during each battle.²⁰ It was thanks to wood that Athens became a naval power. In this respect, the occupation of Amphipolis was significant for the Athenians because, according to the historian, “this city was a valuable source both of timber for shipbuilding and of financial revenue” (IV.108). The occupation of Sicily was also undertaken with a view to obtain wood for shipbuilding (VI.90). Thucydides goes on to inform us of fires started accidentally, and deliberately as part of battle strategies, and their impact on cities and forests (III.98, IV.29–30, VI.102, VII.80). Furthermore, as we have already mentioned, each new invasion brought with it more destruction of land, which in most cases consisted of setting fire to crops and fields, presumably destroying huge areas of orchards and woodland (VI.94).²¹

Beyond fire, the felling of trees was also used as a form of violence against the enemy. In the historical digression in which Thucydides recounts the fifty years prior to the Peloponnesian War, the author tells of the Lacedaemonians’ invasion of Megara, stating that they cut down trees upon entering the territory (*dendrotomesantes* I.108). The necessity of wood in warfare is more than evident in the episode of the Plataeans’ palisade. (II.75–7). As this is just one of many barricades referenced by Thucydides, we can appreciate that vast quantities of this natural resource were used. The palisade was “built with the trees they had cut down” surrounding the city (II:75). Then, “they cut timber from Cithaeron to shore the ramp on either side”. The ramp too was made of wood. On their part, the Plataeans responded with another palisade. The Peloponnesians attacked the Plataean palisade with battering rams made of wood. To defend themselves, the Plataeans used “huge beams attached at each end by long iron chains”. Finally, with piles of firewood, the invaders set fire to the wall in an attempt to burn down the city (II.77).

The Sicilian campaign was costly on all levels, in human, financial and natural resources. Aside from the countless palisades built with wood that was collected or sent for from elsewhere (VI.66, 74, 75, 97, 99–103, etc.), there was great investment in the construction of triremes and other boats (VI.22, VI.44, VI.90, VIII.4). The shortage of wood even led to the felling of trees in sacred spaces, such as when the Syracusan Hermocrates ordered olive trees from the sanctuary to be cut down in order to erect a wall against his enemies. (VI.99). The Athenians, confronted with the same lack of wood, destroyed the Syracusan palisade and made use of the stakes for their own purposes. (VI.100). This allows us to

¹⁹ “Of the woodwork the door was the most valuable part and the most vulnerable” (Meiggs 1982, 208).

²⁰ On the importance of wood in the Ancient Mediterranean and the Peloponnesian War see Meiggs 1982, 117ff.; Thommen 2012, 37–41; Hughes 2014, 155–58.

²¹ Thommen (2012, 39) believes that these acts of destruction had a greater effect on fruit trees than forests.

conclude that this war, like any other, represented an attack against nature and the environment as a whole. (Hughes 2014, 150–62).

2.6 Natural phenomena

As we mentioned at the beginning of this study, the recurrent descriptions of natural disasters in the work of Thucydides have attracted much scholarly attention. The aforementioned plague is by far the most studied phenomenon. However, extraordinary events such as eclipses, volcanoes, earthquakes and floods occupy a significant position in Thucydides' work: earthquakes appear most frequently (I.128, I.101, II.8, II.27, III.54, III.87, III.89, IV.52, IV.56, V.45, V.50, VI.95, VIII.6, VIII. 41);²² there are two solar (II.28, 4.52) and one lunar (VII.50) eclipse; two volcanoes erupt (III.88, III.116); and a tsunami hits (III.89). The recurrence of these natural phenomena in the work seems, in the first instance, to have a narrative and ideological function. Indeed, soon after enumerating the suffering caused by the war, the historian makes the following declaration:

The phenomena in the old stories, more often told than attested, now became credible fact: earthquakes, which affected large areas with particular intensity; eclipses of the sun, occurring more frequently than in previous memory; major droughts in some parts, followed by famine; and, one of the most destructive causes of widespread death, the infectious plague. All these had their impact along with this war (I.23).

In semantic articulation alongside the human and political *pathemata* mentioned prior, these declarations attest to the author's conviction that this war was, without doubt, the most violent to take place on Greek soil. In such a way that even nature itself behaved in ways that had never been witnessed before; what used to be deemed rare and verging on the impossible became commonplace. We might say, then, that the recurrence of natural phenomena in the work serves to emphasise, on one hand, the agitating (*kinesis megiste* I.1) and extraordinary character of the conflict, the greatest and most noteworthy of its kind (*megan te kai axiologotaton* I.1, cf. I.21, 23; II.8). On the other hand, it places the political and natural domains side by side on an equal footing, both subject to a driving force (a combination of *kinesis* and *hesyche*) that shakes the world and brings about change (*metabolai*).

