

Divining Disaster:
Signs of Catastrophe in Ancient Greek Culture

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Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in the Department of Classics at Brown University

PROVIDENCE, RHODE ISLAND
MAY 2019

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This dissertation by Michiel C. van Veldhuizen is accepted in its present form
by the Department of Classics as satisfying the
dissertation requirement for the degree of Doctor of Philosophy.

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INTRODUCTION

Man uses his old disasters as a mirror.

—Roque Dalton, *Arte poética*

There are the elements, which seem to mock at all human control: the earth, which quakes and is torn apart and buries all human life and its works; water, which deluges and drowns everything in a turmoil; storms, which blow everything before them; there are diseases, which we have only recently recognized as attacks by other organisms; and finally there is the painful riddle of death, against which no medicine has yet been found, nor probably will be. With these forces nature rises up against us, majestic, cruel and inexorable; she brings to our mind once more our weakness and helplessness, which we thought to escape through the work of civilization.

—Sigmund Freud, *The Future of Illusion*

Nowadays, the unexpected comes not from divine intervention but from risk.

—Antony Giddens, *Consequences of Modernity*

“Do You Bring a Sign of Some War or Wasting of Crops?”

It was a pleasant Spring day in the city-state of Thebes, when all of a sudden the sun began to darken. In a matter of minutes, the disk of the sun had been fully obscured

and its life-giving rays of comfort and warmth were gone. As day abruptly turned into night, people felt helpless and disoriented, and some panicked. Some feared that the sun had changed its course for good and that the world as they knew it was coming to an end. Others thought the gods were sending a sign of some pending disaster, and raised a *paeon* to supplicate Apollo, calling upon the god to spare them and turn evil away from their city.

Such may we imagine was the occasion for which Pindar composed one of his *paeans*, a song-dance in honor of Apollo that would be performed at Theban festivals such as those held in the sanctuary known as Ismenion.¹ Specifically, the solar eclipse that dominates the opening lines of *Paeon* 9 (= fr. 52k, ed. Maehler = A1, ed. Rutherford) likely refers to the total eclipse of the sun that took place on April 30, 463 BCE; Pindar was about 50 years old at the time.² The song opens with an address to the sun (P. *Pae.* 9.1-9, transl. Rutherford):

Beam of the sun! What have you contrived (μήσεαι), observant one,
mother of eyes, highest star,
in concealing yourself (κλεπτόμενον) in broad daylight? Why have you made
helpless (ἀμάχανον)
men's strength and the path of wisdom,
by rushing down a dark highway (ἐπίσκοτον ἀτραπόν)?
Do you drive a stranger course than before? (ἐλαύνεις τι νεώτερον ἢ πάρος)
In the name of Zeus, swift driver of horses,
I beg you,
turn (τράποιο) the universal omen (πάγκοινον τέρας), lady,

¹ For a survey of the *paeon* as genre, see Rutherford 2001: 1-182. On myth and literature in the Theban cityscape, see Berman 2015: 64ff.

² Other eclipses Pindar may have witnessed include the anular eclipse of February 17, 478 BCE, and one on April 28, 509 BCE, although he would have been very young at that time. See Rutherford 2001: 192.

into some painless (ἀπήμονα) prosperity for Thebes.³

Assuming that the *paeon* indeed responds to an actual eclipse—the solar eclipse was certainly an established theme in Greek lyric poetry, including among Mimnermus, Archilochus and Stesichorus—the song served to ritually avert the disasters that are portended by the sun’s disappearance.⁴ The sun itself is a dis-aster, un-starred by the shadow of the moon, but the eclipse’s signification is what constitutes the actual disaster. The connection between signs and disaster is immediately clear: the solar eclipse is not so much believed to be disastrous in itself, as it is believed to be a coded message or sign that indicates something else.

Addressing the sun with a triad of questions, Pindar anthropomorphizes the sun, suggesting that she has “contrived” (μήσσει) some plan. She is “concealing” (κλεπτόμενον) herself. The most visible sign in the sky, the sudden disappearance of the sun is the clearest indication and the most visible evidence possible that something is not right. Even without taking into account the sun’s elaborate symbolism as the source of life, truth, and so forth, we can easily imagine the “helpless” (ἀμάχανον) state of those who are confronted with the eclipse, since it threatens to overthrow the reliability of the sun’s course: the “path of wisdom” (σοφίας ὁδόν) cannot survive, as Rutherford has observed, “without the sun’s continued adherence to its established route.”⁵ The

³ Ἀκτὶς ἡελίου, τί πολὺσκοπε μήσσει, / ὦ μᾶτερ ὀμμάτων, ἄστρον ὑπέρτατον / ἐν ἡμέρᾳ κλεπτόμενον; <τί δ’> ἔθηκας ἀμάχανον / ἰσχύν <τ’> ἀνδράσι καὶ σοφίας ὁδόν, / ἐπίσκοτον ἀτραπὸν ἐσσυμένα; / ἐλαύνεις τι νεώτερον ἢ πάρος; / ἀλλὰ σε πρὸς Διός, ἱπποσόα θοάς, / ἱκετεύω, ἀπήμονα / εἰς ὄλβον τινὰ τράποιο Θήβαις, / ὦ πότνια, πάγκοινον τέρας.

⁴ See Plut. *De fac. In orbe lun.* 931E, cited in Rutherford 2001: 193.

⁵ Rutherford 2001: 194.

reliability of the sun as heavenly sign, plotted on a fixed course across the expanse of the sky, is at stake. The final question posed to the sun gives expression to the anxiety surrounding her altered course: “Do you drive a stranger course than before?” (ἐλαύνεις τι νεώτερον ἢ πάρος). The translation of νεώτερον as “stranger” does not do justice quite enough to the negative connotation of the word, which literally means “newer, more recent.” In William Race’s translation, the line reads: “Are you bringing some unprecedented disaster?” Pindar’s point seems to be that the new course of the sun may be a disastrous one, implying a destructive disruption of the previous world order.

The apotropaic quality of the *paean* comes out in the next lines, when the singer requests that the beam of the sun “turn” (τράποιω) the “universal omen” (πάγκοινον τέρας) into a “painless” (ἀπλήμονα) blessing for the Thebans. The word τέρας is a divinatory term for a sign, and here refers to the sign of the solar eclipse. But to whom is the sign addressed? The adjective πάγκοινον (“common to all”) may suggest that the τέρας is visible to many peoples, not just the Thebans, and its evil may thus be intended for others.⁶ But it seems understood that the τέρας is bringing evil to Thebes, otherwise the singer would not supplicate the sun to turn it into painless prosperity. If πάγκοινον instead applies to the notion that the meaning of the sign is common to all, the sentiment would be: we know this common portent means that something bad is about to happen, so please turn it into something positive for Thebes. Both interpretations depend on the semiotic mechanism implicit in the reception of the sign. Either the sign can be turned toward different recipients, or the meaning of the sign can be turned.

⁶ Such is Rutherford’s understanding of the adjective, see Rutherford 2001: 195.

After a lacuna, the song continues with a list of possible disasters that are portended by the τέρας of the eclipse (P. *Pae.* 9.12-21):

Do you bring a sign (σᾶμα) of some war or wasting of crops
or a mass of snow beyond telling or ruinous strife
or emptying of the sea on to land
or frost on the earth or a rainy summer
flowing with raging water,
or will you flood the land and create
a new race of men from the beginning?
I lament nothing that I suffer with everyone.⁷

This passage introduces us to a second key term for the divinatory sign, σῆμα (σᾶμα, in the Doric dialect). This is not a sign that establishes equivalence; rather the sign is implicational and propositional. The solar eclipse signifies war, famine, or flood by implication. How is the meaning of the sign established? Clearly the sign is negative, but what precisely should the citizens of Thebes prepare for? Natural and man-made disasters are mixed in Pindar's list: war, blight, strife, and cataclysm are found side by side. The uncertainty of what precisely the sign signifies is dealt with, within the narrative of the song, by the myth of Apollo's son Teneros, who was a pre-eminent diviner and interpreter of oracles. But the song itself, regarded in its social and religious context, is also a way of dealing with the anxiety of the actual referent of the sign, the historical eclipse of 463 BCE.

Divining Disaster

⁷ πολέμοιο δὲ σᾶμα φέρεις τινός, / ἢ καρποῦ φθίσιν, ἢ νιφετοῦ σθένος / ὑπέρφατον, ἢ στάσιν οὐλομένην / ἢ πόντιου κενεώσιας ἄμ πέδον, / ἢ παγετὸν χθονός, ἢ νότιον θέρος / ὕδατι ζακότῳ ῥέον, / ἢ γαῖαν κατακλύσαισα θήσεις / ἀνδρῶν νέον ἐξ ἀρχᾶς γένος; / ὀλοφύρομαι οὐδέν, ὃ τι πάντων μέτα πείσομαι.

Both the apotropaic *paeon* itself and the narrative that is operative within the song are manifestations of a mentality that I call *divining disaster*, which I regard as above all a semiotic practice of meaning-making. Divination is indeed a cultic-technical quest for special information—whose divine agency is behind this disaster? which god do we need to supplicate for the disaster to be lifted?—but also aids in the production of meaning. The overall argument of this study is that ancient Greek divination served to manage disasters by reducing them to signs, thus incorporating them into a signifying system that creates meaning. In this way, divining disaster emerges not only as a heuristic approach to crucial knowledge about disasters but as a hermeneutic form of disaster management. I argue that divining disaster is not just a religious practice that is part of the cultural-historical landscape of Archaic and Classical Greece (e.g. singing a *paeon* to avert disaster), but also a textual phenomenon that can be operative in historical as well as mythological narratives, where its expression is on the level of the symbol. I use the term *mentality*, understood as a cognitive pattern of interpretation (on which more below), to account for the totality of attitudes, beliefs, practices, and textual reflexes that connect disasters with signs. The cognitive aspect of the term *mentality* underscores my interest in unraveling the psychological and philosophical logic on which it is based.

One of the major challenges in assessing the logic that underwrites the mentality of *divining disaster* is the directionality of the sign: in Pindar's *paeon*, the sign precedes the disaster. The eclipse is considered to be part of a message, the meaning of which is to some extent known, but ultimately unclear. In the first disaster of Ancient Greek literature, the plague (λοιμός) that harasses the Achaean camp after Agamemnon has offended the Trojan priest Chryses, the disaster comes first and needs to be interpreted by

a diviner (*Iliad* 1). Through the act of interpreting the plague, the seer Calchas turns the plague into a sign itself: a sign indicating the wrath of Apollo. Temporal and semiotic directionality, as we will see in Herodotus' description of the disasters at Chios in Book 6, do not always coincide. The question whether the disaster or the sign comes first is further complicated by the self-referentiality of the divinatory sign. Agamemnon responds angrily to Calchas' interpretation of the plague, accusing Calchas not of being a bad seer or of harboring ulterior motives, but of "never yet having spoken a good word, nor brought one to pass (ἐτέλεσσας)" (*Il.* 1.108).⁸ Agamemnon's complaint against Calchas reads as a form of theodicy. The gods bring evil upon him not because he has done wrong, but because Calchas' seercraft has, in a way, brought it to pass. To prophesy is to bring to fulfillment (τελέω). Just as Agamemnon, I have grappled throughout this study with this tension between the signifying and causal power of the sign. Any reader of Sophocles *Oedipus Tyrannus* or Herodotus' *Histories* is bound to notice the ironic aspect of ancient oracles: in trying to avoid the oracle, the oracle makes it happen. The reflexive nature of this system defies temporality in a way that implies that disasters are somehow always already happening.

Structure and Organization

This study falls into two main parts. Chapters One and Two are largely theoretical, as they conceptualize the two components of the mentality *divining disaster*, namely divination and disaster. In part, these chapters also have philosophical

⁸ ἐσθλὸν δ' οὔτε τί πω εἶπας ἔπος οὔτ' ἐτέλεσσας

implications insofar as they make claims about “disaster” with universalizing and even prescriptive pretensions. Chapter One deals with divination, the sign, and semiotics, and sets up the terms τέρας and τέκμαρ as two key concepts in divining disaster. Chapter Two explores the concept of disaster in ancient and modern thought, introducing three modes of disaster: disaster-as-sign, disaster-as-event, and disaster-as-condition. These first two chapters lay the theoretical groundwork for its application in Chapters Three and Four, each of which examines *divining disaster* from a different lens, which roughly corresponds to one of the dominant perspectives in the field of disaster studies, namely *agency* and *uncertainty*, on which more below. Chapter Three is concerned with agency, itself a multivalent concept that takes on several meanings throughout this study. Put briefly, agency appears in contexts of cognition (as the cognitive faculty known as the Agency Detection Device), semiotics (as the sender of the sign), and disaster studies (as the association of disaster with a violent, external agent). Chapter Four elaborates on the notion of uncertainty, in particular the uncertainty that stems from the experience of disorientation, which, as the term itself suggests, is at heart a spatial or geographic experience.

In addition, there are two other organizing principles at work in the final two chapters. First, chapter Three focuses on the agent (the active element) of disaster, in particular the agency of the god Poseidon in inflicting disaster. Chapter Four, in turn, focuses on the patient or sufferer (the passive element) of disaster; this suffering happens on an individual level (Jason and his fellow Argonauts; Prometheus) as well as on a cosmic one. A second organizing principle is between the disaster-as-sign, which informs Chapter Three, and the disaster-as-condition, which informs Chapter Four. The downside

of these various thematic organizations, as any reader is bound to notice, is that the chapters may appear excessively long and somewhat unwieldy in both their goals and their parameters. On the other hand, tracing the mentality in a non-linear fashion allows for unexpected connections to be made and new thoughts to be thought, which is programmatic for this study.

The Chapter Titles

The title of each chapter is made up of a quote, followed by a corresponding date and a set of two significant terms that define the chapter. I have borrowed the idea of dating my chapters from Deleuze and Guattari. In *A Thousand Plateaus*, the chapters—or rather, plateaus—are accompanied by dates that are supposed to correspond to the historical point in time when a “particular dynamism found its purest incarnation in matter.”⁹ A discussion of such concepts as plateau, dynamism, and intensity lies beyond the scope of this study; suffice it to say that the point of the dating is to reconstitute, as it does in *A Thousand Plateaus*, a sense of the high point of a certain conceptual development that can be injected, and may have been activated before, in other mediums at other times. The tenth plateau, for example, is entitled “Becoming-Intense, Becoming-Animal, Becoming-Imperceptible ...” and is dated to 1730, the year that, according to Voltaire’s *Philosophical Dictionary*, was dominated by talk of vampires. For a brief moment, a pure form of becoming-animal existed in the European collective imagination, or that is at least the conceptual brick that Deleuze and Guattari use to construct their

⁹ Deleuze and Guattari 1987: xiv, in the foreword of the translator and philosopher Brian Massumi.

plateau with. Notwithstanding the critique of what seems to be a prescriptive rather than a referential work, even as it appears to make historical and anthropological claims alike, *A Thousand Plateaus* offers a provocative way to conceptualize the relationship between history and thought in a non-hierarchical way.¹⁰ By adopting the dating system of the chapters, I hope to at least signal, if not actualize, the philosophical aspiration to not only present the mentality of *divining disaster* as something to think about, but also as something to think with, and to invite the reader to not only ask “is this true?,” but also “does it work?,” and “what new thoughts does it make it possible to think?”¹¹

Thus, the chapter titles in this study are meant to reflect a highpoint, or at least an exemplary point as illustrated by a quotation and a date associated with it, of a particular conceptual movement. With conceptual movement I mean the intersection of two or more concepts in a particular text at a particular historical period, which can be re-activated in other mediums and at other times. Chapter One, entitled “Those Were the Signs” (494 BCE), captures Herodotus’ retrospective assessment of the disaster that struck the Chians in 494 BCE, and its entanglement in a web of signs. As we will see, the quote reflects a semiotic and religious principle formulated by Herodotus that is indicative of the self-referentiality of the disaster-as-sign. It lays bare the important but fraught relationship between signification and causation in *divining disaster* that is not fully resolved, perhaps, until Ptolemy’s *Almagest*. Chapter Two, entitled “Disasters in the Sun” (1601 CE), contains a quotation from Shakespeare’s *Hamlet*, which was likely first performed

¹⁰ For a critique, see Miller 1993: 6-35.

¹¹ Cf. Massumi’s preface, in Deleuze and Guattari 1987: xv.

in 1601 CE. The “incarnation” represented here is the moment of *defining* disaster, as the neologism *disaster* had recently begun to spread across European intellectual circles. The phrase, understood as the physical obscuration of the sun, captures the interplay between disaster-as-sign and disaster-as-event, the signifier and the signified. What is more, the phrase can also be understood as disasters brought to light, or witnessed, as shown by a close-reading of Euripides’ *Heracles*. The theme of visibility/invisibility, which is connected to the over- and non-representation of disaster, continues to dominate the final two chapters.

The dates associated with Chapters Three and Four are relatively recent, but are similarly meant to invoke a conceptual movement that is at work in other mediums and at other times. Chapter Three, entitled “How Can I Have Lunch?” (1799 CE), features a quote by the Italian traveler Saverio Scrofani, whose account of his journey to Greece was published in 1799 CE. The quote, which takes the form of a rhetorical question, captures the experience of encountering the signs of disaster. In Scrofani’s case, these signs are manifestly material signs, embodied in the underwater ruins of the sunken city of Helice. Scrofani’s reception of Helice’s history reveals a key moment in the attempt to assign meaning to disaster, with the disaster-as-sign mediating between past, present, and future. Chapter Four, entitled “Hell, Upside Down” (1972 CE), contains a quotation from the theatrical poster of the feature film *The Poseidon Adventure*, which was released in 1972, at the beginning of the golden era of Hollywood’s disaster movies. The title encapsulates the phenomenology of disaster as disorientation, as represented by the struggle to find one’s way out of a capsized, sinking ship. The association of disaster and disorientation finds expression in a variety of contexts, including in sociological accounts

of disaster survivors and in the themes of wandering and being bound in classical mythology. The significance of this conceptual movement is that *divining disaster* becomes a spatial or geographic undertaking, in which landscapes and soundscapes must be re-oriented with the help of fixed signs so as to restore meaning.

Methods and Sources

The eclectic and far-reaching scope of this study calls for a variety of methods and approaches, especially since I am drawing on a multitude of different sources (historical, literary, philosophical, cinematic, performative) from different time periods and geographies (Archaic, Classical, and Hellenistic Greece; Elizabethan England; 20th-century United States, and so forth). The justification for what may be perceived as a lack of focus is twofold. First, the goal of this study is, in part, philosophical, insofar as the questions I raise are reflective of the human condition: why are divination and disaster connected? How is meaning derived from disastrous events? What cognitive logic underlies the relationship between signs and disaster, including the perception of disasters *as* signs? The second justification is that the subject of this study is a mentality, one that I call *divining disaster*. The significance and implications of this mentality in ‘ancient Greek culture’ cannot be fully comprehended without situating it in larger, comparative conversations about the particular historical and textual conditions under which this mentality manifests itself.

To be sure, the proposed relationship between divination and disaster meets with several potential obstacles, since it deals with two distinct and complex systems of ideas—divination and disaster—that are approached across two different paradigms of

knowledge—an ancient and a modern one, which themselves are by no means closed or unified systems. But the most obvious display of the inherent relationship between divination and disaster is evidenced by the modern English word disaster itself (< Italian *dis-astro*, “ill-starred”), which is discussed at length in Chapter Two. Tracing the word disaster—which, significantly, has no direct equivalent in the Ancient Greek language—reveals how this concept has gone through important diachronic shifts in meaning. Originally, it did not mean a sudden catastrophic event like a plane crash or an earthquake, but, as one 17th-century dictionary has it, “ill-luck, derived from the evil influence of the stars.” The assumption that underlies this definition is astrological, suggesting that the positions of celestial signs influence, cause, or signify events on earth. And yet, even though this paradigm may have shifted, pushing divination to the margins of our society, it is useful to at least bracket the modern scholar’s sometimes all too obvious skepticism toward oracles and prophecy and to understand the relationships between divination and disaster to be phenomenological. Part of the goal of Chapter One is to establish divination as above all a semiotic practice, the point of which is not to neutralize the religious or divine component of divination, but rather to take divination seriously as a cognitive mode that underwrites the phenomenality of experiencing or interpreting disasters as signs.

I use the term “phenomenology” advisedly, as the philosophical term attached to the loosely connected tradition of Husserl, Heidegger, Ricoeur and especially the existential phenomenology of Merleau-Ponty, who was among the first to link Saussure’s structural linguistics with phenomenology. Phenomenology focuses on the subjective experience, and as such, “offers an account of space, time and the world as we ‘live’

them [and] tries to give a direct description of our experience as it is, without taking account of its psychological origin and the causal explanations which the scientist, the historian or the sociologist may be able to provide.”¹² So the question is not, what was disaster like, or when and how did this plague really happen, but what did ‘they’ think disaster was like, and how does the plague function as a culturally embedded experience. I am not after ‘their’ reality, but after ‘their’ perception of their reality—which, we must believe, may be approximated through language, texts, and material remains.

Who, then, is the ‘they’ and the ‘their’ mentioned above? To be sure, the ‘ancient Greek world’—to which I have already made frequent reference—is no homogenous entity, and neither did ‘the Greeks’ see themselves as such. Thus the actual range of regional and temporal variation in the mentality of divining disaster will not and cannot be captured in this study. This shortcoming is in part necessitated upon the object of this study, which is an abstract phenomenon (a mentality) rather than a circumscribed body of texts, a particular author, or other such narrowly defined object. In certain respects, then, this is a linguistic study, decoding myth, offering a structural analysis of the coherence and interrelations of two semantic fields—one in which the disaster occurs, and one in which the sign operates. The assumption here is that the language itself is a reflection and an expression of the mentality that we are interested in. And the more so, because the linguistic method, itself based on analyzing a signifying practice, is interwoven with the mentality that is studied, in that divination is a signifying practice, too. At the same time, this study adopts methods from something that may be called cognitive historical

¹² Merleau-Ponty 1962, vii. It should be noted that while the object of my study is phenomenological, the method I adopt is not.

anthropology, since it aims to define a composite category of mind that is at work in Greek culture at various stages (“the collective imagination”). Since my argument is not about a particular author or even a particular genre, the search for evidence is not delineated by a particular set of texts, but informed by the semantic fields we have identified, which is why Chapters One and Two devote so much space to detailing the semiotic and disaster lexicon, respectively. One serious consequence of this, is that the state of the evidence makes it impossible to center this study on one particular time and place—problematic, but not uncommon among scholars of Greek religion: Parker’s study on *miasma*, Delcourt’s on sterility, Detienne and Vernant’s on *metis*: all are to some extent forced to commit to a historical and geographical synthesis that does no real justice to the many differences between places and across centuries.

Another delicate synthesis is that of different types of sources. We must expect different texts and genres to treat our phenomenon differently. For example, a difference between mythological and historical sources can be felt with regards to the role of the gods. The difference between the two types of sources is that the former, such as Homer’s *Iliad*, makes the divine agent behind the sign visible, and demonstrates the moods and motivations behind its actions; the latter, such as Pausanias’ account of the Helice disaster, only shows the effect or result of the divine agent, who remains hidden and whose intentions must be extrapolated from the visible results of its supposed actions. The fact that a source tends to say more about the context in which it arose than the context which it purports to be about, adds yet another challenge, as when Choricus of Gaza’s sophistic declamations (5th century AD) make claims about the Spartan response to a disaster involving ugly babies in the 5th century BC. Another instructive

case is the recording of oracles, which, for Delphi, is overwhelmingly literary. The classification by Fontenrose into historical, quasi-historical, legendary and fictional oracle responses is valuable enough, but the phenomenological focus of this study makes this distinction less relevant, because all these responses—from the historical inscription to the legendary myth—are tentatively presumed to be legitimate, structural expressions of the system of knowledge in which they partake.¹³ To be sure, the evidence of one genre needs to be controlled by comparison with that of others, literary and non-literary, whenever possible.

Chronologically speaking, the mentality of divining disaster appears already fully formed with the advent of Greek literature itself, as Calchas divines the plague in *Iliad* 1. The changes in *divining disaster* that we can observe over time become manifest in the methods of divining rather than the logic that supports it, suggesting that the mentality is flexible and enduring, even as paradigms of meaning-making may shift from religious to secular, or from anthropocentric to naturalistic. Even so, this study does not attempt to present a neat genealogy of the subject matter, and refrains from imposing an evolutionary framework; it does recognize, however, that the mentality of our study, no matter how pervasive we shall find it to be, is neither monolithic nor static. My engagement in comparative analysis, especially that with sources from pre-modern Europe and present-day America, serves to illustrate similarities between different conceptualizations and representations of disaster, even as readers may feel that crucial differences are, on occasion, effaced for the purpose of comparison. Indeed, as I shall

¹³ Fontenrose 1978.

discuss shortly, these heuristic comparisons have above all an imaginative function. And it is perhaps here that the present study may distinguish itself most, since it not only seeks to uncover ancient conceptions of and attitudes toward disaster, but in doing so questions modern ones as well. The modern distinction between natural and man-made disaster, for example, does not apply to the ancient phenomenology, and the modern idea that disaster can be captured in a formula dependent on risk is equally suspect. And yet, it is precisely from these, mostly etic, perspectives—treating disaster as a social and natural event entrenched in often quantifiable categories such as risk assessment and hazard management—that the topic of ancient disaster has received most scholarly attention.

The Fraught Study of Mentalities

We might be tempted to entertain the possibility that divergent discourse about, and divergent attitudes toward, disaster are indicative of divergent mentalities. The word *mentality*, however, must be used critically, even though it appears with a certain casualness in scholarship on ancient religion, where it can simply mean a persistent set of ideas or certain recurrent attitudes.¹⁴ Within the study of mentalities, as a sub-discipline of cultural history, the word *mentality* has a specific (though debated) meaning with its own history. We can observe three distinctive features in the study of mentalities: first, an emphasis on *collective* attitudes rather than individual ones, including both ordinary people and educated elites; second, an emphasis on *unconscious* assumptions rather than explicit theories, on what appears as common sense or everyday thought in a particular

¹⁴ E.g. Versnel 1981; Johnston 2008; for scholarship on mentalities, see Burke 1986 and 1993; for criticism, see Lloyd 1990.

culture; third, a concern with the structure of belief systems as well as their content, that is to say, with the categories, metaphors and symbols that are used *to interpret an experience*.¹⁵ As a discipline, the history of mentalities must be differentiated from intellectual history and *Begriffsgeschichte*. It has been described as a “historical anthropology of ideas,” originating with Emile Durkheim, but also indebted to the cultural history as practiced by Johan Huizinga.¹⁶ Since Durkheim, social anthropologists have been concerned with “collective representations,” “modes of thought” and “belief systems,” but it was Lucien Lévy-Bruhl who put the term “mentality” in circulation with his study *La mentalité primitive* (1922).¹⁷ Following the Annales school of Marc Bloch, the tradition remained popular among historians in France in through the 1960s (one can compare Foucault’s concept of episteme, promulgated in *The Order of Things*).¹⁸ For anthropologists like Lévy-Bruhl and his critic Evans-Pritchard, the study of mentalities starts with the ethnographic encounter with some paradoxical or counter-intuitive statement or practice. In Evans-Pritchard’s case, it was the Nuer belief that “twins are

¹⁵ Burke 1993: 92; Lloyd 1990: 4.

¹⁶ Burke 1997: 163. For German begr. See Koselleck 1985. The following discussion owes much to Burke 1997 and Burke 1993.

¹⁷ Interestingly, the word “mentality” had already been used in English in this context, namely by Malinowski in a letter to J.G. Frazer criticizing Durkheim’s notion of “the collective consciousness.” Ackerman 1987: 267, as quoted in Burke 1997: 174. For “modes of thought,” see Horton and Finnegan 1973.

¹⁸ Bloch 1924 is a classic case of the historical studies of mentalities. The term is defended explicitly by Vickers 1984, where it refers to “two traditions each having its own thought processes, its own mental categories, which determine its whole approach to life, mind, physical reality” (6). Such a stark separation, however, seems indefensible to me, for reasons that are discussed below.

birds.”¹⁹ For a historian like Bloch, it was the “royal touch,” the idea that the kings and queens of France and England could cure diseases with their touch. Lloyd refers to Empedocles’ puzzling statement: “Wretches, utter wretches, keep your hands from beans.” Statements such as these form an interpretive challenge. How to make sense of these, in Lloyd’s words, “weird” statements and practices? A concept such as mentality can help avoid two interpretive extremes, ranging “from the scandalized or the dismissive to the most elaborate rationalizing apologetics.”²⁰ The first interpretive strategy is to dismiss these statements and behaviors as bizarre, primitive and unworthy of scholarly attention, except perhaps as an exotic curiosity; the second is to sweep these statements and behaviors under the carpet or outright ignore them, and assume that “they” must have thought really just like “us.”²¹ Here lies the strength and challenge of the concept of mentality: it can steer a middle-ground between radical sameness and radical difference, negotiating on the one hand the need to take seriously discourse and behaviors that seem “weird,” and, on the other, the biological reality that the intellectual capacities of the human mind are universal. The categories it employs, however, may be starkly different.

Immobilization and Homogenization

Obviously, there are several potential problems in working with the concept of mentalities, and we would do well to identify and address these. The first problem is

¹⁹ Evans-Pritchard 1937.

²⁰ Lloyd 1990: 17.

²¹ Burke 1997: 169.

known as immobilization, or the static picture: it is easier to describe mentalities at a particular point in time than to explain how, when or why they changed. This problem goes hand in hand with the emphasis on structuralism, which tends to privilege synchronic over diachronic analysis. From inside the culture, a certain mentality does *not* seem weird or counter-intuitive at all, because its structural nature gives it a self-confirming character. (We may compare Kuhn's paradigm, Popper's closed system, or Foucault's episteme.) Writing about the Zande poison oracles, Evan-Pritchard makes exactly this point: "In this web of belief every strand depends on every other strand, and a Zande cannot get out of its meshes because it is the only world he knows."²² The use of mentalities helps to account for this persistence, but must avoid slipping into determinism.²³ For if each part depends on the rest, it becomes harder to recognize, let alone explain, change when it does occur. Moreover, what constitutes a change? Kuhn's paradigm shifts occur when the perceived contradictions challenging the system of belief pass a certain critical threshold and can no longer be absorbed. These contradictions can come both from the outside (the role of ethnography as a challenge to, say, conceptions of religion is well-established) and from the inside.²⁴ When new modes of reasoning appear to arise from within a belief system, the contrasts are often self-consciously

²² Evan-Pritchard 1937: 194.

²³ We can observe this in the defense of the term *mentalities* in Vickers 1984: 6, where the term refers to "two traditions each having its own thought processes, its own mental categories, which *determine* its whole approach to life, mind, physical reality" (emphasis mine). For the notion of mentalities as "prisons," see Braudel 1949. The deterministic view of language and cognition, as in the infamous theory developed by Benjamin Whorf, has been dismissed as both reductionist and simplistic.

²⁴ Chidester 1996.

overdrawn for the purposes of polemic and self-definition.²⁵ We see this for example in the way in which practitioners of medical semiotics, such as the author of *Prorrhetic* in Chapter One, attempt to separate themselves from those involved in divinatory semiotics.

This is related to a second problem, namely that of homogenization and the assumption that the mentality itself is static instead of dynamic. The focus on collective attitudes risks making sweeping generalizations and ignoring individual variation, not only among but also within individuals. It is hard enough to infer a belief from an individual's statement (e.g. does the fact that Pausanias *says* that the god sends signs before a disaster mean that he *believes* that?), let alone from belief to underlying thought processes.²⁶ Societies do not think, people do, and the variations are endless. But are all variations created equal? We have already touched upon the question whether a particular statement is representative for a cultural attitude in general, especially as far as “ordinary” people are concerned. In his anthropological study of sex and gender in ancient Greece, John Winkler contrasts a history of ideas with a history of practices, arguing that cultural history cannot be reconstructed only or primarily based on the former. He locates the history of practices in figures of cultural authority, which, in fifth-century Athens, were Homer, Hesiod, Solon and the tragedians—not Socrates, Plato and Aristotle. Indeed, the “ordinary” Greek views on earthquakes are probably better represented in Herodotus than in Aristotle. Inasmuch as mentalities are reflected in

²⁵ Lloyd 1990: 8.

²⁶ Lloyd 1990: 4.

everyday thought and unconscious assumptions, Winkler's history of practices shares important similarities with the study of mentalities.

Evolutionism

The third and perhaps most critical problem attached to the concept of mentalities is evolutionism, or progressivism. The emphasis on structuralism brings with it the risk of slipping into binary oppositions of knowledge-systems, between “traditional” (or, worse, “primitive”) and “modern” mentalities, or, as Lévy-Bruhl infamously posited, between “logical” and “prelogical” or “mystical” thought. Another common, value-laden binary in this regard is the pre-scientific (“them”) vs. the scientific (“us”), or, alternatively, magic vs. science. The validity of these categories has long been criticized beyond its heuristic use, and the era of postmodernism has witnessed the slow but steady deconstruction of Grand Narratives associated with “traditional” and “modern” (or, for that matter, Levy-Straussian “hot” and “cold”) societies.²⁷ One of the characteristics of prelogical thought and primitive mentality, according to Lévy-Bruhl, was that it tolerates inconsistencies and contradictions. Since the statement “twins are birds” does not make sense to the observer, it must reveal a different mentality, one that thinks in terms of sympathies, or “mystical participation,” between individuals and objects.²⁸ Of course, such a statement may *seem* paradoxical to the observer, but it need not be to the actor or speaker. To make sense of this, the observer may interpret the statement to be metaphorical, not literal:

²⁷ Also by anthropologists, including as early as Goody 1977.

²⁸ The concept became important for Jung, defending the concept as part of his psychology even when Lévy-Bruhl dropped the term under the weight of criticism.

twins are *like* birds. But to make this claim, the observer must be sure that this type of distinction was available to the actor/speaker—which requires a careful switching between etic and emic perspectives. Evans-Pritchard, criticizing Lévy-Bruhl’s hypothesis of primitive mentality, concluded that the Nuer in fact made such a distinction, and that they are therefore speaking on “an imaginative level of thought where the mind moves in figures, symbols, metaphors, analogies, and many an elaboration of poetic fancy and language.”²⁹

But to what extent is the observer’s interpretation clouded by his or her own conceptual frameworks? As Lloyd warns us, misguided interpretations happen “when the distinctions *we* commonly deploy force issues that are alien to the original actors’ contexts of discourse: once *those* contexts of discourse are reinstated, much of the temptation to postulate divergent mentalities in this connection lapses.”³⁰ But Evans-Pritchard, in his attempt to rescue “primitive man” from the denigrating interpretive clutches of Lévy-Bruhl, E.B. Tylor and Max Müller, took the same premise for granted, namely that *our* reality is *the* reality.³¹ Where Lévy-Bruhl saw radical difference (their reality is *different* from our reality), Evans-Pritchard saw radical sameness (their reality is the *same* as our reality). The key here is the perception of “our” reality as a self-contained, independent and objective system of permanent validity against which all other realities are measured. One recent response to this conundrum has been to suggest

²⁹ Evans-Pritchard 1956: 142.

³⁰ Lloyd 1990: 7.

³¹ This point has been argued persuasively by Evens 2012; for the original critique of Evans-Pritchard, see Littlejohn 1970.

that the Nuer, unlike “our” reality, have a nondualist ontology in which rationality, quite simply, obeys different rules.³² While this interpretation does away with the evolutionist notion of *primitive* mentality, its concepts of reality and nondualist ontology preserve and even give primacy to some distinct mentality as a way to explain perceived difference.

Explaining Difference

To account for perceived difference by positing distinct mentalities, rather than reducing it to categories of sameness, comes with greater burden of proof. This comes back to standard hermeneutics: the observer recognizes the paradox or contradiction as a problem to interpretation. The use of analogy and metaphor—or, in more extended form, allegory—is already used in antiquity to account for perceived difference. An example from antiquity illustrates this nicely. In his *Homeric Problems*, Pseudo-Heraclitus expresses the two extremes of interpretation discussed above: either the Homeric epics must be dismissed as scandalous, or they must be apologetically rationalized. Heraclitus writes: “If [Homer] meant nothing allegorically, he was impious through and through, and sacrilegious fables, loaded with blasphemous folly, run riot through both epics.”³³ Heraclitus, as an observer of Homer, could not make sense of the Homeric gods in a literal reading of the text. Like Evans-Pritchard, Heraclitus makes sense of the problem in terms of *similarity* to his own context—the implicit assumption is that Homer’s reality is our reality. Since he cannot accept the possibility that Homer represents a reality different

³² Such is the argument made by Evens 2012.

³³ Russell and Konstan 2005.

from his own, he imposes a distinction between literal and metaphorical language upon the text.

While it is true that the notion of reading something symbolically marks an important moment in the history of poetics and hermeneutics, Heraclitus nonetheless might have explained the perceived “blasphemous folly” differently.³⁴ As Lloyd has pointed out, re-embedding the statement in its proper context can solve the apparent contradiction without ever having recourse to either distinct mentalities (in the Lévy-Bruhl sense) or metaphors to account for them. Furthermore, context can show that a particular statement may be deliberately obscured in the service of some specific interest or ulterior motive, rhetorical or otherwise. The concept of ideology is relevant here: traditionally, the study of mentalities has assumed a neutral or ignorant stance regarding issues of interest and power, which ground a presumed mentality in its social framework. Bloch’s “royal touch,” for example, when analyzed in terms of ideology, emerges as a practice that serves the interest of the royal regime, as ordinary people are made to believe that the king and queen had the power to work miracles.³⁵ An overly reductionist view, however, can tend toward a functionalist and cynical perspective that does not do justice to the self-confirming and pervasive structure of the belief, even if it supports those with privilege and power. So, while it is important to consider social contexts of ideology, we cannot dismiss all-pervasive attitudes and behaviors as simply disingenuous abuse of power on the part of a conniving elite. We must assume that mentalities not only

³⁴ Struck 2004.

³⁵ Burke 1993: 65-6.

serve to sustain the social structures (which they are indeed likely to do), but are in turn also shaped by them.

Mentality as “Cognitive Patterns of Interpretation”

With all the caveats and challenges mentioned above in mind, I submit that *mentality*—without the connotations of evolutionism—can be a useful category that focuses on the collective, the everyday, and the structural ways in which humans understand and make sense of the world around them. In this view, mentality is first and foremost a term to indicate common cognitive patterns of interpretation. To account for the possibility of change (gradual or revolutionary), we must assume that a society and even an individual can partake of multiple, competing mentalities. Given that an individual in any given society “may exhibit *quite diverse* modes of reasoning in the process of expressing thought, belief, arguments, justifications, over *quite disparate* domains of discourse relating to theoretical or to practical affairs, it is rather those *modes of reasoning* that provide the locus of the investigation, not the reasoners themselves nor their supposed mentalities.”³⁶ These modes of reasoning—in our case, about disaster—expressed through categories, metaphors and symbols (which includes ritual practice) that are used to interpret the experience of disaster. Oscillating between the subjective experience (the phenomenological) and the hidden, collective patterns of thought (the structural), this study uncovers modes of reasoning employed to make sense of disaster,

³⁶ Lloyd 1990: 145.

the recurrent patterns of which may be indicative of underlying *mentalities*—understood in the “soft” sense described above.

By concentrating on cognitive patterns, we can move beyond the stilted divide between rationality and irrationality that has informed so much of comparative thinking. The observation “they’re just like us” or “they’re completely different from us” has all too often served as code for claims about (ethnocentrically motivated) notions of rationality and irrationality. It is for this reason that the practice of divination in ancient Greek culture, that old paragon of rationality and civilization (*le miracle Grec*), has long been dismissed as irrational and unworthy of attention, or ignored altogether.³⁷ The Greeks are, after all, supposed to be *like* us—rational, that is. Indeed, it was not until the work of E.R. Dodds that the spell of Greek rationalism was finally broken, so that we can now take so-called “irrational” practices seriously, too. Even so, ancient Greek beliefs and practices are still too often approached in terms of whether, and to what extent, they are rational or irrational.³⁸ Peter Struck, in his recent book on divination and intuition, has employed the category of *cognition*—broadly understood as all mental activities—to move beyond the blunt binary of rationality/irrationality. While Struck likens divination (at least as understood by some of the ancient philosophers) to the non-discursive process known today as intuition, there are other cognitive strategies, including inferential ones, involved in making sense of disaster. Thus, divining disaster is best understood as one among many cognitive strategies, involving certain modes of reasoning, that works to

³⁷ See introduction in Johnston 2008.

³⁸ This point is made by Struck 2016: 12.

acculturate disasters and fit them into a coherent worldview—the sum total of these cognitive strategies we may call *mentality*.

A Comparative Perspective

As we have seen, the study of mentalities requires a comparative perspective. Similarly, we are sure to benefit from comparatism when assessing the ways in which ancient Greek culture conceptualized disaster. The aims of historical comparison can be roughly threefold: evolutionary, typological, and heuristic.³⁹ An evolutionary comparison is interested in tracing historical origins and influences; in the case of ancient Greece, these traces usually lead to the ancient Near East.⁴⁰ An example pertaining to disaster is the argument that the myths of the Great Flood found in the Bible and ancient Greek literature (the stories of Noah and Deucalion, respectively) originate in the ancient Near East, with the epic of Gilgamesh specifically.⁴¹ Such comparisons, however, can easily slip into a hard-to-proof form of euhemerism, positing that the myth of the Great Flood is based on an actual historical flood, or that the myth of Atlantis is based on the volcanic eruption of the island of Thera.⁴² Observed parallels cannot only be explained through historically shared origins, but also through universal human thought. When Burkert analyzes the similarities between the plague affecting the Greeks at the opening of the

³⁹ Beerden 2013: 47; Segal 2001; McKeown 2008; Freidenreich 2004.

⁴⁰ Burkert 1984; Burkert 2004; West 1997.

⁴¹ Caduff 1986.

⁴² Vitaliano 1973; Friedrich 2000.

Iliad and the plague that descends on the Philistines in 1 *Samuel*, he notes: “I am not pursuing here suggestions of common heritage or literary borrowing. We are looking at the validity of a pattern.”⁴³ Burkert’s interest in general patterns rather than borrowings means that his comparison is of the second, typological kind.

A typological comparison aims to reconstruct an unknown third unit, or a type, which is supposed to be a universal human phenomenon—its focus is thus on similarities rather than differences. It is helpful if not necessary to take comparanda from societies that are as independent from each other in time and space as possible, so as to rule out intercultural influence. This is why Burkert supplements his Greek and Hebrew comparanda with parallels from Arctic and African cultures.⁴⁴ A popular independent and well-documented culture to compare ancient Greece with is ancient China, as Lloyd and Raphals have done for divination.⁴⁵ An example of a typological comparison pertaining to disaster, specifically, is the study by Cashman and Cronin, which shows that disaster responses and psychological traumas in the wake of volcanic eruptions are similar in modern, literate societies (America) and traditional, oral societies (Maori), comparing responses to the 1980 Mount St. Helens eruption and the 1866 Tarawera eruption in New Zealand.⁴⁶

⁴³ Burkert 1996: 104-5.

⁴⁴ Burkert 1996: 107.

⁴⁵ Lloyd 2002; Raphals 2013.

⁴⁶ Cashman and Cronin 2008: 407-18.

Finally, the aim of the comparative method can be heuristic: *a phenomenon from one culture can be used to illuminate aspects of a comparable phenomenon in another culture*. The aim here is to “go beyond the constraints of the immediate context in order to construct a more generally useful frame of understanding,” in which both differences and similarities shed light on each other.⁴⁷ A classic example is Clifford Geertz’s study comparing Islam in Morocco and Indonesia: “At once very alike and very different they form a kind of commentary on one another’s character.”⁴⁸ This method of comparing is thus essentially heuristic in its purpose, as J.Z. Smith makes clear: “Comparison does not necessarily tell us how things ‘are’ A comparison is a disciplined exaggeration in the service of knowledge.”⁴⁹ The result, then, is a “recontextualization [which] facilitates entirely new ways to understand a given subject.”⁵⁰ This is exactly the purpose of the comparisons taken up in this study: to gain a better understanding of the Greek concept of disaster through illuminating the similarities and differences with Roman, early modern, and modern conceptions of the phenomenon. One requirement for making effective comparisons, however, is a proper set of comparanda—which brings us to the question: what is disaster? And can all disasters be compared?

Disaster Studies: State of the Field

⁴⁷ Pye 1972: 22.

⁴⁸ Geertz 1968: 4.

⁴⁹ Smith 1990: 52.

⁵⁰ Freidenreich 2004: 99.

At the Congress for the International Institute of Sociology, held at the Sorbonne in Paris in 1993, the founding father of disaster studies, the late E.L. Quarantelli, convened a session devoted to the question I have avoided so far, namely: “What is disaster?” Unsurprisingly, the question led to much disagreement among the participants. Even the assumption of the session’s title, *Disasters: Different Social Constructs of the Concept*, was not fully agreed upon: “Many in the field assume there are physical happenings out there, independent of human action in any sense (e.g. most, although not all, geographers assume that to have a disaster there must be the physical presence of a hazard, i.e. an earthquake, flood, cyclone, etc.).”⁵¹ As with any field of study, other issues are at stake besides definitional debates. Gilbert is right to point out that the study of disaster reflects the financial incentives of a market in which disaster research has become an institutional demand. The implicit question underlying most research is how to characterize disaster as a social problem for centralized organizations and professional management to fix.⁵² This self-reflective turn in modern disaster studies benefits my study in two ways, rendering disaster studies useful both as object of analysis itself and as a source for theoretical frameworks. First, the growing amount of literature that grapples with the models and paradigms that disaster researchers have debated, adopted, and discarded over the past century has done much work in untangling and exposing some of the modern conceptions and narratives that scholars have used to analyze disaster. Put

⁵¹ Quarantelli 1998: 3; this important edited volume came out of the 1993 conference and is a landmark in modern disaster studies. The question “what is disaster?” had occupied Quarantelli for some time. See Quarantelli 1985. See also Porfiriev 1995.

⁵² Gilbert, and Hewitt’s comments, in Quarantelli 1998.

simply, the path has been cleared to reflect critically on the modern disaster mentality—the biases, preconceptions, and myths on which it is based. This allows us to better understand the ways in which it has colored modern approaches to ancient disaster. Second, the self-reflective turn in disaster studies has identified a number of abstract, analytical paradigms and models that offer broader perspectives on how disaster has, historically, been classified and interpreted. Specifically, it can serve as the basis on which to construct a typology of disaster that moves away from cause and origin (e.g. natural vs. man-made disasters) or effect (e.g. small-scale, global) to the cognitive and interpretive modes employed in understanding disaster.