The second wave of the plague in Athens, along with a succession of natural disasters—"this too was the time of the many earthquakes—in Athens, Euboea, and Boeotia, and specially at Orchomenus in Boeotia" (III.87)—, hit in the wake of the chaotic and violent spread of civil dissention (*stasis*) throughout Greek lands, resulting in unthinkable turmoil and fratricide, as well as

²² It is known that the Mediterranean region is particularly prone to natural phenomena such as earthquakes and volcanoes as it lies on the convergence of several tectonic plates (Hughes 2014, 196–97).

the Athenians' first attack on Sicily (III.82–3).²³ The convergence of politics and nature here suggests that the narrator wants to amplify the destructive effect of the *staseis* that had broken out across Ancient Greece and heighten the Athenian disaster in Sicily, as if the repercussions of human unrest extended to the environment or vice-versa.²⁴ Mount Etna erupted following yet more Athenian involvement in civil conflict in the island (III.116), corroborating the idea that these catastrophic events are narratively linked to other disasters (Keyser 2006, 326):

At the very beginning of this next spring there was an eruption of liquid fire from Aetna, as had happened before. It destroyed some part of the land of the people of Catana, who lived under Mount Aetna, the largest mountain in Sicily. It is said that the last eruption was fifty years earlier, and that there have been three eruptions in all since the Greeks first settled in Sicily (III.116).²⁵

The historical marker *post quam* used by the historian when recording the eruptions and the establishment of the Greek colonies in Sicily appears to support this idea. With the eruption of the volcano Thucydides indirectly foresees another sort of catastrophe, which will lead Athens to a devastating historical defeat. This narrative process seems to gesture towards a rational and providentialist concept of nature, premises that adhere to animist philosophies and the belief that intervening gods and goddesses (Foster 2006) manipulate nature to praise or punish humanity, an idea that is rejected by philosophical currents such as Epicurism yet maintained by Christianity until the dawn of the modern age.

Whatever belief or superstition is at play, metaphysics should form the basis of human reaction to these phenomena that, typically, interfere with the course

²³ As noted by Keyser (2009, 326) the plague, earthquakes and *stasis* are “dramatically syn-tonised”, just like the earlier earthquake alongside the Peloponnesian revolt (I.101). Hornblower (1991, 495) comments on this passage stating that “[it] seems, disturbingly, to suggest that there was some causal connection between the plague and the earthquakes.” The same causal relationship is inferred in IV.52 between the solar eclipse and an earth tremor that happened in the same month.

²⁴ Keyser (2009, 325): “Thucydides seems to say that Nature combined with mankind to produce extraordinary suffering”. Furley (2006, 423) does not argue for this *sympatheia* of nature with human suffering, which would explain Thucydides' initial remarks that natural catastrophes became more frequent and intense during the period of the war. An interpretation of this kind would lead us to an animist and holistic view of the world, that of Ancient Hellenist historiography and Senecan tragedy, but perhaps not that of the Athenian historian. In fact, the description of the plague, due to its scientific nature devoid of any theodicy, suggests otherwise. See too Bakker 2017, 240 and Cusumano 2018, 255–58.

²⁵ Pindar records the eruption fifty years prior (*Pyth.* 1.21–8), attested to by other witnesses (*Marmor Parium*: FGtH239A52) that place it between 479/478 BC. In Thucydides' history, the fact that the eruption occurred fifty years before the sixth year of war, corresponding to III.116, places it closer to 476/475 BC. His omission of the eruption of 396/5 BC (Diod. Sic. 14.59.3) does not prove that he had died or stopped work by this time, although it is probable that this is the case (Hammond 2009, 540).

of events, provoking great *metabolai* in plans for war.²⁶ Following the earthquakes, the Athenians (V.45) and Corinthians (V.50) postpone assemblies, but the Spartans are those who are most affected, withdrawing their troops from combat (III.89, VI.95, VIII.6) and reducing their contingent (VIII.6). When they were about to invade Attica, earth tremors forced them to retreat and abort the operation:

In the following summer the Peloponnesians and their allies, under the command of Agis, the son of Archidamus and king of Sparta, went as far as the Isthmus with the intention of invading Attica, but the occurrence of several earthquakes turned them back and no invasion took place (III.89).

It is legitimate to ask if this reaction was provoked by physical or religious fear. It is Thucydides, in contrast to Diodorus Siculus (XII.59.1), who points towards religious superstition, which may be inferred despite not featuring explicitly in the motive for retreat. Indeed, on several occasions, the historian evokes the supernatural dimension that common sense attributed to these extraordinary events. The Spartans understood the great earthquake of 465/4 BC (I.101, I.128) as a divine punishment, giving rise to the Great Helot Revolt. Furthermore, when describing the circumstances that lead to the Peloponnesian War, the historian refers to earth tremors alongside oracles, such as signs (*semenai*) of what was to come (II.8). Nicias, for example, when met with a lunar eclipse, delays the withdrawal of his troops from Sicily, exacerbating an already difficult situation (VII.50). Thucydides himself is ambiguous in terms of these beliefs. If, on one hand, he appears to condemn Nicias for his superstitious and pernicious attitude, on the other he confers a supernatural quality to these events, questioning the image of the rational and scientific historian.²⁷

As has already been demonstrated (Keyser 2006) in the context of eclipses and earthquakes, the author does not demonstrate scientific rigour or offer natu-