Disaster studies have traditionally been conducted in a highly particularized way, adopting a case-study model. According to Gilbert, “the field of disaster studies has long been overly dominated by narrow analysis of particular cases, and it has therefore been lacking in theoretical investigations on foundations and concepts.”⁵³ If Gilbert’s claim of the present state of the field is true, it is certainly part of a trend that goes back to the very inception of disaster studies. In what is generally recognized to be the first modern study of disaster, Samuel Prince examined “the factor of catastrophe in social change” after the explosion of a munitions ship in the harbor of Halifax in 1917.⁵⁴ Much of modern disaster research, including that of anthropologists, is concerned with recent or contemporary case-studies with the aim of developing more effective policies for the prevention and mitigation of disaster. Within disaster studies, the subfield of historical

⁵³ Gilbert 1998: 11.

⁵⁴ Prince 1920. For Prince as the originator of the formal study of disaster, see, among many others, Quarantelli 1998: xi, 35; Oliver-Smith 1986: 8; Toner 2013: 10; Steinberg 2000: 205.

disaster research is still in its infancy, but historians—and especially environmental historians—have started asking how “other” societies coped with a hazardous environment, how disaster experiences were processed and communicated, and how cultural systems have changed in response to disaster experiences.⁵⁵ While its professed goal toward a global environmental history necessitates the use of the case-study format, this is often done without critical or theoretical assessment along the lines called for by Gilbert. Through the historical approach, one editor argues, “our self-knowledge is continually expanded and our understanding of humans’ relation to society and to nature is continually redefined.”⁵⁶ One geologist writes that the historical study of natural disaster serves “to prepare us for what lies ahead” through investigating “whether there are basic patterns to how human beings react during crises—and how the crises can be overcome.”⁵⁷ But statements such as these, admirable as they may seem, can also lay bare the modern biases implicit in this kind of project.

The narrative that we can learn from disaster promotes a progressive view of disaster management that risks ignoring the conceptual and structural assumptions on which it is based. First, “disaster,” usually understood in the narrow sense of “natural disaster,” is assumed to be a universal category that applies to all cultures, past and present, equally. Moreover, even when the focus is on local and indigenous strategies of coping with disaster (the “grassroots” perspective), such a project, at best, risks putting

⁵⁵ Janku et al 2012: 5; Oliver-Smith 1999. Schenk 2017; Mauch and Pfister 2009

⁵⁶ Mauch and Pfister 2009: 14

⁵⁷ Svensen 2009: 9.

up these strategies as props or foils to be measured against the superior technocratic strategies of the West. At worst, the project's aims betray a Eurocentric view of progressivism toward ever-increasing control over nature, perpetuating a view of non-Western peoples in the wake of disaster as "weak, passive and pathetic" and in need of Western expertise.⁵⁸ The aim in analyzing historical and transcultural responses to questions of prevention, emergency aid and reconstruction seems not so much to better understand the culture in question (to whom these questions may in fact be alien) or even universal patterns in disaster response, as to harness all local knowledge for the modern purpose of some all-encompassing disaster management strategy based on a universal environmental history. Donna Haraway, in her analysis of Japanese and Western perceptions of human-animal relations, cautions against "cannibalistic western logic that readily constructs other cultural possibilities as resources for western needs and actions"—a warning that applies equally well to the context of disaster.⁵⁹ Overall, this type of historical disaster studies, especially when expressed with a view to policy change and preparation for future crises ("learning from disaster"), reveals more about modern conceptions of disaster and the narrative that has been constructed around them, than it does about its professed object of study. Tracing the development of disaster studies, the typologies and paradigms it employs, helps lay bare these narratives and some of the

⁵⁸ Hewitt 1983.

⁵⁹ Haraway 1989: 247.

modern myths and biases about disaster, which in turn help put the ancient Greek narrative in a more useful comparative context.⁶⁰

As far as the historical study of disaster is concerned, we do not (and perhaps cannot) penetrate to the level of the ancient disaster itself, as some empirical reality “out there” buried in the past, waiting to be uncovered by objective and positivist scholarship. Rather, scholars have begun to treat disaster first and foremost as a construct—social, cultural, historical, phenomenological, and so forth. The object of study becomes the discourse that helps construct disaster instead of disaster itself. And yet, I resist the full embrace of disaster as a purely socially constructed category that lacks any corresponding objective reality. That disasters are socially constructed does by no means imply that their impact is somehow not “real,” and that the casualties, damage, and suffering they inflict can be ignored.⁶¹ On the contrary, disasters all too often have a devastating effect on human individuals and communities. Disaster discourse, such tends to reflect disaster as the socially constructed reality that it is, but should not blind us to the very real dangers that earthquakes, hurricanes, and diseases posed—and continue to pose—to life on our planet.

Three Paradigms

⁶⁰ One modern disaster myth, for example, is that disasters are either natural or man-made, a distinction that—as we will see—does not apply in these terms to ancient thought. An example of a modern bias is the focus on sudden, extreme geophysical events (volcanic eruptions and earthquakes), whereas other, periodic and slow-onset disasters (such as famines, droughts, plagues, and war) were more common and had far greater impact in the ancient world.

⁶¹ My criticism echoes Patton’s critique of Mary Douglas and the social construction of dirt and pollution, in Patton 2007: 14-15.

The modern study of disaster has gone through three main paradigm shifts, each of which has seen a different way of conceptualizing disaster as an object of study, respectively through the lens of Agency, Vulnerability, and Uncertainty.⁶² The Agency Paradigm, sometimes called the Patterns of War approach, foregrounds the cause or external agent, and tends to identify the disaster with it.⁶³ As during war, an outside aggressor is perceived to be the cause of violence and destruction. After Hurricane Harvey and Irma in the summer of 2017, *TIME Magazine* ran an article that opened as follows: “A hurricane is a monster with two orders of magnitude. It is a weapon of mass destruction—an atmospheric daisy cutter that descends on a region and claws away whole cities at a time. And it’s a precision-targeted weapon too—a disturbance that begins in the sky, travels across an ocean and, when it arrives, picks off its victims one at a time.”⁶⁴ The emergence and persistence of this paradigm has been explained both by an institutional demand for managing crisis situations and by a similarity in formal and analytical patterns between contexts of war and disaster. The rise of disaster movies in the 1970s has been linked directly to the taboo of depicting graphic images of the Vietnam War at the time: “Films that deal with natural disasters serve as a generic surrogate for war films.”⁶⁵ As such, they require heroes and villains. This paradigm perpetuates the nature vs. culture binary and encourages an adversarial view between

⁶² The following discussion of the three paradigms of disaster owes much to Gilbert 1998.

⁶³ On this long-dominant paradigm, known as the Chicago School, and its relation to American pragmatism, see Chester 2005: 415-20.

⁶⁴ “The Angels of Irma.” *TIME Magazine*. Sept. 25, 2017, p. 36.

⁶⁵ Mauch 2009: 2

environment (nature, i.e. primitive) and society (culture, i.e. civilized).⁶⁶ Disaster management focuses on combating the external agent, usually through technological intervention.

The second paradigm, which developed in reaction to the first, looks at disaster from a perspective of vulnerability. The focus then shifts from the external agent or cause to the effect and impact the disaster has on the human community that is affected. In the case of Hurricane Katrina for example, the Agency Paradigm would focus on the hurricane as an agent of destruction, while the Vulnerability Paradigm would focus on the systemic factors that made the population vulnerable to the hurricane in the first place: a lack of zoning regulations, a broken flood insurance program, poverty, social inequality. This paradigm aims to assess the vulnerabilities of the community and takes an interest in the systemic and behavioral factors that can help predict, mitigate and prevent disaster.

Clearly, these two heuristic paradigms do not exist in a vacuum, but are closely allied to specific disciplines with their own epistemological traditions and values. In fact, the emergence of the first two paradigms (Agency and Vulnerability) has gone hand in hand with the two disciplines that have dominated the field of disaster studies since its inception—geography and sociology. This, in turn, has resulted in two main interpretive perspectives: the environmentalist and the behaviorist.⁶⁷ From the environmentalist

⁶⁶ This divide between primitive nature and civilized culture can be seen in visual representations of hurricanes. The cartoon “Mad Wilma” by the Swedish political cartoonist Olle Johansson depicts Hurricane Wilma, a record-breaking storm of the 2005 Atlantic hurricane season, as a savage cave-woman, complete with bear-skin and club. [\[Link\]](#) The association of Wilma with prehistoric cave-women is especially potent because of the character with the same name on the TV-show *The Flintstones*. See also: [\[Link\]](#).

⁶⁷ Oliver-Smith 1986: 9.

perspective, disasters occur due to hazards from the natural or technological environment, which can take the form of extreme geophysical and meteorological hazards, such as earthquakes, floods, and hurricanes, or industrial hazards, such as oil spills and mine fires. The behavioralist perspective, on the other hand, analyzes the human response to disaster and its impact on different communities: the concept of vulnerability, however problematic to define, clearly provides the dominant paradigm here. The dominance of these two perspectives can be seen in the “disaster formula” according to the International Red Cross: $(\text{vulnerability} + \text{hazard}) / \text{capacity} = \text{disaster}$.⁶⁸

Other definitions prioritize vulnerability. For example, the Bradford Disaster Scale is based on fatalities: magnitude 10 corresponds, somewhat dramatically, to the destruction of the planet and the loss of all human life on earth. EM-DAT (the international disaster database of the Center for Research on the Epidemiology of Disasters) uses a set of quantitative criteria for an event to qualify as a disaster, including “10 or more people reported killed” and “100 people reported affected.”⁶⁹ For the FEMA (Federal Emergency Management Agency), any event that the President of the United States deems fit to require disaster aid, regardless of cause, qualifies as a disaster.⁷⁰ Similarly, EM-DAT only classifies something as a disaster if, in addition to the casualties and people affected, there has been an international call for assistance. These seemingly arbitrary or outright tautological definitions clearly serve practical purposes, such as

⁶⁸ “What is a disaster?” *International Federation of Red Cross*. [[Link](#)]

⁶⁹ “Explanatory Notes.” *The International Disaster Database*. [[Link](#)]

⁷⁰ *Stafford Act*. Title I, Section 102, Definition 2. “Major Disaster.” [[Link](#)]

mobilizing disaster relief efforts, insurance assessment, or comparative quantitative analysis. They also reveal the need for some authority to decide and formally declare that something is a disaster.

Cultures of Disaster

The last few decades of disaster research have witnessed the integration of the environmentalist and behaviorist perspectives through the concept of the risk society (*Risikogesellschaft*), which has resulted in the current dominant view.⁷¹ Risk, a social definition of hazard and the counterpart of vulnerability, depends on the calculation of probability. It is considered one of the hallmarks of modernity.⁷² If disaster becomes calculable in terms of risk, it can also be anticipated, managed, controlled, and even insured. Of course, risk is not distributed evenly, but along socio-economic factors such as class, race, and nationality. Unlike popular sentiment has it, disaster does not strike all equally. Gordon and Gordon have discussed how disaster reveals human and political impotence, which is why its tainted victims occasion anxiety and fear: “Why didn’t they leave? Why did they choose to live in trailer parks of makeshift shacks in disaster-prone areas?”⁷³ The answer, as framed for example by the *United Nations International Decade for Disaster Reduction* during the 1990s, lies with “mitigation through the dissemination

⁷¹ Beck 1992; Giddens 1990.

⁷² Hacking 2006 [1975].

⁷³ Gordon and Gordon 2009: 17.

of technical information and the transfer of scientific and engineering knowledge.”⁷⁴ This technocratic view—dubbed the “technofix approach to disasters”—sees disaster through the lens of abnormal environmental agency (e.g. a cyclone as a departure from the state of normalcy) and behavioral vulnerability (people lacking proper disaster management strategies, such as building codes, dams, escape routes).⁷⁵ Indeed, Hewitt has argued that one persistent modern myth about disaster is that it is a unique and freak event, an aberration from the normal processes of nature and society.⁷⁶ In order to return to the pre-disaster status quo, one that is considered “normal,” societies require modernization, technological development, and technical (Western) expertise. The greater the historical and geographical distance a society has from “urban-industrialism, the surer studies of disaster are to find its people to be ‘fatalistic,’ ‘subjective,’ and in the thrall of ‘mystical,’ ‘arational’ or at least ‘pre-scientific’ notions.”⁷⁷ It seems that Hewitt has here identified a modern tendency to apply different disaster *mentalities*, in a Lévy-Bruhlian sense, to cultures peripheral to the “citadel of expertise” that is the modern Western technocracy.

Notwithstanding the very real benefits that the technocratic approach has brought, it clearly faces serious problems, not least of which its foundation on a “conservative epistemological tradition in which problems are regarded as best solved by human

⁷⁴ Hewitt 1995: 18; Bankoff 2003: 11-12.

⁷⁵ Alexander 2000: 31.

⁷⁶ First argued by Hewitt. Thus Alexander 2000: 2 describes disaster as a “unique event.”

⁷⁷ Hewitt 1983: 17-8, 20, a landmark in modern disaster studies. Also cited in Johns 1999: xx.

ingenuity.”⁷⁸ Meanwhile, the problems often originate with human intervention in the first place: in order to create Miami Beach, the infamous industrialist Carl Fisher (1874-1939) cleared 1,000 acres of mangrove swamp, thus removing the only natural hurricane barrier.⁷⁹ The technocratic approach increases the Promethean tendency to overestimate the make-ability of our environment, while simultaneously overlooking the anthropogenic aspects of disasters. Anthropologists such as Oliver-Smith, Hoffman and Bankoff have taken up the challenge of a dominant Western technocracy by studying the disaster responses of indigenous and local communities over longer periods of time. One of the findings, for example, is that “cultural systems often incorporate long-developed harmonies or contradictions with their environments,” and disaster intervention imposed from the outside can disrupt native adaptations and weaken disaster recovery.⁸⁰ This cultural-ecological perspective is well-illustrated by the way in which British colonizers have contributed to the flammable state of the Australian continent, brutally disrupting the “pyro-symbiosis” that the Aboriginals had carefully developed over centuries.⁸¹ At the same time, the uncritical romanticizing of the “primitive ecological wisdom” of the Other—whether Australian aboriginals, modern-day Indonesian farmers, or ancient Greeks—can lead to what has been called “environmental orientalism.”⁸²

⁷⁸ Alexander 2000: 31.

⁷⁹ Steinberg 2000: 48-9.

⁸⁰ Oliver-Smith 1999: 3.

⁸¹ Gammage 2011; Rigby 2015: 112-44.

⁸² Sawyer and Agrawal 2011; Moore et al. 2011.

Anthropologists have shifted the emphasis from disaster as event to disaster as a processual phenomenon, specifically as a process of *social adaptation to the total environment*.⁸³ In this view, a disaster is symptomatic of a society's total adaptational strategy within its different environments, and, in a way, reveals its shortcomings. Adaptation and resilience are key-terms in this newly dubbed "holistic approach," which aims to be sensitive to historical and culturally specific ways in which societies have dealt with disaster.⁸⁴ The 2016 United Nations World Disaster Report (*Resilience: Saving Lives Today, Investing for Tomorrow*) reflects this shift toward resilience. Disaster is no longer seen as a freak event, but as a processual and structuring phenomenon that tests the resilience of a community. In popular discourse, it is all about "bouncing back," and emerging "stronger" from a disaster.⁸⁵ Bankoff coined the term "cultures of disaster" to suggest how societies have normalized disaster by integrating their anticipation and recurrence into their daily lives.⁸⁶ The mutuality in the relationship between environment and society is key:

Central to this perspective is the notion that history prefigures disasters; that populations are rendered powerless or capable by particular social orders that, in turn, are often modified by that experience to make some people even more

⁸³ Oliver-Smith 1999: 28.

⁸⁴ Schenk 2017: 27. Vulnerability is still central to this perspective, see e.g. Bankoff et al. 2004. On resilience, see Boin 2010: 7; here, Boin traces the concept to Wildavsky 1988, who "introduced the concept as an intellectual and instrumental counterweight to the obsession with risk prevention (a logical product of Cold War doom, intended to guard against the environmental and technological disasters that were prevalent during the 1970s and 1980s)."

⁸⁵ After Hurricane Harvey, President Trump declared: "We will come out stronger and believe me, we will be bigger, better stronger than ever before." *Chicago Tribune* Aug. 28, 2017 [[Link](#)]

⁸⁶ Bankoff 2003. Japan has been called an earthquake culture, the Netherlands a flood culture. See Schenk 2017: 27 n. 104, and 51. For the US as disaster culture, see Bell and Ficociello 2017, and Rosario 2007.

vulnerable or resilient in the future. History reveals that disasters may be centuries in the making: societies and the destructive agents are mutually constituted and embedded in natural and social systems as unfolding processes over time.⁸⁷

The notion that society and the environment are mutually constituted is reminiscent of Krafft's discussion on the impact of earthquakes in Greek cultural history: the seismic environment compels the Greeks to develop adaptive strategies, whether material or mythological, to integrate and normalize the experience. From a hermeneutic perspective, the disaster continuum and its economy of signs create a demand for disasters-as-signs. This is pushed to an extreme in the case of imagined disasters, such as the Delian Earthquake, where cultural expectations dictate environmental realities.

The Uncertainty Paradigm

The third paradigm in disaster studies—and, according to Gilbert, the most recent one—retains the focus on the social structures of a community but moves away from considering resilience, vulnerability or risk to viewing disaster as *uncertainty* and a crisis of communication within a community.⁸⁸ Disaster becomes less a quantifiable (through casualties, monetary damages, extent of the storm surge, depth of seismic shocks) than an interpretive phenomenon. According to this paradigm, disaster upsets the system of meaning in a culture, society, or individual and as such, is not so much an instance of reality as a *representation* of reality. In contrast to the other paradigms, the Uncertainty Paradigm understands disaster through the uncertainty about some danger—real or

⁸⁷ Bankoff 2017: 52.

⁸⁸ Button 2015 is concerned with the production of uncertainty as an ideological tactic. See also Nowotny 2016.

imagined—that is not defined by its causes or effects. Uncertainty differs from risk in that it resists calculation; because of its elusiveness, it can seem irrational.⁸⁹ Its provenance is therefore cognition rather than mathematics. Indeed, a possible problem in applying the concept of risk, understood as an expression of probability, to the world of Antiquity is that the very notion of probability originates in the 17th century.⁹⁰

Uncertainty, even when produced for ideological purposes, can be assumed to be a universal, cognitive phenomenon. From the perspective of the affected community, “disaster means the loss of key standpoints in common sense, and the difficulty of understanding reality through ordinary mental frameworks.”⁹¹ Uncertainty is not only a cognitive state, but also a semiotic state, in which the relationship between signs is obscured and hence the capacity to communicate hindered. When Michel Serres notes that “adversity always attacks the principal means of defense, namely communication,” communication does not just refer to language, but to all bonds, cords and ties that connect: “The rock undoes the roped party, storms rip away the tangle of ties and knots.”⁹² The lack of signs, manifest through loss of communication and disconnection, is a powerful creator of uncertainty, but equally powerful is an anarchical profusion of information, an overabundance of signs. In both these ways, disaster can challenge meaning itself. It is easy to see how the Uncertainty Paradigm is congenial to semiotic

⁸⁹ Button 2015: 15.

⁹⁰ Collas-Heddeland 2004; Delvaux et al. 2006.

⁹¹ Gilbert 1998: 17.

⁹² Serres 1995: 105.

readings—poststructural ones in particular—considering the emphasis on the *significance* of disaster and the deference (*différance*) of meaning.

The idea that disaster is something in the eye of the beholder, something representational and possibly imaginary, suggests a move toward the phenomenological. This requires a different interpretive voice, one that prioritizes the subjective (or the emic) and the mundane.⁹³ The need for an a priori definition of disaster becomes less relevant. One of the pioneers of interpretive disaster sociology, Kai Erikson, does not offer a definition until the very last pages of his book, and when he does so, it has a decidedly postmodern ring to it: “What is ‘disaster’ anyway? ... It is a sharp and furious eruption of some kind that splinters the silence for one terrible moment and then goes away.”⁹⁴ Such a phenomenological approach “examines the process whereby real-world individuals and organizations struggle to determine whether or not the events that confront them are indeed ‘a disaster’.”⁹⁵ The uncertainty stems from the (in)ability to make sense of the experience itself; in their search for meaning, people look for signs from various sources, including political, scientific, religious and environmental ones. A sociologist notes how a woman described changing her mind about the meaning of a mine fire burning under her northeast Pennsylvania borough:

If you would have asked me about the fire last month you would have got a different answer. Mine fires are what you live with when you live in a mining

⁹³ In sociological disaster research, the merits of this approach have been demonstrated by Kai Erikson, and were recently promoted by Hewitt, Kroll-Smith and Gunter.

⁹⁴ Erikson 1976: 253. Cf. Gumpert 2012: 5: “Every text begins as a tiny catastrophe: an interruption of silence.”

⁹⁵ Kroll-Smith and Gunter 1998: 169.

town. They got one burning more than fifty years in Shenandoah. ... Two things changed my mind about this fire and now I think it's a big danger. ... When the DEQ guy says to my husband "take this gas monitor and put it in your living room and if you hear it ring get out of the house," I got scared. Now I feel like there is going to be a ding! ding! ding! and a disaster everyday. [You said there were two things that changed ...] O yeah, the second thing that started me worrying was you moving into town. [Me?] Well, what are you here for if there's nothing to worry about?⁹⁶

In this case, human intervention in the form of a sociologist and a gas monitor have created the *experience* or the *anticipation* of disaster, even if there is none. For this particular individual, the hazard of the mine fire changed in meaning due to these two social responses—technocratic and scientific signs, both of which elicited uncertainty—rather than any geophysical sign. The woman's interpretive stance shifted from normalizing and adaptive (mine fires as something you just learn to live with) to considering it something extraordinary and dangerous, a disaster waiting to happen. The phenomenological lens thus foregrounds the experience of disaster, and it is less relevant whether one actually happens or not. The Uncertainty Paradigm helps explain this "ordinary" experience of disaster and emphasizes the disaster experience as something that produces, and is produced by, signs.

Disaster Discourse

In sum, this study is concerned with signs, disasters, and the divine in ancient Greek culture. I am interested in how disasters function as signs, and what, in turn, this

⁹⁶ Kroll-Smith and Gunter 1998: 169. Cf. Kroll-Smith and Couch 1990. Quarantelli also stresses the importance of the emic voice in interpretive sociology when defining disaster: "Ordinary people will tell sociologists what disasters are if we listen to them." Quarantelli 1998: 163–170.

means for how the Greeks experience, make sense of, and ascribe meaning to disaster. In particular, this study contends that we can speak of a distinct *mentality*, according to which disasters are always-already part of a signifying system (language, text, myth, etc.), even as they constantly threaten to overturn or defy meaning. Certain cultural practices in Ancient Greece, chief among which divination, served to manage disasters by reducing them to signs, thus incorporating them into a signifying system that creates meaning. It is my contention that the mentality underlying this practice is not particular to the Ancient Greeks but has resonances in modern forms of hermeneutic disaster management as well.

To facilitate the detection and recognition of these resonances, I employ the three disaster paradigms as heuristic tools that function as compatible and overlapping lenses through which to analyze *disaster discourse*. In this view, one paradigm is not preferable over, or better than, the other, as historians of ancient disasters and other disaster researchers have often contended. Rather, the three paradigms contribute to making possible the transcultural and diachronic comparison of disaster discourse, bypassing binary explanatory frameworks such as religious vs. scientific, ancient vs. modern, and primitive vs. advanced. In revealing the parallel roles of these paradigms in constructing both ancient and modern disasters, the ancient context emerges more familiar and relatable—and hence more understandable—than at first sight. We can then decisively ignore the Levy-Bruhlian urge to posit distinct mentalities, on the one hand, and refrain from imposing value-laden and progressivist binaries such as rational vs. irrational, on the other.

The Uncertainty Paradigm, as discussed above, is the most hermeneutic approach to disaster, since its premise is that disasters threaten or reflect a loss of meaning. As seen in the example of the sociologist interviewing the Pennsylvania woman about the mine fires, a mode of interpretive anthropology is often employed to arrive at an emic definition of disaster. A frequent critique of this paradigm, then, has been that it becomes possible to see “almost any significant negative event” as a disaster.⁹⁷ This, of course, is not entirely true: certain culturally specific expectations and epistemological conditions undoubtedly undergird the experience of disaster in a given individual or society. It is precisely part of the present research to uncover what those expectations and conditions—mitigated through signs—are in the ancient Greek context. The purpose of what I call hermeneutic disaster management is to restore meaning, and this is precisely where the semiotic framework comes in. Disaster disrupts the exchange and the message. Hermeneutic disaster management thus operates by restoring the possibility of reducing everything to signs. In the first chapter, we shall examine the role of signs, especially divinatory signs, in negotiating the meaning of disaster.

⁹⁷ Toner 2013: 12.

CHAPTER ONE

“Those Were the Signs”

(494 BCE)

Divination and Semiotics

There is nothing more natural, moreover, than the relation thus expressed between divination and the classification of things. Every divinatory rite, however simple it may be, rests on pre-existing sympathy between certain beings, and on a traditionally admitted kinship between a certain sign and a certain future event. Further, a divinatory rite is generally not isolated; it is part of an organized whole. The science of the diviners, therefore, does not form isolated groups of things, but binds these groups to each other. At the basis of a system of divination there is thus, at least implicitly, a system of classification.

—Emile Durkheim and Marcel Mauss, *Primitive Classification*

But, in the beginning, the universe was so created that certain results would be preceded by certain signs, which are given sometimes by entrails and by birds, sometimes by lightning, by portents, and by stars, sometimes by dreams, and sometimes by persons of frenzy. And these signs do not often deceive the persons who observe them properly.

—Cicero, *On Divination*

Another one the lord Apollo's made a seer, who sees disaster coming from afar.

—Solon

Introduction

When disaster strikes in the Ancient Greek world, the first concern is not with casualties or relief programs but with knowledge and meaning. Why did the Chians suffer from plague and a collapsed school building? What does the earthquake at Delos signify? How may the Arcadians of Phigaleia be delivered from famine? This is at least what our literary sources present us with: a focus on the semiotics of disaster, embedded in a religious context that negotiates the cause, remedy, and the access to knowledge thereof in order to give meaning to the disastrous event. The central tenet of this belief is articulated in the fifth century BCE by Herodotus: “The gods are wont to give signs before disasters” (6.27). Much more than an elaborate coping strategy, this belief—and its concurrent practices—suggests that disaster is but part of a complex system of knowledge, accessible through signs, symptoms, and interpretation. A religious assumption underlies this belief, namely that gods communicate with humans through signs, and that humans have the capacity to apprehend or even elicit these signs—this is the foundational principle of divination. My argument, then, is that divination, understood as a semiotic practice, is an especially useful intellectual framework through which to study ancient disaster.

This chapter focuses on the “divining” part of the mentality *divining disaster*, in particular the question: what logic underlies the interpretation of the divinatory sign? I understand divination as an epistemological activity, one that is concerned with gaining access to knowledge that typically would lie beyond the horizon of the human faculties. From the Homeric seer Calchas to the oracle-mongers associated with the Athenian plague, divinatory experts were called upon to interpret disastrous events and to find

solutions for them. In the case of institutional divination, it is significant that by far the most frequent occasion for consulting the Delphic Oracle, according to our literary sources, is disaster: the catalogue by Fontenrose lists 79 responses for the category “plague, famine, drought, catastrophe” and the same number for “war.”⁹⁸ Clearly, the Pythia’s pronouncements, which consist of a divinely sent sign, were sought in critical times. Since signs mediate uncertainty, the basic connection between signs and disaster—especially when understood from the Uncertainty Paradigm as discussed in the Introduction—is hardly surprising. The question that drives this chapter, then, is how these divinatory signs are imagined to function, both in general and in relation to disaster specifically, and how the development and outgrowth of such divinatory practices can be traced across ancient intellectual history.

The chapter is divided into four parts. Part I opens with a discussion of the titular passage of this chapter, namely Herodotus’ account of the disasters that struck Chios early in the fifth century BCE. It is true that Herodotus’ articulation of *divining disaster* neatly illustrates the object of this study, particularly the way in which disasters are interpreted as signs to give them meaning. But the passage is more than a representative vignette. My analysis seeks to demonstrate that the semiotics of *divining* disaster take place on both a cultural-historical and a textual level, as a means to alleviate uncertainty. In this interpretation, Herodotus’ account of the Chian disaster emphasizes that signs

⁹⁸ A survey of the catalogue of Delphic oracular responses in Fontenrose 1978 shows that the category ‘plague, famine, drought, catastrophe’ is the most common occasion, together with ‘war, casus belli’, for oracle consultation (79 responses each). The next most frequent occasion is ‘desire or plan to found a city or colony,’ with 33 responses. (A category not unrelated, we may add, to disaster.)

occur before disaster *as a general, semiotic principle*. It is the belief in this principle that allows the historian to interpret disasters as signs and to observe signs before disaster—even after the fact. To understand the reasons for this belief, I next turn to anthropological perspectives on divination. Surveying the scholarship on ancient and contemporary divination, I argue against adopting a functionalist approach, because it tends to be based on the premise that divinatory beliefs and practices are irrational and need to be explained away. I advocate instead an “internal, semiotic, semantic” approach, which focuses on how signs are processed from within the human mind—collective and individual—and take on meaning through symbolic and associative inferences. At the same time, I draw on insights from the cognitive study of religion to argue that divining disaster must be understood as a universal, anthropomorphizing phenomenon that is anchored in the cognitive apparatus known as the Agency Detection Device (ADD)—the human tendency to (over)attribute agency to their environment. *To divine*, I conclude, is to try and figure out the mental state of other, especially counterintuitive and divine, agents. In the case of the Chian catastrophe, Herodotus does so by reading the signs. This raises the question: what are the signs that are being read, and how?

Part II, *Classifying the Sign*, is concerned with the sign itself and its various classifications. I adopt a broad and inclusive approach to the sign—based on the semiotics of C.S. Peirce—and I envision a sliding scale with non-divinatory signs, such as animal tracks, on the one hand, and divine signs, such as an eagle sent by Zeus, on the other. This allows us to see divination in closer relation to other semiotic practices, such as medicine, navigation, and logic, as part of what Carlo Ginzburg has called a “divinatory paradigm.” What this suggests—and this is an important piece of my overall

argument—is that the mentality of *divining disaster*, understood as a semiotic practice rooted in universal cognitive behavior, is neither a form of primitive superstition nor a ploy to manipulate the gullible, but an epistemic phenomenon that helps make sense of the world by creating signifying structures between events/signs and senders/receivers. The question, then, is what culturally-specific shapes these signs take among ‘the Greeks’—or rather, the shape that they take in specific Greek texts under specific historical and intellectual circumstances. I first discuss several binary classifications of the sign used by ancient authors and modern scholars alike (e.g., earthly/heavenly, evoked/spontaneous, natural/intentional). While these classifications prioritize the origin and acquisition of the sign, my study makes the sign itself, and its subsequent interpretation, the central part of the divinatory process. The point of this is as follows: only if we envision a spectrum with a secular mode of divining disaster on one end (where the sign originates with ‘nature’ or ‘humans’) and a religious mode on the other (where the sign originates with ‘the divine’) are we able to assess the relative continuity in the mentality from a cognitive and hermeneutic standpoint, without the distraction of progressivist notions that ‘we’ have somehow advanced from primitive ideas about disaster to superior, rational ones.

Part III, *Naming the Sign*, analyzes an oft-neglected classification of different terms for the sign by the Byzantine scholar Johannes Tzetzes in connection to Peirce’s *index*, *icon*, and *symbol*. Tzetzes’ definitions of the terms σημειον, τέρας, τεκμήριον, σύμβολον and εικός prompt my detailed philological analysis of two of these terms most relevant for divining disaster, namely τέρας and τέκμαρ / τεκμήριον. I demonstrate that these two terms give insight in how Archaic and Classical Greek texts express the

relationship between signs and disaster. Τέρρας means both divine sign and monster, and implies a violation of common sense experience; as such, it can both signify and embody disaster. While τέρας seems to function as an unstable sign, the words that emerge from the stem *tekmr-* are concerned with fixed signs, which can thus function as stable markers and guiding signs in constructing paths in time and space. If a state of disaster is characterized by loss of meaning and stable signs, then τέκμαρ can, literally, provide a way out.

Part IV, *Codes, Causes, and Communications*, is concerned with the intellectual history of *divining disaster*, both from a logical and a historical perspective. I offer a definition of the divinatory sign, and, conform Ginzburg's conjectural paradigm, identify the main form of inference that underlies its logic as *abduction*. Applying the logic of abductive reasoning to instances of divining disaster in Herodotus and Aeschines, I argue that the key to the mentality of *divining disaster* is the *rule* on which the inferential procedure is based. The *rule* codifies how *divining disaster* works. In a speculative search for how the hypothetical 'original' formulation of this *rule* may have come about, I turn to Jakobson's communicative model, specifically the function of the *code*, to examine how conditional structures make the earliest forms of divining disaster possible in Near Eastern omen compendia. When this divinatory communication takes place not just with words but also with events, the distinction between semiosis and causation becomes blurred, something that is especially noticeable in astrology. It is precisely the mingling of signifying and causal relationships between the (heavenly) sign and the (earthly) event that may not only help to explain the 'original' abduction of *divining disaster*, but also

account for its most universal and systematic application as it culminates, finally, in Ptolemy's astrology.

PART I

DIVINATION

Chian Catastrophe

In the sixth book of the *Histories*, Herodotus relates how, in the early fifth century BCE during the upheaval of the Ionian Revolt, the island of Chios experienced two unfortunate events. First, out of a group of one hundred chorus boys that had been sent to Delphi to participate in a festival, only two returned home; the other ninety-eight had died because of plague. At the same time, the roof of a school building collapsed, killing almost all of the hundred and twenty children who were inside learning their letters; only one survived. These events, tragic though they were, could be called accidents: unfortunate turns of fate that are part of the vicissitudes of life. Accidents happen unexpectedly and unintentionally, without apparent cause and without evident reason. Shortly thereafter, the Chians were defeated in the naval battle of Lade (494 BCE), and the Miletian tyrant Histiaeus came leading a plundering band of Lesbian troops and completely subdued the Chians. Suddenly, the previous events—the supposed accidents—are seen in a different light, too. The two singular events of the lost chorus boys and school boys become signs, anticipating the overarching disaster that is the catastrophic destruction, the *καταστροφή*, of Chios.

Such as least is Herodotus' narrative about the Chian catastrophe.⁹⁹ The two accidents with the chorus boys and school boys are given meaning by drawing them into the disaster as premonitory signs. They become part, as it were, of the signifying network of the disaster, preceding the ultimate event, even though, historically, Herodotus makes this connection *post eventum*, after the event.¹⁰⁰ This fits the teleological outlook of Herodotus' *Histories*, and oracles and omens frequently function as such in his work. Harrison has noted that almost all prophecies are fulfilled within the chronological scope of the *Histories*.¹⁰¹ What this means for *divining disaster*, then, is that Herodotus has assigned meaning to individual disastrous events by reducing them to divinatory signs. Herodotus *divines disaster* not by making predictions about the future, but by giving disaster a meaningful place in the sequence of history.¹⁰²

The narrative itself is a product of this hermeneutic form of disaster management, one that is based upon a principle that Herodotus formulates at the opening of this passage (6.27):

It is somehow typical (φιλέει) that signs are given beforehand (προσημαίνειν), whenever (εὖτ' ἄν) great disasters (μεγάλα κακά) are about to fall upon a city or

⁹⁹ Scott 2015 suggests that Herodotus' account is based on local sources on Chios. "One can imagine old men on Chios 30-odd years later saying to Herodotus: one disaster, then another, then Lade, Histiaeus, and finally the Persians returning ...: the gods had it in for us" (144).

¹⁰⁰ Cf. Benardete 1970: "Two disasters occur in succession, neither of which by itself can be interpreted, but after what befell the Chians Herodotus understands both as signs" (160).

¹⁰¹ Harrison 2003: 252-4.

¹⁰² This, as John Gould would say, has less to do with some grand philosophy of history and more with the narrative technique of a traditional story-teller. The gods in Herodotus serve to answer not the question 'why did this happen' but 'why did this happen to me' (Gould 1989). One could wonder, however, whether Herodotus would have perceived a real difference between the two.

nation (A). And in fact great signs (σημήια μεγάλα) had appeared to the Chians before these things occurred. First, they had sent a chorus of hundred youths to Delphi, and only two of them returned home; the other ninety-eight were struck down and carried off by plague (λοιμός). Secondly and simultaneously, just a short time before the naval battle, a roof in the city collapsed on a group of boys as they were learning their letters, with the result that out of a hundred and twenty children, only one escaped with his life. Those were the signs the god showed them in advance (ταῦτα μὲν σφι σημήια ὁ θεὸς προέδεξε) (B).¹⁰³

“Those were the signs” (ταῦτα ... σημήια), writes Herodotus. The neat ring composition—that narrative patterns that has been called the “plot of predestination”—opens with a general rule: usually there are signs before a disaster (φιλέει ... προσημαίνειν); the ominous accidents at Chios follow as an illustration of this rule; and the final line returns to the general principle at work here, but explicitly connects it to a divine context.¹⁰⁴ It is the god who sent these signs beforehand. Scholars have felt the need to account for the perceived discrepancy between the first, general statement (A) and the concluding statement about the divinity (B). While Benardete has suggested that Herodotus views the signs alternately as non-intentional and intentional signs, Hollmann has rightly pointed out that the impersonal construction of (A) need not exclude the presence of a divine sender, especially not in light of the second statement (B) as part of a

¹⁰³ φιλέει δέ κως προσημαίνειν, εὖτ' ἂν μέλλῃ μεγάλα κακὰ ἢ πόλις ἢ ἔθνεϊ ἔσεσθαι: καὶ γὰρ Χίοισι πρὸ τούτων σημήια μεγάλα ἐγένετο: τοῦτο μὲν σφι πέμψασι ἐς Δελφοὺς χορὸν νεηνιέων ἑκατὸν δύο μῦθοι τούτων ἀπενόστησαν, τοὺς δὲ ὀκτώ τε καὶ ἐνενήκοντα αὐτῶν λοιμοὺς ὑπολαβὼν ἀπήνεικε: τοῦτο δὲ ἐν τῇ πόλει τὸν αὐτὸν τοῦτον χρόνον, ὀλίγον πρὸ τῆς ναυμαχίης, παισὶ γράμματα διδασκομένοισι ἐνέπεσε ἡ στέγη, ὥστε ἀπ' ἑκατὸν καὶ εἴκοσι παίδων εἰς μῦθος ἀπέφυγε. ταῦτα μὲν σφι σημήια ὁ θεὸς προέδεξε, μετὰ δὲ ταῦτα ἡ ναυμαχία ὑπολαβοῦσα ἐς γόνυ τὴν πόλιν ἔβαλε, ἐπὶ δὲ τῇ ναυμαχίῃ ἐπεγένετο Ἰστιάιος Λεσβίους ἄγων: κεκακωμένων δὲ τῶν Χίων, καταστροφὴν εὐπετέως αὐτῶν ἐποίησατο. (Hdt. 6.27)

¹⁰⁴ The phrase belongs to Todorov, quoted by Genette (1980: 67), in Harrison 2003: 254. The point about the ring construction starting with the impersonal φιλέει and concluding with an explicit mention of the sender as ὁ θεὸς is also made by Hollmann 2011: 54-6.

typical ring-composition with *variatio*.¹⁰⁵ For Hollmann, the signs are intentional in both cases.

But we should consider the possibility that Herodotus is less interested in the divine intentionality behind this *specific* event than in the general nature of this *kind* of event. This would explain why Herodotus does not mention the earlier iniquities of the Chians against Pactyes (described in 1.160), which scholars have considered curious because it would be an opportunity for Herodotus to connect the two as a case of divine retribution.¹⁰⁶ I suggest that Herodotus' focus in this passage is on the general nature of the observed event (namely, signs precede disasters) rather than on the issue of divine agency. Indeed, Herodotus does not specify which divinity sent these signs, even if the context of the accidents point to Apollo, who is associated with Delphi, plague, learning the letters, and with divinatory signs.¹⁰⁷ The construction εὐτ' ἄν with the future infinitive ἔσθαι refers to a *general* future. Herodotus is making not only a theological

¹⁰⁵ Hollmann 2011: 56, and so How and Wells before him. Hollmann refers to Smyth 934 for such quasi-impersonal constructions where the subject is clear from the context, and points out that Herodotus will use both ὕει ("it rains," e.g. 2.22.3) and ὁ θεὸς ὕει ("the god rains," 3.117.4).

¹⁰⁶ Thus Macan, How and Wells; cf. also the comments by Scott 2015. Blanco 2012 remarks on the perceived omission of the Chians' earlier religious transgression, which would explain divine vengeance at this juncture: "Still, his treatment of these portents makes clear an element of religious belief on the historian's part" (263 n. 6).

¹⁰⁷ Hollmann takes ὁ θεὸς to mean gods in general, but, as he admits, the parallel passage he adduces (1.31.1) leaves no doubt as to the identity of the specific deity (namely, Hera). Mikalson 2003:43 rightly points out that "the assignment of agent is ours, not Herodotus'. The large majority of omens, whether miraculous or not, cannot be assigned to *any* specific god or divine agency." Scott 2015: 144 notes that the Chians would have identified Poseidon as the god responsible for the collapse of the school, assuming it happened in an earthquake. It seems rather presumptuous, however, to make claims about Herodotus' Chian sources, which are speculative to begin with.

claim but also a semiotic claim: signs *generally* precede disasters that befall any city or nation. The sender of the sign (ὁ θεὸς) is less relevant here than this general truth, because this is what allows Herodotus to reconstruct a meaningful sequence of events—and thus write the *Histories*. The recipients of these signs are not merely the Chians, about whom it is unclear whether they even recognized the signs, but especially Herodotus, who retransmits the signs to his audience.¹⁰⁸

Delian Disaster

This is not the only place where Herodotus connects signs and disasters to make a general claim. He makes a similar statement about the earthquake on Delos, earlier in Book 6. The earthquake is first and foremost a sign, and less a disaster in itself. There is no mention whether or not the earthquake caused extensive damage or claimed any lives. Herodotus leaves no doubt as to the divine origin of this sign: “This too, I suppose, the god showed to humankind (ἰσθῆναι ἀνθρώποισι) as a sign (τέρας) of disasters to come (τῶν μελλόντων ἔσεσθαι κακῶν)” (6.98.1). The sign is intended for all of humanity, rather than a select group of recipients. Herodotus’ use of the indefinite adverbs *κου* (in 6.98.1) and *κως* (in 6.27.1) signals, as Hollmann has observed, “a prefatory softening of an

¹⁰⁸ On the similar function of the *Histories* and oracles, see Grethlein 2013: 209: “Herodotus’ work provides its readers with an insight into the past; oracles and signs, on the other hand, are ‘read’ to get a hold of the future. The enquiry into the ‘why’ corresponds to the prediction about the ‘what’. What traces are for the former, signs are for the latter.” Grethlein goes on to point out that the verb *σημαίνω* is used by Herodotus to describe his own activity as a historian (e.g. 1.5.3); for the significance of this verb in a divinatory context, see the discussion below in Part III.

ambitious and bold statement.”¹⁰⁹ Rather than assuming the mantle of omniscience, the historian relies on signs and proof to substantiate his generalizing claim. Considering that the reigns of Darius, Xerxes and Artaxerxes saw more disasters (κακά) than the previous twenty generations, Herodotus concludes: “Thus it was in no way unlikely that Delos, though previously unmoved, was moved” (οὕτω οὐδὲν ἦν ἀεικέες κινηθῆναι Δῆλον τὸ πρὶν ἐοῦσαν ἀκίνητον). This argument from likelihood (εἰκός, cf. οὐδὲν ἦν ἀεικέες) serves to explain the sign retroactively: the earthquake is wholly appropriate considering the disastrous events that are happening.

As with the Chian catastrophe, Benardete and Hollman argue over whether the appropriateness of the earthquake makes it an intentional sign or not. I would once again stress the generalizing potential of the statement. The impersonal construction οὐδὲν ἦν ἀεικέες can be compared to φιλέει as a statement of the general and likely nature of the occurrence of signs before disasters, even if they involve moving unmoved islands. *As a principle*, signs before disasters are both likely and usual. Herodotus offers one additional piece of evidence, namely one of Apollo’s oracles in the first person: “I will also move Delos even though it used to be unmoved” (κινήσω καὶ Δῆλον ἀκίνητόν περ ἐοῦσαν, 6.98.3). The oracle serves as the final piece of retroactive evidence that helps account for the earthquake. As a conveyor of certainty rather than likelihood, the prophecy can be

¹⁰⁹ Cf. Denniston 1996: 491n1: “Herodotus is fond of divesting himself of the historian’s omniscience, and assuming a winning fallibility ... This often comes out in his use of *κου*.” Hollmann 57. Scott 2015: 144 would seem to disagree, suggesting that this editorial *κως* reflects several doubts, including that the connection made by his Chian sources (on which Scott believes this section is based) is doubtful because the incident at Delphi did not have a divine cause and that Histiaeus’ attack was not really another divine portent. I do not take the use of *κως* or *κου* here to be expressions of skepticism or doubt on Herodotus’ part.

applied to the particular situation on Delos, while the argument from likelihood applies to the general nature of what happened—and of what may happen again. The earthquake has now been incorporated into a chain of signs and events: the oracular pronouncement is a divinatory sign foreshadowing the earthquake, and the earthquake is a divinatory sign (τέρας) foreshadowing the κακά of Persian domination. What I am suggesting, then, is that Herodotus articulates explicitly, and demonstrates concretely, a general, semiotic principle according to which (1) *disasters are preceded by signs*, and (2) *signs precede disasters*. Whether (1) or (2) applies depends on whether the disaster is observed first, or the sign—or whether the disaster *is* the sign. As we will see, the temporal sequencing of this principle determines the logic of *divining disaster*.

“The Theology of the Age”

Three observations must be made regarding Herodotus’ statement and example connecting disasters and signs. First, we are dealing with a religious belief, namely the belief that gods can, and will, announce disasters before they take place. How and Wells have described this as “the theology of the age,” implying that Herodotus’ statement can be extrapolated to Ancient Greek beliefs in the fifth century more generally. At the same time, we are encountering a semiotic principle: accidents and events can be recognized as signs, either at the time of their occurrence or after the fact, and they are drawn into a larger signifying structure. The semiotic nature of this principle suggests two complementary avenues of application. The first one is anthropological: like so many cultures around the world, Ancient Greek men and women observed and interpreted signs in the world around them in an attempt to know the future, understand the present, and

retrace the past. Herodotus' work becomes a historical source for the scholar who wishes to analyze these aspects of Ancient Greek culture. The second application is textual: the text draws the disaster into itself and reassigns meaning to a potentially meaningless event. This is what Herodotus' narrative accomplishes. The text restores the disaster as something always-already known. As Benardete puts it: "The order he employs in his narration is the order that makes sense, even though the pestilence and the roof's collapse temporally preceded the Chians' defeat and conquest."¹¹⁰ Divining disaster happens on both the anthropological and the textual level.