²⁶ Dobski (2017, 34) argues that setting nature, with its fixed and intelligible laws, against a cosmos governed by vigilante gods and goddesses creates a false dichotomy given that “Thucydides understands events like earthquakes, plagues, volcanoes, famines, and droughts to be the product neither of vengeful gods nor of a nature independent of human making, but of the interplay between what some, following Thucydides’ initial characterization of the war as a ‘*megiste kinesis*’ (1.1), have called the ‘forces of motion’ and the ‘forces of rest’”. On religion and deities in Thucydides’ *History* see Jordan 1986; Munson 2015; Furley 2006. The latter recalls that the superstitious interpretation of natural phenomena was very common in Antiquity and that it was based on a belief in a nature that was manipulated by invisible gods in response to human behaviour: “the gods “communicate” their favor or disfavor to humans through the language of natural signs” (422). There is, however, nothing in the text to indicate that this is Thucydides’ position (see Cusumano 2018, 272–76).

²⁷ The question of rationality and scientific spirit in Thucydides is one of the most discussed across Thucydidean scholarship. A balance of the key theses and bibliographic references can be found in Pires, 2006 and Keyser 2006, 323–25. Keyser opposes the idea of a rational, impartial and scientific Thucydides due to traces of irrationality, exaggeration and lack of precision in his descriptions of natural phenomena. Cf. Edmunds 1975, 169–72.

ral explanations for such events, limiting himself to suggest causal relationships between the former and the latter (IV.52).²⁸ This is apparent in descriptions of other natural phenomena, such as the causal relationship established between earthquakes and gigantic waves, now known by the Japanese name *tsunami*:

At around this time when the earthquakes were prevalent, the sea at Orobiae in Euboea retreated from what was then the coastline and returned in a tidal wave which hit one part of the town, and as a result of flooding combined with subsidence what was once land is now sea: the tidal wave killed the people who could not escape to higher ground in time. There was a similar inundation at Atalante, the island off Opuntian Locris, which carried away part of the Athenian fort and smashed one of the two ships laid up there. At Peparethus there was also a withdrawal of the sea, but not in this case followed by a surge: and an earthquake demolished part of the wall, the town hall, and a few other buildings. I believe the cause of this phenomenon to be that of the sea retires at the point where the seismic shock is strongest, and is then suddenly flung back with all the greater violence, creating the inundation. I do not think that tidal waves could occur without earthquake.

Moving away from the religious or mythological explanations that, as a rule, attributed the origin of these phenomena to the god Poseidon, Thucydides seeks to establish natural causes for the *epiklusis* (flood), revealing a more rational and scientific perspective beyond that of the attentive and curious observer of nature, in accordance with Ionian natural philosophy. In this regard, Thucydides shows himself to be a man of his time, operating in line with new horizons of thought, working on the boundary between the rational and irrational, the profane and the divine, the physical and the metaphysical (Furley 2006, 421–23; Janko 2020).

3. Interactions between man and nature: Demosthenes and Nicias' failure

Through the analysis of the episodes that follow we can extrapolate much of these environmental issues in a narrative way. In this sense, these episodes can be seen as extended case-studies of human/nature interactions.

3.1 Demosthenes in Pylos²⁹

Dobski defends a triangular relationship between politics, nature and historiography, considering the chapters dedicated to Demosthenes' military campaign in Aetolia, during the sixth year of war, as the best practical demonstration of this. The author also shares the opinion that Thucydides uses natural catastrophes to reflect and amplify the events of war and vice-versa.

²⁸ Hornblower (1996, 211): "Th. juxtaposes, but does not connect, the two phenomena, but the juxtaposition tempts his readers to make a connection".

²⁹ Hornblower 1996, 149–50 presents a bibliographic selection of the key studies on the Pylos campaign.

Thucydides's account of Demosthenes's failure recalls his account of that retreating and advancing flood which killed all those incapable of making it to higher ground (3.89). Demosthenes' successes at Naupactus, Olpae and Idomene, on the other hand, not only mirror the destructive power of nature, they amplify it. By framing Demosthenes's campaign in Aetolia in terms of natural disasters, Thucydides invites his reader to consider the possibility that military failure and success hinges on one's capacity to account for and imitate the powerful motions of nature (Dobski, 2017, 41).

Dobski here suggests that natural disasters are used by Thucydides as a backdrop for war, heightening its catastrophic impact, or, owing to their random and uncontrollable nature, as the antithesis of a planned and ordered battle strategy, the effects of which are magnified:

Demosthenes's defeat and success in Aetolia and earthquakes and tsunamis (or even volcanic activity, 3.89) suggests that nature provides a useful guide or template for the creation and expansion of military power insofar as the destructive motions at work in one can also be used to great effect in the other (Dobski 2017, 42).

Without questioning Dobski's interpretation, we would like to highlight other natural considerations whose implications are evident in Demosthenes' campaign in Aetolia, namely the pedagogical dimension that operates alongside nature. After a disastrous defeat at the hands of the apparently defenceless Aetolian army (III.97–8), who used the inclines of hills in their favour during a gruelling succession of attacks and retaliations against the Athenians, Demosthenes learns lessons that he will put into practice in future battles. The key factors contributing to their defeat (a degree of arrogance, unfamiliarity with the enemy and their terrain, lack of preparation and patience to wait for backup) will determine the strategies adopted in Acarnania, where these failures will not only be corrected, but transformed into successful battle tactics. A good example of this is the occupation of favourable locations such as high wooded hills chosen for their gradient and thick vegetation (III.107–8, 110). These characteristics allow for surprise attacks, forcing the enemy into a disorganised and aimless retreat down slopes and gorges as if they had been the target of a natural disaster. (III.112). In Aetolia, the Athenians had been subject to this during their disorderly retreat in alien territory, covered with thick forest and paths that led nowhere. Many soldiers died trapped in ravines or surrounded by fire (III.98).

The resounding and historic victory of Demosthenes and the Athenians in Pylos and the island of Sphacteria in 425 BC is the strongest proof of the power and impact of nature, and of adapting to natural conditions, in military conflict. It also foregrounds the importance of learning from the past (Hunter, 1982, 291–93). Having learnt in Aetolia that haste is not advisable, Demosthenes urges his comrades Eurymedon and Sophocles to dock in Pylos instead of hurriedly continuing to Corcyra (IV.3). Thucydides informs us that "they objected, but as it happened a storm arose which forced the ships into Pylos" (IV.3). Held up in Pylos by a storm, Demosthenes implores them to take advantage of the abundance of natural resources in the region, wood and stone, to fortify the area, as well the fact that it was protected by nature (*physei karteron*) and unoccupied, allowing them to better defend them-

selves (IV.3). Demosthenes, who had not performed an official role since his return from Acarnania and who now sailed with a fleet of forty ships around the Peloponnese, is an experienced leader who learned from his mistakes in past battles and is well-positioned to give good advice to others, helping them to avoid the same errors setbacks that he himself suffered. His comrades, however, disregard this advice, ignoring the strategic importance of the location. Demosthenes, on the other hand, reads the space differently, seeing in it the geographical and geomorphological potential to launch a military operation base. Having convinced neither the strategists nor the soldiers, it is instead bad weather that keeps them there: “[...] was forced to remain inactive while the weather continued unfit for sailing” (IV.4). To overcome the tedium, the soldiers set about constructing the fortifications that Demosthenes had recommended. Thucydides describes the construction process in detail: the collection and laying of stones, the transport and application of mortar, all carried out with nature’s bounty (IV.4). The study of Pylos’ landscape and the privileged position of the island of Sphacteria (IV.8), the fortification and distribution of soldiers according to the terrain, and the ability to foresee the movement and limitations of enemy attacks are determining factors in the unexpected victory of the Athenian infantry against the Spartan naval fleet. (IV.12). The plan set in motion by Demosthenes depends not only on good knowledge of the natural conditions of the land and surrounding sea, but of the psychology and habits of the enemy. When narrating this episode, Thucydides takes care to mention the influences of natural factors on the conflict on several occasions. Such is the case in IV.8, when he describes the island of Sphacteria, “being uninhabited, [...] wooded and pathless”, as well as the landscape of Aigio in Aetolia. On one hand, the island “was no store of food”. As an area lacking in resources, Demosthenes equips his soldiers with wicker shields that been used before by other troops: “poor-quality shields, most of them made of wicker” (IV.9). Demosthenes and his soldiers find themselves in a difficult position before enemy forces, recalling that of the Aetolians when first attacked by Demosthenes’ army. They wore light armour in a land comprising scattered, unwallled villages (III.94). However, just as the Aetolians knew how to harness their geographical surroundings, taking refuge in the hills and attacking the Athenians from above, obliging the latter to expend great physical force, Demosthenes’ Athenian army will use the characteristics of the landscape to compensate for their inferiority in number. When addressing his troops, the Athenian strategist frames precisely the inaccessibility of the region and its difficult terrain as advantages:

This is a hard place for a landing—a potential advantage for us, I think, which will favour our side if we stand firm. [...] And we should not be too fearful of their numbers. They may be a large force, but the difficulty of coming in to land will mean that only a few of them can fight at any one time. [...] So I think their difficulties counterbalance our lack of numbers (IV.9).³⁰

³⁰ On the terrain and supposed lack of rigour in the topographical description of Pylos see Sears 2011. The same author provides in note 3 a bibliographic overview dealing with the question of topography in Thucydides, namely during the Pylos campaign.