This leads to an important, third observation, namely that Herodotus' statement tells us something about disaster itself, in particular how disaster is experienced—not by any individual (we hear in fact nothing about the Chians themselves, although Scott would have us think so) but by the collective imagination of 'the Greeks'—or at least, as so enshrined in a literary text produced in the fifth century BCE intended for what many presume to have been a Panhellenic audience.¹¹¹ Herodotus' statement that signs precede disasters is described by Michael Flower as "uncontroversial in terms of Greek belief."¹¹² If this is correct, and Herodotus can be taken as representative for the theology of the age, then *divination emerges as an important cultural and intellectual framework through which to approach ancient conceptions of disaster*. This leads us to the question what

¹¹⁰ Benardete 1970: 160

¹¹¹ On the question of Herodotus' readership (and audience of oral performances), see Flory 1980: 12-28.

¹¹² Flower 2008: 109-10.

divination is, how it works, and, more specifically, how we can adopt a framework of divination that captures both the textual and anthropological forms of *divining disaster*.

Defining Divination (I): The Divine

The divining in *divining disaster*, put simply, refers to a method of gaining access to otherwise inaccessible knowledge about disaster, including its source, origin, cause, remedy or meaning.¹¹³ Throughout Antiquity, the practice of divination (Grk. μαντική, Lat. *divinatio*) provided its practitioners with a way to access such knowledge, which is typically thought to originate in some way with the divine. Herodotus explicitly linked the signs of the Chian Catastrophe and Delian Disaster to a divine sender. The Latin word *divinatio* bears witness to this connection to the gods (*divi*), as Cicero asserts in *On Divination* (1.1). Plato derived the Greek word μαντική from μανία (madness) bestowed by the gods.¹¹⁴ It has thus been assumed that a definition that includes the divine, and takes its role in the divinatory process seriously, tends to be more emic, while definitions lacking mention of the divine must by definition be etic.¹¹⁵ Apart from the semantic connection, I consider the divine central to divination, but see divinity as a fluid concept, which need not be located in a single or specific agent such as a god. It does imply, however, the cognitive recognition of some agency, real or imagined. Divinity reflects a

¹¹³ I avoid the term surplus knowledge, used by Struck 2016: 15, who defines it as “the quantum of knowledge that does not arrive via the discursive thought processes of which we are aware, and over which we have self-conscious control.” The emphasis on its non-discursive arrival is too restrictive for my purposes.

¹¹⁴ *Phaedrus* 244b-c. For divination as a gift from the gods, see also *Timaeus* 71e.

¹¹⁵ Beerden 2013: 19.

distinction in status rather than an ontological difference between natures or species (man vs. god); it thus a relative rather than an absolute category.¹¹⁶ One requirement, however, is the attribution of mentalistic activities to this divine agency, on which more below.

The three definitions of divination I discuss next—by Bremmer, Burkert, and Rüpke—show different ways of approaching divination that emphasize different aspects of the divinatory procedure, such as its socio-political function of communal problem-solving, the cognitive apprehension of the sign itself, or dealing ritually with signs to alleviate uncertainty. While I adopt various elements of these approaches, I ultimately advocate a focus on the divinatory sign itself to prevent the pitfalls of reductionist assumptions, which tend to proceed from the premise that divination is at its core an irrational activity. A more fruitful way is to think of divination as a form of cognition. I rely on insights from the cognitive study of religion to argue that the mentality of *divining disaster* is anchored in anthropomorphizing strategies that are related to such cognitive principles as the Agency Detection Device and the Theory of Mind Mechanism. The point of this is that divination can be understood as a normal consequence of human cognition—and that *divining disaster* can thus be compared across different cultures, even as its specific historical and intellectual manifestations are particular to a certain cultural group at a certain time, or to a certain text at a certain moment of cultural production.

¹¹⁶ This is the model adopted by Gradel 2002: 26. It has been applied to other cultural contexts, particularly for cross-cultural comparisons, by Pongratz-Leisten and Sonik 2015: 3-69, esp. 6-8.

Defining Divination (II): Bremmer and Burkert

In the modern definition by Jan Bremmer, divination is “der Erlangung einer verbalen Aussage über die Zukunft oder Problemlösung in Verbindung mit übernatürlichen Kräften.”¹¹⁷ Bremmer characterizes the form of knowledge either by its temporal aspect, namely the future (*die Zukunft*), or the circumstances under which the information is sought, namely to solve some crisis or problem (*Problemlösung*). The emphasis on *Problemlösung* points to a functionalist perspective, one that subsumes divination under the umbrella of social and political history. The definition also includes a reference to supernatural powers (*übernatürlichen Kräften*), in consort with whom the solution is attained. In this sense, Bremmer’s definition is more emic, and can be compared to the Stoic definition of divination. For Chrysippus, divination is “the science of observing and explaining signs given to humans by the gods.”¹¹⁸ From Chrysippus’s emic perspective, divination is about a triangular relationship between gods, humans, and signs. Divination thus involves three components—the divine, the human, and the sign—each of which can be given primacy, or be suppressed, in accordance with the definition given. Chrysippus does not specify the type of sign, using the general word *semeia*. Bremmer, on the other hand, appears to prioritize speech as a linguistic sign (*verbalen*

¹¹⁷ Neue Pauly s.v. Divination.

¹¹⁸ ἐπιστήμη ... θεωρητικὴ καὶ ἐξηγητικὴ τῶν ὑπὸ θεῶν ἀνθρώποις διδομένων σημείων (Chrysipp. SVF II Nr. 1018 = S. Emp. *adv. math.* 9.132). Cf. Cicero *De Div.* 2.130 (with explicit reference to Chrysippus): *vim cognoscentem et videntem et explicantem signa, quae a diis hominibus portenduntur*.

Aussage, translated as “oracular pronouncement” in *BNP*) over other, non-linguistic signs.¹¹⁹

Walter Burkert offers a more etic description of divination, in which he stresses that “the observation of signs” (*Zeichenbeobachtung*) is a universal phenomenon: “‘Zeichen’ wahrzunehmen und darauf zu reagieren, ist eine notwendige Fähigkeit im Bereich sämtlicher Lebewesen.”¹²⁰ Extracting information from the natural environment is central to the survival of both human and non-human animals. By putting quotation marks around *Zeichen*, Burkert suggests that signs are always necessarily *perceived signs*, echoing the notion of semiotician C.S. Peirce that nothing is a sign unless it is perceived as a sign. A sign, for it to be a sign, requires an observer, and what may seem a sign to some, may not seem a sign to others (including the scholar). Since human beings possess speech, Burkert adds, they have the tendency to interpret signs as coded speech, in particular pronouncements about the future. In practice, such pronouncements function typically as instruction or directive (*Weisung*) rather than prophecy (*Weissagung*). In Burkert’s description, then, signs are central to the practice of divination, to the point that our biology has primed us—and rewards us—for the recognition and successful interpretation of signs. The divine, though not absent, is only secondary, since Burkert’s perspective, in contrast to Bremmer’s emphasis on the social context of decision-making, roots divination primarily in a cognitive, rather than a social, framework.

¹¹⁹ Cf. Beerden 2013: 19-21.

¹²⁰ Perceiving and reacting to ‘signs’ is a necessary ability in the sphere of all living beings. *ThesCRA 2004* vol. 3. 6a. See also Burkert’s comments on divination in Burkert 1996: 156-78, and Burkert 2005.

Defining Divination (III): Rüpke and Ritual

A third definition of divination, offered by Jörg Rüpke, stresses neither institutions nor a universal semiotic consciousness, but the situation in which the practice occurs:

Divination is a form of individual acting in *situations of uncertainty* which identifies and articulates consent and dissent by using certain social roles to interpret standardized signs and to *ritually* deal with them. In such a *performance* a specific appropriation of social roles and religious tradition is indicated.¹²¹

This definition is indebted to the ethnographic fieldwork of the social anthropologist Victor Turner, who studied African rituals of divination. From this anthropological perspective, the content of divination is superseded by the form; that is, the communal participation in divinatory rites, rather than the divine sign itself, is what allows the negotiation of socio-political consent. Rüpke's situational focus singles out uncertainty as a characteristic of a situation that requires divination. This is noteworthy, because uncertainty is the cognitive and emotional condition that can result from the encounter with the sign. It is the sign, as we will see, that intervenes when things are obscure. At the same time, uncertainty is a critical category in modern disaster studies with which to analyze and interpret disaster from a phenomenological perspective. Both divination and disaster meet at the crossroads of semiotic uncertainty. But above all, divination, in Rüpke's definition, reinforces certain social and religious roles by *ritually* dealing with uncertainty.

¹²¹ Rüpke 2013: 8. Emphasis is mine

The emphasis on ritual and performance is also found in Michael Flower's study of the Ancient Greek seer, or *mantis* (μάντις). Flower asserts that there are three components to a seer conducting a rite of divination: ritual, performance, and intelligence. Flower's focus is decidedly on the first two components. While it is not entirely clear how ritual and performance are distinguished, they are clearly employed as socially embedded categories. Divination, Flower writes, is about "discovering a correspondence between a client's immediate problem and something unusual or difficult in that client's social environment."¹²² The task of the seer, it seems, is not so much to interpret signs correctly as it is to psychoanalyze his or her client—the two are, of course, not unrelated. In this sense, divination is therapeutic, both psychologically (for the individual) and socially (for the community). It is the expert's task to reveal hidden things in the social environment. We can compare this to the definition of divination given in the *Dictionary of Anthropology*: "Divination is the process of using *ritual* means to reveal things hidden to ordinary perception, such as information about future events, sources of illness, the identity of witches—indeed, anything that cannot be ascertained through profane methods of investigation."¹²³ Where ordinary perception and profane methods of investigation fall short, ritualized divination takes over. From this perspective, divination seems to be complementary to magic, as the title of Evans-Pritchard's seminal work of anthropology—*Witchcraft, Oracles, and Magic among the Azande* (1937)—indeed suggests.

¹²² Flower 2008: 196.

¹²³ DoA s.v. Divination.

“An Irrationalist Premise”

The problem with this ritualist definition of divination, however, is its overly functionalist perspective.¹²⁴ Functionalist approaches are reductionist, and, in this case, reduce divination to its communal function of solving seemingly insolvable problems. For the functionalist anthropologist, a community’s shared belief—or even willing suspension of disbelief—is enough for ritual to take the place where rational inquiry falls short. The social historian, skeptical of this belief, may even consider the process to be a willful manipulation on the part of the diviner. As Peter Struck has noted, this approach, whether viewing divination as a subset of magic or as a pretext for socio-political consensus-building and decision-making, proceeds from what he calls an “irrationalist premise:”¹²⁵

The question of the logic that might lie behind it is either not asked at all, since it is assumed not to have one, or it is deflected onto other, functionalist grounds. In place of a rational logic, the social historian explores the more comprehensive realm of social capital, while the historian of magic will tend toward the psychological, presenting an ancient mind-set, groping to find effective means of dealing with a sometimes brutal world.¹²⁶

My main issue with the functionalist approach is that it moves away from the divinatory moment too quickly, hiding behind the assumption of irrational activity to explain

¹²⁴ My critique echoes that of Struck 2016: 5-19. Cf. also Johnston 2008: 1-30.

¹²⁵ Where I diverge from Struck is in distinguishing so strongly between the study of divination as a magical vs. socio-political practice (see, e.g., “The second significant body of scholarship begins from entirely different premises” (Struck 2016: 6). I see them, as Struck ultimately does too, as based on similar structural-functionalist assumptions.

¹²⁶ Struck 2016: 9.

divination away. By focusing on the divinatory sign and its interpretation, the logical procedures by which divination operates come to the fore. This is a farcry from the irrationalist premise of the ‘primitive mindset,’ as if the Ancient Greek individual were constantly overcome with anxiety about the world around him or her. Rather, I conceive of divining disaster as a practice based on a mentality that is more neutrally understood as a form of cognition, which, as Burkert emphasizes, is primed to perceive signs in its environment. I do not, however, use an external perspective that focuses on the signs coming from without, but prefer an internal perspective that focuses on how signs are processed from within the human mind—collective and individual—and take on meaning through symbolic, analogic, and inferential processes.

I will clarify my methodological stance toward divination further by briefly considering a typology that emerges from the critical survey of contemporary scholarship of African divination.¹²⁷ Though several decades old, the purposefully exaggerated typology by the anthropologist Renaat Devisch is still helpful for staking out the main methodological avenues that also apply, as we will see, to current scholarship on Ancient Greek (and Roman) religion.¹²⁸ Devisch categorizes the three main approaches to the study of African divination as 1) structuralist-functionalist; 2) external cognitive; 3) internal, semiotic, and semantic. The first category, according to Devisch, falls into psychological analyses that emphasize the therapeutic function of divination, and

¹²⁷ ‘African’ is supposedly intended as a geographical marker for the continent on which the anthropologists do their fieldwork.

¹²⁸ Devisch 1985: 54-76, discussed in Peek 1991: 11.

sociological analyses that stress social-political functions, usually along the lines of re-establishing social order. We can here recognize some of Rüpke's and Flower's approach. Burkert's approach approximates the external cognitive category, which considers "the expressive and explanatory function of divination, seen as a conceptual system, a system of thought, a way of knowing."¹²⁹ Devisch anticipates Struck, it seems, in warning that this approach often remains a variation of the functionalist orientation, assuming the universality of Western scientific principles and thus finding the conceptual system of divination lacking and irrational. (This point is particularly salient with regards to the state of modern disaster studies as well.) My study derives most of its methodological assumptions from Devisch's preferred third approach—internal, semiotic, and semantic—because it allows divination to stand on its own, neither as a reductionist representation of psychological anxiety or social structures, nor as a flawed system of logic measured against the assumptions of Western science. The focus is first and foremost on the divinatory sign itself.

Ritual Reconsidered

One more point about divination and ritual practice needs to be made. While it should be clear that my study is not concerned *exclusively* with divinatory rites, ritualized divination certainly played an important role in Ancient Greek culture (e.g. taking the auspices before battle, consulting oracles before important decisions), including in pre- and post-disaster contexts (e.g. the Phigaleians consult the Oracle at Delphi to ask how

¹²⁹ Devisch 1985: 62.

they can ward off a famine). For Rüpke, who is primarily interested in Republican Rome, the emphasis on ritual makes sense, perhaps, considering the importance of institutionalized divinatory rites, especially in warding off bad omens, in Rome. In the context of Ancient Greece, however, there is much less evidence for such systematized ritual practices.¹³⁰

But regardless of evidence or fundamental differences between Greek and Roman (or Etruscan) divination, an historical anthropological perspective focused primarily on ritualized behavior limits itself in several ways. First, it privileges the evoked sign over the randomly encountered, spontaneous sign. Second, divinatory rituals tend to be between an expert and a client, while the layman's observation and interpretation of signs—what Kim Beerden has called “divine-it-yourself”—need not assume a ritual quality. In fact, we have much more evidence for “divine-it-yourself” in Greece than for Rome or the Ancient Near East.¹³¹ Third, this etic perspective prioritizes the human aspect of divination; Rüpke's definition, for example, makes no mention of the divine whatsoever. While this can be helpful for purposes of cross-cultural comparison, it risks paying insufficient attention to the religious aspects of a practice, and the collective beliefs that support it. One obvious methodological problem, as Rüpke notes too, is that it is impossible to observe and describe directly any ancient ritual action. We only deal with mediated sources and secondary representations. What is more, a narrow focus on

¹³⁰ Cf. Bloch 1963: 33: “C'est sans doute la différence fondamentale, dans ce domaine, entre le monde grec et le monde italique, que l'absence, en Grèce, de ces cérémonies nombreuses et importantes, qui, nous le verrons, étaient ordonnées régulièrement en Étrurie et à Rome pour conjurer les prodiges.”

¹³¹ Beerden 2013: 55-6.

ritualized divination would exclude the example of the Chian catastrophe in Herodotus' *Histories*. The signs are not ritually evoked or received, and they are interpreted by a layman, namely Herodotus himself, and there is no immediate performative context, except that of the text itself.¹³² Hollmann points out, in fact, that in Herodotus' *Histories* more laymen than experts perform divination.¹³³ There are no visible traces of ritual in Herodotus' divining of the disasters on Chios; he enters the divinatory process at a later stage, *post eventum*, so that the narrative presents Herodotus' divinatory act as already complete.

The Study of Divination

I have already addressed some of the methodological issues in the study of divination, but I have yet to situate my project in the history of scholarship on ancient divination specifically. While the myriad of recent publications attests to the popularity of divination as a scholarly subject, no comprehensive work on divination and its connection to disaster exists as of yet.¹³⁴ After the empirical studies of Bouché-Leclercq (1879-82) and Pease (1920-3), divination itself, presumed to be a marginal or downright occult phenomenon, was either ignored or limited to institutional oracles and their socio-

¹³² Herodotus, though no *mantis*, does present himself in the *Histories* as an expert interpreter, a master of signs; such is the overall argument in Hollmann 2011.

¹³³ Hollmann 2011: 62.

¹³⁴ Recent publications (monographs and edited volumes) on divination include: Dillon 2017, Struck 2016, Addey 2014, Beerden 2013, Kajava 2013, Raphals 2013, Rosenberger 2013, Santangelo 2013, Annus 2010, Stoneman 2011, Johnston 2008, Eidinow 2007, Bowden 2005, Johnston and Struck 2005, Ciruolo and Seidel 2002.

political function, as in Nilsson's volumes on Greek religion (1941-50), and the documentary works by Amandry (1950), Parke and Wormell (1956), Parke (1967), Günther (1971), and later Fontenrose (1978). The most significant contribution to the methodology and theory of divination came with Jean-Pierre Vernant's edited volume *Divination et rationalité* (1974), which included articles by classicists as well as scholars of China, the Near East, and Africa.¹³⁵

With this publication, Vernant and his contributors hoped to show "how the seer's symbolic operations and the mental system underlying them could have imposed both their kind of rationality on the intellectual plane and their legitimacy on the social one."¹³⁶ In this way, the study of divination could aid our understanding of two interrelated aspects of ancient society, one social, the other intellectual.¹³⁷ The social aspect of divination centers on structures of authority in particular, since divinatory science is intimately connected to decision-making and political or personal choice, as we saw in Bremmer's definition. At the same time, the cognitive processes involved in the practice of divination as the apprehension of signs, as seen in Burkert's description, have normalized divination as a ubiquitous and universal practice. As discussed before, these approaches owe much to contemporary anthropological studies of, for example, African

¹³⁵ This change in thinking about divination as primitive superstition and dangerous pseudoscience can be traced to anthropologists like Malinowski and Lévi-Strauss, who pioneered the rationality of myth and magic both of Western and Non-Western cultures.

¹³⁶ Vernant and Zeitlin 1991: 304. Vernant's introductory remarks to *Divination et rationalité* (1974) appear in the collection of essays edited, and in this case translated, by Froma Zeitlin.

¹³⁷ See also Johnston and Struck 2005: 1.

divination.¹³⁸ The intellectual aspect centers on such questions as “what defines the logic of the system that is activated by the seer in order to decipher the unseen and answer its consultants’ request?” and “what type of rationality is expressed in the game of divinatory procedure, the apparatus of oracular techniques and symbolisms, and the classificatory frameworks used by the seer to sort out, organize, manipulate and interpret the information on which his competence is based?”¹³⁹

The study of the social plane has been taken up fruitfully, especially in the context of prophecy and political authority (Bowden 2005; Potter 1994), and of the social status of divinatory experts (Flower 2008; Dillery 2005; Maurizio 1995; Bremmer 1993; North 1990). With varying degrees of adherence to Vernant’s original quest, the current trend is toward cross-cultural comparison and assumes a predominantly etic stance, both in monographs (Beerden 2013; Raphals 2013) and edited volumes (Kajava 2013; Rosenberger 2013; Georgoudi, Piettre and Schmidt 2012; Annus 2010). The intellectual plane, however, has received less scholarly attention, and it is to this field that the present study aims to contribute. This is not to say, of course, that there has been no interest in divination as an intellectual activity. As we have seen, Flower acknowledged the seer’s intelligence as a key component of the divinatory act, and Struck, in particular, has shed light on the cognitive history of divination among ancient philosophers. One particularly relevant result of regarding the cognitive process of divination as akin to that of

¹³⁸ Peek 1991.

¹³⁹ Vernant 1991 [1974], 303. Italics are mine. The importance of Vernant is especially emphasized by Sarah-Iles Johnston, both in Johnston 2008: 17-27, and Johnston and Struck 2005: 1-25.

deliberation and decision-making, as in fact Rüpke (2013) and especially Eidinow (2013, 2007) have done for Republican Rome and the Oracle at Dodona, respectively, is an emphasis on an ancient mentality of uncertainty and risk, and hence its attempts at risk management.¹⁴⁰ This is of special interest to the present study, because risk management is one distinctly modern way of approaching disaster. While I underscore the notion that divination was a way for the Greeks to deal with uncertainty, I agree with Beerden that *risk*, tied up to modern ideas of probability, is a concept alien to Greek (and Roman) thinking and hence less useful as a category; rather, “what risk management does for modern man, was what divination did for ancient man: both risk assessment and divination are thought to reduce uncertainty.”¹⁴¹ If uncertainty is part of the human condition—and a defining characteristic of disaster—it helps explain why divination is such a ubiquitous phenomenon, and why it is a uniquely useful way to consider ancient approaches to disaster.

Comparing Three Studies of Divination

Finally, I will briefly situate my research in relation to three studies that have been especially influential in my own thinking on this subject. Studies must, of course, limit themselves in some way, and it is useful to delineate the boundaries of my study

¹⁴⁰ The work of anthropologist Mary Douglas has been particularly influential in this context, see Douglas 2002.

¹⁴¹ Beerden 2013: 202-203; see also 195-202, with reference to Hacking 2006 on probability; this view goes directly against some of the main assumptions of Eidinow 2007. For a similar view about the Roman world, see Beard 2011: 85-108. The term ‘risk’ is applied to the ancient Greek world mostly by (economic) historians; see for example: Toner 2009; Gallant 1990, 1989; Garnsey 1988.

against these other works. Alexander Hollmann (2011) casts a wide net as far as signs are concerned, but his source material is limited to Herodotus' *Histories*, and his interpretations stay largely within the confines of the text. While this approach allows for many rewarding close-readings of operations of different sign systems in Herodotus, it does not situate Herodotus in the larger cultural context of Classical Greece and the way in which these systems of signs operate in other discourses. Kim Beerden (2013), by contrast, paints her cross-cultural comparisons with broad strokes, focusing on the divinatory sign in three cultural contexts (Ancient Near East, Greece, Rome). The differences between these three contexts, however, are largely explained by societal factors, and shed hardly any light on the phenomenological, internal intellectual operation of divination and its idiosyncrasies in Ancient Greek culture. Peter Struck (2016), in turn, focuses on the cognitive history of divination, arguing that for ancient philosophers, divination was a means to understand what we today call intuition. When he envisions the possibility of extending this idea to "nonphilosophical cultural production," as he does in his epilogue on the *Odyssey*, his analysis is predisposed to look at signs through the lens of non-discursive and non-inferential forms of cognition, and thus privileges forms of natural divination at the expense of technical methods that are more obviously inferential.

These three studies, each of which represents a current trend in scholarship, form a useful backdrop against which to measure my own approach to divination. I follow Beerden and Hollmann in making the sign the central object of my study, but adopt a broader view of the sign than Beerden does, allowing for such sign categories as indexical signs (on which more below). I do not address as many different sign systems

as Hollmann does, limiting myself to those that are somehow connected to the divine, but I engage more with his internal (semiotic and semantic) analysis of sign operations than with Beerden's socio-cultural analyses of divination. My focus, unlike Struck's, tends to prioritize technical divination and the intellectual operations involved here; in fact, the intellectual procedure I am interested in, namely inferential reasoning based on signs, appears to be the exact opposite of Struck's, who studies *intuition*, understood as an unmediated, non-inferential form of knowing. In a conscious attempt to adopt an approach akin to Devisch's third method, I follow Struck's lead in taking a cognitive perspective, away from functionalist assumptions (in which category I would include, on occasion, Beerden), and complemented by Hollmann's internal approach based on semiotics.

As for my sources, I draw on a much wider variety of material than Hollmann, but my comparative aims, insofar as I have them, do not align exactly with those of Beerden. In contrast, I make use of modern materials in an attempt to demonstrate some of the continuation of the mentality that I am interested in. While Struck situates his study within intellectual history, examining such philosophers as Plato, Aristotle, Posidonius and Iamblichus, my subject matter is best suited for cultural history. The sources I draw on are mostly literary, rather than, for example, epigraphic, because my interest is in the intellectual structures by which Greek culture employs the mentality I refer to as *divining disaster*. Since I do not seek to reconstruct real-life experiences of men and women in

Antiquity, but rather their discourse, literary evidence is our best index to plot the collective imagination of ‘the Ancient Greeks’ as it pertains to divination and disaster.¹⁴²

A Cognitive Turn

One way to take divination seriously as an intellectual operation is by considering it a form of cognition. As Struck has rightly pointed out, the contemporary category of cognition captures all activities of the mind without stumbling on the question whether it is rational or not.¹⁴³ The object of cognitive studies, quite simply, is to understand how humans acquire and use knowledge. A truly cognitive approach to ancient divination—the numerous possible objections to which are addressed quite adequately by Lisdorf—is still in its infancy.¹⁴⁴ The cognitive science of religion, more generally, has a tradition that goes back to the work of anthropologists and psychologists such as Stewart Guthrie, Pascal Boyer, and Justin Barrett.¹⁴⁵ Several concepts from the cognitive study of religion shed light on the way in which divination is a strategy for humans to respond to their environment. Guthrie writes:

We often see nonliving things and events as alive, especially if they move, make noise, or otherwise stand out from the landscape. We credit our environment with more organization and more organism than it has. Humans see boulders as bears, flying pieces of paper as birds, and stuck drawers as willful. Other animals also

¹⁴² Cf. Struck 2005.

¹⁴³ Struck 2016: esp. 12-6.

¹⁴⁴ Much coming out of Denmark: Martin and Sørensen 2011 *Past Minds: Studies in Cognitive Historiography*; Sørensen 2006 *Cognitive Theory of Magic*; Munk and Lisdorf (forthcoming) *Unveiling the Hidden: contemporary approaches to the study of divination*; Lisdorf 2007.

¹⁴⁵ Guthrie 1980, 1993; Boyer 1994, 2002; Barrett 2004, 2007, 2011. See also Tremplin 2006, esp. 73-106; Trigg and Barrett 2014; Pyysiäinen and Anttonen 2002.

animate the world: cats see fluttering leaves as prey, horses see blowing bags as threats, and dogs hear sirens as howls. Our shared inclination to animate, moreover, is a strategy rather than an accident.¹⁴⁶

This mostly unconscious strategy to assign life to nonliving things is what Guthrie calls animism. Joining psychological and religious versions of animism, Guthrie argues that animism results from a perceptual strategy, namely that, when in doubt about whether something is alive, it is better (or rather, safer) to assume that it is.¹⁴⁷ Perception and interpretation are always linked: we never just see, we always see *as*.

The second building block in Guthrie's account is anthropomorphism, which often complements animism: "We see the world not only as alive but also as humanlike."¹⁴⁸ Guthrie distinguishes three gradations of anthropomorphizing. The first, most literal form of anthropomorphizing in daily life is to mistake something nonhuman for something human. We may hear a gurgling stream as a human voice, or mistake shapes outside for people. Guthrie's second level of anthropomorphizing is especially relevant: "People see things and events as having important human attributes, such as symbolism, without mistaking them for humans."¹⁴⁹ The term *symbolism* is important here, and can be taken to refer to relations of representation in general (symbolism is always perceptive, seeing something *as* something else). Examples include religious as well as secular perceptions, such as seeing an earthquake or disease as punishment, and

¹⁴⁶ Guthrie 1993: 39

¹⁴⁷ Guthrie 1993: 41.

¹⁴⁸ Guthrie 1993: 62.

¹⁴⁹ Guthrie 1993: 93.

thinking animals or computers understand language. In this sense, Herodotus, in his account of the Chian disaster, anthropomorphizes the two events—the *loimos* and the collapsed school roof—by assigning them human attributes of symbolism. The events are seen as the expression of some other agent. At the third, accidental, level of anthropomorphizing, we perceive human form or action in things and events, such as faces in the mountain or armies in the clouds, but recognize them as mere chance or accident. Guthrie stresses that usually these three levels occur in combination, and different observers may respond to the same event differently.

Agency Detection Device

What does anthropomorphizing have to do with divination in general, and divining disaster in particular? For cognitive anthropologists such as Guthrie, the goal is to show, ultimately, that religion can be understood as systematized anthropomorphism. This means that religious thought postulates—through animism and anthropomorphism—beings, such as gods (which cognitive scientists refer to as “counterintuitive concepts”) that are capable of interacting symbolically with humans. The assumption of divination is not only that there are gods, but, crucially, that these gods communicate with humans through signs and symbols. A sign becomes divinatory because its sender is presumed to be divine: behind the sign is a divine agent, who becomes manifest only indirectly, through the sign. Divinatory signs are not just objects and events, but objects and events that indicate the activity of a divine agent. In cognitive psychology, the mental mechanism for recognizing agents is called the Agency Detection Device, or ADD. Agents, unlike objects, “are beings capable of independently and intentionally initiating

action on the basis of internal mental states like beliefs and desires.”¹⁵⁰ Human and non-human animals are the most obvious examples of agents, but, as Guthrie has suggested, we tend to assign life and human attributes, such as intentionality, to inanimate objects too, from strangely shaped rock formations to the murmuring sounds of running water. This capacity to quickly assign agency is biologically advantageous, since human survival is dependent on distinguishing prey from predator quickly. When it comes to detecting agency, speed trumps accuracy.

As we have seen, Burkert’s discussion of divination had already stressed the biological underpinnings of *Zeichenbeobachtung*. “Because agents are the most relevant things in the environment,” writes Todd Tremlin, “evolution has tuned the brain to quickly spot them, or to suspect their presence *based on signs and traces*.”¹⁵¹ To the hunter, the tracks signal the presence of the deer; to the seer, the divinatory sign—whether a dream, a sneeze, or a liver lobe—signals not so much the presence of the deity as his/her intent to communicate with the seer. In the latter case, the producer of the sign is not an animal, whose presence is deduced from the visible trace of its tracks. Rather, the sign is produced by a divine being whose agency is deduced from the way in which the sign becomes manifest—the bird-omen of an eagle, for example, is typically thought to come from Zeus. ADD prompts us to connect traces to actual agents, and even postulate counterintuitive or hidden agents such as ghosts, goblins and gods. From the perspective of the cognitive science of religion, the belief that a sign comes from a deity

¹⁵⁰ Tremlin 2006: 76.

¹⁵¹ Tremlin 2006: 76, emphasis mine.

is due to the overzealous work of ADD. Cognitive psychologists have shown that humans have a tendency to *over*-attribute agency, which, as a strategy of survival, makes sense: “It’s better to have a fast device that occasionally gets it wrong,” notes Tremlin, “than a slow device that is always accurate.”¹⁵² This tendency is so pronounced, according to Barrett, that it is best described as the hypersensitive Agency Detection Device, or HADD.¹⁵³

Theory of Mind Mechanism

The readiness with which the human mind detects agency is complemented by the attributes that are typically assigned to this agency. The deer did not create its tracks intentionally; divinatory signs, on the other hand, are produced by an agent that is perceived to have done so with a certain degree of intentionality. They are the result of mentalistic efforts, such as the intention to communicate, warn, or even willfully deceive. Indeed, since the human brain is hardwired to communicate, it will see things, events, and invisible entities as trying to communicate with it, especially through language. “The abundance of signs,” notes Burkert in his Gifford Lectures, “turns into a plethora of voices.”¹⁵⁴ Anthropologist and primatologist Robin Dunbar, whom Burkert references, highlights this aspect in his book about the origin of language:

The human mind seems to have been built in such a way that it assumes other individuals are trying to communicate with it. ... We assume that everyone else

¹⁵² Tremlin 2006, 77.

¹⁵³ Barrett 2000: 29-34.

¹⁵⁴ Burkert 1996: 160

behaves with conscious purpose, and we spend much of our time trying to think our way into their minds so as to divine their intentions. We are so imbued with this way of viewing the world that we easily transpose it on to other animals, and even occasionally on the inanimate world.¹⁵⁵

The transposing mentioned by Dunbar is a case of second degree anthropomorphizing, but in a more restricted sense than Guthrie meant it. When we anthropomorphize, Dunbar would say, we transpose not just human qualities onto animals and inanimate things, but a specific human attribute, namely the human mind. This is especially true when we transpose attributes to the divine: “Anthropologists know that the *only* feature of humans that is *always* projected onto supernatural beings is the mind.”¹⁵⁶

The tendency to ascribe mentalistic activities to the world around us is known as the Theory of Mind Mechanism, or ToMM.¹⁵⁷ By assigning feelings, intentions, beliefs, and desires to others, theory of mind lets humans communicate, and anticipate what others are thinking so as to respond properly. Indeed, ToMM leads us to assume that the activities of others are *caused* by mental states, just as we suppose our activities are. As Dunbar notes, we do not just assume others have minds, we also try to discern what their minds are thinking. This is essentially what *divining* means: trying to figure out the mental state of other agents, divine ones in particular. If humans are biologically primed to adopt a strategy that (over)attributes agency and intentionality to their environment,

¹⁵⁵ Dunbar 1997: 81.

¹⁵⁶ Boyer 2001: 144.

¹⁵⁷ Tremlin 2006: “Our personal belief that agents operate mentalistically is referred to as ‘theory of mind,’ and the mental tool responsible for this perception is called the Theory of Mind Mechanism, or ToMM. ... [It] is called a ‘theory’ because ToMM appears to operate on the basis of internal assumptions about how minds work” (80). See Tremlin 2006 for bibliography.

divination is the systematized expression of the attempt to probe such intentionality from divine agents.¹⁵⁸ This not only sheds new light on the ubiquity of a divinatory mindset in the ancient world—“omen-mindedness,” as S.M. Freedman has called it in the context of the Ancient Near East—but also on the idea that the persistence of this mindset—in secular and religious forms alike—is to be expected across time and space, and, indeed, in the modern world.¹⁵⁹

“Demeter and Chiquita Banana”

To conclude: if we take ancient divination seriously as a cognitive operation that relies on anthropomorphizing, one in which there is symbolic interaction between human observers and divine, mentalistic agents, then Herodotus’ divining disaster emerges not so much as the “theology of the age” as a universal cognitive phenomenon. The implications are significant. Guthrie stresses the continuity between religious and secular anthropomorphizing: “Demeter and Chiquita Banana, Thor and Jack Frost are of one

¹⁵⁸ I echo Guthrie’s explanation of how “strategy” is used here, namely “as Darwinian shorthand for a behavioral/neural practice that results from natural selection and that operates almost entirely without our awareness” (Guthrie 1993: 214).

¹⁵⁹ The term “omen-mindedness” is found in Freedman 1998-2006: 1; Beerden defines the term as follows: “The term captures the state of mind ancient individuals must have been in, in the sense of being always on the look-out for a possible sign from the supernatural.” I agree with Beerden’s qualifying statement that omen is too restrictive a term (in Graeco-Roman studies it can refer to unprovoked signs only), and I, too, prefer the more general term “sign.” I would add that the term not only captures an ancient mindset but pervades modern minds as well. An interesting case is that of the Epicureans, who believed that the gods were withdrawn and unconcerned with human affairs, and so rejected divination. It is fair to say, perhaps, that the Epicurean imagination of the divine mind (namely, its desire to be removed, and hence *not* communicate) matches their own theory of mind.

piece.”¹⁶⁰ If this external cognitive approach seems reductionist, the main advantage is that it allows us to draw fresh comparisons between anthropomorphizing strategies inherent to *divining disaster* across vast historical and geographical expanses. Since we have defined “the divine” as a relative category, Herodotus’ ὁ θεός, Plutarch’s δαίμων, and Ptolemy’s planet of Saturn become, from a cognitive viewpoint, comparable units. As we will see in Chapter 3, Hurricane Katrina and Poseidon, too, are of one piece. This opens the door for comparisons that are both typological and heuristic in nature.

The universal nature of this claim is all well and good, but if we are to illuminate aspects of this mentality among the ‘Ancient Greeks,’ the question remains: what *specific* forms does the symbolic interaction between humans and the divine take in *specific* cultural-historical settings? How are these divine agents imagined to communicate, what systems of signs are employed, and according to what logic are these signs decoded and interpreted by humans? As my approach centers on the divinatory sign as the focal point of the divinatory process—not on the socio-political, ritual, or psychological dimensions *per se*—the logical operations that inform the interpretation of the sign, and the ways that meaning is negotiated through them, become visible. The issue that is at stake in Part II, then, is what culturally-specific shape these signs takes among ‘the Greeks’—or rather, the shape that they can take in specific texts under specific historical and intellectual circumstances.

¹⁶⁰ Guthrie 1993: 112. See also the discussion in Tremlin 2006: 100.

PART II

CLASSIFYING THE SIGN

Peirce's Triadic Sign

Because divination—from emic and etic perspectives alike—is concerned with the observation and interpretation of signs, the theoretical underpinnings of this study are informed for a large part by semiotics, that is, the theory of signs and signification and the production of meaning.¹⁶¹ The field of semiotics is sometimes differentiated from semiology, which studies sign systems and their organization, rather than the question how meaning is produced from them. A third term, semiosis, refers to the cognitive and communicative processes by which the sign operates. In some ways, these have been rival terms, in part because of the different intellectual climates in which each of them originated. I will follow the practice of using the term semiotics, and the adjective semiotic, to refer to both theories and processes of the sign.¹⁶² In most studies of ancient divination that focus on the sign and make explicit use of semiotic terminology, the theory of semiotics itself has remained underdeveloped and implicit.¹⁶³ While semiotics

¹⁶¹ For Peirce and Morris, semiotics is a theory of signs; Morris famously divides the general science of semiotics into semantics, syntactics, and pragmatics. For Greimas, semiotics is a theory of signification. According to Culler 2002, semiotics “seeks to identify the conventions and operations by which any signifying practice (such as literature) produces its observable effects of meaning.”

¹⁶² My understanding and treatment of semiotics is much indebted to the handbook by Nöth 1990 and the glossary by Martin and Ringham 2006.

¹⁶³ See, for example, Beerden 2013: 107: “This is not the place to discuss various semiotic aspects of the sign, linguistic or non-linguistic, nor do I discuss the difference between indexical and communicative signs.” Cf. Burkert 1996: 230: “This is not the place to tackle the intricacies of

does not illuminate every aspect of divination, a study that focuses on the divinatory sign—and seeks to understand the logic that underlies divining disaster—is bound to benefit from a more sustained engagement with semiotics.¹⁶⁴

What do we mean when we speak of signs? A sign, put briefly, stands for something to someone in some way. Or, to put the emphasis on *how* it does that, “something is taken as the basis for a process of inference.”¹⁶⁵ Because *divining disaster* connects signs with objects and events that have an external reality and can usually be found ‘in the world,’ I prefer Peirce’s triadic formulation of the sign over Saussure’s dyadic model of *signifier* (sound-image) and *signified* (mental concept), which excludes things in themselves (objective reality). For Saussure, the sign is wholly immaterial and purely psychological. As discussed in the Introduction, there is a certain urgency in disaster studies not to succumb entirely to the notion of disaster as an abstract construct. The physicality of the disastrous event suggests that at least the possibility of an external

the modern science of semiology.” North-American Classical studies and semiotics first operated together at a University of Georgia colloquium entitled “Classics and Semiotics,” which resulted in a special issue of *Arethusa* (nr. 16, 1-2, 1983). The presence of the semiotic framework in divination is noticeable, though not ubiquitous, in many studies and definitions that invoke the *sign* as central to divinatory practice, and employ the terms *signifier* and *signified*; consider for example the lines, “how to construct a divinatory system in which a signifier consistently points to a signified,” or “even if the communication occurs indirectly through a semiotic system,” in, respectively, Johnston and Struck 2005: 11; and Raphals 2013: 12. The use of semiotic language is virtually absent, however, in the studies of Flower, Eidinow, and Addey. Titles as those of Beerden 2013, Hollmann 2011, and Annus 2010 speak for themselves.

¹⁶⁴ If the sign is ubiquitous in ancient discourse—rhetoric, grammar, logic, poetics, divination, medicine, meteorology—semiotic discourse does not fully materialize until the eclectic work of St. Augustine. Such is the argument of Tzvetan Todorov in *Theories of the Symbol* (1982 [1977]), whose two criteria for semiotic discourse are 1) that its objective must be epistemological rather than aesthetic or speculative, and 2) that its subject matter must cover the entirety of sign phenomena.

¹⁶⁵ Manetti 1993.

referent—even if this referent is imagined—ought to be present. In fact, Herodotus’ linking of ‘real events,’ such as a collapsed school building or a naval battle, into a system of signs and signification shows that *divining disaster*, for the historian at least, is very much concerned with locating referents ‘in the real world.’

The model of the sign by C.S. Peirce (1839-1914) does include an object, or referent. Peirce defined the sign in terms of a triadic process, which he called semiosis.¹⁶⁶ One of his more elaborate definitions is as follows (2.228):

A sign, or *representamen*, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the *interpretant* of the first sign. The sign stands for something, its *object*. It stands for that object, not in all respects, but in reference to a sort of idea.

The definition suggests that semiosis is a process by which the sign has a cognitive effect on its interpreter: as for Saussure, the sign has a relational or functional character between *representamen* ($\approx$ signifier) and its signification or meaning, the *interpretant* ($\approx$ signified). Peirce, too, stresses that this takes place in the mind of the interpreter. Hence Peirce’s famous dictum: “Nothing is a sign unless it is interpreted as a sign” (par. 2.308). But the sign has a third element, the object or referent. This is what the sign stands for, either as it exists in the sign itself as a mental representation (the *immediate* object), or as it exists in reality, in the outside world (the *mediate* or *dynamic* object).¹⁶⁷ Finally, this

¹⁶⁶ Peirce’s vast and still partly unexplored writings show a development in his thinking about semiotics. His terms and definitions can be ambiguous between different texts. All references to Peirce are from his *Collected Papers* (1965-1966), eds. Hartsthorne, Weiss, and Bruks (8 vols.).

¹⁶⁷ “[This] seems to have committed him [i.e. Peirce] to an ontological realism, but in fact, this semiotic philosophy has overcome the realism-idealism dichotomy” (Nöth 1990: 43). See also

definition of the sign, in which each sign produces additional signs, suggests a possibly endless chain of signification. Semiosis operates *ad infinitum*, unless someone stops interpreting the sign.

Of Peirce's elaborate typology of signs—some scholars have counted as many as 59,049 classes—his so-called second trichotomy has been the most influential. This is the classification according to the relation between *representamen* and object, which falls into three types: the *icon*, the *index*, and the *symbol*. An icon resembles the object it signifies, whether the object actually exists or not (e.g. a portrait, a map, an algebraic formula, or a drawing of a unicorn). This principle of likeness corresponds to the narrative pole of metaphor in Jakobson's well-known essay. An index is a sign that is physically related to, connected to, or affected by, its object. The relation is one of contiguity, and may be causal or sequential (examples include a weathercock, a barometer and a sundial, and physical signs such as footprints; an elevated body temperature is an index of inflammation). The index corresponds to Jakobson's narrative pole of metonymy (the part for the whole, the cause for the effect, etc.). A symbol, finally, is a sign whose relationship to its object is entirely arbitrary or based on convention. The word *fish*, for example, has no physical link or resemblance between the sign (the word *fish*) and the object (a fish). A flag can be a symbol for a country, and an image of a panda bear can be a symbol for the World Wildlife Fund, while also operating as an icon of the animal panda. Peirce conceded that there are no "pure" incarnations of

Oehler's paper "Outline of Peirce's semiotics," in Krampen et al. 1987. Note that the Saussurian terms signifier and signified are often simplified (and, technically, misused) to mean sign and referent.

these types. Any text, for example, is a symbol because it consists of arbitrary signs (words); when its main objective is to instruct by referring to actual things, such as a travel guide or a manual, it is indexical; when it uses metaphors to describe how something resembles something else, it is iconic. These three types of sign are especially useful categories when we discuss the logic of *divining disaster* in Part IV, for example when the semiosis of an indexical sign suggests a causal relationship.

A Divinatory Paradigm

Adopting Peirce's triadic approach to the sign means that a wide variety of semiotic practices can be included, ranging from linguistic signs (symbols) to animal tracks and medical symptoms (indices). Such a broad semiotic perspective allows for the divinatory sign to be seen in relation to other systems of knowledge in Ancient Greek culture that make use of signs, such as medical semiotics, navigation, meteorology, and logic.¹⁶⁸ This is not the place for a broad analysis of the ways in which signs operate in Ancient Greek culture, but the role of signs in ancient (and modern) epistemologies must not be underestimated. As my analysis of Greek sign terminology will show, the semantic field of the divinatory sign reveals a larger divinatory paradigm that involves various spheres of expertise, all connected by a method of observing and interpreting signs. Indeed, Carlo Ginzburg has identified such a paradigm, which he variously refers to as a semiotic, conjectural, symptomatic, or divinatory paradigm:

We can speak about a symptomatic or divinatory paradigm which could be oriented toward past or present or future, depending on the form of knowledge

¹⁶⁸ See also Manetti 1993.

called upon. Toward future—that was divination proper; toward past, present and future—that was the medical science of symptoms, with its double character, diagnostic, explaining past and present, and prognostic, suggesting the likely future; and toward past—that was jurisprudence or legal knowledge. But lurking behind this symptomatic or divinatory model one glimpses the gesture which is the oldest, perhaps, of the intellectual history of the human race: the hunter crouched in the mud, examining the quarry's tracks.¹⁶⁹

Ginzburg, rather boldly, presents this semiotic paradigm as an alternative historical epistemology, and traces it from the primordial hunter to such modern clue-based fields of expertise as psychoanalysis, art connoisseurship, and detective work. The connection to medical semiotics, or symptomatology, is particularly relevant: Ginzburg is quick to attribute the analogies in the method of Sigmund Freud, Giovanni Morelli, and Conan Doyle's Sherlock Holmes to the fact that all had a background in medicine. We shall return to the importance of Ginzburg's divinatory paradigm in Part IV.

Divinatory science, understood as an organizing principle that postulates connections between signs and events, is based upon a system of classification. It separates ordinary things from meaningful things—not all birds are omens, not all coughs are symptoms of pneumonia, and not all footprints and cigarette butts are clues. To know when things or events are signs requires skill and expertise, for the diviner as well as the doctor and the detective. In their analysis of the Native American Zuni tribe, Durkheim and Mauss observed that “the science of the diviners, therefore, does not form isolated groups of things, but binds these groups to each other. At the basis of a system of divination there is thus, at least implicitly, a system of classification.”¹⁷⁰ If the study of

¹⁶⁹ Ginzburg 1983.