Demosthenes' predictions come to pass, and, against all expectations, the Athenian general leads his troops to a monumental victory over the Spartans, leaving the Lacedaemonians temporarily at the mercy of the Athenians. The Spartans are obliged to plead for a peace treaty with their enemies, with the aim of rescuing their men who were left trapped on the island of Sphacteria. The victors refuse, influenced by the demagogue Cleon. However, the Athenians who laid siege to the region begin to despair at the impasse in negotiations as they suffer from the lack of water supply. Thucydides tells us: "there were no springs other than one inadequate source on the acropolis of Pylos, and most had to scabble in the shingle on the shore to find some sort of drinkable water" (IV.26). The Spartans, although surrounded, survive on what they can find on the island, "a store of grain and other foodstuffs" (IV.39) according to Thucydides, and obtain the help of the Helots, who send them external supplies. The historian makes a point of informing us that this smuggling would not have been possible without the wind. Indeed,

the Helots sailed by night to the seaward side of the island, watching particularly for a wind to carry them in. It was easier for them to evade the triremes' guard when the wind was blowing from the sea, as a full blockade was impossible under those conditions, and they themselves would sail in quite recklessly (IV.26).

The lack of resources in the region (IV.27), particularly the lack of water and food, make Demosthenes' soldiers feel as if they were the besieged rather than the besiegers (IV.29). This situation leads the Athenians to send a fleet in search of help from their countrymen. Cleon is placed in charge of the dangerous expedition as he was largely responsible for the failure to negotiate a peace treaty. Cleon feigns willing acceptance of the mission and chooses Demosthenes as his travel companion, who is prepared to risk anything to leave the island, unable to withstand the hardships that came with the lack of resources (IV.29). Once again, the Athenian general will spot another opportunity created by a natural phenomenon. A fire broke out on the island. The space was covered in dense woodland, with no roads due to its being unoccupied, and Demosthenes was shocked to find that these circumstances favoured the enemy, who could easily camouflage themselves among the trees and launch a surprise attack. The historian then states: "if he were compelled to close quarters in a wooded area, he thought that the smaller force with a knowledge of the ground would have the advantage over the larger force without that knowledge" (IV.29). Thucydides then comments that this rationale is the result of what he had learnt from the disaster in Aetolia, where he encountered a similar situation (IV.31). Demosthenes clearly perceived the influence that the environmental conditions created by the forest could have on battle and seeks to avoid the mistakes of the past. In this way, the fire that before acted against him generates the perfect conditions for attack. The fire broke out accidentally, lit by a Spartan guard, but the wind spread it quickly. With a large part of the forest consumed by the flames, the Spartan army loses its camouflage and hiding place. Demosthenes now sees that the Lacedaemonians were many in number, when he had previously thought they were few. He also saw that it was possible to disembark on

the island and organise the attack. Entering the island in the early morning, he launched a surprise attack on the soldiers as they slept and, having immediately occupied the highest points of the island, quickly surrounded the enemy army who were largely concentrated in the central plane next to the spring supplying water. Once again, Demosthenes takes advantage of the difficult and steep terrain, until then uninhabited, and of his experience in Aetolia, resorting to the same military tactic of advancing and retreating lightly armoured troops as the Aetolians had done, thus defeating the Spartans who, were unable to flee easily in their heavy armour (IV.32–3). Another unexpected natural event will contribute to the Athenian victory. With the forest burnt down, they could clearly see that the number of enemy troops was inferior to their own. In light of this, they give out a cry of attack and run in the direction of the enemy. As the ground was covered in ash, a cloud of dust rises that prevents the Spartans from seeing the enemy and their arrows, rocks and darts (IV.34). The battle did not end there because what was left of the Spartans took refuge in the fort at the northern-most tip of the island. The characteristics of the location prevented the Athenians from surrounding the fort, forcing them to attack it head on. The battle drags on and becomes difficult for both sides due to thirst and the sun (IV.35). Only when they discover an un surveilled location in the dangerous chasms to the rear of the fort, ideal for attack, do the invaders deliver the final blow to the Spartans, who, attacked from both sides, find themselves in a situation identical to that of their compatriots who courageously fought to the death against the Persian army in Thermopylae. Upon seeing the desperate situation of their enemies, however, Demosthenes and Cleon decide to halt the battle to avoid a massacre and take live prisoners to Athens. The Spartans surrender and an armistice is signed (IV.37–8).

3.2 Nicias' failure in Sicily³¹

After having imposed the law of *physis* upon *nomos* against the Melians (V.84–116), it is the Athenians who will experience the unstoppable law of *physis* in their disastrous expedition to Sicily. The narration of the military campaign begins with the island's history (VI.1–5). The first fact delivered by Thucydides to accentuate the thoughtlessness and unbridled ambition of the Athenians is their lack of knowledge of the inhabitants and territory that they intended to invade. Later, we will see how this contributed the defeat of the invading army.