¹⁷⁰ Peek 1991: 6.

divination gives insight into how the world is organized conceptually, the extensive implicit and explicit attempts at classifying the divinatory sign itself are especially worth considering. In presenting some of these ancient attempts to classify and organize divination and the sign in general, I adopt a synchronic perspective with evidence ranging from a variety of sources from Homer to Tzetzes. While not insensitive to the vast differences between different attitudes to divination across time and space, the assumption in foregrounding *the classification of the sign* is that there are some universal, cognitive patterns about the way in which the sign is apprehended. For heuristic purposes, seeing these different classificatory models and the assumptions on which they are based side by side gives us—as scholars—a better scope of the analytical possibilities with which to approach *divining disaster*, and how this form of divination can itself be classified. These *explicit* attempts at classification by such ancient scholars as Varro, John Lydus, and Augustine help put the idiosyncrasies of *implicit* classifications in the Ancient Greek evidence, such as Prometheus’ list of divinatory skills, in sharper relief.

Earthly vs. Heavenly Signs

Signs can present themselves in many ways, and many attempts at classification are based on some aspect about where or how the sign is produced or perceived. A common dichotomy in the study of Near Eastern divination, based on Mesopotamian compendia, is between terrestrial and celestial signs.¹⁷¹ This distinction goes back to the Byzantine writer John Lydus (c. 490-560 CE), who opens his antiquarian work *On Signs*

¹⁷¹ Beerden 2013: 22.

(Περὶ Διοσημείων, also known as *De Ostentis*) with the specious claim that the Hebrews distinguished between σημεῖα and τέρατα, the former being heavenly signs and the latter being signs that appear on earth, “against nature” (παρὰ φύσιν).¹⁷² A four-part distinction based on the physical element in which the sign appears was reportedly adopted by the Roman polymath Varro, who recognized four types of divination based on earth, air, fire, and water.¹⁷³ Augustine, who was the first to offer a comprehensive semiotic theory, organized the sign by mode of transmission, yielding visual, auditory, olfactory, tactile, gustatory signs. This classification is still common in the present-day study of divination, although, as Augustine himself admits too, visual and auditory signs are typically emphasized over those apprehended by the other senses.

Evoked vs. Spontaneous Signs

Another dichotomy, popular in modern scholarship, is between evoked and spontaneous signs. In the context of ritual divination, signs are typically evoked. The seer asks for a sign, or creates the ritual circumstances to receive one, for example by

¹⁷² Οἱ τῶν Ἑβραίων λόγιοι τὸν περὶ προγνώσεως λόγον διχῇ τέμνουσιν εἰς σημεῖα καὶ τέρατα· καὶ σημεῖα

μὲν εἶναι βούλονται τὰ ἐν μετεώροις συνιστάμενα, τέρατα δὲ τὰ ἐπὶ γῆς ὡς παρὰ φύσιν φαινόμενα (*De Ost.* 1). On John Lydus and *De Ostentis*, see Maas 1992: 105-113. *John Lydus and the Roman Past*. This distinction, with the Greek terms, is rather fanciful; in fact, Lydus quotes the *Acts of the Apostles* (2.19-20) to support his distinction (δώσω ... σημεῖα ἐν τῷ οὐρανῷ ἄνω καὶ τέρατα ἐπὶ τῆς γῆς κάτω), but he (deliberately?) misquotes the verse: σημεῖα and τέρατα are actually reversed, so that the former is said about earthly signs and the latter about heavenly ones.

¹⁷³ Servius *ad Aen.* 3.359: *Varro autem quattuor genera divinationum dicit: terram, aerem, aquam, ignem: geomantis, aeromantis, pyromantis, hydromantis.*

slaughtering an animal and observing its entrails. Spontaneous signs, on the other hand, are encountered rather than evoked—and therefore potentially much more diverse. At the same time, Peirce’s saying that nothing is a sign unless it is interpreted as a sign holds true. While anything can potentially be a sign, there are certain cultural conditions that determine what is more likely to count as one and what is not. Omen-mindedness, even if universal, is culturally determined. It is evident from Herodotus that earthquakes, cases of pestilence, and collapsed school buildings are readily interpreted as spontaneous signs. When disasters are seen as sign, they are typically spontaneous; but when disasters need to be interpreted, seers frequently rely on evoked signs such as oracle consultations to find solutions and remedies.

Ancient discussions about the distinction between evoked and spontaneous signs are rare, although Roman authors such as Varro are likely to have written about it extensively. One interesting piece of testimony, however, comes from Virgil’s commentator Servius. He distinguishes between *auguria oblativa* and *auguria impetrativa*. The former are signs “which are not asked for” (*quae non poscuntur*) while the latter are signs “which come after having been wished for” (*quae optata veniunt*).¹⁷⁴ But in Servius’ discussion of the two, it becomes immediately clear that the situation can be more complicated than this dichotomy allows. Servius makes his remarks in the context of *Aeneid* Book 6. Just as Aeneas prays that they may find the golden bough, two

¹⁷⁴ Servius *ad Aen.* 6.190

doves appear “by chance” (*cum forte*) and sit down in the grass.¹⁷⁵ Aeneas immediately recognizes this as a divine sign from his mother Venus. Servius notes that the birds constitute an *augurium oblativum*, which is why the text reads “by chance” (*cum forte*). This suggests that seemingly random occurrences, such as the encounter with the two birds, can be simultaneously perceived as chance *and* as an intentional sign, categories that one would presume to be mutually exclusive. I return to this paradox in the next section; suffice it to say that chance appears to be dependent on one’s perspective, and that spontaneous signs are typically associated with signs that strike the observer as chance occurrences. The distinction is thus based on the perspective of the receiver of the sign.

But the dichotomy between evoked and spontaneous signs is not always straightforward, as Servius makes clear in his commentary on *Aeneid* Book 12. The context is the peace treaty between the Trojan and the Italian forces, to which both parties have just agreed. The treaty is quickly broken, however, as Turnus and his sister Juturna rouse the Rutulians and their allies to battle once more. The poet notes that Juturna, who is a water deity herself, adds a powerful sign meant to persuade the Rutulians to break the treaty: “She gave a sign (*signum*) in high heaven, one than which none other was more potent to mess with Italic minds and deceive them with a portent (*monstroque fefellit*)” (*Aen.* 12.244-6).¹⁷⁶ The sign in question is an eagle, the supreme sign known as *Iovis*

¹⁷⁵ Verg. *Aen.* 6.190-1: *vix ea fatus erat geminae cum forte columbae / ipsa sub ora uiri caelo venere volantes.*

¹⁷⁶ *alto / dat signum caelo, quo non praesentius ullum / turbavit mentes Italas monstroque fefellit.*

ales, who swoops down to the water and snatches up a swan from among a flock of water fowl. The flock attacks the eagle, who is overpowered and forced to release the swan, dropping him into the water before flying off. The Rutulian augur gratefully accepts the omen (he refers to it as an *augurium*), which, he exclaims, he has sought so often with prayers. He interprets the eagle to be Aeneas and the swan to be Turnus, leaving him confident that the Rutulians will now chase the invaders away. But, as the poet already notes, the sign is deceptive (*monstro fefellit*). Servius explains this deception by saying that the “sign is neither evoked nor spontaneous, but sent by the doing (*inmissum factione*) of Juturna.”¹⁷⁷ This suggests a third category that disrupts the typical division between evoked and spontaneous signs. How does that work? Servius—or Vergil—does not deny that the eagle is a real sign, and certainly the Rutulians accept it as one. Its questionable status must lie in its origin and transmission.

Servius, however, appears mostly interested in the meaning and interpretation of the sign itself. He explains that in other bird-omens, the bird always lands or stands on solid ground (*Ecl.* 9.15, *Aen.* 6.191-2). The swan, on the other hand, falls into the water, a very unstable element. (No surprise, perhaps, considering that Juturna is a goddess of fountains, springs, and wells.) It seems then that the augur has misread the sign, overlooking, as Servius suggests, that the swan falls into the water. As O’Hara has argued, the augur’s “interpretation is right, but his prediction is wrong.”¹⁷⁸ The augur has cracked the code (eagle : Aeneas, swan : Turnus), but not the message (Turnus will lose).

¹⁷⁷ *hoc augurium nec oblativum est nec inpetrativum, sed inmissum factione Iuturnae*

¹⁷⁸ O’Hara 1990: 85-7.

Juturna's intention to break the treaty is successful, but does that mean her sign is successful? It certainly does not alter the course of events: Turnus still dies, and the eagle still wins the day. So wherein lies the deception? The presence of the eagle suggests to any Italian that Jupiter is the sender of the sign, whereas in fact Juturna sent the sign. For Servius, the sign therefore qualifies as neither evoked nor spontaneous, but it is a real sign nonetheless. The augur, who is the interpreter of the sign, may *think* that the sign is evoked, as he mentions his frequent prayers for this sign. But for the sender of the sign, Juturna, the sign is spontaneous and self-motivated. What matters most from the perspective of the distinction evoked/spontaneous sign, is that Juturna's sign has been manipulated and is no longer objective. The word for Juturna's intervention is *factio*, which means simply doing, but also has a partisan connotation (L&S, s.v. II; cf. Eng. *faction*). Juturna is not objective from the perspective of ordained fate, but partial to a specific outcome. Juturna, though a divinity, sends a sign that is deceptive because her motivation—namely, to persuade the Rutulians to take up arms—is such that the sign has been tainted from its moment of transmission. The distinction evoked/spontaneous thus depends on the perspective of the receiver and interpreter; since Juturna's eagle sign is defined in relation to the sender—i.e. Juturna herself—the sign qualifies as neither.

Intentional vs. Natural Signs

The next classification sheds light on a defining aspect of the divinatory sign: its perceived intentionality. Augustine, always interested in the psychological and communicative aspects of semiotics, is the first to theorize this classifying principle between intentional signs (*signa data*) and natural signs (*signa naturalia*). According to

Todorov, this category has often been misunderstood as the common distinction between conventional and natural signs—that is to say, signs whose interpretation requires some social convention and thus a learning process, and those who are understood and processed innately, without social and cultural intervention. But here the distinction really is about the relation between signs and things, or objects. The doves that Aeneas encounters, for example, are produced *for the sake of being a sign*. Their function as ‘thing’—a pair of birds—has been reduced to a minimum. The same can be said for the earthquake that shook Delos. Augustine’s own examples include human speech and animals’ cries. These signs are intentional signs, because they are produced for the sake of being signs. They come closest to the idea of pure signs. Natural signs, on the other hand, already exist as *things* without being created specifically or exclusively for the sake of signification (e.g. smoke for fire, the tracks of an animal, the human face). Divinatory signs are necessarily intentional, at least from an emic perspective. And yet, a divinity can also create natural signs: the gorge left by Poseidon in the Peneios Valley is, according to the Thessalians, a sign of the god, but it was not left there for the sake of being a sign (Hdt. 7.129 and Philostr. *Imag.* 2.14). This is an important distinction: any sign that originates with a god we shall call a divine sign; intentional divine signs we shall call divinatory signs. To recognize a sign as divinatory, the intentionality of a divine agent must be postulated by the observer, based on the belief that the divine sends the sign with the intention to communicate, even if that communication is notoriously opaque or even deceptive.

Indeed, the excursion on Servius’ interpretation of the bird-sign in *Aeneid* 12 laid bare a key anxiety of divination: the possibility of deception and manipulation.

Manipulation can happen at any point of the divinatory process. In the case of *Aeneid* 12, the manipulation does not happen at the moment of interpretation or observation, which would be the case if the observer or interpreter were deliberately interfering with the sign. A historical example of this is Onomakritos (6th-5th c. BCE), who was an interpreter, or *chresmologos*, of a book of Oracles of Musaeus; he was accused by Lasus of Hermione of inserting an oracle, and he was subsequently banished (Hdt. 7.6.3).¹⁷⁹ In the *Aeneid*, however, the sign is manipulated from its very inception. The goddess Juturna manipulates the signs, which disrupts, in Servius' reading, the usual distinction between evoked and spontaneous signs. The sign is nonetheless believable, and the manipulation thus successful, because Juturna uses "real" signs. To minimize human interference in divination, divinatory signs typically become manifest in situations over which humans have no control and which seem to be ruled by chance: the flights of birds, the rustling leaves on a tree, the behavior or sounds of animals, and involuntary actions such as sneezes, farts, chance remarks, and random encounters. As is clear from these last two examples, which are known as κληδών and σύμβολον (cf. Prometheus' list in Aesch. *PV*. 484-99, discussed below), the element of (perceived) randomness can render something

¹⁷⁹ Shapiro 1990: 335-45; Bowden 2003: 256-74; Dillery 2005: 167-231.

ordinary significant.¹⁸⁰ The use of dice and divination by lots (*sortes*, cleromancy) exemplify the randomization of signs in divinatory procedures.¹⁸¹

There is a paradox to randomness that is essential to divination: the moment that, for example, a random encounter is recognized as a sign, it is no longer perceived as truly random. Peter Struck elaborates on this paradox:

The very notion of a meaningful coincidence contains from the beginning a contradiction. It requires both *chance* and *intention*. Two things that happen at once become such a coincidence only when two criteria are met: *logic* must dictate the event as purely accidental, but the *simultaneity* must nevertheless tempt one to assume some more remote, mysterious connection between them. Pure chance does not make for a portent; rather, chance must be combined with an uncanny sense of meaningfulness that underwrites the happening.¹⁸²

The idea is clear: logic suggests that two birds lighting before Aeneas is a purely random occurrence, yet the simultaneity of its happening right when he is praying for help suggests something more meaningful. Struck identifies two criteria at work here, *chance* and *intention*, which would seem to be mutually exclusive. Rolling the dice is logically a chance event, yet that is precisely why some other, “more remote, mysterious” intention can swoop in and influence the outcome. The entire premise of divination is that this intentionality is divine, even if the exact identity of the divinity cannot be ascertained. In other cases, the sign itself may provide clues about its sender, as for example the doves

¹⁸⁰ Cf. also φήμη, φώνη and ξύμβολον in Aristophanes’ famous list in *Birds* 717-22. On the use of children in divination, also as randomizing agents, see Johnston 2001: 97-117. Of course, natural signs can become institutionalized in settings where they are evoked, or at least anticipated. Examples include taking the auspices, and the rustling trees of the Oracle at Dodona.

¹⁸¹ On the randomizing element in divination, see on cleromancy in particular, see several of the contributions in Struck and Johnston 2005.

¹⁸² Struck 2004: 66, emphasis mine

that are symbols of Venus. In Herodotus' divining of the Chian disaster, the same perceived simultaneity is at work. The implicit reasoning is: what are the chances of being struck by two disasters in such a short time span? There must be some intention behind this, one that signifies even greater evil to come. Here, too, the signs themselves contain clues about their sender (presumably Apollo), even if Herodotus confines himself to ὁ θεός. As we will see in the next chapter, the accidental mode of disaster is precisely compromised by its duplicity. Aeneas encounters two doves, not one. The accidents of the Chians are rendered disasters because the second one mirrors the other. Repetition suggests agency and thus intentionality.

Natural vs. Technical Divination

One of the most pervasive—and, in fact, problematic—classifying principles in divination is that between natural and technical, or artificial, methods of divination.¹⁸³ I will address this distinction at some length, not only because it is so pervasive in ancient and modern scholarship alike, but also because it potentially challenges my claim that divination is a semiotic practice. After all, authors such as Cicero associate the interpretation of signs strictly with technical divination. What is more, there is a long tradition that considers technical divination inferior to natural divination. I argue here that natural and technical divination are both based on signs. The oracular pronouncement or inspired dream must be considered a sign whose origin or method of acquisition may differ from that of the technical sign, but whose *interpretation* nevertheless is based on

¹⁸³ Johnston 2015: 477-90.

the same principles of logical inference. I also demonstrate that the distinction is purposefully overdrawn by such authors as Plato, and that there is ample cultural and historical evidence to suggest that the distinction was not particularly meaningful in practice.

The distinction, which in fact seems to go back to Plato, is between such learned techniques as observing animal entrails (haruspicy) or the movements of the stars (astrology), and inspired methods such as enthused prophecy and the interpretation of dreams (oneiromancy).¹⁸⁴ In Cicero's *On Divination*, the distinction is explained as follows (1.34):

There is a technique (*ars*) for those who by conjecture (*coniectura*) set forth (*persequuntur*) new things and have learnt the ancient things by observation (*observatione*). On the other hand, they involve no technique who foretell the future not by reason (*ratione*) or conjecture (by having observed and recorded signs (*observatis ac notatis signis*)), but by a certain stirring of the mind or some free and unrestrained movement, as happens often to people who dream and sometimes to those who prophesy in frenzy.¹⁸⁵

At its core, the distinction is less about the method of interpreting the sign and more about the origin and acquisition of the sign. In natural divination, the sign is acquired directly without the intervention of the (rational) human mind (*non ratione aut conjectura*) and can thus be assumed to originate directly with the divine. The sign is acquired indirectly, on the other hand, through technical divination, mediated by human

¹⁸⁴ Pl. *Phdr.* 244a-d; Cic. *Div.* 1.6.11-12. Cicero calls it natural (*naturalis*) and technical (*artificiosa*) divination.

¹⁸⁵ Cic. *De Div.* 1.34: *Est enim ars in eis qui novas res conjectura persequuntur, veteres observatione didicerunt. Carent autem arte ei qui, non ratione aut conjectura observatis ac notatis signis, sed concitatione quadam animi aut soluto liberoque motu, futura praesentiunt, quod et somniantibus saepe contingit et non numquam vaticinantibus per furorem.*

activity through inferential reasoning (*coniectura*, often translated, erroneously, as deduction or induction). In my cognitive and semiotic approach to divination, the distinction between natural and artificial methods, though useful for heuristic purposes, loses some of its importance, because the *interpretation* of the sign matters more than its *acquisition*.

Skepticism

There seems to be a bias, at least in the Greek world, against technical divination as the less reliable method. For much of the Classical and Hellenistic periods, the most prestigious form of divination is the Oracle of Apollo at Delphi. Herodotus, for example, describes how the Lydian King Croesus tested the oracular shrines of the ancient world, and how Delphi prevailed. Its prestige can be linked to the Pythia's method of natural, inspired divination. This is at least how the Oracle is represented in the literary sources, although we know that many, if not most, queries were decided by lot (cleromancy). In Euripides' *Electra*, Orestes, whose course of action is driven by Apollo's Oracle, says: "For the Oracles of Loxias are steadfast, but I dismiss divination of mortal men" (Λοξίου γὰρ ἔμπεδοι / χρησμοί, βροτῶν δὲ μαντικὴν χαίρειν ἐῶ, 399-400). Applied to the distinction between natural and technical divination, Orestes' preference for Apollo's Oracle is based not only on the idea that the *knowledge* it generates originates with the divine, but that the *act of divination itself* is performed by Apollo rather than a mortal

man.¹⁸⁶ The μαντική βροτῶν is contrasted with the μαντική θεῶν, with Apollo as divine *mantis*. In Euripides' *Iphigenia in Tauris*, Orestes, in a moment of despair, denounces Apollo's oracles and calls the god a "lying *mantis*."¹⁸⁷ This suggests the view that inspired prophecy, and by extension all of natural divination, is the result of the god him/herself doing the divining. Even though in tragedy prophecies turn out to hold true, there is no lack of skepticism on the part of the human recipients. Apollo may be a divine *mantis*, but just as with human seers, there is always a perceived chance of deception.

Technical divination is not seldom disparaged for rhetorical or philosophical purposes. In the *Phaedrus*, Plato contrasts mantic art with oionistic art, that is, divination through the observation of birds (ἡ οἰωνιστική). Plato is probably correct to derive μαντική from the same root as μανία (madness, via μαίνομαι "to rage," < **men*), which, bestowed by the gods, is a noble thing, because it provides undiluted and certain knowledge.¹⁸⁸ This is in contrast with technical divination, for which Plato invents an etymological link between οἰωνός (bird, bird-omen) and οἷσις (opinion) (244c-d):

So also, when they gave a name to the investigation of the future which rational persons conduct through observation of birds and by other signs (σημείων), since they furnish intelligence (νοῦν) and information (ιστορίαν) to human thought (οἴησει) from the intellect (διανοίας) they called it the οἰονοῖστικὴν

¹⁸⁶ An example of Apollo acting as a *mantis* and interpreting a divinatory sign is Pindar *Olymp.* 8.37ff.

¹⁸⁷ Eur. *IT* 711: ἡμᾶς δ' ὁ Φοῖβος μάντις ὦν ἐψεύσατο. See also Eur. *Electra* 1243-46: μητέρος δὲ σῆς/ δίκαια μὲν νυν ἦδ' ἔχει, σὺ δ' οὐχὶ δρᾷς. / Φοῖβος δέ, Φοῖβος—ἀλλ' ἄναξ γάρ ἐστ' ἐμός, / σιγῶ· σοφὸς δ' ὦν οὐκ ἔχρησέ σοι σοφά. Castor seems to have annulled the validity of Apollo's oracle, making him responsible for Orestes' matricide.

¹⁸⁸ Cf. Eur. *Bacch.* 298-300: μάντις δ' ὁ δαίμων ὅδε: τὸ γὰρ βακχεύσιμον / καὶ τὸ μανιδέες μαντικὴν πολλὴν ἔχει: / ὅταν γὰρ ὁ θεὸς ἐς τὸ σῶμ' ἔλθῃ πολὺς, / λέγειν τὸ μέλλον τοὺς μεμνηνότες ποιεῖ.

art, which modern folk now call oiōnistic, making it more high-sounding by introducing the long O.¹⁸⁹

In Platonic epistemology, inspired divination is a form of possession by the god, which is therefore superior to the human reasoning involved in technical divination.

Interpreting the Sign

Besides the rhetorical and philosophical motivations for highlighting the distinction between natural and artificial divination, there is enough historical and literary evidence to suggest that the division is by no means a clean line. The prestigious oracles that were considered to operate with natural methods—the inspired Pythia at Delphi, the so-called Doves at Dodona, the Sibyls—also required interpreters, whom, as we will see, Plato refers to as prophets (προφῆται) rather than diviners (μάντιες). A fragment from Heraclitus describes the Sibyl as follows (Fr. 92 D-K = Plut. *Mor.* 397a):

The Sibyl with frenzied (μαινομένῳ) mouth, uttering mirthless, unembellished, unperfumed [*sc.* words?], reaches to a thousand years with her voice through the god.¹⁹⁰

The inspired, possessed, or enthused priestess delivers auditory signs through some form of speech—it is unclear whether this would be garbled or coherent speech. The case of Heraclitus' Sibyl suggests a frenzied state with words pouring out uncontrolled and unadorned. These sounds would have to be interpreted before the inquirers could use

¹⁸⁹ ἐπεὶ καὶ τὴν γε τῶν ἐμφρόνων ζήτησιν τοῦ μέλλοντος διὰ τε ὀρνίθων ποιουμένων καὶ τῶν ἄλλων σημείων, ἅτ' ἐκ διανοίας ποριζομένων ἀνθρωπίνῃ οἰήσει νοῦν τε καὶ ἱστορίαν, οἰονοϊστικὴν ἐπώνομασαν, ἣν νῦν οἰωνιστικὴν τῷ σεμνύνοντες οἱ νέοι καλοῦσιν·

¹⁹⁰ 'Σίβυλλα δὲ μαινομένῳ στόματι ... ἀγέλαστα καὶ ἀκαλλώπιστα καὶ ἀμύριστα φθεγγομένη χιλίων ἐτῶν ἐξικνεῖται τῇ φωνῇ διὰ τὸν θεόν.'

them. As Sarah Iles Johnston points out, “In the course of putting such ‘natural’ messages to work in a way that would benefit humans, then, someone with skills that were usually learned from another person had to step in.”¹⁹¹ She further notes that seers such as Calchas, whose expertise is usually considered to be technical, was said to have founded an incubation oracle at Daunia, which used dreams as its main form of divination—and oneiromancy is typically classified as a natural method.¹⁹² Even if inspired seers, such as Bacis of Boeotia, were believed to produce coherent speech in the form of dactylic hexameters, nonetheless such poetic signs would typically be enigmatic and require interpretation from an exegete. The same is true for the oracles in dactylic hexameter that, according to our literary sources, are produced by the Oracle at Delphi. In fact, the scant evidence for the Pythia’s supposed frenzy, based on anthropological notions of mediumship, is not convincing at all.¹⁹³ What matters most from our perspective is that inspired divination, just like technical divination, produces or relays divinatory *signs*.

In natural divination, the signs can be oracular hexameter lines, either uttered and transmitted verbally as auditory signs, or written down as visual signs. Certain key words within the hexameter line then need to be interpreted to decipher the message. Both Plato and Cicero classify dreams as natural divination, because the dreamer is disconnected from his/her conscious and rational self, and thus in a more susceptible state to receive divinatory signs. The dream may contain some prophetic pronouncement, or the imagery

¹⁹¹ Johnston 2015.

¹⁹² Johnston 2015, citing the example from Strabo 6.3.9.

¹⁹³ See the survey of evidence and scholarship by Fontenrose 1978: 204-12

itself is a visual sign, and needs to be interpreted upon waking. This is the role of the priests at incubation oracles, in which the dream-as-sign is evoked for the purpose of curing a disease or solving some other problem. In spontaneous or spontaneous divinatory dreams, the dreamer may also consult a seer to figure out its meaning. Furthermore, the anxiety surrounding the deception and manipulation of the sign is present in natural divination as well. The Pythia was occasionally accused of having been bribed to favor one party over the other (e.g. Hdt. 5.63, 5.90–1; Thuc. 5.16.2-3), but the problem does not just lie with the recipients of the sign. As we saw with Juturna, the gods themselves may send deceitful signs. A famous example is the deceptive dream that Zeus sends to Agamemnon in Book 2 of the *Iliad*. Zeus purposefully makes the sign more believable and authoritative by putting the advice in the mouth of dream-Nestor. Signs acquired by either natural or technical methods thus need to be interpreted, and the same anxieties of manipulation and deception apply.

“I Opened Their Eyes to the Signs”

Cicero’s distinction between natural and technical divination centers on the idea that the latter is a technique or skill (*ars*, τέχνη), which, as Johnston pointed out, implies that it can be taught. Natural divination, on the other hand, must be bestowed, simply happens, or is encountered. Seers presumably passed on their skills in reading entrails and interpreting bird signs to other seers, and, indeed, non-experts could also practice divine-it-yourself. In Homer, heroes such as Hector and Odysseus interpret signs left and right, and some signs are so obvious, apparently, that the interpretation is immediate and universal, as in this example from the *Iliad* (13.821-3): “Even as he [Ajax] spoke thus, a

bird flew by him on the right hand, an eagle of lofty wing; and at that the host of the Achaeans shouted aloud, heartened by the bird-sign (οἰωνῶ).”¹⁹⁴ Other well-known historical examples come from Xenophon’s *Anabasis*. When Xenophon is reluctant to accept the command of the army, he argues that “the gods sent me signs (ἐσήμηναν) in the sacrifices in such a way that even a layman could perceive (γινῶμαι) that I must withhold myself from accepting the sole command” (Xen. *An.* 6.1.31).¹⁹⁵

The idea that divinatory methods can be taught and learned is evident from a crucial passage in the play *Prometheus Bound*.¹⁹⁶ The Titan Prometheus tells the chorus of divine Oceanids how he has taught mortals a number of practical skills (τέχνας τε καὶ πόρους, 477; τέχνη, 506) to ease their suffering (πήματα, 442) in life. These skills include those of medicine and also divination, which Prometheus addresses at great length (A. *PV.* 484-99, transl. Sommerstein):

I also systematized (ἐστοίχισα) many kinds of divination (μαντικῆς). I was the first to interpret (κᾶκρηναι) from dreams what actual events (ὕπαρ) were destined to happen; I made known to them the difficult arts of interpreting (δυσκρίτους) significant utterances and encounters on journeys; I defined (διώρισ’) precisely the flight of crook-taloned birds, which of them were favorable and which sinister by nature,¹⁹⁷ the habits of each species and their mutual hatreds, affections and companionships; and the smoothness of internal organs, and what color bile should have if it is to be pleasing to the gods, and the mottled appearance and proper shape of the liver-lobe; I wrapped the thigh-bones and the long chine in fat and burnt them, guiding mortals towards a skill of making difficult inferences

¹⁹⁴ Ὡς ἄρα οἱ εἰπόντι ἐπέπτατο δεξιὸς ὄρνις / αἰετὸς ὑψηπέτης· ἐπὶ δ’ ἵαχε λαὸς Ἀχαιῶν / θάρσυνος οἰωνῶ· (Il. 13.821-3)

¹⁹⁵ Cf. also Xen. *An.* 3.2.9, 5.6.29. On Xenophon and the *mantis*, see Flower 2008.

¹⁹⁶ The authorship question, which does not concern us here, is briefly touched upon in Chapter Four.

¹⁹⁷ Some question as to whether εὐωνόμους here is euphemistic, i.e. opposite *dexios* so “left, bad” because ill-omened (LSJ III), or literal, i.e. “of good name, auspicious, fortunate” (LSJ I-II).

(δυστέκμαρτον), and opening their eyes to the signs (σήματα) the flames gave, which till then had been dark to them.¹⁹⁸

First and foremost, the list shows no distinction between natural and technical forms of divination—dreams, chance events, birds, entrails, and sacrifice are mentioned as part of the same group. One scholiast, commenting on this passage, adopts these forms almost identically, noting that divination can be divided into four forms, namely divination by dreams, birds, liver, and sacrifice (ὄνειροκριτικόν, οἰωνοσκοπητικόν, ἥπατικόν, θυτικόν, sc. εἶδος). Another, earlier scholiast notes that there are indeed many kinds of divination, and lists three: a conjectural, an inspired, and an astronomical form (εἰκαστικόν, ἐπιπνευστικόν, ἀστρονομικόν, sc. εἶδος). Curiously, the latter two are not represented at all (unless oneiromancy is counted as an inspired form; to be sure, Plato and Cicero considered it a form of natural divination). The absence of divination by using the stars (ἀστρονομικόν), or astrology, in *Prometheus Bound* is not remarkable, since it was not practiced in Greece until the Hellenistic period, much later than the date of the play's composition.¹⁹⁹

¹⁹⁸ τρόπους τε πολλοὺς μαντικῆς ἐστοίχισα, κᾶκρινα πρῶτος ἐξ ὀνειράτων ἃ χρὴ ὕπαρ γενέσθαι, κληδόνας τε δυσκρίτους ἐγνώρισ' αὐτοῖς ἐνοδίους τε συμβόλους, γαμψωνύχων τε πτῆσιν οἰωνῶν σκεθρῶς διώρισ', οἵτινές τε δεξιοὶ φύσιν εὐωνύμους τε, καὶ δίαιταν ἦντινα ἔχουσ' ἕκαστοι καὶ πρὸς ἀλλήλους τίνες ἔχθραι τε καὶ στέργηθρα καὶ συνεδρία· σπλάγχων τε λειότητα, καὶ χροιάν τίνα ἔχουσ' ἂν εἴη δαίμοσιν πρὸς ἡδονὴν χολή, λοβοῦ τε ποικίλην εὐμορφίαν· κνίσῃ τε κῶλα συγκαλυπτὰ καὶ μακρὰν ὀσφὺν πυρώσας δυστέκμαρτον εἰς τέχνην ὥδωσα θνητούς, καὶ φλογωπὰ σήματα ἐξωμάτωσα πρόσθεν ὄντ' ἐπάργεμα.

¹⁹⁹ I will use the term astrology instead of astronomy (a term more closely linked to Platonism); no distinction was made between the two throughout Antiquity (and well beyond). I will follow A.A. Long in distinguishing between hard and soft astrology, but for now I define the term generally to mean *the observation of celestial phenomena in search for meaning*. Strictly speaking, then, the term need not be divinatory, although in Antiquity the observation of celestial phenomena typically leads to either celestial omen divination, or the postulating of effects of stars on people and earthly events. The latter would ultimately give rise to the two main branches of

What is also striking about Prometheus' list is that his main activity is organization, rather than invention. The verbs he uses to describe his own activity are στοιχίζω ("to set in a row," esp. poles), κρίνω ("separate, distinguish"), and διωρίζω ("draw a boundary, define"). These are not just abstract verbs that have to do with classification and systemization in general. Rather, as Durkheim and Mauss have suggested, divination itself is essentially about classification. Prometheus separates meaningful utterances from random ones, and draws the boundary between auspicious and inauspicious omens, thus organizing the world around him in what is meaningful and what is not. In the *Hymn to Hermes*, Apollo tells Hermes that he will deceive those who put their faith in "omens of vain utterance" (μαψιλόγοισι οἰωνοῖσιν) (*HH*. 3.541-9). Prometheus' skills are useful but difficult: the signs are "hard to discern" (δυσκρίτους) and "hard to infer" (δυστέκμαρτον). Prometheus also refers to the time before he opened people's eyes to the signs. Before Prometheus taught humans these and other important skills, they had lived in darkness (*Aes. Prom.* 447-50, transl. Sommerstein, adapted):

In the beginning, though they had eyes and ears they saw and heard in vain (μάτην); like dream-figures they lived a life of utter random (εἰκῇ) confusion all their days. ...²⁰⁰

Before Prometheus, perception and interpretation were not linked: humans could see things, but no signs: they never saw something *as* something. (Another example from a

astrology practiced in the West, namely horoscopic astrology, or genethliology, which makes predictions based on the time of an individual's birth or conception, and catarchic astrology, which determines the best time for initiating actions. For bibliography and more, see below. Tester 1987: 11 offers a helpful definition, based on the idea that astrology proper could only develop after mathematical astronomy.

²⁰⁰ οἱ πρῶτα μὲν βλέποντες ἔβλεπον μάτην, / κλύοντες οὐκ ἤκουον, ἀλλ' ὄνειράτων / ἀλίγκιοι μορφαῖσι τὸν μακρὸν βίον / ἔφυρον εἰκῇ πάντα, ...

different part of the divinatory paradigm is offered by Sherlock Holmes, when he famously rebukes Dr. Watson: “You see, but you do not observe.”)²⁰¹ This thus represents a pre-semiotic state of living, in which signifiers lack proper or consistent signifieds. It is a world of raw data without any meaning. This life that lacks fixed markers of orientation is ruled by randomness, expressed by words such as Prometheus’ μάτην, εἰκῇ and Apollo’s μάψ. The scholiast describes this as living “in confusion” (ἐν ταραχῇ)—a significant word in the context of disaster, as we will see in the next chapter. Prometheus lifts this pre-semiotic spell by showing people how to *use* things (which implies seeing something *as* something), and by interpreting the world according to fixed markers. The clearest example of this are seasonal markers (Aes. *Prom.* 454-8, transl. Sommerstein):

Nor had they any reliable indicator (τέκμαρ) of winter, or of flowery spring, or of fruitful summer; they did everything without planning (γνώμης), until I showed them the hard-to-discern (δυσκρίτους) risings and settings of stars.²⁰²

The seasonal signs of rising and setting stars are not divinatory signs, but they do share a conceptual similarity in that both are said to be “hard to discern” (δυσκρίτους).

Functionally—as signs—they operate in the same way. The semiotic term that

²⁰¹ Conan Doyle, *A Scandal in Bohemia*: 162. Compare also Biblical contexts, e.g. Matt. 13:13, Mark 4:12, Luke 8:10, John 12:40, Is. 6:9, Jer. 5:21, Ezek. 12:2. Jesus’ parables, contrary to Prometheus’ teachings, are themselves coded riddles that prevent the uninitiated from seeing.

²⁰² ἦν δ’ οὐδὲν αὐτοῖς οὔτε χεῖματος τέκμαρ / οὔτ’ ἀνθεμώδους ἥρος οὔτε καρπίμου / θέρους βέβαιον, ἀλλ’ ἄτερ γνώμης τὸ πᾶν / ἔπρασσον, ἔστε δὴ σφιν ἀντολὰς ἐγὼ / ἄστρον ἔδειξα τὰς τε δυσκρίτους δύσεις. Sommerstein’s notes on this passage: “Any given star rises (and sets) four minutes earlier each day, and Greeks used as markers of the seasons the days when prominent stars or star-groups (e.g. Sirius, Arcturus, the Pleiades) could first be seen rising (or, six months later, setting) before daybreak. These risings and settings are “hard to discern” because knowledge of them presupposes the ability to pick out the marker stars from the thousands of others in the sky.”

Prometheus uses is τέκμαρ (“indicator,” cf. *index*), which means fixed sign, and which we will analyze in the next section. As Sommerstein’s translation correctly but probably unintentionally implies, τέκμαρ is an *indexical sign* because its relation between the object (winter) and the sign (position of the stars) expresses contiguity.

Thus, the teachings of Prometheus signal a new semiotic awareness, which opens the door to a variety of disciplines and practices—a “divinatory paradigm.” Prometheus seems to share Peirce’s motto that nothing is a sign unless it is interpreted as a sign. A world without signs is a world without meaning, at least for all practical purposes; signs help to construct a path through the confusing background noise of randomness. Prometheus claims to have opened people’s eyes to the signs, or σήματα, of divination. He has also taught people to recognize the position of the stars as sign, or τέκμαρ. Herodotus called the Delian earthquake a sign, or τέρας. What do these different words for sign tell us about practical, ancient conceptions of the sign? Are these terms interchangeable, and how are they used differently over time? This is not just a matter of semantics, but also of conceptual classification. All the classifications we have discussed so far, however, prioritize the origin or acquisition of the sign: does the sign appear in heaven or on earth? Is the sign evoked in prayer or does it appear spontaneously? Is the sign created intentionally as sign or does it already exist as object? Is the sign apprehended by natural means, such as sleep or inspiration, or by artificial means, such as the rational mind observing birds or entrails? If we take Herodotus’ Chian catastrophe as our example, the disaster-as-sign appears as an spontaneous, intentional sign that is apprehended by some form of technical divination. *Divining disaster*, moreover, emerges as a cognitive state that distinguishes random occurrences from meaningful events. As

such, it plays a role in organizing the world. One aspect that is entirely obscured by these classifications, however, is that of semiosis: *how* does the sign stand for something? This question has epistemological implications. Based on how the sign stands for something, a different kind of knowledge is conveyed. The following section looks at Greek sign terminology to consider these questions.

PART III

NAMING THE SIGN

Tzetzes' Terminology

So far we have focused on classifying signs within a divinatory context. Now we turn to the semantic analysis of Ancient Greek sign terminology itself, of which no comprehensive account exists yet, but which is much needed to grasp the full scope of divining disaster within a semiotic or divinatory paradigm. Before addressing individual terms and their usage in Archaic and Classical Greek texts, let us consider a comparative terminology from a later date that examines the *relations* between different signs. The *Chiliades* of John Tzetzes, the 12th-century Byzantine poet and grammarian, has preserved a valuable comparison of ancient sign terminology, in which he is concerned with the sign in general, rather than the divinatory sign exclusively. What makes his discussion so illuminating is the implicit way in which these different signs, based on their names, are organized. The principle that underwrites this organization is precisely the cognitive aspect we are interested in, namely *the way in which the sign functions as*

the basis for inferential reasoning. Of the terms that are relevant to the present discussion, the six terms he discusses are: τέρας, σημεῖον, τεκμήριον, σύμβολον, and εἰκός (7.152).

Tzetzes defines τέρας as something “wholly against nature” (τὸ παρὰ φύσιν ἅπαν), such as a person with six fingers or three feet or three hands. Next, σημεῖον is something that “appears altogether against place and time” (παρὰ τόπον δε φανῆ καὶ παρὰ χρόνον σύμπαν), like a rose in winter or a strange beast dwelling outside of its usual habitat. The definition of τεκμήριον is something “that shows from something manifest, something that is invisible” (τὸ ἀπὸ φανεροῦ τινός τι ἀφανὲς δεικνύον); for example, when you see smoke from a distance, “you presume (lit. perceive with your mind)” (νοεῖς) that there is a hearth. Tzetzes next links σύμβολον to συμβουλή (“counsel, deliberation”), defining σύμβολον as something “that is effected by deliberation” (τὸ δ’ ἀπὸ συμβουλῆς πραχθέν); examples include signals on the battlefield and Judas’ kiss of betrayal. Finally, Tzetzes discusses the term εἰκός, a somewhat curious inclusion since it never means “sign” per se, but rather “likelihood, probability.” This confirms that Tzetzes is especially interested in how signs form the basis for a process of inference, and the kind of knowledge it produces. He defines εἰκός as “a guessing based on appropriate reasoning” (στοχασμὸς ἐκ λογισμῶν πρεπόντων), and his example is that if someone is walking about at night, he is likely to pursue either thievery or prostitution.

Several classifying principles can be discerned. First, τέρας and σημεῖον are defined by their contrary nature: both inspire wonder, or even fear, by being abnormal and contrary to everyday experience. The examples of τέρας suggest deformity and hence monstrosity. The examples of σημεῖον appear harmless in themselves, and emphasize

misplacement and *out-of-placeness*. Both are characterized by the natural world behaving in a strange and unexpected way, although it can remain unclear what exactly these signs signify. They are enigmatic and above all wondrous signs. Both signs are encountered rather than evoked, precisely because they originate in nature. The σύμβολον, on the other hand, originates in culture and is defined by its conventionality. The σύμβολον is an entirely arbitrary sign that only works when its signified is previously agreed upon. (In this, Tzetzes' interpretation anticipates that of modern scholarship.) The goal of its use is to relay a coded message that has been constructed "deliberately" by its encoder, even if the connection with συμβουλή is linguistically incorrect. For the users of the σύμβολον, there is no question as to what it signifies, and the message can be captured by a conditional statement: *if* I kiss him, *then* he is the man you must capture. This only goes for those who are privy to the meaning of the symbol; there is an element of exclusion, since those who have not been initiated are not supposed to decode it, or they are supposed to decode it wrongly (for example, by accepting the 'normal' meaning of the kiss as a simple greeting).

In this sense, σύμβολον differs from τεκμήριον, which is not defined by its conventionality as much as by its clear and self-evident relationship between sign and meaning: *if* there is smoke, *then* there is fire. The interpretation requires no discursive decoding, but is straightforward and instantaneous because it is based on experience: smoke means fire, and by extension habitation. Of course, there is an inference involved (with the mind, νοῦς, as the verb νοέω suggests), but one that is more straightforward than the σύμβολον precisely because the τεκμήριον has a non-arbitrary relationship between the signifier and the signified. In the example of smoke and (hearth)fire, that

relationship is causal, and based on repeated observation and past experience that smoke at the horizon will lead one to human habitation. The term εἰκός, finally, refers to the process or outcome of an inference based on signs that seems to produce circumstantial evidence whose epistemological status qualifies as “likely” or “probable.” This is the only example Tzetzes actually gives in a conditional form: *if* you see someone out at night, *then* he is likely to be involved in some clandestine activity (e.g. stealing or prostitution). The protasis contains the sign, and the inference, contained in the apodosis, requires an act of appropriate reasoning, based on experience, general laws, or knowledge about human behavior. The inferential process lies somewhere between that of the τεκμήριον and the σύμβολον: it is less straightforward than the smoke/fire/hearth association, and more accessible than the purely conventional and potentially secretive codes of the σύμβολον.

Thus, Tzetzes’ classification suggests various ways in which the sign functions as the basis for inferential reasoning. In the case of τεκμήριον, εἰκός, and σύμβολον, the term consists of a sign that can be understood as the protasis of a conditional statement (*if* ...) with increasing degrees of conventionality based on contiguity, likelihood, and arbitrary agreement, respectively. This triad neatly anticipates Peirce’s classification of the sign as *index*, *icon*, and *symbol*. Of particular interest are the terms σημεῖον and τέρας. They are the outliers, since they are defined explicitly as “unnatural” signs, and therefore lack a clear decoding mechanism. As we will see, the history of the word τέρας roughly confirms this usage, while the term σημεῖον has enjoyed a much wider application than Tzetzes’ definition suggests. These are the types of sign that readily lend themselves to postulate unconventional agents, because they appear to violate common-

sense experiences about the world. They seem to operate under a different, unknown code, and therefore invite different methods of interpretation.

In the following sections, I will offer a philological analysis of τέρας and τέκμαρ / τεκμήριον from their earliest occurrences to the 4th century. I focus on these two terms because they are most directly related to divining disaster. Moreover, no comprehensive account exists of these terms yet, even though they are central to Greek sign terminology. I touch on σῆμα / σημεῖον more briefly, because the stem *sēm-* comprises too general and large a semantic field. The term σύμβολον has already been discussed fruitfully by other scholars, and can be summarized here.²⁰³ The noun is derived from the verb συμβάλλω (lit. “throw together”), probably in its particular meaning “come together, meet, agree.” In the Classical period, the word primarily refers to a token used to authenticate a contract, and—in tragedy but also later in the novel—to ascertain the identity of a person. Concretely, the σύμβολον is a token that is part of a greater whole, a piece that corresponds to another piece, or two parts that fit together. The term σύμβολον indicates what it indicates by agreement, or, in linguistic terms, by convention. Tzetzes’ example of σύμβολον similarly confirms the conventional nature of the sign. While the use of the noun is varied, its use as divinatory sign is quite marginal (compared to τέρας and σημεῖον). Peter Struck has shown that, as a divinatory sign, σύμβολον refers to *who or what one meets*. The term points to the suddenness and unexpectedness of the meaningful occurrence, the chance encounter that seems random but proves meaningful.²⁰⁴ The term

²⁰³ Müri 1976; Struck 2014.

²⁰⁴ Struck 2014, esp. Chapter Two.

εἰκός, finally, is omitted altogether from my philological discussion, because the term never means “sign” *strictu sensu*, and its relationship to either divination or disaster is only indirect. That said, the role of *likeness* and *likelihood* in inferential reasoning is key to decoding many a divinatory sign, as we will see in Part IV.

Σῆμα, σημείον, σημαίνω

Words derived from the stem *sēm-* (σῆμα, σημείον, and its verbal form σημαίνω) can refer to signs and marks of all kinds, including divine signs and portents (such as thunder and lightning, chance utterances, oracular pronouncements, and birds), conventional signs (such as battle signals, tomb stones, and flags), and natural signs (such as animal tracks and medical symptoms). The term διοσήμια (“sign from Zeus”) is more specific, and refers to omens in the sky, such as thunder, rain, and lightning. The verb σημαίνω means to convey a message through the medium of a sign. In particular, the verb can carry the idea of authoritative communication, as when the sign is made from a superior vantage point, whether literal (such as the scout on the top of a hill, e.g. Hdt. 7.192.1), or metaphorically, as when a person of authority arbitrates between different viewpoints (e.g. Hdt. 1.5.3).²⁰⁵ The ultimate authority belongs to the vantage point of the gods. One fragment of Heraclitus, for example, links the verb σημαίνω to the oracular pronouncements of Apollo: “The lord whose oracle is in Delphi neither speaks (λέγει) nor conceals (κρύπτει), but indicates through signs (σημαίνει)” (DK 22 B 93). In this fragment σημαίνω is especially associated with divine communication, which is

²⁰⁵ This has been shown by Nagy 1990: 165. See also Hollmann 2011: 20-21.

characterized as somewhere between complete transparency and complete obscurity.²⁰⁶

The oracular sign provides a basis for inference as to what the god is communicating, but the sign must be decoded properly.