The clairvoyant and experienced Nicias is chosen against his will as one of the commanders of the expedition, as he thought that the Athenians were ill-advised to help their allies the Egestaeans against the Selinuntines in Sicily. He attempts to dissuade his countrymen from advancing to a faraway and hostile land with a series of convincing arguments, in which he recalls the advantages of

³¹ On the figure of Nicias see Sebastiani (2018), particularly chapter II. On the expedition to Sicily see Greenwood 2017.

the Barbarians and the need for preparations such as troops and supplies, which would incur enormous costs and require extensive planning. He knows that if they are held up by bad weather (VI.22) they will need many provisions to survive. And he knows that they will need luck (*tyche*), but unwilling to depend on this alone, he only accepts to take on the mission if it is meticulously planned (VI.28). Having listed many difficulties, he believes he has dissuaded the Assembly, but he in fact had the opposite effect. The Athenians are even more determined, thinking only of the potential profits of the risky expedition. Defied, Nicias departs for Sicily with Alcibiades and Lamachus. Initially, the superiority and organisation of the Athenian forces prevails over the inexperience and inefficiency of the Syracusans. The arrival of Spartan reinforcements commanded by Gylippus, however puts an end to the Athenian advantage, and marks the start of disaster for Nicias and his army. The beginning of the deterioration in the Ionian crews' wellbeing is attributed by Thucydides to natural causes: "water was scarce, and no supply close at hand. And when the sailors went out for firewood too they suffered casualties from the Syracusan cavalry who dominated the area" (VII.4). In a letter sent to Athens, Nicias mentions the same causes (VII.13). The fight for control of the territory, consisting of the construction of an enormous wall to surround and block off Syracuse, is compromised with the help of Gylippus, who arrives in time to attack the Athenian fortification and help the Syracusans finish their own wall before the enemy traps them. This places Nicias in a position similar to that of Demosthenes in Pylos, which Thucydides describes in the same terms: "the result is that we, who are supposed to be the besiegers, are rather the besieged ourselves" (VII.11).

Demosthenes finally arrives at Sicily bringing with him considerable reinforcements from Athens, leaving the enemy apprehensive and alarmed (VII.42). The Athenian general decides to attack immediately so as not to make the same mistake as Nicias, who had remained inactive while waiting for winter to pass. The Syracusans had an advantage during that time as they were able to send for Gylippus from the Peloponnese. Demosthenes tries to attack the highest part of the city, Epipolae, a strategic point of the enemy's defence. After several attempts, Demosthenes' troops are defeated in the night. Thucydides describes what happened in detail as well as the fatal damage caused by lack of natural light to an army that did not know the terrain (VII.44). The moon shone bright but was insufficient to discern forms. Enormous confusion and disorientation are generated among the Athenian army, with members of the same army killing themselves and jumping off the cliffs. This was the only battle to take place at night over the course of the war and it had terrible consequences for the Ionians.

After the failed attack of Epipolae, the Athenians lose morale and begin to fall prey to physical illness. Thucydides identifies two causes for the outbreak: on one hand, men were more prone to disease at that time of year; on the other, the marshy and unhealthy climate of their location had a role to play. The historian adds dependency to these factors (VII.47). The Athenians' bad luck will get worse firstly due to Nicias' stubbornness, who insists on maintaining the wall around the Syracusans, and later, with the lunar eclipse, at the precise moment they were about

to sail away and abandon the wall due to tiredness and physical weakness. Nicias, “who was rather too much inclined to divination and the like” (VII.50) opts again for inactivity, ordering the army to wait “thrice nine days” in that unhealthy place.

On the sea, where the Athenians considered themselves unbeatable, Eurymedon’s fleet will meet a harsh defeat, causing immense confusion and sorrow among the troops (VII.55). Hunger forces them into a decisive, last-ditch attempt at battle. After a gruelling fight, the defeated Athenians are forced to dock, and Thucydides compares their emotions with those they inflicted on the Lacedaemonians in Pylos when they trapped them on the island of Sphacteria (VII.71). The Athenians too felt trapped, without hope of salvation. Obligated to make their retreat by land, the entire Athenian military contingent sets off through enemy land, with little food and water because, according to the historian “there was no ready supply of water for several miles along their intended route” (VII.78). A change in the weather makes things worse for the Athenians, at a time when they were trying to make an escape corridor through the enemy army. Thunder and rain, normal at the end of autumn, alarm and demoralise Nicias’ soldiers further, who interpret these atmospheric signs as bad omens (VII.79).³² With the aid of several fires lit, Nicias and Demosthenes try to guide their troops through the night to a safe place. With their instinct of following the water’s course to the interior of the island of Sicily, they reach the river Cacyparis. As this is guarded by enemy troops they cross at a ford and continue to the river Erineus. The Syracusans pursue them and surround Demosthenes’ army in a field of olive trees, attacking them from all sides (VII.81). Demosthenes and his army surrender. Nicias, after a failed attempt at a truce, is obliged to flee with his troops. They search for the banks of the river, seeking water and protection. Some men hurry, however, and are taken by the current. Others thirstily drink from the river in a disorderly fashion, becoming easy targets for the Syracusans, who descend on them and slaughter them in the water. Thucydides’ description is vivid: “the water quickly turned foul, blood mingling with mud, but the Athenians drank on, and most fought among themselves to reach it” (VII.84). What is left of the Athenian army is imprisoned. Demosthenes and Nicias are executed. The former to exact revenge for what had happened in Pylos and Sphacteria. The latter, despite having won the sympathy of the Lacedaemonians is killed due to the threat posed by his wealth and power, which he could use to negotiate his release. For Nicias, Thucydides writes the famous eulogy: “off all the Greeks in my time he was the least deserving of this depth of misfortune, since he conducted his whole life as a man of principle” (VII.86).

4. Final considerations

The cases of Demosthenes and Nicias function as inverted mirrors in terms of their interactions with nature, but also in terms of the roles played each char-

³² “It so happened (*etychon*) that the battle was accompanied by a storm of thunder and rain, as is not unusual at this time of year, with autumn coming on”.

acter. In Pylos, Demosthenes is the protagonist and Nicias is a secondary character; in Sicily, the opposite is true. In the context of relationships with the natural world, Demosthenes, in Pylos, was successful as he was knowledgeable, knowing how to harness nature and have *tyche* work in his favour. Nicias, in Sicily, had neither *tyche* on his side, nor did his poor knowledge of the combat terrain allow him to take advantage of nature. Both end up on the losing side as victims of war, disadvantaged by strategic errors but also by natural conditions, which seem to punish them in atonement for Athens' *hybris*.

Furthermore, during the episode of the palisade in Plataea, nature follows its own law and punishes the Spartans for their audacity. Those who before attacking had invoked Plataean gods and heroes to justify their actions were defeated by rain and thunder that came from above. In the tradition of Classical tragedy, the gods of that land (*epichoricos*) appear to have avenged themselves from the *hybris* and blindness of the Spartans. Given that Thucydides' religious beliefs are unknown and the conspicuous absence of deities in his work, it would be reasonable to suggest that natural forces are discreetly invested with the role that, in the Homeric epic and Greek tragedy, is reserved for the gods. The workings of nature are subtle and circumstantial, unlike a *deus ex-machina*, but they have the power to interfere with and alter the course of events, gearing them towards a particular purpose. Nature does not spare humans of responsibility for their own actions, but it affects their conduct by helping or hindering, at times in a random or accidental way akin to *tyche*, at times intentionally and deliberately like a manipulative god. The idea of nature as a manipulative force is corroborated by the cases of the Aetolians, Demosthenes and the Plataeans.³³ Thucydides himself employs nature, firstly as a chronological marker, and later as a narrative and ideological device, putting into practice what Hayden White (1978, 81–100) would lay bare centuries later, that historical writing is also a literary artefact. This is proven by the association between natural and human events. The escalation in military violence is accompanied by an escalation in natural violence, which manifests in the form of diverse natural disasters (Cusumano 2018). To use Bakker's (2017, 240) words: "military activity across the Greek world can no longer be seen in isolation, and it looks as if the forces of nature operate in harmony, orchestrating an ominous background against which this increase in activity unfolds". Even the episode of the tsunami, apparently straying from this logic, gestures towards an underlying explanatory model whereby "all events in the cosmos are interdependent" (Ibid.). Without stating so explicitly, Thucydides, in evoking a parallel between human suffering (*pathemata*) and natural disasters, seems to suggest an animist and holistic vision of nature, with which some authors disagree (Furley 2006, 423).

³³ Dobski (2017, 46), referring to the case of Demosthenes, speaks of an intelligible and ordered nature that allows itself to be known and manipulated for political and military ends.

It is not easy to determine the Thucydidean concept of nature, as the author does not write a great deal to this effect. Perhaps, however, we can deduce more in terms of mankind. Strauss (1963, 159) states that, for Thucydides, “the nature of men cannot be understood without some understanding of nature as a whole”. We believe that the opposite is also true. By examining human nature, we can arrive at an understanding of nature as a whole. In doing so, we return to the famous binary of *physis/nomos*, which is particularly meaningful in the work of Thucydides and the Sophists of his time (Nogueira 2012; Orwin 2017). In this respect we have no choice but to reference two famous passages: the historian’s commentary on the *stasis* in Corcyra, associating the inevitability of such events to human nature (*physis antropon*), capable of persisting and adapting to circumstantial changes (*metabolai*) (III.82.2); and an Athenian messenger’s dialogue with the Melians, justifying the dominion of the strong over the weak as a necessity imposed by nature (*physeos anankaias*) (V.105.2). If any inference can be drawn surrounding Thucydides’ conception of nature, it would have to be negative. The *nomos/physis* tension that runs through reflections on *stasis* such as the Melians’ dialogue reveals that nature is a compulsive force that imposes itself on convention, law and ethics, preventing mankind from being good and virtuous. Furthermore, both the *stasis* and the Melians’ dialogue show that politics imitates nature, imposing itself through force and violence. If our reasoning is correct, we are faced with a pessimistic anthropological vision, understandable in light of the tragic events of war. And if it is true that nature is presented in the work of Thucydides as an ambiguous force, it is an unbalanced ambiguity. Although it can be tilted in favour of mankind, the image that persists is that of an obstacle, highlighting humans’ deficiencies and vulnerabilities, and their anthropological condition of being dependent and inferior. On the other hand, without the author having the express intention of doing so, lacking knowledge of the modern-day ecological awareness, Thucydides makes clear the enormous negative impact of human action on the natural world. These problems are not on the same scale as they are today but are still clear acts of environmental degradation.