In a passage from the *Timaeus*, Plato elaborates on the need for a rational interpreter of the sign, even signs that are acquired through inspired divination. Plato, as we have seen, privileges inspired over technical divination, but this distinction partly collapses when it comes to *interpreting* the divinely sent signs (Pl. *Tim.* 71e-72a):

But it belongs to an individual when in their right mind to recollect and ponder both the things said in dream or waking vision by the divine and inspired nature, and all the visions that were seen, and by the means of reasoning to discern about them all how they are significant and for whom they signify (σημαίνει) evil or good in the future, the past, or the present.²⁰⁷

Plato calls these interpreters (ὕποκριταί) prophets (προφῆται), rather than diviners (μάντις). They are specialists who preside over the process of interpretation of the sign, and thus produce meaning, while the mantic (and, for Plato, manic) individual acts simply as the mouthpiece for the god, channeling both visual and auditory signs. The verb σημαίνω here refers to the activity of semiosis of the divinatory sign, namely how and for whom its coded message is conveyed through signs.

If σημαίνω means indicating or transmitting through signs, the verb προσημαίνω adds a temporal layer to the verb: something is communicated about the future through

²⁰⁶ Romeo 1976.

²⁰⁷ ἀλλὰ ξυννοῆσαι μὲν ἔμφορος τά τε ῥηθέντα ἀναμνησθέντα ὄναρ ἢ ὕπαρ ὑπὸ τῆς μαντικῆς τε καὶ ἐνθουσιαστικῆς φύσεως, καὶ ὅσα ἂν φαντάσματα ὁφθῇ, πάντα λογισμῷ διελέσθαι, ὅπη τι σημαίνει καὶ ὅτῳ μέλλοντος ἢ παρελθόντος ἢ παρόντος κακοῦ ἢ ἀγαθοῦ.

signs *beforehand*.²⁰⁸ It has the sense of forecasting, creating a temporal relation between the sign and the event (the referent) that followed. This is the verb Herodotus uses in the Chios passage, noting that the god communicates through signs *before* disasters happen.²⁰⁹ To be able to signal something in advance requires the superior vantage point mentioned above. It is therefore no surprise that in its earliest attested usage—in Herodotus and once in Euripides—the verb refers to divine communication.²¹⁰ In Euripides’ *Suppliant Women* (ca. 430-20 BCE), for example, Theseus gives an optimistic account of the human condition, praising the role of divination: “As for things that are unmarked (ἄσημα) and that we do not know clearly, seers foretell them (προσημαίνουσιν) by examining the fire, the folds of entrails, and the flights of birds” (Eur. *Suppl.* 211-3).²¹¹ Through such typical divinatory techniques as pyromancy, hieromancy, and ornithomancy, the seer retransmits the signs given beforehand by the god. In Xenophon, the verb is always divinatory, too, and used for the *daimonion* that tells Socrates beforehand what not to do; the gods announce things beforehand, too, by sending τέρατα—on which more below (Xen. *Mem.* 1.1.4; 1.4.15). The verb is also used in the context of medical semiotics, especially in the Hippocratic corpus and Diocles, and

²⁰⁸ Earliest use in Euripides (1x in *Suppl.*, 1x in *Med*, but spurious line) and Herodotus (4x). Xenophon uses it frequently (8x). Most frequent in Hippocratic corpus. Not in Thucydides, Plato, or the orators (except once in Aeschines, discussed below).

²⁰⁹ In Herodotus, the gods communicate beforehand to Croesus (1.45) and to the Chians (6.27), and so does Apollo’s priestess, the Pythia, to the Spartans (6.123).

²¹⁰ Earliest non-divinatory context is Eur. *Med.* 725, but the line is omitted in some manuscripts and considered spurious by most editions, including the OCT by Diggle.

²¹¹ ἃ δ’ ἔστ’ ἄσημα κού σαφῶς γινώσκομεν, / ἐς πῦρ βλέποντες καὶ κατὰ σπλάγχνων πτυχᾶς / μάντις προσημαίνουσιν οἰωνῶν τ’ ἄπο.

meteorology, as when certain sounds announce beforehand that the South Wind will blow (Aristotle) and the sound of the screech owl in winter foreshadows fair weather (Theophrastus).

Τέρας (I): Signs and Monsters

A second Greek term for sign is τέρας (“sign, wonder, portent, monster”), the only term that consistently refers strictly to *divine* (and often but not necessarily *divinatory*) signs.²¹² Greek has several other, partly interchangeable terms that can refer to divinatory signs specifically, such as ὄρνις and οἰωνός, both of which must have originally referred to bird omens (their cries, behaviors, and paths of flight) in a narrow sense (cf. Lat. *auspicium*).²¹³ The term φάσμα (“apparition, portent, monstrous shape”) refers mostly, but not exclusively, to meteorological phenomena, such as eclipses and thunderstorms, or strange appearances and images, such as those that appear in dreams. Other terms are restricted to dreams (ὄνειρος, ὄψις, ἐνύπνιον) and oracular signs (χρησμός, χρηστήριον, μαντεῖον).²¹⁴ Personal preference seems to be a factor, too: Xenophon, for example, has a predilection for the word οἰωνός, which for him mean “divinatory sign” in general. Of all these terms, Raymond Bloch concludes in his comprehensive study of divinatory signs in Antiquity that τέρας has the widest semantic range.

²¹² See Colombo 2012: 221-51; Bloch 1963: 9-33; Steinhäuser 1911; Stein 1909.

²¹³ On bird omens in Greek divination, see Dillon 1996: 99-121.

²¹⁴ Hollmann 2011: 9 n. 1; 51 n. 1.

According to Benveniste, τέρας alone does the work of the much more elaborate Latin lexicon for divine signs, with such terms as *monstrum*, *portentum*, *prodigium*, *ostentum*, and *omen*.²¹⁵ To be sure, the distinction between these Latin terms had also already become blurred at least by the time of Cicero—and scholars to this day use such terms as omen, portent, and prodigy without much distinction.²¹⁶ Some scholars have suggested that *omina* occur directly before an event, that *prodigia* always occur spontaneously, or that *monstra* are inherently negative—but examples can be easily found to contradict these generalizations.²¹⁷ More insightful, perhaps, is Benveniste’s reconstruction of the preliterate distinctions of these Latin terms based on their etymology:²¹⁸

omen ‘a veracious presage’.

monstrum ‘a creature whose abnormality constitutes a warning’ (*moneo* ‘to warn’).

ostentum ‘a phenomenon which extends (**ten-*) opposite (*obs-*) the observer in his field of vision’.

portentum ‘a vast perspective presented (*por-*) to one’s gaze which reveals the future’

prodigium ‘an utterance invested with divine authority (*aio*, cf. *Aius*) pronounced in public (*prod-*) which functions as a presage’

²¹⁵ Benveniste 1973: Vol. 6, Ch. 6.

²¹⁶ *Quia enim ostendunt, portendunt, monstrant, praedicunt, ostenta, portenta, monstra, prodigia dicuntur.* (Cic. *De Div.* 1.42.93). Cf. Servius *ad. Aen.* 3.366: *confusa plerumque ponuntur*. See most recently Engels 2007.

²¹⁷ See Beerden 2013: 110. The bird-omen in *Aeneid* 12, discussed above, is called a *monstrum* by the poet, and it is not clear at all that this sign is inherently negative. If anything, the Italians interpret it as a positive sign.

²¹⁸ Two absent terms, probably because their etymologies are quite straightforward, are *augurium* and *auspicium*. *Augurium*, which means “presage” in the broadest sense, comes from *augeo*, “increase” in the sense that an *augur* is someone who give presages that guarantee the “increase” or success of an activity. Meillet s.v. *augeo*.

These reconstructed meanings suggest an emphasis on the visual and auditory nature of the divinatory sign, and the importance of the observer. The Latin terms *monstrum*, *portentum* and *prodigium* can have a transferred meaning of “monster, monstrosity.” *Monstrum* is something that shows (*monstrare*) and something that warns (*monere*, via *monestrum*).²¹⁹ The Greek τέρας can mean “monster” too, a connection borne out by the shared etymology of τέρας and πέλωρ (“monster”), which has now found general acceptance.²²⁰ “*Teras* est avant tout le «prodige», *prodigium*, *monstrum* par excellence, dans le sens de l’étymologie du mot latin,” writes Ileana Chirassi Colombo.²²¹ My analysis of the word τέρας demonstrates that its meaning oscillates between divine sign and monstrous creature, and that these meanings are two sides of the same coin. As divine sign, on the one hand, it is always extraordinary and inspires awe or fear; as a monster, on the other hand, it is always a warning sign of some sort, a symptom of a disturbance in the natural and social equilibrium. Τέρας is especially relevant to our understanding of *divining disaster*, because it has a relationship to both divination and disaster. Seen from the Uncertainty Paradigm, τέρας is a sign that needs to be interpreted, especially since its extraordinary nature is often symptomatic for something that is wrong. Seen from the Agency Paradigm, the τέρας emerges as monster with its own destructive agency, or as something indicative of an outside, divine agency.

²¹⁹ This etymology, which goes back to Antiquity itself (cf. Festus *Glossarium* 122.7), is likely correct (Chantraine).

²²⁰ Osthoff 1905: 51-68; Chantraine s.v. τέρας; Frisk s.v. τέρας. An alternative etymology, proposed by Scherer, connects *teras* with Skr. *tarah* “star”. For *teras* and *pelor* in Homer, see Pizzani 2000: 527-40.

²²¹ Colombo 2012: 222.

Τέρας (II): Thunder, Rainbows, and Snakes

In Homer, the word τέρας never means monstrous creature *per se*, but refers to a wide variety of divine signs, from celestial and meteorological signs such as thunder, rainbows, stars, and wind, to chthonic signs related to snakes and monsters such as the Gorgo, often in connection to tokens on armor. These τέρατα can be evoked or spontaneous. Nestor, for example, asks “god to show a sign” (θεὸν φῆναι τέρας, *Od.* 3.141), whether to navigate their ships past Chios landward or seaward. The god showed it to them, probably in the form of a favorable wind, although this is not made explicit.²²² When the sign is specified, it becomes clear that its extraordinary nature suggests an extraordinary, divine, sender. Natural phenomena such as thunder and rainbows become extraordinary because of the perceived meaningful coincidence of their appearance. In Book 20 of the *Odyssey*, Odysseus asks for a sign indoors (a φήμη, or “utterance”) and a sign outdoors (a τέρας from Zeus). He immediately hears thunder, which he perceives as the τέρας he requested. The thunder then goes on to prompt the indoor sign: the thunder is heard by the last miller still awake, and she, too, immediately recognizes it as a τέρας from Zeus (20.114), albeit for a different reason. For Odysseus, the meaningful coincidence follows upon the fact that the sign was asked for; for the miller woman, the thunder is extraordinary because there is not a cloud in sight (οὐδέ ποθι νέφος ἐστί,

²²² Colombo 2012: 243.

20.114).²²³ The woman recognizes it as a sign (“you [Zeus] are now showing someone this as a sign,” τέρας νύ τεω τόδε φαίνεις, 20.114), and, though she is uncertain about the intended recipient, she responds to it by asking Zeus for a special wish, namely that the bread she is baking will be the suitors’ last meal. Odysseus hears her speech, which is referred to as both a “sign for her master” (σῆμα ἄνακτι, 20.111) and a “chance utterance” (κλεηδόνι, 20.120), and he considers it the fulfillment of the indoor φήμη he had requested. To Odysseus, the meaning of the signs is clear, because they were evoked in a specific conditional proposition: *if* you gods have brought me home to Ithaca, *then* send me an indoor and outdoor sign (20.98-101). Odysseus adds another condition to the indoor sign, namely that it comes from someone who is awake. This seemingly odd detail serves to increase the meaningful coincidence of the sign, by asking for something that is less likely to be the case. As the poet specifies, the other eleven women working at the mills had already finished their task and were asleep, but one woman, the weakest of them, happened to be still grinding her barley (20.107-10). By placing this condition on the sign, Odysseus renders its occurrence more meaningful.

In other situations, a specific sign can be ignored or rejected—at the observers’ peril—as an inferior type of divine communication. When an eagle drops a blood-red snake in the middle of the Trojan army, the soldiers, bristling with horror, recognize the “monstrous” (πέλωρον) snake immediately as a τέρας from Zeus (*Il.* 12.209)—note that τέρας and πέλωρον are collocated here. Polydamas, Hector’s prescient alter ego, interprets

²²³ The text makes clear that this is not the reason why Odysseus considered the thunder a *teras*, since he is said to accept the *teras* from Zeus as coming “from up high from the clouds” (ὑπόθεν ἐκ νεφέων).

the τέρας as a bad sign, and advises not to attack the Achaean camp at this time (cf. *Il.* 18.243-84, where he is described as the only one who “looks both before and after,” ὄρα πρόσσω καὶ ὀπίσσω, *Il.* 18.250). Hector, however, rebukes him and scorns the bird-omens, saying that he has received personal guarantees from Zeus himself (12.231-44). Rather than offering a different interpretation of the sign, Hector rejects its validity altogether.

A spontaneous τέρας, besides the potential of being a sign with a coded message (σῆμα), inspires wonder and amazement, as is most obvious with events that seem to go against everyday experience. Its occurrence derives meaning from the time, place, and circumstances in which the τέρας manifests itself. This is the case with the famous sign of eight sparrow fledglings and their mother being eaten up by a monstrous snake that has appeared from under a rock (*Il.* 2.301-35). Odysseus recalls the “horrific snake” as a “great sign” sent by Zeus himself (μέγα σῆμα: δράκων ... σμερδαλέος, 2.308-9), because its appearance intervenes during a special moment: the Achaean army, detained at Aulis, is in the middle of sacrificing hecatombs. But the most remarkable moment happens when Zeus turns the snake, who has devoured the nine birds, to stone. Everyone stands around “marveling” at this “terrible monster/portent” (θαυμάζομεν ... δεινὰ πέλωρα, 2.320-1), which the seer Calchas then designates as a “great sign” (τέρας μέγα, 2.324) from Zeus.²²⁴ Decoding the sign, in Calchas’ interpretation, consists in matching the

²²⁴ This (i.e. *Il.* 2.321) is the only extant case where the primary meaning of πέλωρ (πέλωρον = πέλωρ) seems to be “portent” rather than “monster” (πέλωρα θεῶν, “portents sent by the gods”), though this meaning lies close to the surface as well. LSJ s.v. πέλωρον.

number of birds to the number of years the Achaeans will be fighting at Troy.²²⁵ Scholars and scholiasts alike have attempted to account for what they perceive as the missing part of Calchas' interpretation, namely the τέρας of the snake-turned-stone ("le prodige « vrai »,” according to Colombo, “que le *mantis* ne sait ou ne veut pas comprendre”).²²⁶

Colombo has argued that, if the snake represents the Achaean army, its turning to stone should reverse the positive meaning of the sign. The scholiasts interpret the petrification of the snake as the difficulty of the Achaean homecoming. To suspect, with Colombo, incompetence or malpractice on Calchas' part, however, is to misread the importance of the snake's petrification. Colombo and the scholiast assume that the τέρας of the snake's petrification is part of the code, and that it must be integrated in the signifying structure of the content and context of the message.

Seen as an index, however, a τέρας always signifies divine *agency*, as when Zeus thunders either in response to Odysseus' request, or, from the miller's perspective, in a cloudless sky. It thus possible to read the snake-turned-stone as a metalinguistic part of the message, meant to demarcate the divine sign and to draw attention to itself as being a sign. It does so by doing something so contrary to expectation (namely, turning to stone)

²²⁵ See critical notes on this by Aristotle (Scholiast on this passage) and Cicero *De Div.* 2.65. The Scholiast offers a comprehensive interpretation of the sign: ὁ δράκων Ἀθηνᾶς ἱερός, οἱ στρουθοὶ Ἀφροδίτης, χρόνον τε δηλοῦσιν, ἐπεὶ πτηνὸς ὁ χρόνος. ὁ δὲ λίθος, ἐπεὶ οὐκέτι κίνησιν ἔλαβεν ὁ πόλεμος. ἢ τὸ μὲν ἐφ' ὕψους κεῖσθαι τὴν νεοσσιάν, τὴν ἠνεμόεσσαν Ἴλιον, οἱ δὲ ὑποπετάλιοι νεοσσοὶ τὸ ὀλιγοχρόνιον τῶν Τρώων· μαραινόμενων γὰρ ὅσον οὐδέπω τῶν φύλλων ἀποπεσοῦνται. ἢ δὲ ἐνάτη μήτηρ τῆς ἐννεατηρίδος τὸν ἔσχατον ἀγῶνα ἐσήμανεν, ἢ δὲ διὰ τοῦ ὕδατος πορεία τοῦ δράκοντος τὴν δι' ὕδατος ἀφίξιν τῶν Ἑλλήνων, τὸ δὲ περιλειφθῆναι τὴν νεοσσιάν τὸ μὴ παντελῶς ἠφανίσθαι τὸν τόπον· οἰκεῖται γὰρ μέχρι τοῦ νῦν. ἢ δὲ ἀπολίθωσις ἢ τὸ δυσδιεξόδευτον τῶν νόστων.

²²⁶ Colombo 2012: 243.

that it *must* indicate divine involvement—it is the *indexical* aspect of the sign that is dominant here. The petrified snake-τέρας is an index of Zeus, which confirms that the entire occurrence is a divine sign, one that, as σήμα or symbolic sign, contains a coded message as well. If evoked, as for Nestor or Odysseus, a sign is a τέρας by virtue of being a direct sign of divine agency, because its appearance is perceived as an immediate response to a request for a deity. If spontaneous, as for the miller or snakes encountered by the Achaean army, a sign is a τέρας by virtue of being so extraordinary that it is suggestive of divine agency. Thunder in a cloudless sky, snakes dropping out of the sky, or snakes turning into stone all invite this suggestion. These spontaneous signs lean heavily on their ability to inspire fear or awe, and the circumstances under which they appear; this is both what allows them to be recognized as signs in the first place, and as divine signs in particular.

Indeed, when meteorological phenomena appear as τέρατα it is by their association with divine agency. The only two Homeric instances where τέρας is part of a simile are instructive. In *Iliad* 17, Athena arrives amidst the Achaeans wrapped “in a lurid cloud” (πορφυρέη νεφέλη, 17.551). The color serves as the common element in comparing Athena’s supernatural appearance to the “lurid rainbow” (πορφυρέην ἴριν, 17.547) from heaven that Zeus sends as τέρας “either of war or of chilly storm, which stops people from their work upon earth and troubles the flocks.”²²⁷ The rainbow must be

²²⁷ Ζεὺς ἐξ οὐρανόθεν τέρας ἔμμεναι ἢ πολέμοιο / ἢ καὶ χειμῶνος δυσθαλπέος, ὅς ῥά τε ἔργων / ἀνθρώπους ἀνέπαυσεν ἐπὶ χθονί, μῆλα δὲ κήδει (*Il.* 548-50). In Homer, πορφύρεος means “heaving” or “gushing” when applied to the sea or blood, and “purple” when applied to clothes; the meaning “lurid” is suggested by LSJ specifically for *Il.* 17.547 and 551 to account for the supernatural hue of both the cloud and the rainbow.

sent by Zeus, presumably because of the same extraordinary appearance that causes an unusual cloud to be associated with Athena's divine presence. The associations of the rainbow-as-sign are clearly negative and threatening: signaling either war or storm, crop and animal husbandry would come to a halt, disturbing the cycle of agricultural production. Athena's presence is similarly dangerous, as she enters the fray to rouse strife (ἔγειρε δὲ νεῖκος Ἀθήνη / οὐρανόθεν καταβᾶσα, *Il.* 17.544-5). The rainbow thus appears as an indexical sign of Zeus and a symbolic sign of disaster.

The second simile shows that τέρας as meteorological sign need not be threatening per se. Again, it is Athena's divine presence, or, to be precise, her movement, that invites the comparison (*Il.* 4.75-9):

Just as the son of devious Kronos sends a star,
a sign (τέρας) either for sailors or the wide host of soldiers,
a bright one, and from it many sparks fly,
just like that did Athena dart to earth and
leapt down into their midst; and amazement (θάμβος) came upon all who saw
it.²²⁸

The comparison is again about a perceptual similarity, this time between the way a shooting or falling star moves and the way in which Athena moves from heaven to earth (note that this is not a fixed star, which would typically be a τέκμαρ). The extraordinary phenomenon of the bright star with trailing sparks—whether celestial (a comet) or atmospheric (a meteor)—is naturally seen as a τέρας by sailors and soldiers.²²⁹ (We can

²²⁸ οἶον δ' ἀστέρα ἦκε Κρόνου πάϊς ἀγκυλομήτεω / ἢ ναύτησι τέρας ἢ ἐστρατῶ εὐρέϊ λαῶν / λαμπρόν· τοῦ δέ τε πολλοὶ ἀπὸ σπινθήρες ἵενται· / τῷ ἑκὺς ἦϊξεν ἐπὶ χθόνα Παλλὰς Ἀθήνη, / καὶ δ' ἔθορ' ἐς μέσσον· θάμβος δ' ἔχεν εἰσορόωντας.

²²⁹ For comets and meteors, see comments in Kirk s.v. 4.76. In *Iliad* 18.485, the word τὰ τεύρεα occurs in the ekphrasis of Achilles' shield wrought by Hephaestus. The word clearly refers to the constellations (the Pleiades, Orion and others are named). Cunliffe lists it as a separate, hapax

compare the description of Achilles' shield, the gleam of which is compared to a trailing star observed by sailors adrift at sea.) The star inspires wonder and amazement (θάμβος) among the warriors of both camps, who recognize the extraordinary nature of the sign and thus suspect divine involvement.²³⁰ The sign, which comes at a moment of truce, prompts a binary interpretation among the men that specifically addresses the circumstance of the war: *either* Zeus has devised evil war to resume, *or* friendship will be established (*Il.* 4.81-4). Although Athena's presence in fact signals war, not friendship, the binary suggests that τέρας is not by definition an ill-omened sign, as some scholars have maintained; above all, it is defined by its extraordinary nature that is an index of divine agency.

In Homer, then, τέρατα are either meteorological or chthonic (snake) phenomena, two realms that distinctly belong to the divine.²³¹ The chthonic instances lend themselves especially well for an association with the monstrous; the snakes that devour the sparrows, and the snake dropped by the eagle are both described as πέλωρ(ον), a word

entry (but cf., for example, *Apol. Arg.* 3.1362, 4.261, and *Aratus Phaen.* 1.692, where τείρεα refers to the fixed stars), while LSJ considers it a lengthened form of τέρας (cf. also Chantraine s.v., who notes the meaning "star" is secondary; cf. *Skt. tarah*). From a purely semantic viewpoint, the meaning of star in the sense of *fixed*, celestial sign goes, in my view, against all other attested instances of τέρας proper. For example, the meteor-as-τέρας in *Il.* 4.76 is a one-time, rare and non-fixed occurrence.

²³⁰ Cf. *Od.* 3.371-3, where Nestor sees Athena depart in the shape of a bird (φήνη, vulture); the similar phrase θάμβος δ' ἔλε πάντας ἰδόντας.

²³¹ E. Mitropoulou, *Deities and Heroes in the Form of Snakes*, 1977. Snakes regularly featured as guardians of sanctuaries; seers such as Cassandra, Helenus, and Melampus received their divinatory skills when they were licked by snakes, and the infant Iamus, the founder of an important Elean family of seers called the Iamidai, was nourished with honey by a snake. Other examples of snakes as τέρατα include *P. O.* 8.37-41 (three snakes, interpreted by Apollo as τέρας); Hdt.

etymologically related to τέρας, as mentioned above.²³² Its awe-inspiring qualities makes the chthonic τέρας especially suitable as signs on armor. (One case in which celestial and chthonic signs overlap is *Iliad* 11.26-8, where the snakes on Agamemnon's armor are compared to rainbows, which Zeus sets among the clouds as a τέρας). In the scene of the armament of Athena, the goddess dons Zeus' war tunic, including the aegis, which has depictions of Eris (Strife), Alke (Battle Strength), Phobos (Fear), Ioke (Onslaught) and the gorgoneion: "And on it was the Gorgo, the head of a terrible monster (πελώρου), terrible and horrific (σμερδνή), the sign (τέρας) of aegis-bearing Zeus" (*Il.* 5.741-2).²³³ Pausanias reports a painting in which Menelaus' shield is adorned with the monstrous snake that appeared as τέρας at Aulis.²³⁴ Such instances where πέλωρ and τέρας are collocated are instructive: the monstrous itself can be a sign of divine power and deterrence. The monstrous snake-sign interpreted by Polydamas is specifically a divinatory sign, one that communicates an encoded message from the gods, while the Gorgo's snake-haired head is iconic in its function as terror-rousing weaponry. In the case of the Gorgo, the depiction *is* the message because it resembles its object.²³⁵ Thus,

²³² The chthonic nature of snakes explains the animal's antagonism with birds, "below against above" (see Bremmer in BNP s.v. snake). For snake/bird enmity in (pseudo-)scientific literature, see Arist. *Hist. An.* 9.1, and Ael. *N.A.* 17.37. See also M. Schmidt, Adler und Schlange, in: *Boreas* 6, 1983, 61-71

²³³ ἐν δέ τε Γοργείῃ κεφαλῇ δεινοῖο πελώρου / δεινὴ τε σμερδνή τε, Διὸς τέρας αἰγιόχοιο.

²³⁴ Paus. 10.26.3.

²³⁵ In *Iliad* 11, Zeus sends Eris, the goddess of Strife, onto the battlefield, and she hold in her hand the τέρας of battle. While it is unclear what exactly Eris is holding (scholiasts have suggested a torch, sword, or lightning bolt), the term τέρας likely refers to an iconic sign again, one that is meant to instill fear and terror in those who gaze upon it.

the semiotic function of Homeric τέρας according to Peirce's classification of signs is as follows: as *index*, τέρας typically signals divine agency; as *symbol*, τέρας can but need not signal danger, as is the case for rainbows and snakes; as *icon*, τέρας typically instills fear or amazement by resembling or imitating the monstrous. The most consistent of these, however, is its indexical function.

Τέρας (III): Monsters and Monstrous Babies

It is as iconic sign that the association with the monstrous—as the physical, especially chthonic, embodiment of something that *resembles* danger—is most readily made, and most likely leads to the more restricted meaning of τέρας as “monster,” and, eventually, “evil deformed baby.” In Aeschylus' *Libation Bearers*, Orestes offers an interpretation of his mother's infamous dream of nursing a snake. Orestes casts himself in the role as the snake: “As she has nourished a terrible portent/monster (τέρας), she must die in a violent way: and I, turned snake, will kill her, as this dream declares” (Aesch. *Lib.* 548-50). The chorus responds by calling Orestes a skilled τερασκόπος, observer of τέρατα. The association in Aeschylus of the infant and the snake as τέρας not only reinforces the idea that the monstrous (here, a snake) functions as a warning-sign, but also introduces the notion of the ominous infant as τέρας. Orestes is said to be a τέρας both because he portends future disaster (at least, for his mother) and because he *is* the snake, as he himself declares in his dream interpretation, thus inhabiting a strange zone of hybridity as the signified of the snake-as-signifier.²³⁶ In other contexts, τέρας seems to be

²³⁶ Roberts 1985: 283-97.

almost entirely separated from its communicative or symbolic function as a sign, and primarily means monstrous creature. Monsters such as the snake Pytho (*HH*. 3.302, cf. *πελώριον τέρας*, *E. IT*. 1249), the hybrid Sphinx (*E. Ph*. 806), the hellhound Cerberus (*S. Tr*. 1098), the primordial monster Typhoeus (nurtured by Pytho) (*A. Pr*. 354), the Gorgon (*E. Ion* 989), and the violent bull that kills Hippolytus (*E. Hipp*. 1214)—they are all referred to as τέρατα. While these monsters appear as agents of disaster, they are also typically warning signs, indications that something is not right, of which they themselves are the physical manifestation.

Here we are reminded of Tzetzes' definition of τέρας as something that is wholly contrary to nature (*παρὰ φύσιν*). His examples included people with six fingers or three feet. This meaning of τέρατα as not just mythical, monstrous creatures such as Pytho or Typhoeus, but as human individuals with some deformity—and newborn babies in particular—becomes an important development in the history of the term. The definition of τέρας as something *παρὰ φύσιν* is found in most late etymologies, including Photius' *Lexicon*, the *Suda*, and the *Etymologicum Magnum*. Some variations, however, occur. For Photius and the *Suda*, a τέρας is specifically something “born contrary to nature” (*παρὰ φύσιν τεχθέν*), and the author of the *Suda* adds that the cause of this is matter (ὄλη), and hence the woman's gestation of the fetus. This congenital association is absent in other definitions, where τέρας is above all an event or occurrence, not a living individual. Just as John Lydus, as we have seen, distinguishes τέρας from σημεῖον by assigning them to earthly and celestial occurrences, respectively, so does the *Etymologicum* differentiate between the two terms. The *Etymologicum* defines τέρας as some affair that happens contrary to nature, and σημεῖον as “something that happens contrary to common custom”

(τὸ παρὰ τὴν κοινὴν συνήθειαν γινόμενον), a definition similar to that given by Tzetzes.

The origin of these definitions can be traced to Aristotle, who refers to τέρας as

something that belongs to the class of things contrary to nature (παρὰ φύσιν, *Gen. An.*

770b10).²³⁷ What Aristotle has in mind are ways in which offspring “has deviated”

(παρεκβέβηκε) from the stock and thus does “not resemble his parents” (μὴ ἔοικώς τοῖς

γονεῦσιν, *Gen. An.* 767b6).²³⁸ This includes deformities, such as too many or too few

limbs, and other birth defects such as blindness or lameness.²³⁹

And yet, the association of τέρατα with unnatural births is perhaps suggested already by Orestes as τέρας-baby in Aeschylus’ *Libation Bearers*. Herodotus tells of a mule, a sterile animal, that gives birth to a foal, and refers to the entire occurrence as a τέρας (Hdt. 3.153). Similarly, in Euripides’ *Helen* (256), Helen refers to her own unusual birth from Leda’s egg when she calls herself a τέρας in the eyes of men. It thus seems clear that the association of unnatural offspring and τέρατα predates Aristotle. The birth of τέρατα are typically ill-omened events that are symptomatic of disaster. Daniel Ogden has shown that τέρατα, as evil deformed babies, are closely associated with the scapegoat

²³⁷ ἔστι γὰρ τὸ τέρας τῶν παρὰ φύσιν [τι]

²³⁸ καὶ γὰρ ὁ μὴ ἔοικώς τοῖς γονεῦσιν ἤδη τρόπον τινὰ τέρας ἐστίν· παρεκβέβηκε γὰρ ἡ φύσις ἐν τούτοις ἐκ τοῦ γένους τρόπον τινά. Aristotle considers the first deviation to arise when a female is formed instead of a male; this is undoubtedly what the author of the *Suda* has based his theory on.

²³⁹ Photius preserves a story (told in the sixth book of Theophylact Simocatta’s *Histories*, 7th c. CE) of a τέρας born without hands and eyes, and with a fish tail attached to his thigh; the child is subsequently destroyed (Phot. *Bibl.* 65). On deformity in Antiquity, see Garland 2010.

(φαρμακός) in Greek beliefs and practices.²⁴⁰ Both are linked to pestilence, sterility and famine afflicting a community—a type of disaster known as the *loimos* scheme that is discussed in the next chapter. Indeed, τέρατα and childbirth are explicitly connected in the oath of the Amphictyons. As rendered in Aeschines’ *Against Ctesiphon*, the oath contains the following warning for those who violate the oath (Aeschin. 3.111):

Let the earth not bear fruit, nor let the women bear children that resemble their parents, but τέρατα (γονεῦσιν ἐοικότα, ἀλλὰ τέρατα), nor let cattle produce offspring in accordance with nature (κατὰ φύσιν).²⁴¹

The oath threatens its offenders with universal infertility, among crops, animals, and humans alike, with the exception of deviant offspring, or τέρατα. Already here, τέρατα are associated with the lack of biological resemblance to the parents, which implies deformity. The phrase κατὰ φύσιν complements παρὰ φύσιν; the curse involves an overturning of the normal processes of reproduction that is not in accordance with nature.²⁴² Before the Battle of Plataea, the Athenians took a similar oath that includes the provision: “If I keep this oath, may the women bear offspring like their parents (ἐοικότα γονεῦσιν); if not, may they bear τέρατα. If I keep this oath, may the herd animals bear

²⁴⁰ Ogden 1997, esp. 9-14; see also, Delcourt 1938. Scholarship on the Greek scapegoat is extensive: seminal are Girard 1982, Bremmer 1983, and Hughes 1991. For full bibliography see Ogden 1997: 174-5 n. 1.

²⁴¹ μήτε γῆν καρποὺς φέρειν, μήτε γυναῖκας τέκνα τίκτειν γονεῦσιν ἐοικότα, ἀλλὰ τέρατα, μήτε βοσκήματα κατὰ φύσιν γονὰς ποιεῖσθαι. The word τέρας is not found among the extant orators, except here in Aeschines and once in Isocrates’ *Helen* (27) where, in reference to the Minotaur, it clearly means “monster.”

²⁴² Cf. Hdt. 6.139, where after the crime of the Locrian women “did earth did not bear fruit, nor did women or flocks produce offspring in the same way as before.” This and other examples in Ogden 1997: 10-11.

offspring like herd animals; if not, may they bear τέρατα.”²⁴³ The conditional statements are clear, and suggests that Greeks were prepared to reason from effect to cause. If τέρατα are observed, it leads to the conclusion that some social contract has been breached, which becomes manifest in the halting of the natural cycles of reproduction with the exception of the birth of deformed offspring. (As we have seen in Homer, the rainbow-as-τέρας announces a similar halt in reproduction.) Τέρατα are thus simultaneously signs of this polluting disturbance, and monsters that appear entirely παρὰ φύσιν. As a result, they suffer expulsion from the community through exposure, stoning, or otherwise.

Violations of the biological link between parents and their offspring are not restricted to deformities alone. It has been pointed out that the phrase “not resembling one’s parents” (γονεῦσιν ἑοικότα) can also refer to adulterine bastard children, and this association has been traced as far back as Hesiod, to an important passage that will be discussed in the next chapter (*WD.* 225-51, cf. 179-82).²⁴⁴ Many mythological and semi-historical characters exhibit traits that fit the scheme of τέρας, bastard (νόθος), and scapegoat (φαρμακός), and Ogden and others have explored many of these.²⁴⁵ For

²⁴³ As recorded in a fourth-century Athenian inscription, see Roberts 1938: 307 (cited in Ogden 1997: 10). For the full oath and debates about its historicity (which go back to the historian Theopompus), see Mikalson 2003: 91-93. I concur with Mikalson’s conclusion: “If not genuine, they at least reveal how Athenians and Greeks of the fourth century and later viewed these events” (93).

²⁴⁴ Ogden 1997: 12; see also Delcourt 1938: 11 n. 3 and Garland 2010: 59-60. On Greek bastardy and illegitimacy in general, including in Athenian law, see Ogden 1996 with bibliography, and Ebbott 2003.

²⁴⁵ Ogden 1997; on Oedipus specifically, pp. 29-30, and Delcourt 1938; and Vernant 1981.

example, Oedipus' name famously signifies "Swollen-foot," just as his grandfather's name Labdacus signifies lameness, both typical deformities associated with τέρατα; Oedipus adds blindness to this later in life. Moreover, Oedipus's birth was not supposed to happen in the first place (Laius had been forbidden by Apollo to beget a son), and Aristophanes of Byzantium refers to Oedipus as a bastard, νόθος. The Sphinx, herself a monstrous τέρας, is described by Pausanias as another bastard daughter (νόθη) of Laius (9.26.3). When Oedipus returns to the city, he brings a plague, or λοιμός, upon the city of Thebes, until he is expelled as a scapegoat. It is noteworthy, too, that the seer who correctly identifies Oedipus as a τέρας is called Teiresias, a name derived from that very word.²⁴⁶

From τέρας to τέκμαρ: A Cognitive Perspective

From rainbows and serpents, to Cerberus and Oedipus, the historical development of the word τέρας thus shows an oscillation between the meaning *divine sign* and *monstrous occurrence*. The phrase παρὰ φύσιν provides common ground for both these meanings. But how to understand the term "unnatural"? And what does it mean for how the sign is recognized and decoded? One answer comes from cognitive anthropology, and sheds light on what τέρας-as-sign and τέρας-as-monster have in common, and how they function as indexical signs of divine agency. While "natural/unnatural" is a binary that is in part culturally constructed, we can understand the "unnaturalness" of τέρατα as going

²⁴⁶ Garland 2010: 186; Chantraine s.v. τέρας. For Teiresias as a τέρας himself, see Ogden 1997: 56-7.

in some way against someone's common sense expectation (intuitive knowledge) about how the world around them is supposed to behave. Different people from different cultures may have different expectations, but if this expectation is defied, as for the Achaeans when a snake turns to stone, this constitutes what Pascal Boyer has called an intuitive-knowledge-domain violation. Boyer distinguishes five ontological categories (person, animal, plant, artifact, natural object) and three intuitive-knowledge domains (psychology, biology, physics).²⁴⁷ Monsters, then, are by definition unnatural because they violate one or more intuitive-knowledge-domains, whether biological (e.g. the hybridity of the Sphinx or Gorgon; or an excessive number of heads or limbs such as Cerberus and Typhoeus), physical (e.g. the excessive strength and size of Pytho, or the sudden (dis)appearance of the monstrous bull in *Hippolytus*). These monsters frequently exhibit advanced psychological traits as well, such as cunning, cruelty, and so forth, thus violating what is normally expected of bulls or dogs in the psychological domain.²⁴⁸

The same violations are found in τέρατα that are primarily signs, not monstrous creatures: Helios' sacred cattle, slaughtered and roasting over a fire, start mooing (θεοὶ τέραα προύφαινον, *Od.* 12.394); the snake that has just devoured nine sparrows turns to stone (μέγα τέρας, *Il.* 2.324); a mule, a sterile animal, gives birth to a foal (*Hdt.* 3.153); three snakes that scale the walls of Troy, two of which fall to their death while one leaps up to the top shouting in triumph (*P. Ol.* 8.37-40). These, and several other examples of

²⁴⁷ Boyer 2003. Layout of table adapted from Barrett 2000. For application, see Johanssen 2011.

²⁴⁸ Cerberus, for example, is described as savage, powerful, and without pity; (*Hes. Th.* 312?); elsewhere as without pity and of vile stratagem (*Th.* 769ff). Most monsters display human-like intentionality.

τέρατα, are plotted below, in a table of Boyer’s intuitive-knowledge-domain violations, slightly adapted for our purposes:

<i>Ontological Category</i>	<i>Intuitive-Knowledge-Domain Violated</i> Psychology	Biology	Physics
Person		child born with five fingers (Tz.)	
Animal	three snakes scale wall, one succeeds and shouts (Pin.)	mule gives birth (Hdt.)	snake turns to stone (Hom.); snake falls out of the sky (Hom.)
Artifact	roasting meat moos (Hom.)		
Environment			thunder in clear sky (Hom.); Delos moves (Hdt.)

These are clear instances of intuitive-knowledge-domain violations: the cattle, who should have transitioned from the ontological category *animal* to *artifact* (which includes foodstuffs such as roasted meat), defy expectations about the psychological properties typically attributed to them. They moo though they are dead, thus exhibiting a psychological ability (i.e. communication, the Greek text reads φωνή in line 396) that they should no longer be capable of.²⁴⁹ The snake that turns to stone violates expectations about the physical properties of animals, as does the thunder in clear sky about the properties of the meteorological environment.

²⁴⁹ At the same time, they also defy biological expectations, insofar as they exhibit characteristics of creatures that are alive while they are in fact dead. The psychological violation is primary, however, since the text stresses the fact that the cows seem to use their voices to create intentional sounds.

The point of these intuitive-knowledge domain violations is that they are indexical signs of some divine agency. In some cases, that may even be the main function of the sign. While the message may remain obscure or open to interpretation, the divine agency of these signs is beyond doubt. The connection between τέρας and disaster is not just that of the monster, such as the Sphinx, as disaster agent. We have already discussed a typology of the monstrous by Gordon and Gordon (2009), and shown how monsters can be understood in the context of disaster both from the Agency and the Uncertainty Paradigms. The τέρας-as-sign violates a common-sense expectation about the world that causes amazement and fright, which needs to be resolved by connecting it to a stable event. This brings us to the term τέκμαρ (and related words), which, in addition to τέρας, is most significant in illuminating the connection between divination and disaster, but for entirely different reasons. While τέρας is frequently a sign *of* disaster, or even an embodiment of disaster, τέκμαρ represents the sign *out of* disaster. That is to say, τέρας and τέκμαρ must be imagined as conceptually linked in the semiotics of disaster.

Disaster, then, is here understood from the Uncertainty Paradigm, that is, as a so-called *disastered state* of disconnected meaning because of an overwhelming lack or surplus of signifiers. The way to restore meaning is by returning to, or establishing, a semiotic state in which signifiers match signifieds, and signs refer to events. This is the role of fixed signs, signs that form a relatively stable and reliable connection between the sign and the referent, because the connection is based on long-standing observation, experience, or even divine guarantees. Unlike τέρας, τέκμαρ does not upset, but rather conforms to, and even shapes, common-sense expectations about the world. Thus, Prometheus names the rising and setting of the stars a τέκμαρ, that is, a sure sign for

people to rely on when assigning meaning to events (the start of the seasons) and organizing the world around them. As with τέρας, τέκμαρ is closely affiliated with Peirce's indexical sign, because its relationship between sign and referent is primarily one of cause or contiguity. Tzetzes' example of the smoke as a sign (τεκμήριον) of a hearth fire confirms this function as an indexical sign. The relationship between sign and referent is relatively stable and sure to rely on. Thus, conceptually speaking, a fixed, sure indexical sign (τέκμαρ) seeks to restore the Uncertainty brought about by the occurrence of a disturbing, divine indexical sign (τέρας). I propose that this is the semiotic formula on which the mentality of *divining disaster* is built. Let us consider how, in the case of τέκμαρ, this is borne out by the Ancient Greek evidence.

Τέκμαρ (I): Plotting Paths

The group that emerges around the stem *tekmr-* includes the verb τεκμαίρομαι (“to judge or conclude from signs, designate, assign,” and later τεκμαίρω, “prove with signs”) and the nouns τέκμαρ (Homeric τέκμωρ), which means “fixed mark, boundary sign, end” and in later medical discourse “symptom” (cf. τέκμαρσις), and τεκμήριον. In Homer, τέκμωρ is Zeus' nod, the surest sign among the gods (*Il.* 1.526), and also means “goal, end.” The *Iliad*'s main τέκμωρ, in this sense, is Ilion or Troy itself, which frequently appears in the formulaic coupling τέκμωρ / Ἰλίου (7.30, 9.48, 9.418, 9.685). The abstract and literal meanings of “end” are conjoined when someone arrives at a physical location, as when Poseidon “reaches the *tekmor* of Aegae” (ἵκετο τέκμωρ / Αἰγᾶς, *Il.* 13.20-1), where his palace is located. Another verb collocated with Homeric τέκμωρ is εὐρίσκω (“find”). When Menelaus is stuck on the island of Pharos, he tells the

sea-deity Proteus that he cannot find any *tekmor*, a sign of delivery, or, literally, a way out (*Od.* 4.466-7).²⁵⁰ This example is particularly telling because Proteus is a divinatory deity, and the access to *tekmor* thus depends on the divinity. In Alcman's cosmogony (Fr. 5, ed. Page), *Tekmor* ("Guide Mark") appears as a primordial divine principle alongside *Poros* ("Pathway").²⁵¹ Detienne and Vernant have shown how this principle relates to the intersection of three complementary domains, namely navigation, astronomy, and divination, all of which are engaged with reading (heavenly) signs.²⁵² Thus the moon, in the Homeric *Hymn to Selene*, which dates to the Archaic period, is described as "guide mark and sign for mortals" (τέκμωρ δὲ βροτοῖς καὶ σῆμα, *HH.* 32.13), precisely because her position in the sky is sure and predictable for astronomers, sailors, and seers to rely on. All employ signs and fixed guide marks to construct a passage (i.e. *Poros*, the complementary divine principle in Alcman) between the visible and the invisible. This is precisely why seers make such excellent navigators, as when Calchas guided the ships of the Achaeans into the land of Ilion (*Il.* 1.69-72).²⁵³ *Tekmar* is thus a sure sign by which one bridges literal or figurative distances.

In the Homeric context, the epistemological certainty of the sign is underwritten by the gods, or at least by special, divinatory knowledge as acquired by seers or other

²⁵⁰ οὐδέ τι τέκμωρ / εὐρέμεναι δύναμαι (cf. *Od.* 4.373-4).

²⁵¹ The fragment (P. Oxy. 2390) was first published by Edgar Lobel in 1957, and contains anonymous commentaries on Alcman's poems. See Most 1987: 1-19.

²⁵² Detienne and Vernant 1991: 288. Forecasting the weather is part of this domain, too, as is evident in Aratus' *Phaenomena*.

²⁵³ Cf. Ap. *Arg.* 213-4, when the Argonauts ask Apollo "to indicate by signs and show the paths of the sea" (σημανέειν δείξειν τε πόρους ἁλός).

authoritative figures. As with σημαίνω, the verb τεκμαίρομαι in the meaning “assigning, designating, appointing” is often used from a position of authority, including the ultimate authority of the gods. When the gods are the subject of the verb, they ordain good or evil (e.g. *Il.* 6.349; *Hes. Th.* 229, 239; *Ap. Arg.* 4.559). In the Underworld scene in the *Odyssey*, the seer Teiresias uses his superior vantage point as divinatory expert to predict trouble for Odysseus: “If you harm them [Helios’ cattle], then I assign disaster (τεκμαίρομ’ ὄλεθρον) for your ship and your companions” (*Od.* 11.112-3).²⁵⁴ In this context, divinatory and navigational connotations are joined, and τεκμαίρομαι means both “assign” and “mark out.” Plotting Odysseus’ possible future, Teiresias puts his prophecy in the form of a condition: *if* you harm Helios’ cattle, *then* there will be disaster. The verb τεκμαίρομαι suggests that the protasis functions as the sign by which Teiresias predicts the possible outcome of ruin.

If Teiresias’ use of the verb illustrates his ability as seer to map out the future based on fixed marks, a more mundane navigational or spatial use is demonstrated also. The Phaeacian leader Alcinous says he will “assign” (τεκμαίρομαι, *Od.* 7.317) the time for Odysseus’ conveyance back to Ithaca, and Circe is said to have “plotted out the path” to Hades (ὁδὸν τεκμήρατο, *Od.* 10.563). Similarly, Apollo “plotted out” (τεκμήρατο, *HH.* 3.285) the location where his Oracle should be built. The temporal and spatial contexts of the verb underscore the need to orient oneself based on the proper signs. *The right time and the right place must be inferred from signs.* What these signs are concretely often remains implicit, but Apollonius gives a likely example, when he introduces the hero

²⁵⁴ εἰ δέ κε σίνηαι, τότε τοι τεκμαίρομ’ ὄλεθρον / νηῖ τε καὶ ἐτάροισ’.

Tiphys aboard the Argo, who is an expert at “plotting out a course by sun and star” (πλόον ἡελίῳ τε καὶ ἀστέρι τεκμήρασθα, *Arg.* 1.108). The future that Teiresias divines and the paths that Circe, Alcinous, and Tiphys are planning are invisible, lying just over the horizon of human knowledge, and must be conjectured by reading signs.

Τέκμαρ (II): “Conjecture the Invisible”

One of Solon’s maxims, preserved by Stobaeus, renders this principle abstract: “Conjecture the invisible from what is visible” (τὰ ἀφανῆ τοῖς φανεροῖς τεκμαίρου).²⁵⁵ The saying anticipates Tzetzes’ similar formulation of τεκμήριον, namely “that which shows from something manifest, something that is invisible” (τὸ ἀπὸ φανεροῦ τινός τι ἀφανὲς δεικνύον). Solon’s use of the verb τεκμαίρομαι here means to judge or conclude from signs, a process of inference from visible signs to uncover the hidden things. A concrete example of this principle in a divinatory context is found in Pindar’s *Olympian* 8, which refers to a place “where seers, conjecturing (τεκμαιρόμενοι) from burnt sacrifices, inquire of Zeus of the bright lightning bolt” (*P. O.* 8.2-3). This type of conjecture—the English word for which originally meant “interpretation of signs and omens” (*OED* s.v. conjecture)—is based on inference from signs, in this case those derived from pyromancy. A fragment from Hesiod, which is said to be about the seer Melampus, underscores the idea that τέκμαρ, as a sign, can indicate divine allotment (*Hes. Fr.* 273 M-W = Clem. *Strom.* 6.2.26):

and it is sweet too to learn the clear distinguishing mark (τέκμαρ ἐναργές)

²⁵⁵ Stobaeus 3.1.172

of bad and good things that the immortals have assigned (ἔνειμαν) to mortals.²⁵⁶

The fact that these lines are associated with the seer Melampus, and that in Archaic poetry the adjective ἐναργής (“visible, clear”) is typically applied to divine appearances (e.g. *Il.* 20.131, *Od.* 7.201), suggests that τέκμαρ/τέκμωρ can be the type of sign that must be interpreted through extraordinary, divinatory means. But in Solon’s proverbial saying we can already glance the term’s potential for broad, secular epistemological application. Consequently, the certainty of the knowledge conveyed by the sign comes under strain.

Indeed, a more skeptical view of divinely ordained τέκμαρ—or at least, the possibility of knowing it—is already found in Pindar’s *Nemean Ode* 11. Celebrating the installation of a certain Aristagoras as councilor of Tenedos, Pindar comments that noble offspring is produced only periodically, just as neither fields nor trees bear continuously good crops. (The agricultural metaphor is reminiscent of the contexts of τέρατα.) Such is destiny (μοῖρα) for the mortal race: “And as for that which comes from Zeus, no clear sign (σαφὲς τέκμαρ) attends mortals.”²⁵⁷ Indeed, starting in the 6th and 5th centuries BCE, τέκμαρ becomes associated with rhetoric and the art of persuasion, and attains the meaning of “proof, evidence” (as in, something that is made *evident* through reasoning from signs). This drives a wedge between the divine associations of τέκμαρ and the human process of producing sign-based evidence. The natural philosopher Alcmaeon (early 5th c. BCE) begins his treatise by making an epistemological distinction between

²⁵⁶ ἥδὺ δὲ καὶ τὸ πυθέσθαι, ὅσα θνητοῖσιν ἔνειμαν / ἀθάνατοι, δειλῶν τε καὶ ἐσθλῶν τέκμαρ ἐναργές

²⁵⁷ τὸ δ’ ἐκ Διὸς ἀνθρώποις σαφὲς οὐχ ἔπεται / τέκμαρ (P. *Nem.* 11.43-4)

divine and human knowledge, referring to humanity's access to sign-based knowledge with the verb τεκμαίρομαι (Alcmaeon, D-K. 24b1):

Of things invisible, as of mortal things, the gods have certain knowledge (σαφήνεια), but for humans, only inference from signs (τεκμαίρεσθαι) is possible.²⁵⁸

The verb τεκμαίρομαι is now associated not with sure, divine knowledge but with limited, inferential human reasoning.

Still, the epistemological status of such human reasoning can be considered more reliable than the dangers associated with divinatory knowledge. Aeschylus is among the first attested sources to use τέκμαρ as secular “evidence,” for example in a passage from the *Agamemnon* (458 BCE).²⁵⁹ Clytemnestra has just found out about the beacon, indicating the news of Troy's capture. When Clytemnestra shares the good news with the Chorus, they are incredulous and ask Clytemnestra: “Why is it in fact trustworthy? Do you have evidence (τέκμαρ) for it?” (*Ag.* 272).²⁶⁰ Clytemnestra responds that she does, unless the gods deceive her. The Chorus ask for the evidence, suggesting a vision in a dream (ὀνείρων φάσματα) or a rumor (φάτις), both of which Clytemnestra brushes aside as unreliable. The evidence on which she relies, famously, is the beacon fire that has traveled—as a messenger by *contiguity*, the mark of an indexical sign—from Mt. Ida to Hermes' Crag on Lemnos and so on until it “fell upon” (σκήπτει) the roof of the House of

²⁵⁸ περὶ τῶν ἀφανέων, περὶ τῶν θνητῶν σαφήνεια μὲν θεοὶ ἔχοντι, ὥς δὲ ἀνθρώποις τεκμαίρεσθαι.

²⁵⁹ Cf. also Aesch. *Suppl.* 483, where boughs are left on the altar as visible evidence of supplication.

²⁶⁰ τί γὰρ τὸ πιστόν; ἔστι τῶνδ' ἐσοι τέκμαρ;

Atreus. While Clytemnestra allows for the possibility of divine deception, the visual evidence provided by the beacon fire is a sure proof, precisely because Clytemnestra can trace its movements and reconstruct the sequence of its indexical pathway all the way from Troy to Mycenae. In this sense, τέκμαρ also retains at some level the meaning of destination, or end point. Clytemnestra's detailed knowledge about the chain of transmission from beginning to end, elaborately described over more than 30 lines (*Ag.* 281-316), strengthens the reliability of the sign. She concludes with confirming the origin of the sign: "Such, I tell you, is the evidence (τέκμαρ) and the token (σύμβολον) that my husband has transmitted to me from Troy."²⁶¹ The Chorus, upon accepting the evidence, answer by saying that they have heard Clytemnestra's "trustworthy evidence" (πιστὰ τεκμήρια, *Ag.* 352), using the novel term τεκμήρια, which we shall discuss now.

Τεκμήριον (III): Toward a Secular Semiotics

The word τέκμαρ/τέκμωρ falls into disuse after the lyric poets and Aeschylus, and is only revived in the epic diction of Apollonius of Rhodes.²⁶² The term τεκμήριον ("proof, evidence") takes over with a more restricted meaning, and is first attested (still alongside τέκμαρ) in Aeschylus' *Suppliants* (ca. 463 BCE), a play that is concerned with producing evidence for the fact that the suppliant Danaids are indeed descendants of Io,

²⁶¹ τέκμαρ τοιοῦτον σύμβολόν τέ σοι λέγω, / ἀνδρὸς παραγγέλαντος ἐκ Τροίας ἐμοί.

²⁶² One meaningful exception is its occurrence in Euripides *Hecuba* (1273), which is discussed in Chapter Three.

and thus should receive asylum with King Pelasgus of Argos.²⁶³ Producing “trustworthy evidence” (πιστὰ τεκμήρια, *Suppl.* 55), as the chorus of Danaids refers to it, is complicated by the seemingly contradictory visual evidence of the color of their skin and their foreign attire. Pelasgus says as much when he notes that their black skin renders their Argive descent quite “unbelievable” (ἄπιστα, 277). The evidence consists in the Danaids’ ability to recount Argive mythology and its foundation stories, which Pelasgus considers sufficient proof.²⁶⁴ Not instantly visible, the evidence needs to be argued for. As a form of evidence, τεκμήριον is proof residing in a sign (such as the beacon fire) or network of signs (such as a story) that provides a connection across space (from Troy to Mycenae) and across time (from Io to present-day Argos). This applies to both mundane and divinatory contexts alike. An Aeschylean example of the latter is found in *Prometheus Bound*, where Prometheus divines the future wanderings of Io, and proves his divinatory abilities by recounting in detail the previous part of her journey. The proof (τεκμήριον, *PV.* 826) of his knowledge of the future consists in his knowledge of the past; his ability to narrate the past renders his claim about the future believable. This reveals an important point about divining disaster on a textual level: *the sequence offered*

²⁶³ The date of Aeschylus’ *Suppliants* used to be placed in the 490s, making it the earliest extant Greek tragedy, based on what were considered to be archaic elements in the play. The discovery of a papyrus fragment, however, suggested that the trilogy of the *Danaids*, of which *Suppliants* was part, won first prize while Sophocles took second. Since Sophocles’ first competition was not until 468, the dramatic date of the *Suppliants* had to be moved up. See also Papadopoulou 2011. This question is significant here insofar as the earliest attested use of τεκμήριον is concerned.

²⁶⁴ The evidence comes after Pelasgus himself has proven his identity by recounting the boundaries of his land and how it got its name (*Suppl.* 249-73). He concludes by saying that the Danaids now have “the evidence from me” (τὰπ’ ἐμοῦ τεκμήρια, 271).

*by narrative facilitates this passage across time and space, rendering the evidence credible through fixed signs.*²⁶⁵

The most straightforward and mundane form of sign-based evidence is that offered by footprints and animal tracks, the indexical sign *par excellence*. These are typically unintentional signs, although the *Hymn to Hermes* offers a scenario in which tracks are intentional, divine signs that are hard to interpret and meant to deceive. Aesop's fables, which are difficult to date but in their written form may well belong to the 6th c. BCE, offer one of the earliest examples of the use of τεκμήριον as footprint in a secular case of divining disaster. In the fable of the lion and the fox, the lion is weak with age and, since he can no longer actively hunt for his food, pretends to be sick in his cave. The ruse works: one by one, the animals enter the cave to help the lion, who devours all of them. When the lion asks the fox to come in, too, the fox declines and explains why: "Because I see the tracks (ἵχνη) of many going in, but of very few going out." The moral of the story is summed up as follows: "The story makes clear that intelligent people, with foreknowledge based on signs (ἐκ τεκμηρίων προορώμενοι), escape danger" (Aesop. *Fab.* 147.3).²⁶⁶ The fox successfully divined disaster by being mindful of the signs around him. The ability to interpret the footprints (or lack thereof, in case of outgoing prints) provided enough evidence to reconstruct a likely model of what happened to the other

²⁶⁵ Ginzburg sees a connection between the hunter's tracking and narrative sequence: "Perhaps indeed the idea of a narrative ... originated in a hunting society, from the experience of interpreting tracks. ... The hunter could have been the first 'to tell a story' because only hunters knew how to read a coherent sequence of events from the silent (even imperceptible) signs left by their prey" (Ginzburg 1983: 89).

²⁶⁶ ὅτι ὁρῶ ἵχνη πολλῶν εἰσιόντων, ὀλίγων δὲ ἐξιόντων. ... ὁ μῦθος δηλοῖ, ὅτι οἱ φρόνιμοι τῶν ἀνθρώπων ἐκ τεκμηρίων προορώμενοι τοὺς κινδύνους ἐκφεύγουσιν.

animals in the past, and thus to foresee what may happen to him in the future. Even if they provide no certain knowledge—the animals may as well still be inside, alive and well—the tracks led the fox to a decision about what not to do. Indexical signs thus mediate uncertainty. In the fox’s case, signs help him to reconstruct the past and thereby predict, and avert, his own demise.

But there is still the possibility that the sign does not offer enough evidence to conclusively reconstruct past events. In the *Libation Bearers*, Electra finds “proof” (τεκμήριον, *Ch.* 205) of Orestes’ presence in the form of a lock of hair and footprints that seem to match her own, and yet, she is tormented by the suggestive and yet quite inconclusive nature of the evidence.²⁶⁷ She explicitly wishes for the evidence to be more revealing, saying of the lock of hair: “Ah! If only it had a sensible voice like that of a messenger” (*A. Ch.* 195).²⁶⁸ There is no clearer expression of the idea that signs, even indexical ones, are obscure and do not always reveal their message easily. This can be compared to the deliberation of the Chorus members in the *Agamemnon* about what to do, right after it appears that Agamemnon has been killed. One Chorus member remarks: “Shall we, upon the evidence (τεκμηρίοισιν) of groans, divine (μαντευσόμεσθα) that the man is dead?” (*A. Ag.* 1366-7).²⁶⁹ The evidence is based on auditory signs (namely, Agamemnon’s groans), and is not quite enough to draw any firm conclusions about his

²⁶⁷ Parallel scenes are found in the other *Electra* plays (e.g. when Chrysothemis finds Orestes’ lock of hair and hails it as “proof” (τεκμήριον) of his presence, *Soph. El.* 904). In Euripides, the τεκμήριον is the scar over Orestes’ eyebrow (*Eur. El.* 575).

²⁶⁸ εἴθ’ εἶχε φωνὴν ἔμφορον’ ἀγγέλου δίκην.

²⁶⁹ —ἦ γὰρ τεκμηρίοισιν ἐξ οἰμωγμάτων / μαντευσόμεσθα τάνδρὸς ὡς ὀλωλότος;—

fate. This secular use of the verb μαντεύομαι (“to divine”) does not imply a divinatory act in the traditional sense, but rather underscores the uncertainty of the knowledge thus acquired; divination is here portrayed as an inexact science and mere guesswork that produces uncertain knowledge. More evidence is needed to reconstruct the events that have happened.

The persuasive function of τεκμήριον guarantees its use in the context of history, oratory, and other evidence-based disciplines in the 5th century and beyond. During the famous trial of Orestes at the end of *Eumenides*, Athena calls upon Orestes to present his “witnesses and evidence” (μαρτύριά τε καὶ τεκμήρια, A. *Eum.* 485), and the term is used with great frequency by the 4th-century orators. Herodotus, too, frequently speaks of the “many clear proofs” (δῆλα δὲ πολλοῖσι τεκμηρίοισι) he has to offer, as for example of the fact that the divine played a role at the Battle of Mykale (9.100.2): among the many proofs, he points to an auditory sign (a mysterious rumor) and a visual sign (the appearance of a herald’s staff).²⁷⁰ Thucydides elevates τεκμήριον to the central epistemological premise on which his work is based. He declares from the outset that his historical research is based on τεκμήρια (1.1.2, cf. 1.21.1), and he is the first to use the denominative verb τεκμηριώ (“to prove positively,” thrice total: 1.3.3, 1.9.4, 3.104.6). In all three instances, the verb is applied to Homer. Specifically, Thucydides uses the verb to prove something based on Homeric testimony. This may well be the first example of a derivative of the word τεκμήριον used in the meaning of *textual evidence*. In all cases,

²⁷⁰ Hdt. 9.100.1. See also Hollmann 1.1.3.

Thucydides relies on Homer's textual evidence to make a claim about the relation between the past and the present

Attempts are made to categorize τεκμήρια in relation to other signs. A distinction is starting to be felt between τεκμήριον and σημείον; the orator Antiphon (5th c. BCE) distinguishes τεκμήριον from σημείον based on temporal criteria: "Things past are believed because of σημεία, things future because of τεκμήρια."²⁷¹ Aristotelian logic distinguishes the two based on the quality of the evidence, with τεκμήριον being demonstrative and definitive proof, and σημείον being conjectural and fallible proof.²⁷² In the domain of medicine, the method of inference through signs and symptoms (the verb τεκμαίρομαι is here used alongside σημείον) is set in opposition to inference based on divinatory signs. The author of the Hippocratic work *Prorrhetic* contrasts τεκμαίρομαι with the verb μαντεύομαι, which means to divine or prophecy in a traditional, mantic sense (*Prorrh.* 2.21):

As for me, I shall certainly not make any divinations (μαντεύσομαι) of that kind, but I shall write of the signs (σημεῖα) through which it can be conjectured (τεκμαίρεσθαι), from among the patients, those who will get well and those who will die ...²⁷³

Not unlike the Chorus member of *Agamemnon*, the author of the *Prorrhetic* measures his evidence-based discipline *against* the traditional art of divination, which, as Manetti has

²⁷¹ τὰ μὲν παροιχόμενα σημείοις πιστοῦσθαι, τὰ δὲ μέλλοντα τεκμηρίοις (Antiphon Fr 72, Ed. Blass). There is an ongoing debate, not relevant here, whether Antiphon the Orator is the same as Antiphon the Sophist.

²⁷² LSJ s.v. σημείον II.3

²⁷³ Ἐγὼ δὲ τοιαῦτα μὲν οὐ μαντεύσομαι, σημεῖα δὲ γράφω οἷσι χρὴ τεκμαίρεσθαι τοὺς τε ὑγίαιας ἐσομένους τῶν ἀνθρώπων καὶ τοὺς ἀποθανουμένους

suggested, indicates not only that he is seeking to establish a new epistemological paradigm of “secular semiotics,” but also that there must have been some degree of confusion and conflation between the two areas.²⁷⁴

In conclusion, this philological analysis of Greek sign terminology shows several nuances in the ways in which different signs operate both semantically and logically. I have argued that τέρατα are indexical insofar as their extraordinary occurrence (in cognitive terms, their violation of some intuitive knowledge domain) point to a divine agent that is behind the sign. The τέρας is thus the divinatory sign par excellence, and its potential to create uncertainty and disruption underscores that. While τέρας seems to function as an unstable sign, the words that emerge from the stem *tekmr-* are concerned with fixed signs, which can thus function as stable markers and guiding signs in constructing paths in time and space. If a state of disaster is characterized by loss of meaning and stable signs, then τέκμαρ can, literally, provide a way out. Τέκμαρ, too, is often indexical, referring to the object’s existence in time and space. I have argued that this spatial and temporal presence is what enables narrative sequence, which is rendered believable or trustworthy by anchoring it in time and space. The sign (τέκμαρ) needs to demonstrate its reliability. A divinatory context can either help (Zeus’ nod as the ultimate τέκμωρ) or compromise the trustworthiness of the sign (as for Clytemnestra). To see disaster coming, as Aesop’s fox did so in a timely way, one needs to reconstruct the past by interpreting the signs. If the sign *is* the disaster, as so often in the case of τέρας, then its meaning must be glanced from past signs that preceded it, or from future events that

²⁷⁴ Manetti 1993: 38.

follow it. Indeed, the sign seems to be part of a self-referential or reflexive system: in all these instances, it is the sign *itself* that starts a logical procedure, a mental operation aimed at giving meaning to the sign by locating it in time and space, and by inferring its intentions and its consequences. The sign thus forms the basis for inferential reasoning. Let us now turn to the modes of logic that underlie these inferences.

PART IV

CODES, CAUSES, AND COMMUNICATIONS

“We Must Conquer the Truth by Guessing”

For a sign to be a divinatory sign it needs to meet two requirements. First, it needs to be a sign, i.e. the basis for a process of logical inference. And second, it needs to be divinatory. Let us start with the first requirement and consider how we ought to understand the sign’s involvement in inferential reasoning. One of the main insights offered by Ginzburg’s divinatory paradigm is that it identifies the logical operation by which the various disciplines assembled under this paradigm—medicine, divination, detective work—rely on the sign as the basis for inferential reasoning.²⁷⁵ An inference, put briefly, is a series of steps in logical reasoning moving from premise to conclusion. C.S. Peirce has identified three forms of inference: deduction, induction, and

²⁷⁵ Cf. Horowitz 1983: 184: “The importance of the conjectural model [i.e. divinatory paradigm] is not found in the notion of reading coded signs such as imprints, but rather in the fact that the systems which Ginzburg discusses were developed and invested with meaning through a process much like abduction.”

abduction.²⁷⁶ It is with the latter that we are concerned here. Specifically, I suggest that abduction is the key to answering the question that Jean-Pierre Vernant once posed about divination, discussed in Part I above: “What defines the logic of the system that is activated ... to decipher the unseen” and “what type of rationality is expressed in the game of divinatory procedure...?”

Unlike induction and deduction, abductive reasoning starts with the observation of the sign (the *result*), and reasons backward to its cause, or in logical terms, the *case*. “Abduction is a theory developed to explain a preexisting fact.”²⁷⁷ Peirce describes this abductive process as follows (5.189):²⁷⁸

The surprising fact, C, is observed;
But if A were true, C would be a matter of course;
Hence, there is reason to suspect that A is true.

Abduction is thus “the process of forming an explanatory hypothesis” (5.171) that renders an unexpected or surprising phenomenon necessary. Peirce makes clear that this is essentially guessing, but notes that every scientific discovery humankind has made has been due to abduction, for it is the only form of inference that introduces a new idea.²⁷⁹

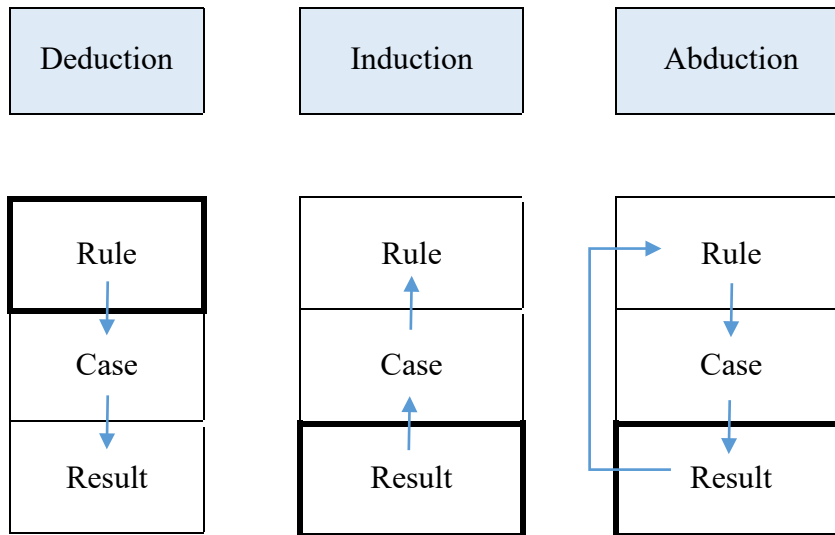
²⁷⁶ Peirce explains the relation between these three forms of inference as follows: “Deduction proves that something *must* be; Induction shows that something *actually is* operative; Abduction merely suggests that something *may be*.” (5.172)

²⁷⁷ Horowitz 1983: 182.

²⁷⁸ Peirce’s theory of abduction goes through several stages, and is variously called *hypothesis*, *retroduction*, *presumption*, and *originary argument*. For the following discussion, I rely much on Fann 1970, Horowitz 1983: 181-3, and Eco 1984. The titular quote of this section is from Peirce’s collected manuscripts, and cited in Sebeok and Umiker-Sebeok 1983: 11.

²⁷⁹ For the ubiquity of abduction (one of its “chief elements”), see Sebeok and Umiker-Sebeok 1983: 11-19, esp. 16.

We can observe this most clearly when abduction is juxtaposed to deduction and induction, as in the following scheme:²⁸⁰



Cast in the logical terms *rule*, *case*, and *result*, the process is simplified and abstract, but if we put this in narrative terms, the abductive process sounds familiar enough. Someone observes a surprising fact (i.e. the *result*, e.g. a sign, such as smoke). The observed phenomenon is such that it needs to be accounted for. In order to explain it, the observer relies on experience, a known natural law, some general principle, or even a flash of insight—or, as we will see, a prophecy—to formulate an explanation. This is the *rule*. The *rule* can take the form of a syllogism: if there is smoke, there must be fire. Now, if indeed there were a fire, then the occurrence of smoke would be a matter of course. Hence, there is reason to suspect that there is fire (i.e. the *case*), which is the result of

²⁸⁰ This figure is reproduced from Eco 1984: 40. This is based on Peirce's famous schema of the bean bag (2.623-5). In Peirce's schema, however, abduction starts with the rule, but as Horowitz has explained, in practice abduction begins with the result: Horowitz 1983: 183. Similarly, induction in Peirce's schema moves from *case* to *result*, not vice versa.

abducting—a hypothesis—that must be tested through other inferential processes such as induction.

The most significant and hazardous step in abduction (and this is why it is akin to the logical fallacy *post hoc ergo propter hoc*) is the almost instinctive, perceptual jump from the observed fact to the *rule* one needs to formulate in order to explain the phenomenon. Electra, for example, performs an abduction when she observes the lock of hair. The explanation she produces is based on the likeness of the lock to her own hair, and the unlikely proposition that her mother would have left it there, since there is no reason for her to mourn Agamemnon (A. *Ch.* 190-1). The process is governed by an *iconic* principle of likeness and appropriateness (εἰκός). What Electra needs to explain is both the lock's placement on the tomb as a sign of mourning, and the fact that it resembles her own hair. The rule thus presents itself: 'this lock of hair looks like mine; but it is not mine, nor is it my mother's. But if this were Orestes' lock, both its placement on the tomb and its resemblance to my own hair would be a matter of course.' Therefore, there is reason to suspect that Orestes left it there, but this is no certainty: there is still the possibility that the lock of hair belongs to some hostile stranger (A. *Ch.* 198). Abduction, after all, is nothing but guessing. It furnishes one possible explanation among many, even if it seems to be the most likely one.

The Divinatory Sign: A Definition

If the encounter with the sign, starting an abductive process of inference, is a defining aspect of the divinatory sign, we can now turn to its second requirement, namely that the sender of the sign is a divinity. In line with my view of divinity as a relative

rather than an absolute term, I do not narrowly define the divinatory sign as an isolated, neatly circumscribed occurrence, whose sender must be some specific deity such as Apollo or Zeus. Divine agency can be lurking behind the sign in various ways, and can even include non-intentional indexical signs that are produced by animals or humans. The discovery of Orestes' lock of hair, for example, prompts the chorus to thank the gods, thus suggesting a divine context for the sign and the revelation of its referent (i.e. Orestes himself). Signs can always become divinatory signs at later stages, and I include signs whose sender remains unexpressed or general (such as Herodotus' ὁ θεός, or δαίμων), or signs whose sender is some other hidden, counterintuitive, or anthropomorphized agency, such as Fortuna, Tyche, and other representations of ambiguous causal forces such as fortune, luck, fate, and chance.²⁸¹ I am thus taking my cue from Guthrie once more in imagining a continuity between religious and secular anthropomorphizing ("Demeter and Chiquita Banana ... are of one piece"); if the sender of the sign is an anthropomorphized and counterintuitive agent, this falls within the range of the divinatory sign.

What I am suggesting, then, is that the divinatory sign—in consort with my definition of the divine—is a relative category, at least from a cognitive perspective. I envision a sliding scale with non-intentional indexical signs, such as animal tracks, on the one hand, and symbolic, divinatory signs, such as an eagle sent by Zeus, on the other.

²⁸¹ On how people conceptualize such culturally recurrent notions, see Slone 2004. On such concepts in antiquity, see Eidinow 2011, and Versnel 2011. On Fortuna in Archaic and Republican Roman religion, see Miano 2018.

Even as the divinatory sign itself is located at the far end, divining disaster relies on the entire range of this spectrum.²⁸² I propose the following definition of the divinatory sign:

A sign that is encountered by an observer, the appearance or occurrence of which is such that from it are inferred (1) divine intentionality, and hence divine agency (which must be accepted as part of the discourse if not reality), and (2) some other meaning, sign, or referent that conveys special knowledge about the past, present, or future.

The verb *inferred* is the central part of the definition. The sign functions above all as the beginning of a process of inference, but crucially leads to two different types of inference: (1) about the intentionality and agency behind the sign (often its indexical function, as when its uncanny coincidence ‘points to’ the agency of a god), and (2) about the meaning of the sign (often its symbolic function, as when the τέρας of a rainbow symbolizes war). The divine intentionality becomes clear during the inferential process, either because the sign itself is clearly divinatory, as when a bird-sign is evoked, or because the *rule* consists of a past prophecy that is used to explain the sign, as is the case with Herodotus’ account of the Delian Disaster.

The Divinatory Sign in Action (I): Chios Revisited

Let us start with the second inferential process, namely the one that produces meaning. My definition allows for prospective as well as retrospective reasoning. The reference to *special knowledge about the past, present, and future* underscores the

²⁸² For example: while smoke rising from the collapsing Twin Towers, or the off-stage cries of a dying Agamemnon, are not divinatory signs, they can be perceived as indexical signs (natural and intentional, respectively) of disaster, and thus can be used to divine disaster. The smoke and cries contribute to the overall system of signs that give meaning to the event, including the intentionality (or lack thereof) of hidden agents, which, we recall, is the key to *divining*.

importance of temporal connections. In fact, I suggest that in the case of the Chian Catastrophe both retrospective and prospective directions are at play. On a narrative level, Herodotus engages in a combination of deductive and inductive reasoning, reinforced by the narrative device of ring composition. He starts with the *rule*, namely the general principle that *there are typically signs before disasters*. But Herodotus then moves to prove the rule based on what has happened to the Chians. He knows of the disaster that took place, namely the overturning of Chios first at the Battle of Lade and then at the hand of Histiaeus (the *case*). The *result* can thus be deduced, namely that *there must have been signs*.²⁸³ At the same time, the inductive reasoning seeks to verify that the rule is actually operative. It takes the two premises contained in the *case* and the *result* to conclude that, indeed, it is likely that there are typically signs before disaster. Herodotus restates the *rule* (“those were the signs the god showed in advance”), now making clear that we are in fact dealing with divinatory signs. The two forms of inferential reasoning can be tabulated as follows:

Deduction		
rule	there are typically signs before disaster	Induction
case	there is a disaster	there is a disaster
∴ result	there must have been signs beforehand	there were signs beforehand
∴ rule		the god shows signs before disaster

²⁸³ The signs are the result of the deduction, which may seem odd from a temporal perspective since they precede the case, but this is the logical consequence from a semiotic perspective.

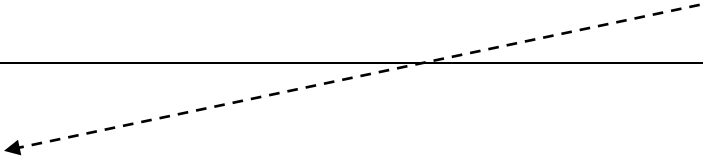
This deductive form of divining disaster is retrospective, and reconstructs the past with presumed certainty, depending on the strength of the rule (in this case, a general principle expressed by the verb φιλέει and the general temporal clause εὐτ' ἄν). In this scenario, that means that there must have been signs in the past. Primed to look for signs, the historian is then able to readily identify the plague and collapsed school building as the signs that must have temporally preceded, and semiotically indicated, this disaster. It seems likely that the recognition of the signs is based on a principle of resemblance, insofar as the *sign* (plague and school) and *referent* (overturning of Chios) are both disasters. When the *rule* is re-introduced through induction, the divine sender is included (ὁ θεός), thus rendering the *rule* a divinatory principle. This happens at the end of the inductive process, because it is only after it has been established that there were signs beforehand, that the divinatory nature of the *case* (the disaster) is confirmed.

In the course of this inferential process, therefore, the initial event or *case* (the overturning of Chios = Sign/Event 1) becomes a divinatory sign itself—but only after the inferential process has started. To appreciate how the semiotic status of the disaster shifts, we must distinguish between a textual progression (that is, the sequence in Herodotus' narrative) and a temporal progression (that is, the sequence as it is historically reconstructed).²⁸⁴ In the sequence of the text, the semiotic direction is backward in time: the overturning of Chios indicates, and textually precedes, the plague and collapsed school (= Sign 2). This in turn reconfigures the temporal or historical semiotic direction:

²⁸⁴ With 'historically reconstructed,' I still assume that this is Herodotus' perspective. I am thinking logically and semiotically here, and make no positivist claim about what is likely to have 'actually' happened.

logic dictates that Sign 2 indicates and temporally—but not textually—precedes Sign 1.

The inferential process thus circles back to Sign 1, which becomes the total signified of the joint sign complex, and constitutes the Referent, or the disaster-as-event.

<i>Semiotic Direction</i>	
textual	Sign 1 → <i>indicates and precedes</i> → Sign 2
temporal	 Sign 2 → <i>indicates and precedes</i> → Event 1

The chiastic progression from Sign 1 to Event 1 encompasses both inductive and abductive forms of inferential reasoning, on the textual and temporal levels, respectively.

The first step, from Sign 1 to Sign 2, is inductive because it starts from the *rule*, at least in the way it is presented in Herodotus' text, and leads to a logically certain conclusion.

The second, temporal step from Sign 2 (= the plague and collapsed school) to Event 1 (= loss at Lade and Histiaeus) follows the pattern of abductive reasoning:

<i>Abduction</i>	
result	there were signs
rule	there are typically signs before disaster
∴ case	therefore, there may be a disaster coming

It begins with the observation of a set of surprising facts, namely the plague and collapsed school building, both of which are readily considered signs, and whose occurrence must be accounted for or explained by some theory. The principle *there are typically signs before disaster* presents itself; and indeed, the signs are a matter of course

considering the disaster (Event 1) that soon followed. As the circularity of the table on *Semiotic Direction* demonstrates, the signs are interdependent; semiotically, the disaster-as-sign (Sign 1) indicates and anticipates the plague and collapsed school (Sign 2), and the plague and school indicate and anticipate the disaster-as-event (Event 1). Importantly, the plague and school (Sign 2) only became signs *after* the event had occurred. They were not interpreted as signs, as Herodotus seems to imply, when they happened. It is therefore a retrospective abduction, but with prospective pretenses, for its claim (the *case* it abduces) is about the future—a future that has already taken place. Electra’s abduction reconstructs the past (‘Orestes was here’) by interpreting the signs; Herodotus’ abduction (re)constructs the future (‘disaster will strike’), but only after the signs have been observed in the past. In the semiotic sequence, the plague and collapsed school function as fixed signs to anchor the event—semiotically and temporally—by turning it into a referent.

The Divinatory Sign in Action (II): Delos Revisited

What the logical processes that make sense of the Chian Catastrophe show is that inferences 1) and 2) of the definition are two sides of the same coin. Both the meaning produced by semiosis and the divine agency are implied in the *rule*, which affects the *case* and the *result* alike. Herodotus’ account of the Delian earthquake offers another test case of the definition of the divinatory sign and the role of inferential reasoning. But in this case, the *rule* takes the form of an actual prophecy from Apollo. In Herodotus’ account of the earthquake at Delos, there are several signs that interact with one another and assign meaning to the event. When the island of Delos “shook” at some time in the

fifth century BCE, it was clear that it was a τέρας, a sign. It was a τέρας because it happened contrary to the lived experience and expectations about the island: Delos had never been “shaken” before. The occurrence thereby suggested divine agency, thus functioning as the indexical sign of some divinity.

The abductive process is as follows: the surprising fact of the Delian earthquake is observed, an extraordinary event readily interpreted as a sign (τέρας). An explanatory principle presents itself to Herodotus: the god reveals to people the disasters that were going to befall them (*rule*). And indeed, many disasters would happen during the combined reigns of Darius, Xerxes, and Artaxerxes (Hdt. 6.98). Thus, if it were true that the god shows signs before disasters, then the signs would be a matter of course (οὐδὲν ἀεκέζ) given the fact that so many disasters have happened. This argument, as noted above in Part I, is once again based on similarity (εἰκόζ) and analogy (cf. Herodotus’ use of οὐδὲν ἀεκέζ in 3.33: when the body is sick, it is likely that the mind is sick too; so here, if the island is shaken up, it is likely that the world is shaken up too). As with the Chian disaster, the abduction is future-oriented, but retrospective insofar as the *case* has already come to pass. Herodotus performs a *post eventum* diagnosis.

What sets the Delian earthquake apart is that the inferential reasoning is strengthened by the reliance on yet another *rule*. The first *rule* is a divinatory principle (*the god shows signs before disaster*) similar to the one used at Chios. The second *rule* is a divinatory sign, namely one of Apollo’s oracles: “I will move even Delos though it was

unmoved before.”²⁸⁵ The prophecy constitutes a second explanation as to why the strange occurrence of the Delian earthquake happened. Unlike the first *rule*, which seeks to address the meaning of the sign (inference 2, in my definition), the second *rule* explicitly confirms the divinatory nature of the sign and points to Apollo as the divine agency behind it (inference 1). In doing so, it elevates the first *rule*, which is a divinatory principle but not a divinatory sign *per se*, thus lending more credibility and certainty to the entire inferential process. The abduction can be tabulated as follows:

<i>Abduction</i>	
result	Delos was shaken (= sign)
rule 1	the god shows signs before disaster
rule 2 <i>prophecy</i>	the god will move Delos
∴ case	disasters are going to happen

The Divinatory Sign in Action (III): Monster at the Mysteries

Both these cases of divining disaster in Herodotus’ *Histories* take place *post eventum*. Herodotus performs a prospective abduction in the past with knowledge of how the future would actually turn out. And yet, to say that this is ‘cheating’ is to miss the point entirely: Herodotus assigns meaning to disasters by incorporating them abductively

²⁸⁵ The MSS do not contain the oracle and the introductory note: καὶ ἐν χρησμοῖς ἣν γεγραμμένον περὶ αὐτῆς ὤδε. “κινήσω καὶ Δῆλον ἀκίνητόν περ ἐοῦσαν.” It is generally considered an interpolation by modern scholars (e.g. How and Wells ad loc, Scott 2005, ad loc), although it was already in the MS known to Eusthathius, who cites the oracle in *Dion* 525. At any rate, this only goes to show how oracular signs, probably plucked from a collection of oracles, were considered appropriate by later readers to be inserted in this particular context.

into a system of signs, based on the general principle that gods show signs before disaster. Even if we cannot tell how the original observers of the signs acted (or should have acted), there is at least the theoretical possibility that disasters can be known beforehand. Abductive reasoning allows the possibility, codified in the general principle that there are signs before disaster, to *divine disaster* in historical time not just after the event but also before the event. One such case that at least gives us an idea of what that might look like from a cultural and political viewpoint is a strange occurrence that happened to the Athenians in the fourth century BCE.

The incident is told in Aeschines' oration *Against Ctesiphon* (330 BCE), a political diatribe against the policies and politics of Demosthenes. This oration, we recall, features the Oath of the Amphyctyons and its mention of τέρατα, which is unsurprising because it is on those grounds of perceived danger and disaster that Aeschines attacks Demosthenes. We shall have recourse to this oration in the next chapter, too. The disaster that Aeschines refers to, and for which he holds Demosthenes responsible, is the Battle of Chaeronea (338 BCE). At Chaeronea, Philip II of Macedon decisively defeated the Athenians and their allies, establishing hegemony over most of Greece. This disaster, says Aeschines, could have been foreseen (Aesch. 3.130, transl. Carey, adapted):

But didn't the gods warn us (προύλεγον), didn't they send signs beforehand (προεσήμαινον) to be on our guard, doing everything but speak in human voices? Never before have I seen any city more clearly being rescued by the gods but ruined by some of the public speakers. Was not the sign (σημεῖον) that appeared at the Mysteries enough, the way the initiates died? Didn't Amphiades warn you to be cautious in the light of this and advise you to send to Delphi to ask the god what should be done, and didn't Demosthenes oppose it, claiming the Pythia was

on Philip's side—a boor enjoying to the full and abusing the indulgence you showed him?²⁸⁶

Aeschines does not elaborate on what this σημεῖον entails, except that its occurrence suggested divine agency (strengthened, it seems, by its meaningful occurrence during the Eleusinian Mysteries) and that some initiates of the Mysteries died. But the scholiast comments that one or two initiates, when they were purifying themselves in the water, were seized and eaten by a monstrous sea creature (κῆτος). The scholiast calls this sign a τέρας, suggesting both its divinatory and monstrous quality.²⁸⁷ Aeschines argues that the proper actions following a divinatory sign were not taken. The sign was readily seen as a message and even a warning, leaving no doubt as to the general principle that something was wrong. Unlike Electra's wish for a less ambiguous messenger ("If only it had a sensible voice like that of a messenger"), Aeschines finds that the gods are "doing everything but speak in human voices." A certain Aminiades, whom the scholiast refers to as an Athenian seer, confirms the divinatory nature of the sign and that the Oracle at

²⁸⁶ Ἄλλ' οὐ προύλεγον, οὐ προεσήμαινον οἱ θεοὶ φυλάσασθαι, μόνον γε οὐκ ἀνθρώπων φωνὰς προσκτησάμενοι; οὐδεμίαν τοι πώποτε ἔγωγε μᾶλλον πόλιν ἑώρακα ὑπὸ μὲν τῶν θεῶν σφριζομένην, ὑπὸ δὲ τῶν ῥητόρων ἐνίων ἀπολλυμένην. οὐχ ἱκανὸν ἦν τὸ τοῖς μυστηρίοις φανέν σημεῖον, ἢ τῶν μυστῶν τελευτή; οὐ περὶ τούτων Ἀμεινιάδης μὲν προύλεγεν εὐλαβεῖσθαι καὶ πέμπειν εἰς Δελφοὺς ἐπερησομένους τὸν θεὸν ὃ τι χρὴ πράττειν, Δημοσθένης δὲ ἀντέλεγε, φιλιππίζειν τὴν Πυθίαν φάσκων, ἀπαίδευτος ὢν καὶ ἀπολαύων καὶ ἐμπιμπλάμενος τῆς δεδομένης ὑφ' ὑμῶν αὐτῷ ἐξουσίας;

²⁸⁷ Modern commentators assume it was a shark (Carey 2000 ad loc). But κῆτος refers to all kinds of large, monstrous sea creatures. Plutarch reports a similar incident later in the 4th c.: "Moreover, as a mystic initiate was washing a pig in the harbour of Cantharus, a great fish (κῆτος) seized the man and devoured the lower parts of his body as far as the belly, by which Heaven clearly indicated to them in advance that they would be deprived of the lower parts of the city [i.e. Munychia] which adjoined the sea, but would retain the upper city." (Plut. *Phocion* 28.6, transl. Perrin)

Delphi must be consulted. It is the failure to do so that marks the true error, at least in Aeschines' eyes.

Since the disaster at Chaeronea has already happened, Aeschines, like Herodotus, is reasoning from hindsight. Nonetheless, the passage demonstrates how an Athenian politician such as Aeschines may, for political purposes, use this episode to highlight how the Athenian leaders failed to take the proper measures in response to the sign; specifically, it is the sign's *meaning* or *referent* (inference 2 of my definition) that has not been addressed properly. We can observe this by tabulating the abductive process of the sign:

<i>Abduction</i>	
result	initiates are eaten by sea monster (= sign)
rule 1 <i>implicit</i>	the god shows signs before disaster
rule 2 <i>prophecy</i>	the god says that x [?] must be done
∴ case	disaster happened at Chaeronea

The same *rule* on which Herodotus relies for his logical processes of divining disaster applies here, although it remains implicit. Still, it is clear that the sign is a warning from the gods—its divine agency is beyond doubt (inference 1), because of its occurrence during the Mysteries in conjunction with the fact that an attack by a sea monster defies common-sense expectations and thus constitutes a *τέρας*. The involvement of the seer underscores that the god is sending a message. But the meaning of the sign (inference 2) is not yet fully disclosed by the general principle that *signs happen before disaster* alone. Further explanation is needed. The seer is explicit about this: a delegation must be sent to

Delphi to ask Apollo what must be done. The resulting prophecy, which would have constituted the second *rule* (in the form of a divinatory sign) that may have completed this process, is never received, and thus the inferential process that *could* have been made at the time remains incomplete. Something could have been done that was not done. Such is at least Aeschines' reconstruction. The blame, then, falls clearly on the one who opposed consulting the Pythia—Demosthenes, who feared that the sign would be deceptive, manipulated by the Pythia's alleged favoritism. The passage thus demonstrates how *divining disaster*, as an abductive form of reasoning, depends not only on the strength but also on the completeness of the *rule* that attempts to explain the strange occurrence of the sign.

The Communicative Model

Now that we have identified Herodotus' statement ("there are typically signs before disaster") as the *rule* in the inferential process of *divining disaster*, one important question remains: where does the *rule*, the explanation or general truth that renders the observed fact a matter of course, come from? Certainly, Herodotus did not invent it. As an explanation for an observed fact, abduction can rely on pre-existing rules. When the *rule* cannot be selected from a series of possibilities, but must be invented *ex novo*, this is what Umberto Eco refers to as *creative abduction*. Any attempt to try and trace the 'original' creative abduction that first posited the connection between divinatory signs and disasters seems a futile and useless exercise. This does not mean, however, there are no clues as to how this creative abduction may have come about—not at one historical moment in time, but in various ways, gradually perhaps, in different cultures at different

times and across different semiotic or conjectural practices and disciplines. One assumption, which has already been raised in the context of the cognitive science of religion, is the importance of the idea that humans are hard-wired to perceive *communication* between agents both seen and unseen. As Walter Burkert has noted, “The abundance of signs turns into a plethora of voices.”²⁸⁸

In fact, in foregrounding the divinatory sign in our definition, the sender of the sign is relegated to being part of the inferential process. This is significant, because the divine agent behind the sign is bracketed off, thus producing an etic definition that allows for cross-cultural and trans-historical application. The definition thus works well when reconstructing *divining disaster* from an anthropological perspective. Most emic evidence from Homer to Herodotus and Aeschines, however, suggests that the divine intention precedes the sign, temporally as well as logically, and that it is therefore an integral part of the communicative process itself. A model that emphasizes the communicative aspect of the sign thus begins with the divine sender of the sign. Such a communicative model, which I shall discuss further below, reflects the literary evidence itself. By considering the divinatory sign as a form of divine communication, we do not attempt to approximate the *experience* of Herodotus and Aeschines; rather, it opens new doors to explore the *creative abduction* that led to the codification of the *rule* that underlies the mentality of *divining disaster* in the first place.

The idea that signs communicate with their observers, even when the sign was produced unintentionally, readily presents itself to the human mind. When Electra

²⁸⁸ Burkert 1996: 160

observes the lock of hair that she conjectures may belong to Orestes, she wishes the lock could speak to her with a human voice. The sign—an index of Orestes, a literal *pars pro toto*—is perceived to contain a message, but the message is encrypted, and the process of decoding is fraught with difficulty. Electra wishes to translate the indexical sign of the hair into an unequivocal verbal message. Typically, all intentional signs can be considered verbal messages: they are produced, after all, for the sake of being a sign, and the communicative aspect of its occurrence is thus central to its existence. A stop sign can be translated into the verbal message “Stop!”. Strictly speaking, it is not the sign that communicates but the sender of the sign who does. One influential model to understand how signs facilitate communication is Jakobson’s communicative model of semiotics. It consists of six elements:²⁸⁹

The *addresser* sends a *message* to the *addressee*. To be operative the message requires a *context* referred to, seizable by the addressee, and either verbal or capable of being verbalized; a *code* fully, or at least partially, common to the addresser and addressee (or in other words, to the encoder and decoder of the message); and, finally, a *contact*, a physical channel and psychological connection between the addresser and the addressee, enabling both of them to enter and stay in communication.