The text is also conditioned by a tension between movement (*kinesis*) and stillness (*hesyche*). We are told from the outset that this war represents a great movement or agitation (*kinesis... megiste* I.1.2).³⁴ Nature is in some way related to this circular fluctuation of change and stagnation. Orwin (2017, 367) even argues that “it marks the intersection of human nature with nature as such”. If this is the case, we may be led to believe that, for the Athenian historian, all movement entails change and is bad. War is movement, natural phenomena generate movement, and the displacement of the Athenian peasants has terrible consequences, just as the migration of island peoples to poorer soils leads to poverty. Athens, which is initially distinguished from neighbouring peoples in its stability, is now seen by the Corinthians as in constant movement (I.70) while Sparta represents immobility and justice, just as Nicias and Diodotus

³⁴ On the possible meanings of *kinesis*, see Munson 2015.

represent peace and Cleon and Alcibiades embody war. *Stasis* alone configures an extreme image of *kinesis*, an eruption of terrible social and political consequences. The opposite would be stability, justice, wealth and peace. But this semiotic correspondence does not always ring true. Strauss (1963, 159–60) lists a series of examples to the contrary. At times, movement leads to wealth and progress (I.15.1–2; XXVIII.2–3), while stillness impedes the acquisition of knowledge (I.71.3). In Thucydides, then, the ideal would be a well-considered and balanced combination of movement and stillness in nature's image. Everything, including politics, seems to participate in this natural dynamic, in which the positive presupposes the negative and vice-versa, just as movement presupposes or even produces stillness; as is typical of nature, whose constant movement is permanent and stable.

Moreover, Greek historiography, in the words of Hannah Arendt, is related to the (im)mobility and permanence of nature. The philosopher, in her reading of the prefaces of Herodotus and Thucydides, establishes this relationship upon a basis of grandiosity and immortality. In recalling the singular circumstances and events that “interrupt the circular movement of daily life in the same sense that the rectilinear βίος of the mortals interrupts the circular movement of biological life”, the historian elevates these grandiose and extraordinary occurrences to the immortal and circular condition of nature (Arendt 1961, 43). In this way, “through history men almost became the equals of nature, and only those events, deeds, or words that rose by themselves to the ever-present challenge of natural universe were what we call historical” (Arendt 1961, 47–8).

Speculation aside, one idea that the author clearly conveys is that the environment is not separated from human life, nor is it not merely a setting for human history. This speaks to the founding principle of environmental history that it is necessary to overcome the scientific division between, on the one hand, historical, sociological and economic study, taking human society as their point of departure, and the study of plants and animals on the other. The *History of the Peloponnesian War* is a good example of how human culture is inseparable from nature (Schliephake 2020). Through our analysis, we hope to clearly establish that the environment directly affects the actions of war, but that the actions of war exert a much greater negative impact on the environment (Hughes 2006, 150–62). It is not an exaggeration to state that this war, at the time it transpired, was comparable to a natural disaster. We establish two forms of action upon nature. One without impact, such as that of Phormio, the Plataeans and Demosthenes, who make intelligent use of natural conditions without altering them. The other is destructive and disproportionate, such as that of the Spartans in Plataea, and the Syracusans and the Athenians in Sicily. This war, like all others that followed it, is marked by the enormous ecological damage it caused. This is attested to by the excessive use of wood, the use of fire against settlements and forests, the destruction of fields and crops, the death of animals; not to mention the most obvious: the huge number of human lives lost.

Finally, as highlighted by Funke and Haake (2006) and Pothou (2009), Thucydides does not make theoretical observations regarding the importance

of geography and topography, nor does he engage in substantial digressions to this effect, as did his predecessor Herodotus. However, in order to maintain narrative cohesion, these factors are integrated into the chronicle in such a measure that allows the reader to follow the unfolding of events. Campaigns such as that of Demosthenes in Aetolia and Pylos are rich in descriptions of the landscape and topography since these elements condition combat and its outcomes. And if it is true that Thucydides is economical with information relating to geography and landscape,³⁵ largely omitting relevant data such as distances, areas and geographical location, it is no less true that there is in his work a sense of place that values and illuminates man's relationship with the environment as a space of interaction and experience, or, rather, with the landscape. The Athenian historian is considered "one of the first authors to link geographical elements with various human phenomena" (Dueck 2012, 37). Consider, for example, the observations made regarding the economic prosperity of Corinth, justified by its location on the Isthmus (I.13); about the dangers of navigating through the Strait of Messina (IV.24); or concerning the military tactics used during the Pylos campaign (IV.3). Dueck (2012, 84–90) understands this relationship between the environment/geography and human life in light of the theories of climatic and ecological determinism or Greco-Roman ethnography that date back to the Hippocratic school. Thucydides' wartime landscape makes us aware of the profound relationship between people and the spaces they inhabit, with these acting as anthropological conditions rather than a mere backdrop to human activities (James 2017, 13–5). Space and time, as demonstrated by Thucydides' work, are not neutral entities. On the contrary, they are dominant forces that condition human action. Man can do nothing against them, and everything with them.

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³⁵ The description of the course of the river Achelous in II.102 is an exceptional case.

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