Jakobson identifies six communicative functions that correspond to each of the six elements: (1) emotive, relating to the addresser’s attitudes towards what s/he is conveying; (2) poetic, relating to the message itself; (3) conative, relating to an orientation toward the addressee; (4) referential, relating to an orientation toward the context; (5) metalingual, relating to the code; (6) phatic, relating to the establishment of contact. While all elements are operational in communication (for example: simple

²⁸⁹ Quoted in Martin and Ringham 2006: 228; see Jakobson: 1966-1988.

interjections in everyday speech, such as “Oh!”, are emotive), there is usually a dominant function. The main function of a literary text, for example, is typically poetic, while a street sign is referential.

This model applies to human-human communication as well as divine-human communication. We have seen how the verb σημαίνω is especially associated with communicating a message, including in divinatory contexts such as Apollo’s oracle. An example of a well-known oracle consultation by the Athenians, described in Herodotus’ *Histories* (7.139-44), illustrates the applicability of Jakobson’s communicative model to an emic context: Apollo (1) sends a message (2) to the Athenian delegation (3). The context is the Peloponnesian War, particularly the upcoming Battle at Salamis (4), and the message is encoded in the Greek language (5), which contains words that are individual signs, and which are thus encoded as well (“wooden walls” has a transferred meaning of “ships”). The contact is established by the oracular institution of the Pythia (6), whose inspired state bridges the divine intentionality of Apollo and the human quest for special knowledge. While all aspects are crucial to communication and problems, the message itself—which consists of signs—is especially relevant, as is the code, which is concerned with the decoding of the message. When this communication happens through verbal means, such as prophecy, the decoding of the message comes down to the decoding within the same system of language. The “wooden wall” enigma, for example, relies on the same code but uses variations in the signification of words along the axes of metaphor (iconic) and metonymy (indexical) to scramble the message.

Communicating by Thunder

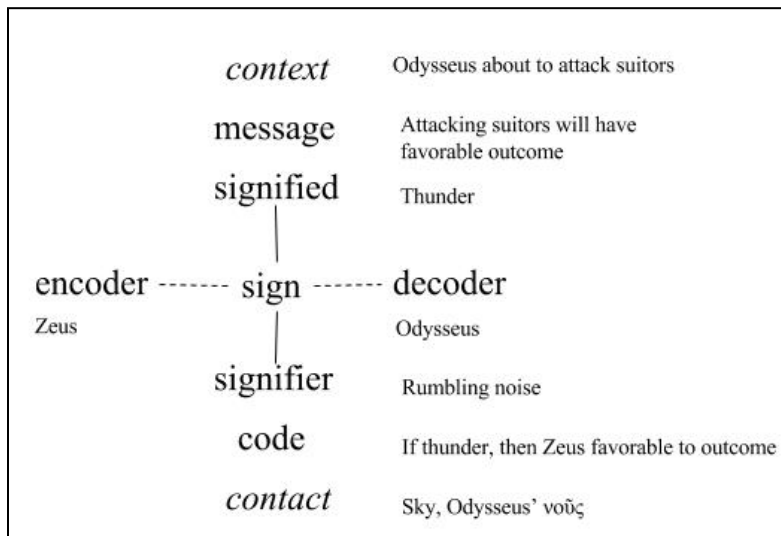
As often with divinatory signs, the message need not be contained in a verbal code. The analytical potential of Jakobson's communicative model can be demonstrated in its application to, for example, a divinatory sign in Homeric epic. The scene is the famous archery contest in the *Odyssey*, the winner of which will marry Penelope. Odysseus has just strung the bow and is about to shoot an arrow, when the sign occurs (*Od.* 21.413-15):

Zeus thundered mightily, showing forth his signs (σήματα)
And much-enduring godlike Odysseus was happy then
That the son of devious-devising Kronos sent him a sign (τέρας).²⁹⁰

In this type of communication, here between god and hero, the message is encoded in thunder. The thunder conforms to my definition of a divinatory sign. Its observation by Odysseus leads to a dual process of inferential reasoning: 1) *divine agency*: from Jakobson's phatic standpoint, the thunder is an index of Zeus: god and thunder are connected in a causal relationship; for Odysseus, the sign is therefore a τέρας because the thunder suggests a divine sender; and 2) *meaning*: from Jakobson's poetic standpoint, the content of the message becomes available to Odysseus, which translates to, presumably, Zeus' approval and guarantee of a favorable outcome; insofar as the relation between the sign (thunder) and its object in Odysseus' mind (a favorable outcome) is arbitrary and conventional, the sign is a *symbol* of divine favor and success. The process of

²⁹⁰ Ζεὺς δὲ μεγάλ' ἔκτυπε σήματα φαίνων· / γήθησέν τ' ἄρ' ἔπειτα πολύτλας δῖος Ὀδυσσεύς, / ὅττι ρά οἱ τέρας ἦκε Κρόνου πάϊς ἀγκυλομήτεω.

communication between Zeus and Odysseus (*Od.* 21.413-5) can thus be plotted onto Jakobson's semiotic model:²⁹¹



We can distinguish Jakobson's different communicative functions, although some of them are more pronounced than others by the text. From the conative perspective, for example, the addressee (Odysseus), rejoices at the sign, and the context of the passage suggests that he relies on the approval of the divine to carry out his plan.

But what is the logic that underlies this system of communication? *How* does Odysseus decipher the sign and access the message? The epic notably suppresses the metalingual (or rather, metasemiotic) function of the code, which is not addressed at all, but taken for granted by Odysseus and, presumably, the audience of the epic. But we can clearly recognize the abductive nature of the logical procedure: faced with surprising fact A (the thunder = *result*), Odysseus intuitively finds an explanation, namely that Zeus thunders

²⁹¹ Based on Jakobson's model as found in Nöth 1990 and adapted by Hollmann 2011, here applied to *Od.* 21.413-5.

before a successful endeavor (= *rule*). If C is true, namely that Odysseus will have a successful endeavor, then the thunder would be a matter of course. So, there is reason to suspect that Zeus will be favorable, that is: Odysseus will be successful in defeating the suitors (= *case*):

<i>Abduction</i>	
result	thunder (= sign)
rule	if thunder, Zeus is favorable to outcome
∴ case	suitors will be defeated

The *rule* corresponds to Jakobson's *code*, and the *case* to the *message*. Code is here understood not only as the translation from one system of signs to another, but also in its wider meaning as a "system of rules given by a culture."²⁹² In order to interpret the sign, Odysseus needs to translate a meteorological sign into (a set of) linguistic signs; the code correlates a system of auditory *expression* (the "boom!" of the thunderclap) to a system of *content* ("Zeus approves").²⁹³ The code is entirely arbitrary and defined by its conventionality: it is mutually agreed upon by the (perceived) encoder and the decoder. Indeed, Homer's suppression of this metasemiotic function may well show that the

²⁹² Such is the definition of Eco 1968: 134, cited in Nöth 1990: 211.

²⁹³ On code as a rule that joins an expression system with a content system, see Eco 1973: 85-6, cited in Nöth 1990: 212.

conventionality of this code extends beyond its primary pair of sender—receiver (Zeus—Odysseus) to its secondary pair (epic poet—audience).²⁹⁴

Codes, Conditionals and Compendia

We have already seen how the code, as a general rule, can be formulated as a syllogism (known in inferential logic as *modus ponens*) with the following structure: if there is thunder, then Zeus is favorable to the outcome; there is thunder, therefore Zeus is favorable. The propositional structure of the code (antecedent—consequent) had already been noticed by the Stoics, whose theory of signification took an interest in the logical operation that is involved in passing from antecedent to consequent. One of their critics, the Pyrrhonian skeptic Sextus Empiricus (2nd-3rd c. CE), on whose testimony we also rely for the Stoic position, objects against the idea that this logical operation requires inferential reasoning or knowledge of logic. For if interpreting signs requires such advanced discursive reasoning, Sextus notes, how is it that anyone, even animals, can do it? (*Adv. Math.* 8.270-1, transl. R.G. Bury):

For often illiterate pilots, and [often] farmers unskilled in logical theorems, interpret by signs excellently (ἄκρως σημειοῦνται)—the former on the sea <prognosticating> squalls and calms, stormy weather and fair, and the latter on the farm <foretelling> good crops and bad crops, droughts and rainfalls. Yet why

²⁹⁴ From the standpoint of cultural semiotics, only communications based on codes and social conventions are the object of study, separating “signs from things and artificial signs from natural signs.” Natural semiosis, such as physiological stimuli or neurological transmissions, are thus excluded. The case of Odysseus and the thunderclap meets the threshold of cultural semiotics, because the interpretation of a form of natural semiosis (thunder) as divine sign is affected by cultural conventions. Scientific explanations, too, are embedded in cultural convention. The fact that modern meteorology explains thunder as the sound caused by the electrical phenomenon of lightning exemplifies a shift from a mythic code to a scientific code as the basis for interpreting natural semiosis. Any case of divination by definition relies on some conventional code, even if the sign originates in nature. See Eco 1972: 19, cited in in Nöth 1990: 213.

do we talk of men, when some of the Stoics have endowed even irrational animals with understanding of the sign? (τῆς τοῦ σημείου νοήσεως) For, in fact, the dog, when he tracks a beast by its footprints, is interpreting by signs (σημειοῦται); but he does not therefore derive an impression of the judgement “if this is a footprint, a beast is here.”²⁹⁵

In our example from the *Odyssey*, too, the sign appears to require no discursive reasoning whatsoever. Odysseus’ apprehension of the sign is instantaneous, as if it were a flash of insight or intuition. This does not mean, however, that the sign cannot be understood as part of a logical operation. Sextus’ example of a dog’s ability to follow tracks without inferential reasoning falls under the category of *signa naturalia*, or natural signs (i.e. signs that are not produced with the intention of being signs), as opposed to *signa data*, or intentional signs. While Sextus is right to point out that no elaborate logical theorems are required to interpret these signs, their successful interpretation nonetheless depends on an important *conventional* component, namely learning through experience (ἐμπειρία). Experience explains why no elaborate reasoning is required, even if the sign can be seen, theoretically, as inferential reasoning that can take the form of a conditional or propositional statement. In practice no such discursive reasoning is required because past experience and observation immediately confirm the meaning of the sign. This applies to animals and humans alike, especially if the inference is straightforward.

²⁹⁵ καὶ γὰρ ἀγράμματοι πολλάκις κυβερνῆται καὶ ἄπειροι πολλάκις τῶν διαλεκτικῶν θεωρημάτων γεωργοὶ ἄκρως σημειοῦνται, οἱ μὲν κατὰ θάλασσαν, ἀνέμους τε καὶ νηνεμίας χειμῶνάς τε καὶ γαλήνας, οἱ δὲ κατὰ γεωργίαν, ὥσπερ εὐκαρπίαν καὶ ἀκαρπίαν αὐχμούς τε καὶ ἐπομβρίας. καίτοι τί περὶ ἀνθρώπων λέγομεν, ὅτε καὶ τοῖς ἀλόγοις ζώοις τινὲς αὐτῶν μεταδεδώκασι τῆς τοῦ σημείου νοήσεως; καὶ γὰρ ὁ κύων ὅτε ἐκ τοῦ ἵχνους στιβεύει τὸ θηρίον σημειοῦται· ἀλλ’ οὐ διὰ τοῦτο ἀξιώματος ἔλκει φαντασίαν τοῦ “εἴπερ ἵχνος ἐστὶ τοῦτο, θηρίον ἐστὶν ἐνθάδε”.

The possibility to organize and systematize divinatory signs by making them part of propositional compendia obviously suggests itself (e.g. if sign *x*, then event *y*). Indeed, there is a wealth of evidence for precisely this in Mesopotamian omen divination, which contains the earliest evidence for divining disaster. Giovanni Manetti has argued that,

from the point of view of a historical reconstruction of the discipline of semiotics, the most significant aspect of Mesopotamian divination is that it is centered precisely on a distinctive and individual notion of the sign, which is a scheme of inferential [*sic*] reasoning that allows particular conclusions to be drawn from particular facts.²⁹⁶

Many divinatory tracts from Ancient Mesopotamia have survived, and they typically take the form of lists of propositions. The protasis contains the omen or sign, and is expressed by the Akkadian word *šumma* (“if”); the apodosis contains the oracle, that which is revealed by the sign.²⁹⁷ Different forms of Mesopotamian divination contain the same logical structure: astrology (“if on the day of its disappearance the moon lingers in the sky, there will be drought and famine”); oneiromancy (“if a man dreams that someone gives him a seal, he will have a son”); extispicy (“if the lung is bright red on the right and on the left, there will be fire”); et cetera.²⁹⁸ All these propositions can be cast as abductive inferences. The latter example can be tabulated as follows:

<i>Abduction</i>	
result	red lung (= sign)
rule	if the lung is red, there will be fire

²⁹⁶ Manetti 1993: 1-2.

²⁹⁷ Rochberg 2004: 53.

²⁹⁸ Examples cited in Manetti 1993: 6.

∴ case	there will be fire
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Once again, the principle of the *rule* is based on likeness and shared characteristics: fire *resembles* a red lung with respect to color. In other cases, such as the astrological example of the lingering moon that signifies famine and drought, the principle underlying the code is not clear.

It is striking that very little evidence of such sign compendia survives from the Ancient Greek world. We are left with the writings of a third century BCE author aptly named Melampus, who wrote on divination by birthmarks and divination by twitches. Artemidorus' dream book (2nd c. CE) is a late source that comes closest to what Beerden has called "interpretative guidelines."²⁹⁹ The Roman evidence is equally sparse: the brontosopic calendar, and the Sibylline books, which dealt with *prodigia publica*, come closest.³⁰⁰ However, Cicero gives us some notion of what a propositional compendium may have looked like. He presents a list of historical examples, including a case of teratoscopy: "if a girl were born with two heads, there would be popular revolt and seduction and adultery at home."³⁰¹ Still, such historical examples may serve as comparative material (*coniectura*) for other signs, but are far removed from the systematized nature of Mesopotamian compendia.

²⁹⁹ For her comparative analysis of such guidelines in Greece, Rome and the Near East, see Beerden 2013: 144ff.

³⁰⁰ Bibliography in Beerden 2013: 144. Cf. also Julius Obsequens *De Prodigis* and John Lydus, but they are late sources that do not use propositional statements (that I am aware of).

³⁰¹ *Si puella nata biceps esset, seditionem in populo fore, corruptelam et adulterium domi* (1.53.121).

One attractive hypothesis as to why Mesopotamian divination became so formalized and structured, and Greek divination apparently did not, is the prominence of writing for the intellectual elite of Mesopotamian civilization.³⁰² The Greek gods communicate orally, which is why inspired divination is so prominent. The Mesopotamian gods, by contrast, communicate primarily through writing; the entire universe is a huge writing tablet. A hymn of Assurbanipal to Samas, god of divination, states: “You examine in the light (of) your (gaze) the whole earth like (so many) cuneiform signs.”³⁰³ It has in fact been argued that the nature of cuneiform writing invites a mental attitude that encourages finding semiotic relationships between objects, words, and sounds. Moreover, the inaccessibility of cuneiform writing and its privileged status contribute to the specialized and secretive role of a class of expert diviners, unlike anything found in ancient Greece.

Signs and Causes: ‘Hard’ and ‘Soft’ Astrology

The creative abduction of the rule that first codified the logic of *divining disaster* must have assumed a world perfused with communication. When this communication is believed to take place not just with words, but with events, the perceived regularity between sign and event may suggest a relationship between cause and effect. There is an important distinction, however, between the way in which signs indicate disaster, and the way in which they both *indicate* and *cause* disaster. The Homeric case of the rainbow as

³⁰² See Manetti 1993: 2-5; see also Rochberg 2004; Vernant 1974.

³⁰³ Manetti 1993: 5.

τέρας, which indicates either pending war or storm, is instructive. As a symbol, the rainbow stands for war or storm, a relationship that is conventional and arbitrary. As an indexical sign, the rainbow stands for Zeus, the hidden agent behind the sign, thus suggesting a causal relationship between the sign or cause, and its effect or meaning (war/storm). But to claim that the rainbow *causes* the disaster would be mistaken. Semiosis and causation do not strictly coincide.³⁰⁴ The example of another indexical sign, smoke and fire, makes this clear. It is true that the smoke is caused by fire. Also, smoke is causally related to fire in the conclusion that smoke signifies fire. Semiotically speaking, ‘fire’ is the *object* of the *sign* ‘smoke,’ and ‘danger’ (or ‘home’) its possible *interpretant*. But to say that the smoke-as-sign is caused by the fire-as-object is to fail to distinguish between the sign-aspect and the event-aspect. “Object, sign and interpretant cannot be causally related,” notes Hulswit, “because together they constitute what it is to be a sign.”³⁰⁵

This does not mean, of course, that the causation and semiosis are never confused—on the contrary. Signs—indexical signs especially—and causes are easily confused: a red traffic light indicates “stop,” but to the observer it may seem as if the red light also causes the traffic to stop. In our everyday speech, we are likely to render this relationship causal, too, when we say that we had to stop *because* the light turned red. What suggests cause to the human observer, is a repeated pattern of sequence, in which sign A (red light) consistently precedes event B (traffic stops). The fact that people can

³⁰⁴ See Hulswit 2002: section 4.2

³⁰⁵ Hulswit 2002: section 4.2

accidentally overlook or purposefully ignore a red light means that the relationship is only one of signification, not causation. This exposes an important nuance in the role of signs, including divinatory signs, as either merely indicative or potentially also causative, at least perceptually so. In the context of astrology, A.A. Long has made a distinction between hard and soft astrology to account for precisely this difference.³⁰⁶ So-called hard astrology claims that the heavenly bodies are both signs and causes of human affairs, while soft astrology considers them only as signs without also attributing a causal relationship between heavenly bodies and human affairs.³⁰⁷ This distinction between hard and soft astrology, as we will see, can be applied to divination more generally, although astrology, as a form of divination, lends itself particularly well for postulating causal relationships.

Divining Disaster with the Stars (I): From Hesiod to Berossus

We can speculate that, from a cognitive anthropological viewpoint, the observation of correspondences between the movements of the heavenly bodies and

³⁰⁶ Long 1982: 165-92, esp. 170 n. 19. Useful introductions to ancient astrology are Pingree 1997 and Barton 1994. On cause in Greek thought, see Hankinson 1998.

³⁰⁷ Long's distinction appears to correspond to Pingree's differentiation between celestial omens and astrology: the former refers to the notion that the gods, of whom the planets and constellations are physical manifestations, send messages about their divine will and intentions, which can be altered with propitiatory rituals; the latter refers to the notion that the planets transmit motion to the four elements, thereby changing the assemblage of elements in the sublunar world (Pingree 1997: 22). Pingree is keen to separate out these theories, emphasizing their "fundamental conceptual difference." With Long, I would argue that this conceptual difference amounts to that between signification and cause, which in practice can be hard to distinguish. What matters most from my perspective is that both celestial omen divination and astrology deal with the observation and interpretation of (heavenly) signs that can signify and/or cause disaster.

certain recurring seasonal or meteorological conditions must have been a major factor in the development of the *rule* that codifies the mentality of *divining disaster*. The regular movements and fixed position of the heavenly bodies could be considered semiotic markers that are sure to rely on (τέκμαρ), as we have seen in *Prometheus Bound* and the *Hymn to Selene*. In scientific circles, the positions of the fixed stars were documented as early as the 4th century BCE, by the astronomer Eudoxus of Cnidus, on whose lost work Aratus would later base his *Phaenomena*. Causal relationships between heavenly bodies and earthly events, such as the influence of the moon on the tides, were first formulated in the Hellenistic period (e.g. testimony in Strabo 1.3.11-12).³⁰⁸ Unequivocal Ancient Greek evidence for ‘hard’ astrology is rather late: horoscopic astrology proper did not emerge until the 3rd century BCE.³⁰⁹ This is of course not to say that the Greeks of the Archaic period did not look to the skies for guidance. On the contrary, traditional semiotic practices that partake of Ginzburg’s conjectural paradigm, such as farming and sailing, have relied on celestial phenomena from their inception, in particular, as Sextus Empiricus suggested, to predict disasters such as storms and droughts. It is important to keep in mind that some of those observed correspondences are, in fact, ‘real.’ The old rhyme “Red sky at night, sailors’ delight, / Red sky at morning, sailors take warning,” for

³⁰⁸ Cf. Ptolemy *Tetrabiblos* I.2: “The moon, too ... bestows her effluence most abundantly upon mundane things, for most of them, animate or inanimate, or sympathetic to her change in company with her; the rivers increase and diminish their streams with her light, the seas turn their own tides with her rising and setting, and plants and animals in whole or in some part wax and wane with her.” Pliny the Elder ascribes to the moon the ability to increase and decrease human blood (hence the moon is believed to cause menstruation); Pliny also suggests that when the moon waxes, crustaceans grow bigger.

³⁰⁹ The earliest known horoscope is Babylonian (410 BCE); the earliest Greek horoscope signifies the apotheosis of Anitochus I of Commagene, in 62 BCE; Neugebauer 1959: 188.

example, holds true, at least along the mid-latitudes of the Northern Hemisphere.³¹⁰ What I am suggesting, then, is that the observation of atmospheric and meteorological phenomena *as signs* (not causes, although the sign’s semiosis may *indicate* by a causal relation) that signify certain events, such as stormy weather, may well have been the single most important factor in formulating the *original abduction* that produced the *rule* “there are typically signs before disaster.” Furthermore, these seemingly secular semiotic activities fall under the umbrella of *divining disaster*, especially as far as so-called natural disasters are concerned.

The evidence of the observation of heavenly and meteorological signs to determine the right time to undertake a particular action, especially in the agricultural and maritime sphere, is already found in the earliest Greek sources. Hesiod’s *Works and Days*, which probably draws on Mesopotamian wisdom-literature, gives advice based on the stars.³¹¹ Many examples have a construction of the type “whenever [x], at that time [y]” (ἐντ’ ἅν ... τότε), with [x] referring to the sign and [y] to the event that should be undertaken or avoided (Hes. *WD*. 619-21):

Whenever (ἐντ’ ἅν) the Pleiades, fleeing the mighty strength
of Orion, fall into the murky sea,
at that time (δὴ τότε) blasts of various winds rage;
and at that time (καὶ τότε) do not keep your boats on the wine-dark sea any
longer,

³¹⁰ This piece of folk wisdom is mentioned as early as the Bible (Matthew 16: 2-3). For its scientific validity, see article in *Scientific American* [[link](#)]

³¹¹ In general, “stars” refers to the so-called fixed stars, which the ancients distinguished from wandering stars (i.e. planets, of which five were known: Mercury, Venus, Mars, Jupiter and Saturn). The fixed stars, which are so called because of their relatively regular movements, are grouped in constellations as early as Homer and Hesiod, the names for which were derived in large part from their Babylonian counterparts, as were the names of the planets. The sun and moon were typically ranked among the planets as well.

but work the earth mindful as I tell you.³¹²

The movement of the constellation Pleiades marks the end of the sailing season. To heed the advice and keep one's boats ashore is to avoid disaster. Does making seasonal predictions based on the constellations constitute an act of divination? If we narrowly focus on the sender of the sign, in particular whether the sender is a god or not, then the answer is no. While the Babylonians and Egyptians identified specific stars with gods, the Greeks did not do so, although stars were considered divine at least by the time of Plato's *Timaeus*. But if we shift our focus to the sign itself, the Pleiades indicating the end of the maritime season fits my definition of the divinatory sign: the stars, after all, are both animated and anthropomorphized, pointing to an agency and intentionality that lies outside the human sphere of influence (inference 1). Corresponding to Guthrie's second category of anthropomorphizing, the Pleiades are imagined to "flee the strength of mighty Orion," thus having mentalistic activities ascribed to them. As per the definition, whether this is truly 'believed' or not is not relevant; what matters is that it is an accepted part of discourse. From the perspective of the receiver of the sign, moreover, the sign yields special knowledge about the future (inference 2). The sinking Pleiades are an indexical sign of the stormy season (i.e. starting late October/early November). The construction εὖτ' ἂν generalizes the condition by which the sign and event are related, and regularizes the occurrence. We encountered the same principle in Herodotus' narrative of the Chian disaster, which led him to conclude: "There are usually signs

³¹² εὖτ' ἂν Πληιάδες σθένης ὄβριμον Ὠρίωνος / φεύγουσαι πίπτωσιν ἐς ἡεροειδέα πόντον, / δὴ τότε παντοίων ἀνέμων θυίουσιν ἀῖται / καὶ τότε μηκέτι νῆας ἔχειν ἐνὶ οἴνοπι πόντῳ, / γῆν δ' ἐργάζεσθαι μεμνημένος ὥς σε κελεύω

beforehand, whenever great disasters occur.” A crucial difference, however, is that Herodotus reasons from the event to the sign: whereas Hesiod’s εἴτ’ ἄν clause refers to the sign, Herodotus’ εἴτ’ ἄν clause refers to the event. The hypothetical Hesiodic equivalent of this would be “whenever blasts of winds are raging, the Pleiades usually sink into the sea,” which makes little sense. The difference can be explained by the temporal focus of the genre: Herodotus makes sense of the past, while Hesiod’s didactic advice poetry is future-oriented.

Such a future-oriented form of divining disaster, in the generalizing mold of *Works and Days*, is frequently found in the Mesopotamian omen compendia we have briefly considered. One instance of soft astrology is the conditional statement “If the moon lingers, then there will be drought or plague,” which is but one among many signs in the compendia that foreshadow agricultural or political disaster. Greek and Roman divination gradually came under the influence of Mesopotamian astrology, although experts such as Otto Neugebauer have argued that the evidence for direct borrowings is limited.³¹³ (To be sure, the Greeks translated Babylonian star names as early as the sixth century BCE.)³¹⁴ We know that the Babylonian philosopher Berossus established a school of astrology on Cos in the 3rd century BCE.³¹⁵ According to Seneca (*Nat. Quest.* 3.29.1), Berossus linked global catastrophes of flood and fire to the movement of the planets, even assigning a specific date to this event: “Earthly things will burn when all the planets

³¹³ Neugebauer 1959: 170, cited in Long 1982: 169.

³¹⁴ Barton 1994.

³¹⁵ On Berossus, see Kuhrt 1987: 32-56.

which now move in different orbits come together in the sign of Cancer, and are so distributed in the same path, that a straight line can pass through the spheres of all of them.”³¹⁶ Just as conflagration happens under Cancer, so deluge happens under the sign of Capricorn: “They are signs of great power” (*magnae potentiae signa*). The Stoic *ekpyrosis*, or universal conflagration, occurs when the planets return to their original position, a theory that, as Long points out, may well have been influenced by the astronomical speculations of Berossus.³¹⁷ This seems to be a case of hard astrology: Seneca uses the verb *conficio* (“accomplish, bring about, cause”) to explain the relationship between the signs of Cancer and Capricorn, and the solstice and the winter, respectively.

Divining Disaster with the Stars (II): Chaldeans and Egyptians

The global catastrophe envisioned by Berossus and the Stoic *ekpyrosis* are apocalyptic events, in the sense that they would result in the end of the world as it is. This position stands in opposition to that of the Chaldeans, at least as recounted by the historian Diodorus Siculus (1st c. BCE) (*Library* 2.30). The Chaldeans thought the universe to be eternal and without final destruction (ὡςτερον φθοράν). The planets and stars are divinities, and their positions (the signs) are thus clearly divinatory. The planets are called “Interpreters” (ἑρμηνεῖς), because “they indicate future events, thus

³¹⁶ *arsura enim terrena contendit, quandoque omnia sidera, quae nunc diuersos agunt cursus, in Cancrum conuenerint, sic sub eodem posita uestigio, ut recta linea exire per orbis omnium possit*

³¹⁷ Long 1982: 167.

interpreting to humankind the intention of the gods” (τὰ μέλλοντα γίνεσθαι δεικνύουσιν, ἑρμηνεύοντες τοῖς ἀνθρώποις τὴν τῶν θεῶν ἔννοιαν, 2.30.4). These future events include disasters, and Diodorus offers a clear case of natural disaster in relation to soft astrology (Dio. Sic. 2.30.5, transl. Oldfather):

For sometimes by their risings, sometimes by their settings, and again by their colour, the Chaldaeans say, [the planets] give signs (προσημαίνειν) of coming events to such as are willing to observe them closely; for at one time they show forth (δηλοῦν) mighty storms of winds, at another excessive rains or heat, at times the appearance of comets, also eclipses of both sun and moon, and earthquakes, and in a word all the conditions which owe their origin to the atmosphere and work both benefits and harm, not only to whole peoples or regions, but also to kings and to persons of private station.³¹⁸

The language in this passage does not suggest a causal relationship between the planets and earthly events; the relationship is strictly semiotic, as the verbs προσημαίνω and δηλῶ indicate. And yet, these atmospheric events themselves can be harmful or beneficial, which suggests that the lines between signification and causation is already blurred. It is noteworthy, moreover, that the principle of planetary signification applies not only to macro-phenomena such as atmospheric conditions, but also to individual human beings. This is the step from universal to genethliological, or horoscopic, astrology.

³¹⁸ τὰ μὲν γὰρ διὰ τῆς ἀνατολῆς, τὰ δὲ διὰ τῆς δύσεως, τινὰ δὲ διὰ τῆς χροῆς προσημαίνειν φασὶν αὐτοὺς τοῖς προσέχειν ἀκριβῶς βουλευθεῖσι· ποτὲ μὲν γὰρ πνευμάτων μεγέθη δηλοῦν αὐτούς, ποτὲ δὲ ὀμβρῶν ἢ καυμάτων ὑπερβολάς, ἔστι δὲ ὅτε κομητῶν ἀστέρων ἐπιτολάς, ἔτι δὲ ἡλίου τε καὶ σελήνης ἐκλείψεις, καὶ σεισμούς, καὶ τὸ σύνολον πάσας τὰς ἐκ τοῦ περιέχοντος γεννωμένας περιστάσεις ὠφελίμους τε καὶ βλαβερὰς οὐ μόνον ἔθνεσιν ἢ τόποις, ἀλλὰ καὶ βασιλεῦσι καὶ τοῖς τυχοῦσιν ιδιώταις.

In Cicero's *On Divination*, we find Chaldean horoscopic astrology (*Chaldaeorum natalicia praedicta*), or genethliology, explained by a critic in terms that unequivocally suggest causation rather than signification alone (2.89, transl. Falconer):

Now since, through the procession and retrogression of the stars [i.e. planets], the great variety and change of the seasons and of temperature take place, and since the power of the sun produces such results (*efficiantur*) as are before our eyes, [the Chaldeans] believe that it is not merely probable, but certain, that just as the temperature of the air is regulated by this celestial force, so also children at their birth are influenced in soul and body and by this force their minds, manners, disposition, physical condition, career in life and destinies are determined.³¹⁹

The Chaldean argument may be handsomely refuted by Cicero's character Marcus, but, as A.A. Long notes, it offers the single most powerful reason that astrologers could cite in their favor: namely, the empirical observation that the sun and moon have important noticeable effects on earth, and that the different positions of the planets and stars coincide with certain atmospheric or seasonal changes. And if these large-scale effects are real, why not suppose smaller effects in individual people? We will revisit this question when discussing Ptolemy.

If the Chaldeans had a reputation as masters of astrology, the true origins of this divinatory discipline were in fact debated among Greek and Roman intellectuals. The Egyptians were also renowned astrologers. Cicero articulates the view that the different types of divination are determined by the nature of the people and the land in which they live. Egyptians and Babylonians, for example, dwell in open plains with unobstructed

³¹⁹ *Etenim cum tempestatumque caeli conversiones commutationesque tantae fiant accessu stellarum et recessu, cumque ea vi solis efficiantur, quae videmus, non veri simile solum, sed etiam verum esse censent perinde, utcumque temperatus sit aër, ita pueros orientis animari atque formari, ex eoque ingenia, mores, animum, corpus, actionem vitae, casus cuiusque eventusque fingi*

views of the sky, and so they both specialize in astrology (Cic. *De Div.* 1.93). Diodorus, for one, believed that the Chaldeans were in fact colonists from Egypt.³²⁰ Indeed, we find in Diodorus a classic example of divining disaster among the Egyptians in the form of hard astrology. The passage, the source for which is believed to be Hecataeus of Abdera (4th c. BCE) is worth quoting in full (Dio. Sic. 1.81.4-5 = *FGrH* 264 Fr. 25; transl. Murphy, adapted):³²¹

For if ever a nation took an interest in the observation of the stars and their positions and movements, it is the Egyptians, who preserve extensive records about each star from unbelievably ancient days, having taken great pains from time immemorial concerning such matters; and they most zealously note the motions, periods, and stations of the planets, and the influences (δυνάμεις) that each exerts on the generations of living beings, the good or evil effects of which they are the cause (ἀπεργαστικάι). The astrologers often successfully predict the events fated to befall a man during his life, and they frequently foretell (προσημαίνουνσι) the failure of crops or, conversely, an abundance of yield, as well as plagues on men and cattle. And from long ages of close observation they know in advance (προγινώσκουσι) of earthquakes and floods and the time when comets will appear, and all the events of which, to common men, it seems impossible to have knowledge (ἐπίγνωσιν).³²²

³²⁰ There is no evidence that Mesopotamian astrology came from Egypt. In fact, it is likely that astrology was introduced into Egypt from Mesopotamia with the Persian conquests of the 6th century BCE. The main contribution of Egyptian astrology has been its calendar.

³²¹ For source criticism of Diodorus' *Library* Book 1, see Burton 1972: 1-34.

³²² ἐπιμελοῦς γάρ, εἰ καὶ παρὰ τισιν ἄλλοις, καὶ παρ' Αἰγυπτίοις παρατηρήσεως τυγχάνουσιν αἱ τῶν ἄστρον τάξεις τε καὶ κινήσεις· καὶ τὰς μὲν περὶ ἐκάστων ἀναγραφὰς ἐξ ἐτῶν ἀπίστων τῷ πλήθει φυλάττουσιν, ἐκ παλαιῶν χρόνων ἐξηλωμένης παρ' αὐτοῖς τῆς περὶ ταῦτα σπουδῆς, τὰς δὲ τῶν πλανήτων ἀστέρων κινήσεις καὶ περιόδους καὶ στηριγμούς, ἔτι δὲ τὰς ἐκάστου δυνάμεις πρὸς τὰς τῶν ζώων γενέσεις, τίνων εἰσὶν ἀγαθῶν ἢ κακῶν ἀπεργαστικάι, φιλοτιμότερα παρατηρήκασι. καὶ πολλάκις μὲν τοῖς ἀνθρώποις τῶν αὐτοῖς μελλόντων ἀπαντήσεσθαι κατὰ τὸν βίον προλέγοντες ἐπιτυγχάνουσιν, οὐκ ὀλίγακις δὲ καρπῶν φθορὰς ἢ τοῦναντίον πολυκαρπίας, ἔτι δὲ νόσους κοινὰς ἀνθρώποις ἢ βοσκήμασιν ἐσομένας προσημαίνουνσι, σεισμούς τε καὶ κατακλυσμούς καὶ κομητῶν ἀστέρων ἐπιτολὰς καὶ πάντα τὰ τοῖς πολλοῖς ἀδύνατον ἔχειν δοκοῦντα τὴν ἐπίγνωσιν, ἐκ πολλοῦ χρόνου παρατηρήσεως γεγενημένης, προγινώσκουσι.

Diodorus presents a case of hard astrology: the Egyptians have made a careful and lengthy study of the heavenly bodies—their motions, positions, orbits and stations—which allows them to connect certain signs with certain events. The planets influence earthly events (δυνάμεις expresses power or force; ἀπεργαστικά suggests cause), good or bad, but Diodorus singles out the bad: Egyptian astrologers foretell (προσημαίνουν, here in the meaning of *relaying* knowledge obtained through the interpretation of signs) crop failure, plagues, earthquakes, and floods, all of which are environmental disasters. As with the Chaldeans, Diodorus also includes comets, which are not disasters per se but further *signs* of disasters. Elsewhere, for example, Diodorus notes that the comet of 373/2 BCE “indicated beforehand” (προεσήμαινεν) the Spartan defeat at the Battle of Leuctra (371 BCE) (Dio. Sic. 15.50.2). The underlying principle here is a familiar one, namely that by studying the past one can know the future, because fixed patterns of cause and effect can be discerned. The premise is one of determinism. What separates the astrologer from the common man is that the astrologer can in fact know that which, to the common man, seems impossible to know. The random and unexpected turn out to be regular and foreseeable.

Divining Disaster with the Stars (III): Ptolemy

The pinnacle of divining disaster based on astrology comes with the *Tetrabiblos* by Claudius Ptolemy (2nd c. CE), an astrological handbook that complements Ptolemy’s

work of mathematical astronomy, the *Almagest*.³²³ In the first book of the *Tetrabiblos*, Ptolemy offers a defense of astrology by pointing to the obvious effects of the sun and moon on earthly events, a line of argument that we have already seen in Diodorus' and Cicero's representation of the Chaldeans. Ptolemy continues (*Tet.* 1.2.4-5, transl.

Robbins, adapted):

Moreover, the passages of the fixed stars and planets through the sky often make significations (ἐπισημασίας) of hot, windy, and snowy conditions of the air, and mundane things are affected accordingly. Then, too, their aspects to one another, by the meeting and mingling of their dispensations, bring about many varied changes (πλείστας καὶ ποικίλας μεταβολὰς ἀπεργάζονται).³²⁴

A.A. Long has commented on the rhetorical skill by which Ptolemy continues his argument, moving subtly from soft astrology (the stars as ἐπισημασίαι, “significations,” of weather conditions) to hard astrology, according to which the planets “bring about many complicated changes.” The planet Saturn, for example, is especially harmful, causing diseases, pestilential weather, storms at sea, excessive floods; as regards the crops, “he brings about want, scarcity, and loss, especially of those [crops] grown for necessary uses, either through worms or locusts or floods or cloud-burst or hail or the like, so that famine [λιμός, some MSS read λοιμός, plague] and the destruction of men thereby result” (*Tetr.* 2.84).

³²³ On the historical and intellectual context of Ptolemy's works, and his importance for Western astrology, see Tester 1987: 57-97. For an analysis of Ptolemy's defense of astrology, see Long 1982: 178-83.

³²⁴ αἱ τε τῶν ἀστέρων τῶν τε ἀπλανῶν καὶ τῶν πλανωμένων πάροδοι πλείστας ποιοῦσιν ἐπισημασίας τοῦ περιέχοντος καυματώδεις καὶ πνευματώδεις καὶ νιφετώδεις, ὅφ' ὧν καὶ τὰ ἐπὶ τῆς γῆς οἰκείως διατίθεται. ἤδη δὲ καὶ οἱ πρὸς ἀλλήλους αὐτῶν συσχηματισμοί, συνερχομένων πως καὶ συγκιρναμένων τῶν διαδόσεων, πλείστας καὶ ποικίλας μεταβολὰς ἀπεργάζονται.

Next, Ptolemy appeals to the power of observation in the common man, an argument once again similar to that found in Sextus, and exemplified in Hesiod: if farmers, sailors, and even animals, with their limited sphere of expertise, can make accurate though fallible predictions about the weather based on the significations of the stars, why should someone who knows precisely all the celestial movements not be able to make general forecasts about atmospheric conditions in general on a much larger scale? Then Ptolemy makes the sudden jump to genethliological astrology, by arguing that if the general and the universal can be known, so too can the particular and the individual. This important distinction between universal (καθολική) and genethliological (γενεθλιαλογική) astrology runs through the entire *Tetrabiblos*, with Books 1 and 2 devoted to astrological influences that affect all of humankind, or whole countries or cities, and Books 3 and 4 devoted to the births of individuals. The assumption is that the general is more important than, and takes precedence over, the particular.

This argument is significant, because it counters a common objection to astrology, namely the famous question put forth scathingly by Marcus in the second book of Cicero's *On Divination* (2.97): "Did all the Romans who died at Cannae have the same horoscope?"³²⁵ Ptolemy addresses such criticism by suggesting that celestial causes of *general effects*, such as war or other disasters, are more powerful than those affecting *particular* individuals. For example, when humans "perish in multitudes by conflagration or pestilence or floods" (ἐκ πυρώσεων ἢ λοιμῶν ἢ κατακλυσμῶν κατὰ πλῆθη διαφθαῶσιν), the lesser cause of the particular (i.e. the individual's horoscope) yields to

³²⁵ *omnesne qui Cannensi pugna ceciderint uno astro fuerint?*

the greater cause of the general and universal. In this view, divining disaster becomes a structural part of the cosmic order. If Herodotus and Aeschines focused on particular and circumstantial cases of disaster, whose meaning must be ascertained in an *ad hoc* manner through inferential reasoning aided by divinatory signs, the divinely ordered universe of Ptolemy is comprised of divinatory signs in the form of the heavenly bodies—signs that are both constantly accessible and sure to rely on. This system consists entirely of stable, interpretable signs. Provided these signs are studied properly, disaster becomes something utterly knowable.

Ptolemy's defense of astrology is in part so successful, as Long suggests, because of his willingness to disclaim absolute causal efficacy. The celestial movements only provide first causes upon someone's birth, and hence other factors can intervene and override the effect, including nurture, customs and geographical variations. "Astrology," as Long paraphrases Ptolemy's position, "though necessary, is far from sufficient to explain all the details of someone's life. But, in spite of its fallibility, it is a divine art, and we should be grateful for what it can provide."³²⁶ Indeed, for Ptolemy, the greatest benefit of astrology consists in its ability to induce equanimity about the future (*Tetr.* 1.3.5-6, transl. Robbins):

For, in the first place, we should consider that even with events that will necessarily take place their unexpectedness (τὸ μὲν ἀπροσδόκητον) is very apt to cause excessive panic and delirious joy, while foreknowledge (τὸ δὲ προγινώσκειν) accustoms and calms the soul by experience of distant events as

³²⁶ Long 1982: 182.

though they were present, and prepares it to greet with calm and steadiness whatever comes.³²⁷

This justification of astrology applies to divining disaster more broadly, and lays bare a key characteristic of disaster itself as understood from the Uncertainty paradigm, namely the unexpected (ἀπροσδόκητον), which we will discuss in the next chapter. Indeed, mitigating the unexpected by creating fixed signs to mentally prepare for disaster is one form of hermeneutic disaster management. Knowing what is going to happen—even if it cannot be prevented—soothes the mind. Ptolemy’s language is telling: foreknowledge “calms the soul by experience of distant events as though they were present” (τῶν ἀπόντων ὡς παρόντων). The mind constructs a path across time and space to bridge the invisible with the visible. Solon’s maxim that the invisible must be “conjectured with signs” (τεκμαίρου) from what is visible once again applies. If this process is abductive in nature, its epistemological status has potentially much more lofty claims than Peirce was willing to assign to it: the *rule* on which *divining disaster* is based, at least for Ptolemy, is that of divine, celestial causation itself—not mere signification.

³²⁷ πρῶτον μὲν γὰρ δεῖ σκοπεῖν, ὅτι καὶ ἐπὶ τῶν ἐξ ἀνάγκης ἀποβησομένων τὸ μὲν ἀπροσδόκητον τοὺς τε θορύβους ἐκστατικούς καὶ τὰς χαρὰς ἐξοιστικάς μάλιστα πέφυκε ποιεῖν, τὸ δὲ προγινώσκειν ἐθίζει καὶ ρυθμίζει τὴν ψυχὴν τῇ μελέτῃ τῶν ἀπόντων ὡς παρόντων καὶ παρασκευάζει μετ’ εἰρήνης καὶ εὐσταθείας ἕκαστα τῶν ἐπερχομένων ἀποδέχεσθαι.

CHAPTER TWO

“Disasters in the Sun”

(1601 CE)

Etymologies and Definitions

Naturally, “disaster” can be understood according to its etymology—of which many fragments here bear the trace. But the etymology of “disaster” does not operate in these fragments as a preferred, or more original insight, ensuring mastery of what is no longer, then, anything but a word. On the contrary, the indeterminateness of what is written when this word is written, exceeds etymology and draws it into the disaster.

—Maurice Blanchot, *The Writing of the Disaster*

To be a disaster, a “star” such as a meteor must deviate from this harmonious arrangement or celestial machinery. Meanwhile, back on Earth, the shooting star is a portent that makes sense as a trace on the relatively stable horizon of earth and sky. Perhaps the apocalypse will happen. But not just yet.

—Timothy Morton, *Hyperobjects*

What is ‘disaster’ anyway? ... It is a sharp and furious eruption of some kind that splinters the silence for one terrible moment and then goes away.

—Kai Erikson, *Everything in its Path*

Introduction

Whereas the previous chapter focused on the “divining” in *divining disaster*, the guiding question of this chapter is: what is disaster? This is not just a matter of definition, something which geologists, sociologists, and psychologists still struggle with in the field of disaster studies. It is true that the scholar must define his or her subject area, but there is something else at stake when it comes to defining disaster, especially for scholars in the humanities. Within disaster studies itself, the Uncertainty Paradigm emphasizes the loss of meaning, and the idea that the lack of communication is precisely what makes the disaster. The philosopher Maurice Blanchot writes about the indeterminateness of the word disaster, and the classical philologist Gerhard Hebbeker refers to the *Sprachlosigkeit* of disaster. There is a sense that disaster somehow defies definition. To define disaster—what *it* is—is to fix the sign in place, to give signification to something that does not immediately allow itself to be known, and thereby to take away some of the uncertainty. The main strategy to alleviate this uncertainty is to define the disaster by locating its origins. Does it originate with humans, gods, or some abstract notion of ‘Nature’? Where does the disaster come from? Defining disaster thus becomes part of divining disaster.

This chapter makes many universalizing claims about *disaster*, based on phenomenological and philological assumptions about the word and concept itself. At the same time, these claims can only aspire to be more than just philosophical speculation when they are anchored in a historical, conceptual study of disaster. The fact that the Ancient Greek language seemingly lacks an abstract noun for disaster underscores the

need for a larger conceptual study of disaster terminology—cross-cultural and trans-historical—as called for by Gerrit-Jasper Schenk and others. The purpose of such a study would be to understand both the universals and the particulars of disaster experiences across different cultures, the conditions that make these experiences possible, and the strategies employed to cope with them. I have already suggested that the mentality of divining disaster is one such hermeneutic strategy, at least in Ancient Greece, and the overarching purpose of this study is to illuminate this practice. What I am now proposing is that defining disaster itself—the word, the concept, the event—is not only part of this practice, but even essential to it. The question, how do the ‘Ancient Greeks’ define disaster, thus becomes of central importance to this study.

The chapter is divided into three parts. Part I begins *in medias res*, as I trace the origins of the English word *disaster* to Shakespeare’s *Hamlet* and *King Lear*. My reason for doing so is not because Shakespeare must be privileged in the classical canon, or because he should somehow hold more value in imagining the (literary) past of the ‘West’. It is not even the fact that Shakespeare’s passage on disaster in *Hamlet* is a case of classical reception—one that also lends its phrase to the title of this chapter. Rather, this is a heuristic comparison, in which *a phenomenon from one culture is used to illuminate aspects of a comparable phenomenon in another culture*. What my discussion of Shakespeare neatly illustrates is that from its moment of arrival in the English language, the word disaster stands in a contentious relationship with meaning, oscillating between *that which signifies* and *that which is signified*, in a way that goes well beyond the true but tried observation that the etymology of *disaster* points to its astrological origins. At the same time, Shakespeare’s penchant for neologisms reveals a particular set

of cultural and intellectual conditions under which new words—such as *disaster*—are introduced in the first place. This pivotal moment owes much to the reception of the Ancient World, which is itself significant, even if it does not illuminate ancient disaster directly. What it does illuminate is the hypothesis that defining disaster—in any system of language and culture—is integral to the mentality of divining disaster as a semiotic practice, which thus justifies the elaborate etymological and lexical analysis of Greek (and Roman) disaster terminology that I undertake in Parts II and III.

To facilitate this cross-cultural and linguistic analysis, a more capacious understanding of the word and concept *disaster* is needed. Rather than resorting to such modern classifications as natural vs. man-made disasters, I distinguish different kinds of disaster by considering three different modes under which they are apprehended: disaster-as-sign, disaster-as-event, and disaster-as-condition. I conceive of these three modes of disaster, which are nothing more—or less—than etic tools in the hands of the scholar, as porous, complementary, and not mutually exclusive. They seem to be current throughout the (Western) history of disaster mentalities, as for example evidenced by the Shakespearean passages, and while arguments could be made, perhaps, for the universal character of these three disaster modalities across the intellectual and cultural history of humanity, such an endeavor would obviously be beyond the scope of this study. I do not contend, therefore, that these three modes of disaster are somehow unique to Ancient Greek thinking. What I do argue is that our understanding of the Ancient Greek mentality of divining disaster, as defined in the previous chapter, benefits from recognizing and

theorizing these different modes as analytical categories.³²⁸ To be more explicit: the point of this chapter's extensive theorization of disaster is that defining—and, in turn, divining—disaster is to reduce the disaster-as-event (Derrida's *événement*) to the equivalent of a sign.

In Part II, I continue to explore the word and concept of disaster through its etymology, not with the essentialist assumption that it reveals some true meaning of the sign, but with the belief that the origins (real or perceived) of a word, and of neologisms in particular, tell us something about the cultural and mental attitudes toward that word. How disaster is defined says something about how it is experienced. I trace the word *disaster* to the Italophilic French courts and the reception of Plutarch by such 16th-century French humanists as Antoine du Saix and Jacques Amyot. This unexplored conceptual history of disaster—and related words, such as *catastrophe* and *calamity*—is worth considering because it reveals that modern preconceptions of ancient disaster are filtered through the lens of Renaissance humanism *and its reception of ancient texts*, Plutarch especially. While this fact itself is noteworthy if hardly surprising, above all it serves both to underscore the difficulty in accessing ancient conceptions of disaster directly—the awareness of which is imperative when ‘doing’ cultural and conceptual history—and, simultaneously, to offer a first glimpse at ancient disaster terminology considered eligible to be rendered with the French neologism *desastre*. ‘Ancient Greek disaster’ emerges as somewhat of a conceit.

³²⁸ For the problem of different order categories, see Satlow 2005: 27-98.

In an attempt to address this conceit, I rely on the linguistic signs of the ancient languages themselves to have more direct, if not diachronic, access to ‘ancient disaster.’ The more straightforward disaster terminology of the Latin language reveals that disaster is constructed in an abstract sense through such nouns as *calamitas*, *clades*, and *casus*. I argue that the importance of the roots **kel* (strike) and **kad* (fall) reveals that disaster is phenomenologically something that strikes from above, a falling upon whose meaning oscillates between that of a random accident and a purposeful misfortune. The Greek language, by contrast, lacks a clear abstract noun for disaster. The LSJ, in fact, translates no single Greek word with “disaster.” Instead, the Greek language has recourse to such potentially neutral words as *συνφορά* and *πάθος*, and words derived from roots for falling, striking, and suffering, as well as adjectives such as *κακόν* and *δεινόν*. Armed with these etymological insights, the phenomenology of disaster, and its modalities as-event, as-sign, and especially as-condition, is demonstrated through an analysis of Euripides’ *Heracles*, which simultaneously re-contextualizes the Shakespearean line *disasters in the sun*.

Part III *Defining Greek Disaster* builds on the disaster lexicon to consider how the Greeks conceptualized disaster. Since there are very few direct classifications of disaster, the assumption is that pairs, groups, and larger clusters of *instances of* disaster (such as Thucydides’ ‘disaster list’) implicitly convey how the collective imagination of ‘the Greeks’ structured different disasters. I argue that, contrary to what modern scholars of ancient disaster have tended to focus on, the triad plague-famine-war is the most dominant conceptual disaster complex in Ancient Greek thought, at least in the Archaic and Classical periods. In particular, the *loimos* scheme, so called in Daniel Ogden’s

seminal study on this subject, looms large in both mythological and historical constructions of disaster in the Greek imagination, starting with Hesiod's contrasting depictions of the righteous and wicked cities.³²⁹ This part closes with a section on the relationship between memory and disaster, as expressed by the historian Polybius.

PART I

THREE MODES OF DISASTER

A Neologism in *Hamlet*

HORATIO

A mote it is to trouble the mind's eye.
In the most high and palmy state of Rome,
A little ere the mightiest Julius fell,
The graves stood tenantless and the sheeted dead
Did squeak and gibber in the Roman streets:
As stars with trains of fire and dews of blood,
Disasters in the sun; and the moist star
Upon whose influence Neptune's empire stands
Was sick almost to doomsday with eclipse:
And even the like precursor of fierce events,
As harbingers preceding still the fates
And prologue to the omen coming on,
Have heaven and earth together demonstrated
Unto our climatures and countrymen.--
But soft, behold! lo, where it comes again!

³²⁹ Ogden 1997. Ogden builds on the work by Delcourt 1938.

Horatio's famous encounter with the ghost in Act 1 of *Hamlet* (1601 CE) has caused much confusion among both scholars and actors.³³⁰ The problem focuses on the sentence "As stars with trains of fire and dews of blood, / Disasters in the sun," which is, in fact, not a grammatical sentence at all. Most productions have cut the entire passage from performances, because it is so undeliverable for the actor playing Horatio. What is more, over 400 years of scholarship have yet to reach a consensus on whether to delete the line, add a line, or emend the text, something which is complicated by the fact that this passage only occurs in one of the three early editions (the Second Quarto). Suggestions for emending the text have included adding verbs, such as "Disastrous dim'd the sun," "Disasters veil'd the sun," and "Did usher in the sun." Or, when the major problem is felt to be with the first part of the sentence, "As stars" has been read as "Asters," an old word for stars, though not one Shakespeare has ever used elsewhere.³³¹ A recent solution, proposed by G.R. Hibbard's Oxford Edition of the play, is to change "As" to "At," which results in the dead squeaking *at* the stars, dews, and disasters. Though ingenious in its simplicity, this emendation does not improve the text's overall intelligibility much, as the placement of "and" (before "dews of blood") distorts the syntax. An elegant solution, which introduces a verb without making up words, is to read "disaster'd" instead of "disasters."³³² The verb *to disaster* was in fact still current in the 19th century, when Samuel Johnson's dictionary (1824) recorded the meaning of the verb as "to blast by the

³³⁰ For the date of *Hamlet*, see Kirschbaum 1932: 168-175.

³³¹ For an overview of proposed emendations, see for example the edition by Furness 1905: 18-20.

³³² Proposed by Smith 1902: 342-3, who also emends "as stars" to "asters."

stroke of an unfavorable star.” Attested as a verb elsewhere in Shakespeare, the word *disaster*’d would here mean that the comets “unstarred themselves, or became absorbed in the sun.”³³³ This would reverse the meaning of veiling or darkening the sun; instead, the sun darkens or outshines the comets. The issue, however, remains unsettled and so the phrase “Disasters in the sun” remains in most textual editions of *Hamlet*.

What do textual issues in Shakespeare have to do with the study of ancient disaster? Textual criticism aside, part of the difficulty with the passage undoubtedly has to do with the meaning of the word disaster itself. When Shakespeare composed Horatio’s lines, the word “disaster” had only recently made its way into the English language.³³⁴ Neologisms are of special interest to linguists because they typically bear witness to a particular cultural and ideological formation at a particular time. In Shakespeare’s use of disaster, the ancient belief that connects stars in the sky with ill-fated events on earth is revived, or rather, reconstituted in a single term. The term itself, and Horatio’s use of it, suggests that the emphasis of its meaning lies on the star as an ominous sign, thus revealing the close connection with the origins of the word disaster as

³³³ Smith 1902: 343. Disaster was also used as a verb, still recorded in Samuel Johnson’s dictionary of 1824 with the meaning “to blast by the stroke of an unfavorable star.” An example can be found in the diary of the American clergyman Mannasseh Cutler, who wrote about an incident in the Revolutionary War (1778) during which “the French fleet was so disastered” by a storm that the ships had to return to Boston to refit.

³³⁴ The word (as adjective, verb, and noun) enters the English language around the end of the 16th century, from Italian via French. The Italian-English dictionary by J. Florio (1598), *World of Words*, translated Italian *disastro* with “disastre, mischance, ill lucke.” Cited in *OED*, s.v. disaster. The final decades of the 16th century in England saw great interest in Italian culture (see Wyatt 2005). The English-Italian lexicographer John Florio, tutor at the court of King James, may have been acquainted with Shakespeare and may have influenced his writings. Some conspiracy theorists have even suggested that Florio was the real author of Shakespeare’s poetry. These so-called “authorship claims” are discussed and definitively put to rest by McCrea 2005.

“unfavorable aspect of a star” (prefix *dis-* + Lat. *astrum*, “star,” cf. Grk. ἄστρον, ἀστήρ). *Prima facie*, disaster has less to do with misfortune itself than with *signs* of misfortune. A conceptual history of the word disaster shows that the Italian *disastro* likely originated in Tuscany around the 13th century. An unknown translator of the narrative cycle of the *Seven Sages* coined the term to render the Old French word *micieffo* to denote the misfortune the hero suffered at the hand of a band of robbers.³³⁵ The association of *disastro* with natural disasters arose shortly after under the influence of astrological thought. In several studies, the historian Gerrit Jasper Schenk has pointed to visual depictions in which natural disasters and unfavorable constellations of the stars are linked.³³⁶ One such illustration, found in an early 16th-century edition of Macrobius’ commentary on Cicero’s *Somnium Scipionis*, shows three bearded wise men from the east (all wearing long robes and turbans) calculating the positions of the stars using a quadrant and an astrolabe. Two cherubs in the sky are blowing wind, which points to the theory that stellar positions cause the air to heat up. The effects are visible in the depiction of a collapsing city, accompanied by the words *terrae motus* (“earthquake”). The position of the stars causes an increase in hot air, which leads to earthquakes: a clear case of so-called hard astrology. As Schenk puts it, “The natural disaster “earthquake” ... is thus envisaged pictorially as *dis-astro*.”³³⁷

³³⁵ Schenk 2017: 16-7 with bibliography.

³³⁶ Discussed in Schenk 2017: 18-9. See also Schenk 2016.

³³⁷ Schenk 2017: 18.

The word and concept *disastro* spread to the other Romance languages (Sp. *desastre*, 14th c.; Cat. *desastre*, 14th c.; Por. *desastre*, 15th c.; Fr. *désastre*, 16th c.), but competed with other terms in some of the areas where Germanic languages were spoken. German, especially, has *Katastrophe* (ca. 1600 CE), *Unstern* (17th c.) and *Desaster* (18th c.).³³⁸ In Ancient Greek, the term καταστροφή represents, literally, an overturning of usually, but not always, a negative kind (as when the Chians suffered a καταστροφή at the hands of Histiaeus, see Hdt. 6.27). When the term was rediscovered in the Renaissance by Erasmus, its main semantic use was as a concept from dramatic theory.³³⁹ *Catastrophe* then means dénouement, the sudden reversal at the end of a play that produces its conclusion. In English, this dramatic meaning of *catastrophe* is found already in the late 16th century, while the meaning of catastrophe as natural disaster, such as a flood or earthquake, only occurs toward the end of the 18th century. In French, the term *catastrophe* remained mostly confined to the realm of dramatic poetry.³⁴⁰ The German term *Katastrophe*, on the other hand, developed a broader set of meanings. The Lutheran reformer and friend of Erasmus, Philipp Melanchthon, included the word—written in Greek—in a letter to one of his friends to describe the politico-religious

³³⁸ DWDS Online. The Nordic languages similarly use forms of *Katastrophe*. Dutch has the adjective *desastreus* (19th c.), but the main noun for disaster is *ramp* (which is related to *rimpel*, Eng. *rumple* “wrinkle, crumple”). In Middle-Dutch, the word also meant disease, specifically *falling* disease or epilepsy. (Philippa 2003-9) An interesting case is the Lithuanian word for disaster, *nelaime*, which is a form of Lith. *nediena* (= Latv. *nediena*), which consists of the negative prefix *ne* and *diena* (“day”), thus literally meaning “un-day.”

³³⁹ Erasmus found this dramatic meaning of the word in Lucian, and Aelius Donatus, the commentator of Terence: Meier 2007: 44-5. On the semantic fields of catastrophe from late Antiquity to the early Middle Ages, see Rosen 2001: 6-11.

³⁴⁰ O’Dea 2008: 35-48.

upheaval he was expecting due to Halley's comet, which was observed in 1531. Other humanists, too, used the word *catastrophe* in this astrological way, with the dramatic connotation that the final dénouement of the world was near. The word thus came to be charged with astrological and even salvific meaning.³⁴¹ During the famous debate between the astronomer Johannes Kepler and Helisäus Röslin from 1597 to 1604 about the significance of celestial phenomena for earthly events, the German word *Katastrophe* (then spelled with a C) had a socio-political meaning only.³⁴² The turns in the heavens were believed to reflect, perhaps even cause, human turns of events on earth. After 1800 the term was increasingly used for natural disasters, for example by Alexander von Humboldt (1802) to describe the earthquake that had struck Quito, Ecuador in 1797. This conceptual development was completed when the compound term *Naturkatastrophe* was coined later in the 19th century.³⁴³

With this brief survey of the intellectual climate in which Shakespeare composed *Hamlet*, we can return to the question: what are the “disasters in the sun” that Horatio refers to? According to the gloss of one recent commentary, we are to understand the

³⁴¹ Schenk 2016: 68.

³⁴² Halley's Comet would return in 1607, and Kepler observed it.

³⁴³ In fact, it seems that the ancient historian Theodor Mommsen was one of the first to use the term *Naturkatastrophe*, in his *Römische Geschichte* (1854), although, interestingly, it does not refer to a natural disaster *per se*: “Der Kampf der Gallier und der Römer ist, ungleich dem zwischen Rom und Etrurien oder Rom und Samnium, nicht ein Zusammenstossen zweier politischer Mächte, die einander bedingen und bestimmen; er ist den Naturkatastrophen vergleichbar, nach denen der Organismus, wenn er nicht zerstört wird, sofort wieder sich ins Gleiche setzt.” (DWDS “Naturkatastrophe” *Deutsches Textarchiv* 1473-1927).

phrase as “threatening signs.”³⁴⁴ This would be a case of soft astrology: the signs signify, but do not cause anything. But exactly what signs are written on the surface of the sun? Horatio seems to have a physical manifestation in mind, like the bloody dew in the same speech, and scholars have tried to interpret the phrase from an astronomical viewpoint. An obvious possibility is that of a solar eclipse, but the plural “disasters” renders it unlikely, considering that the lunar eclipse in the next lines is singular. Peter Usher has suggested that disasters in the sun could refer to sunspots, temporary variations in the sun’s photosphere that are visible from earth as dark spots.³⁴⁵ Considering the common association of the sun with royalty, any blemish to its appearance may indeed be interpreted as ominous. Horatio’s “Disasters (or, if we prefer the verb, “disaster’d”) in the sun” signify events of royal importance; *Hamlet*, after all, is a play about the rightful successor to the throne. With respect to the time of composition, Shakespeare may have also remembered the year 1598, in which England witnessed one total solar eclipse and two lunar eclipses, prompting fears about a pending doomsday in 1600.³⁴⁶ Nothing happened, but if there ever was a propitious time to introduce the word *disaster* to the English public, this was it.

Disaster-as-Sign: Shakespeare’s Reception of Plutarch

³⁴⁴ Mowat and Werstine 2012.

³⁴⁵ Usher 2010: 80. Peter Usher is an astronomer, and his interpretation of *Hamlet* as an allegory for competing cosmological views has not found many followers among traditional scholars of Shakespeare. In Ancient Greece, sunspots were observed by Theophrastus, and perhaps Anaxagoras. See Bicknell 1968.

³⁴⁶ Bloom 1997: xii.

If the word disaster makes a striking, though somewhat obscure, first entry onto the English stage in *Hamlet*, its appearance is in fact a case of reception of Classical Antiquity, in particular of Plutarch. Horatio, more Roman than Danish, puts the apparition of the ghost of Hamlet's father in the context of Ancient Rome. The death of Julius Caesar, he surmises, was preceded by similar portents: in addition to the dead abandoning their graves, the celestial omens included comets ("stars with trains of fire"), bloody rain ("dews of blood"), and a lunar eclipse ("the moist star ... sick with eclipse"). The phrase *Disasters in the sun* does not only reflect the astrological sentiments of the Renaissance, but also connects it to the ancient mentality of *divining disaster* through portents as practiced by the Romans—or, at least, as so imagined by Shakespeare. In Shakespeare's *Julius Caesar* (1599), first staged during the height of doomsday fears at the end of the sixteenth century, similar omens had also portended Caesar's death. Calpurnia relates to Caesar how the night watch saw a lioness giving birth in the streets, the dead leaving their graves, ghosts shrieking through the streets, and warriors fighting in the clouds, dripping blood down below (*Julius Caesar* Act 2, Scene 2). These are classic portents. Indeed, Shakespeare has largely based these portents, as well as those reported by Casca earlier in the play (Act 1 Scene 3), on Plutarch's account of Caesar's death (*Life of Caesar* 53).³⁴⁷

³⁴⁷ Shakespeare's main source was Plutarch, whose work he read through the edition by Thomas North (1579), which was an English translation of Jacques Amyot's French translation of Plutarch. (See, for example, Humphreys' comments in his edition of *Julius Caesar*, in Humphreys 1998: 8.) One of the first attestations of the French word *désastre* is in Amyot's translations of Plutarch (16th century), on which more below. See Aulotte 1965: 91.

There is, however, a crucial temporal distinction between Shakespeare's and Plutarch's prodigies. Horatio's speech in *Hamlet* stresses that the signs are antecedent to the events, repeating this principle three times: "*precurse* of fierce events;" "harbingers *preceding* still the fates," and "*prologue* to the omen coming on." Philipp Melanchthon, we recall, interpreted Halley's comet as a harbinger of social or political disaster. Plutarch, on the other hand, has signs preceding as well as following the death of Caesar. The "marvelous signs and apparitions" (σημεῖα θαυμαστὰ καὶ φάσματα) preceding Caesar's death are evidence that "fate" (τὸ πεπρωμένον) cannot be avoided or guarded against (ἀφύλακτον), but only anticipated or expected (οὐχ ... ἀπροσδόκητον, 63.1). We are reminded of Ptolemy's argument for the usefulness of astrology, which consists in countering the panic and mental distress associated with "the unexpected" (τὸ ἀπροσδόκητον, *Tet.* 1.3.5-6)—we will see this principle at work again in Theseus' Advice, below. These signs thus have an *anticipatory* or *premonitory* function: even if fate cannot be prevented, at least it can be known beforehand. This is the disaster-as-sign, which temporally precedes some event—or fate itself—so that it can now be expected and anticipated.

While the signs preceding the murder are premonitory, the signs following the murder serve an *admonitory* and *retaliatory* function. Following Caesar's death, Plutarch reports another set of signs, the "most marvelous" (θαυμασιώτατον) among both human and divine matters. Authors from Virgil to Dio Cassius have reported on these signs.³⁴⁸ In

³⁴⁸ Virgil records signs (*signa*) of all kinds: armies in the sky, eruptions of Mt. Etna, speaking cattle, phantoms, crying and sweating statues, earthquakes, thunderbolts, and comets (Verg. *G.* 1.466ff); interestingly, the passage opens with the obscuration of the sun, because the preceding

Plutarch's account, the divine signs include: a comet, which "appeared" (ἐφάνη) for seven nights after the murder and then "disappeared" (ἡφανίσθη); the year-long "obscuration" (ἀμαύρωμα) of the sun's rays, which chilled the atmosphere, resulting in a failed harvest of "half-ripe and imperfect fruits" (καρποὺς ἡμιπέπτους καὶ ἀτελεῖς); and, most spectacular of all, the "apparition" (φάσμα) who foretells Brutus his death, thus avenging Caesar. The text emphasizes the visual nature of the signs, as indicated by the root φα(ν)- for the apparition (φάσμα), and the appearance and disappearance of the comet (ἐφάνη, ἡφανίσθη). Similarly, the sun's brightness is obscured. The rare noun ἀμαύρωμα is derived from the adjective ἀμαυρός ("dim, shadowy"), and its first attested use is to describe the apparition of Athena in *Od.* 4.824 (= 4.835).³⁴⁹

While the comet was soon adopted by the Augustan propaganda machine to signify the ascending soul of deified Caesar (e.g. *Ov. Met.* 15.843-51), the other two signs are specifically connected to disaster and destruction.³⁵⁰ Plutarch notes that these signs indicated the displeasure of the gods at Caesar's murder; other sources, such as Dio

section discussed meteorology and the role of the sun in reading weather-signs. Virgil strengthens this point by arguing that the sun always gives signs, jumping from natural events (such as the weather) to socio-political events (such as hidden wars and uprisings). An example of the latter, Virgil then explains, is the Sun's veiled countenance in mourning for Caesar's death—then the list of other portents follows. Horace notes the vengeful overflowing of the Tiber as portent (*Hor. Od.* 1.13-20). These portents are, as one commentator puts it, "the experience of a generation." (Cf. also *Cas. Dio.* 45. 17, who records many portents (τέρατα): on the obscuration of the sun, Cassius Dio writes: "Then the light of the sun seemed to be diminished and even extinguished, and at times to appear in three circles, one of which was surmounted by a fiery crown of sheaves." (5.17.5, transl. E. Cary). Unlike Plutarch, he does not link the obscuration of the sun to crop failure, although he does mention the occurrence of a plague (λοιμός) that spread through Italy. (More ancient testimony in *Tibull.* 2. 5. 71; *Ov. Met.* 15. 782; *Petronius* 122)

³⁴⁹ Also, the depth of the sea (*Aesch. Fr.* 273a), and the dead (*Sapph. Fr.* 55.4)

³⁵⁰ On the comet, known in Antiquity as *sidus Iulium*, see Gurval 1997; Pandey 2013.

Cassius, link them to the fall of the Republic more generally. For Plutarch, the signs not only communicate divine anger, but in two cases, they enact divine punishment as well. First, the phantom taking revenge on Caesar's murderer is a form of individual, targeted punishment ("a precision weapon"). The ghost's visit to Brutus is a precursor to his death. Even so, the phantom does not inflict any actual harm itself. It still has primarily a semiotic function (a sign in a sign): it delivers a message, or prophecy, announcing Brutus' death, but does not cause his death. It remains, to borrow A.A. Long's terminology, a case of soft divination.

On the other hand, the sterile crops caused by the darkened sun's unseasonable weather disrupt the entire agricultural cycle. This is not just a message of divine anger, but a collective, indiscriminate form of punishment ("an atmospheric daisy-cutter"). Here, we witness the transition from disaster-as-sign to disaster-as-event. When disasters in the sun come down to earth, the usual reproductive cycle is disturbed, inflicting a form of unnatural sterility that is associated with the Greek experience of λοιμός and τέρατα. Plutarch's language bears out this *loimos* scheme. He says the crops are ἀτελεῖς, "incomplete." From an Aristotelian perspective, anything that is ἀτελής ("without end, purpose") is παρὰ φύσιν, or "against nature" (cf. Arist. *Pol.* 1256b21). Aelian recounts that the temple of Apollo Smintheus (the Mouse-god, associated with destructive, devouring swarms of mice, and with the λοιμός of *Iliad* 1) was founded after Apollo's mice rendered the harvests barren (ἀτελεῖς); they did so by cutting the ripening crops off prematurely (ἄωρα ὑποκείρειν, *Nat. An.* 12.5). In Aeschylus it is Zeus himself who watches over the maturing of the crops (καρποτελεῖ, *Suppl.* 689). Another usage is attested in Lucian, who refers to self-castration as making oneself ἀτελής (*Syr. D.* 20.12).

Castration disrupts sexual reproduction and inflicts sterility, also by cutting off prematurely. The obscuration of the sun is thus a form of hard divination: it both signifies divine displeasure at Caesar's murder and causes disruption in the natural cycle of fertility.

The adoption of the word and concept of *disaster* in the English language, as seen through the lens of Shakespeare's reception of Plutarch, transmits certain ancient notions of disaster and re-absorbs them into the intellectual culture of the Renaissance. Reading Shakespeare through his reception of Plutarch, I suspect that Shakespeare has modeled "disasters in the sun" on Plutarch's note about the "obscuration" (ἀμαύρωμα) of the sun. If so, Horatio's obscure phrase is rightly interpreted as a darkening of the sun's rays, much like, but not exactly identical to, a solar eclipse. What is striking, in Plutarch, about the implications of a disastered sun—that is, an "unstarred" sun—is that its disasters transfer down to earth, ruining the crops and upsetting the cycle of fertility. The *disaster* (*dis-astro*) consists of an unnatural celestial phenomenon, namely the darkening of the sun, which in turn causes the crops to fail; at the same time, on a semiotic level, the disaster has a socio-political dimension, in that it signifies the death of Caesar and the downfall of the Roman Republic. Completing the transition from pure sign in the sky to event on earth, *the disaster transitions from being a signifier to being a signified*. In *Hamlet*, however, the phrase "disasters in the sun" remains purely semiotic. But if Shakespeare's Horatio, unlike Plutarch, does not yet allow the word disaster to make this transition, *King Lear's* Edmund decidedly takes a step in that direction.

Disaster-as-Condition: Edmund the Bastard

Through the character of Horatio, as we have seen, Shakespeare invokes the traditional astrological connection between the heavenly signs and events on earth in an exclusively semiotic relationship. This relationship is suggested by the very etymology of the word “disaster.” By the time Edmund comes along in *King Lear* (1606), however, Shakespeare is willing to tear the etymology of the word open again (Act 1, Scene 2).³⁵¹

EDMUND: This is the excellent foppery of the world, that, when we are sick in fortune,--often the surfeit of our own behavior,--we make guilty of our disasters the sun, the moon, and the stars: as if we were villains by necessity; fools by heavenly compulsion; knaves, thieves, and treachers, by spherical predominance; drunkards, liars, and adulterers, by an enforced obedience of planetary influence; and all that we are evil in, by a divine thrusting on: an admirable evasion of whoremaster man, to lay his goatish disposition to the charge of a star! My father compounded with my mother under the dragon's tail; and my nativity was under Ursa major; so that it follows, I am rough and lecherous. Tut, I should have been that I am, had the maidenliest star in the firmament twinkled on my bastardizing. [EDGAR enters]—and pat on cue he comes like the catastrophe of the old comedy. My cue is villainous melancholy, with a sigh like Tom o' Bedlam. Oh, these eclipses do portend these divisions! Fa, sol, la, mi.

Edmund, the bastard son of the Earl of Gloucester, mocks the supposed astrological influence on man's life to escape individual responsibility, “an admirable evasion of whoremaster man, to lay his goatish disposition to the charge of a star!” Two differences with Horatio's discourse in *Hamlet* are notable: in Edmund's soliloquy, the ideological framework has shifted away from endorsing astrological connections between heavenly signs and earthly events; as a result, disaster no longer functions ostensibly as a sign

³⁵¹ As observed by Huet 2012. Once again, Shakespeare's *Julius Caesar* foreshadows Edmund's sentiment, when Cassius tells Brutus: “The fault, dear Brutus, is not in our stars, / But in ourselves, that we are underlings” (Act 1, Scene 2). John Green would use this famous quote for his critically acclaimed young adult novel *The Fault in Our Stars* (2012), the film adaptation of which became a major box office hit in 2014.

preceding an event: disaster *is* the event.³⁵² Edmund's "disasters" are not located in the sun but brought down to earth: they refer to personal misfortune and bad character, especially as they relate to accountability and blame. What are the ideological assumptions of "this excellent foppery" that Edmund so vehemently criticizes? The form of astrology that Edmund refers to is a combination of birth and conception horoscopy: his parents conceived him under the Dragon's Tail; his birth was under Ursa major. The rejection of genethliological astrology may perhaps be an indication of the scientific advances at the start of the seventeenth century, but at the same time, it is significant that this rejection comes from Edmund. As the illegitimate son of the Earl of Gloucester, Edmund is one of the many classic bastards featured in Renaissance drama. Edmund's ill-starred status and depraved character is determined by his birth. Much like *Hamlet*, *King Lear* is about the legitimate succession to the throne. For Edmund to defy astrology is to defy his bastardy.

When disaster comes down from heaven to earth, it can take the form of a disturbance in the cycle of fertility that affects everyone, such as the devastated crops that Plutarch describes. Edmund, as a bastard, similarly embodies the disruption of the reproductive cycle; he is the unnatural, contaminated fruit of an irregular union. In English Renaissance drama, the bastard is "naturally unnatural, essentially counterfeit,

³⁵² Incidentally, the reference to Edgar's arrival as "the catastrophe of the old comedy" also demonstrates how the word "catastrophe" simply meant a *dénouement*, i.e. the final act of a dramatic piece; it did not become synonymous with disaster until the 18th century. OED s.v. catastrophe.

and purely adulterous.”³⁵³ Under English common law, children born out of wedlock had no parents and no kin, and as such were not entitled to a surname (hence, Tom o’Bedlam in Edmund’s speech). Bastardy is a state of disconnectedness, without any natural protective alliance, and, most importantly, without roots and ancestry.³⁵⁴ While the illegitimacy associated with bastardy typically results from the social status of one of the parents, usually the mother (concubine, slave, non-citizen), the term can also apply to children of mixed breed (*OED* A1b), another form of adulteration.³⁵⁵ The Romans, who borrowed the Greek term *nothus* (νόθος) to denote children born out of wedlock, employed the term *hybrida* for children born between a free man and a slave, or between a citizen and a foreigner.³⁵⁶ *Hybrida* also referred to animals produced from the union of two different species. That the word is related to the Greek ὕβρις (“wanton violence, outrage”) suggests the negative associations with such offspring, as if hybridity were an

³⁵³ Neill 1993: 285. A historical example of bastardy in the sixteenth century offers some context to the idea of the bastard as unnatural offspring. Henry VIII had an illegitimate son—the only one he recognized, as the boy’s name indicates—namely Henry FitzRoy (1519-1536). In his history of the English aristocracy, Thomas Fuller (1662) wrote of him: “He confuted their etymology who deduced bastard from the Dutch words *boes* and *art*, that is, an abject nature; and verified their deduction deriving it from *besteaerd*, that is, the best disposition.” Notwithstanding the fact that neither of these etymologies is linguistically accurate, the idea that bastards are of “abject nature” (*boes* literally means “evil” or “wicked”) has a long history.

³⁵⁴ Known as the doctrine of *filius nullius*. One thinks of Patterson’s notion of the slave condition as deracination. Seminal to the study of illegitimacy and bastardy are Teichman 1982 and Laslett 1980.

³⁵⁵ In Greek, also of cross-bred animals of animals, cross-bred, πρόβατα PHib.1.32.15 (iii B.C.)

³⁵⁶ On bastardy in Greek culture and its connection to τέρατα, see Ogden 1996 and Ebbott 2003.

hybristic affront against nature.³⁵⁷ By all accounts, then, Edmund is a creature against-nature, a τέρας.

As in Ancient Greece, the τέρας-bastard is associated with monstrosity, for which *King Lear* offers ample testimony. Tricked by Edmund, the Earl of Gloucester rhetorically bastardizes his erstwhile legitimate son Edgar, denouncing him as an “unnatural ... monster;” Lear himself repudiates his daughter Goneril as “degenerate bastard ... more hideous ... than the sea-monster.”³⁵⁸ The bastard, Neill writes, is defined “as monstrous because he represented the offspring of an unnatural union, one that adulterated what were proposed as among the most essential (‘natural’) of all boundaries.”³⁵⁹ To underscore the degenerate nature of the bastard, he (or she, though typically he) is associated with deformity. Bastardy itself can be an outward sign of inner, moral deformity, or, alternatively, physically deformed persons such as dwarfs, hermaphrodites, and eunuchs are linked to bastards, or imagined to be the product of unnatural unions.³⁶⁰ As much as Edmund wishes to *dis-aster* himself—that is, to *unstar*

³⁵⁷ Micheleni 1978 has observed that when plants are described as exhibiting *hybris*, they produce excessive wood or leaves instead of fruit. The plant’s hyperfertility, which doubles as sterility, is a manifestation of *hybris*, since it ignores its proper social role of producing fruit. As a metaphor, this form of hybristic hyperfertility/sterility can be extended to human children. See e.g. Ebbott 2003: 71.

³⁵⁸ See references and examples in Neill 1993: 286. He cites John Ford’s *’Tis Pity She’s a Whore*, in which Hippolita’s curse on her partner in-adultery, Soranzo, for what she regards as his doubly adulterous marriage to Annabella, equates bastardy and monstrosity: ‘mayst thou live I To father bastards, may her womb bring forth Monsters’ (4.1.99-101).

³⁵⁹ Neill 1993: 286

³⁶⁰ Neill 1993: 287, with examples from Francis Bacon’s *On Envy* (1625) and Ben Johnson’s Comedy *Volpone* (1605-6).

himself by disconnecting his fate from the influences of his birth-star—his bastardy marks him as a *disastered*—that is, *ill-starred*—individual, removed from the protective alliance of a fixed heavenly marker. In Edmund's soliloquy, disaster is no longer a pure sign, shining, or being outshone, in the sky for semiotic purposes. Rather, disaster has come down to earth as a disruptive event, one characterized by a halt in natural reproduction and sterility. As such, the bastard-as-monster is itself a sign of this disastered condition. Edmund *is* the disaster. As τέρας, he threatens the natural and social order alike. The bastard's illegitimacy is both a sign of disaster and, through his polluting nature, an agent of disaster. This marks the disastered state of the individual.

The assertion of *King Lear's* Edmund that it is foolish to assign our evil deeds and wicked disposition to the astrological assumptions of birth horoscopy lays bare a central question in the experience of disaster: who is to blame? The point is not so much the degree to which this is a universal question in the cultural history of disaster; rather, the point is that in early 17th-century England, the etymology of the neologism *disaster* itself invites speculation into the origins of what it signifies. Does our misfortune issue from the stars or not? That is to say, when Edmund rejects astrology and accepts personal responsibility for both his misfortune and wicked nature as a bastard, he cuts himself off from the alliance of his birth-star, which can thus no longer serve as an outside repository for blame. This rejection makes Edmund a disastered individual in the Elizabethan imagination, a monstrous bastard who spreads his disastered condition to those around him like a virus. The fact that Edmund mirrors the Ancient Greek concept of the τέρας points to the central issue of the disastered individual: he both signifies and embodies

disaster. It is the τέρας who declares that he, indeed, *is* to blame. For Edmund, this realization goes hand-in-hand with the re-definition of the word *disaster* itself.

Disaster-as-Event and Derrida's Événement

The disaster-as-event seems to be the most straightforward mode of disaster. The disaster *is* an event, even *the* event. Two modern dictionaries define disaster as an event: “a sudden calamitous *event* bringing great damage, loss, or destruction” (M-W 2), and “an *event* or occurrence of a ruinous or very distressing nature” (OED 1a). Rather than taking the event-ness for granted and uncritically adopting a mode of what some have called *event-al thinking*, we must instead theorize the notion of the event. The etymology of the word *event* itself suggests that it is neutral: the Latin *evenio* is used of either fortunate or unfortunate events. What does it mean to consider the disaster an event? First, I consider the disaster-as-event in relation to the other two modes of disaster, i.e. disaster-as-sign and disaster-as-condition. Second, I draw on Derrida's theorization of the event (*événement*) to expose how *event-al* logic risks turning disaster into a unique, unanticipatable event that falls outside the bounds of history itself.

The disaster-as-event, on the one hand, is closely allied, at least potentially so, to the disaster-as-sign. For example, the *disasters in the sun* to which Horatio refers signify Caesar's murder or the fall of the Republic (the event); the phantom seen by Brutus signifies—in a clearly coded message—Brutus' own impending death (the event). Semiotically speaking, the event is the *signified* of the disaster-as-sign. The relationship is not causal but merely signifying (Long's soft astrology). In Plutarch's account of the obscuration of the sun, which leads to unseasonable weather and ruined crops (the event),

the event does stand in a causal relationship to the sign. Semiotically speaking, the relationship can be understood as *indexical*. True to the nature of an indexical sign, there is a physical, causal connection between the ruined harvest and the obscured sun. Severed from the signifier, the event—as signified and effect—is closest to what modern discourse considers to be a disastrous event, perhaps even one we might classify as a natural disaster. The disaster-as-event, in turn, can be reconfigured as a disaster-as-sign, in a sequential chain of signification that will be discussed in the next chapter (that is, the disaster itself becomes a sign of yet something else). On the other hand, the disaster-as-event is also closely allied to the disaster-as-condition, or the disastered state. This state of disconnectedness and disorientation—absolute Uncertainty—is often a product or symptom of the disaster-as-event, as we will see below in the case of Heracles.

The disaster-as-event seems to be most recognizable because its position in time and space is supposedly straightforward. It is therefore most readily considered historical. Modern disasters such as 9/11 and Auschwitz are known metonymically by their location in time and space, respectively. The effect of this *event-al* thinking about disaster, however, is that it capitalizes on the singularity of the event, its uniqueness and unexpectedness that render it something wholly other. This form of *event-al* logic and the idea that the event arrives from the outside is explored by Derrida, for whom an event (*événement*) “implies surprise, exposure, the unanticipatable:”

The event as event, as absolute surprise, must fall on me. Why? Because if it doesn't fall on me, it means that I see it coming, that there's an horizon of expectation. Horizontally, I see it coming, I fore-see it, I fore-say it, and the event is that which can be said [*dit*] but never predicted [*prédit*]. A predicted event is not an event. The event falls on me because I don't see it coming. Like the *arrivant*, the event is something that vertically befalls me when I didn't see it

coming. The event can only seem to me to be impossible before it occurs
[*arriver*].³⁶¹

Derrida insists on the verticality of the event, “because surprise can only come from on high” (451). The event depends on the experience of the impossible, the “unique, exceptional, and unpredictable arrival of the other” (452). The disarmament in the face of the event’s unpredictable arrival, however, is never absolute. And this is the paradox of the event, namely that the event is inevitably neutralized by its iterability, which sweeps up its singularity and uniqueness:

The fact that, right away, from the very outset of saying or the first appearance of the event, there is iterability and return in absolute uniqueness and utter singularity, means that the arrival of the *arrivant*—or the coming of the inaugural event—can only be greeted as a return, a coming back, a spectral *revenance* (452).

Derrida’s *événement*—which includes the idea that “a predicted event is not an event”—seems to challenge a core principle of divining disaster. If the event is always unpredictable in its arrival, it would cease to be an event the moment it is prophesied or announced beforehand. But this is precisely the point. The disaster-as-event is devoid of meaning and thus prohibits coping with it. To apprehend it, *the disaster must be reduced to the equivalent of a sign*. This is precisely what divining disaster, as a semiotic practice, is concerned with: restoring a chain of signification in which the disaster-as-event becomes just another sign, thereby assigning its meaning. It is the task of the diviner (for the future) and the historian (for the past) to pre-emptively avoid or retroactively manage the disastrous event.

³⁶¹ Derrida 2007: 451-2.

Passivity, Apocalypse, and Disaster-as-Accident

The verticality of the disaster-as-event implies a falling that is both surprising and unpredictable in its arrival. As such, the disaster-as-event is closely related to the disaster-as-accident. While *evenio* has a neutral meaning, the verb *accido*, from which the word *accident* is derived, is used for occurrences that take us by surprise, and hence are usually bad.³⁶² In his thought-provoking book *The End of Meaning: Studies in Catastrophe*, Matthew Gumpert has analyzed this accidental mode of disaster (or, in his preferred term, catastrophe).³⁶³ The disaster-as-event is *accidental* insofar as it ruptures the ordinary scheme of things. “We are passive with respect to the disaster,” writes Maurice Blanchot, “but the disaster is perhaps passivity.” That is to say, the disaster never simply *is*, it always *happens*, or perhaps it is *always already happening*—a mode that calls to mind the self-referentiality of the disaster-as-sign. Disaster does not just happen swiftly and suddenly; it also disrupts temporality. The passivity of which Blanchot speaks is related to this externality of disaster: it appears to arrive from outside the system, which is why the disaster is experienced as sudden, surprising and unexpected. It is no surprise that disaster is located among the stars, from where it can strike down as an accident, something falling vertically. Gumpert writes:

Passivity, like surprise, is an attribute of ignorance. But in the experience of catastrophe, ignorance, paradoxically, is a form of knowledge. The catastrophe is not that which exposes the limits of human knowledge; it is the evacuation or transcendence of knowledge; the access to a knowledge beyond knowledge: an *ecstatic* event. In its irruptive or eruptive aspect, the catastrophe takes on the form

³⁶² L&S s.v. *accido* IIA. Cf. Isidor. *Differ.* 1: *Contingunt*: bona; *Accidunt*: mala; *Eveniunt*: utraque.

³⁶³ Gumpert 2012.

of a luminous presence: that which was external is now internal; *that* which arrived—or was sent—from without, is now within, is now here, is now present. But what is this *that*? *What* is made present, *what* is revealed, in the advent of the catastrophe? The catastrophe is utterly meaningless, it lies beyond the realm of human apprehension and control. And yet it is precisely because accidents seem to happen for no determinable reason that, by the very same token, they seem to point to a reason, one beyond our fathoming.³⁶⁴

Disaster—especially in its accidental mode—does not just present a rupture in temporality, but also a rupture in meaning. The disaster-as-sign can thus be a disruption that leads to knowledge.

In Classical Greek thought, especially as portrayed on the tragic stage, this illumination can come through individual suffering, as in the famous dictum *mathein-pathein*, on which more below. The suffering, as we will see, is often set in motion by divine agents, and its resolution, accordingly, comes through divine signs such as oracles. On a larger or even cosmic scale, this revelation is the apocalypse, the final unveiling, disaster-as-totality-of-signs.³⁶⁵ The possibility of a final and total unveiling has major semiotic implications. Gumpert continues:

And so catastrophe becomes a sign of the transcendent; it belongs to the genre of the revelatory, or the apocalyptic. The revelatory is that which appears to surpass the semiotic: for in it the evacuation of all meaning coincides with its absolute plenitude.³⁶⁶

³⁶⁴ Gumpert 2012: xvi.

³⁶⁵ On the apocalypse, see Berger 1999, who identifies three meanings of apocalypse: first, the imagined end of the world, as in John's *Revelation* or Hollywood's screenplays; second, personal or historical catastrophes that resemble, invoke, or represent this imagined end, such as the Holocaust, 9/11, or the Lisbon Earthquake; and third, a disruptive event that provokes revelation. "The apocalypse, then," says Berger, "is the End, or resembles the end, or explains the end."

³⁶⁶ Gumpert 2012: xvi.

The apocalypse, as Gumpert suggests, is *the* semiotic fantasy in which the true meaning of things will finally be revealed. This is Derrida's transcendental signified, "the illusion of an ultimate referent at the heart of a signifying system which is portrayed as absolute and irreducible, stable, timeless, and transparent—as if it were independent of and prior to that system."³⁶⁷ Gumpert argues that, in the apocalypse, the semiotic is surpassed and meaning deferred. This is another paradox of disaster: its revelatory capability as an ecstatic event oscillates between the revelation that the disaster is utterly devoid of meaning and that its meaning transcends meaning itself. Incidentally, for Derrida, there is no more poignant metaphor for the absolute referent than the blinding Sun itself.

What, then, is the point of this postmodern theorizing about disaster, and how does it apply to our understanding of Ancient Greek conceptions of disaster? The answer is threefold. First, it underscores the deep connection that we have advocated so far, namely that *disaster* stands in a contentious relationship to meaning itself. The three modalities of disaster (as-sign, as-event, as-condition) represent the temporal ruptures of the disaster at its various semiotic stages. The disaster-as-sign announces and predicts; the disaster-as-event falls from above and surprises; the disaster-as-condition disseminates and contaminates. Second, Derrida's *événement* and Gumpert's *accident* lay bare several aspects that we will see reflected in the Greek experience of disaster: the phenomenology of verticality and falling; disaster as the unexpected and unanticipated (τὸ ἀπροσδόκητον); the paradox of singularity and repetition; and, most importantly, disaster as the unpredictable arrival of the Other, an apocalyptic unveiling. But there is a

³⁶⁷ Chandler and Munday 2011: s.v. *transcendent signified*.

third argument to be made, one that fits an ecocritical agenda in which the Ancient Greek world is a test ground for *event-al* logic about disaster.

Posthumanist Disaster and *Event-al* Logic

This third argument, which has to do with the conceptual history of disaster in general, has a programmatic and prescriptive ring to it. In fact, disaster has become an important component of recent posthumanist thought, in which disaster is treated as event—in Derrida’s sense—and thereby located beyond the reach of history. “Event,” writes a group of scholars critical of this posthumanist interpretation, “is the trope of the post-historical.”³⁶⁸ What they mean by this is that treating disaster as event displays a theoretical hollowness that dissolves and trivializes the role of human cause (which, from their Marxist viewpoint, is capitalism) and effect in placing the disaster somehow outside the realm of connected meanings, thereby rewriting “history as an uninterrupted series of irruptions without causality.”³⁶⁹ The critique here is against posthumanist ideas in which disaster—ecological, social, political—is invoked in apocalyptic tones as a singularized “event” that displaces history (and class) in favor of Nature as an omni-historical horizon. If Edmund’s question of who is to blame for disaster were posed once more, the posthumanist would answer that no-one is to blame, except perhaps for Nature itself.

The Anthropocene has fed a posthumanist fascination with the “end” of things (nature, the world, the human species). For some, this has led to the cynical fantasy that

³⁶⁸ Cotter et al. 2016: 227.

³⁶⁹ Cotter et al. 2016: 228.

the only viable solution to anthropogenic climate change is the willful extinction of the human species. As Andreas Malm and Alf Hornborg have pointed out in their critique of the Anthropocene narrative,

climate change is *denaturalized* in one moment—relocated from the sphere of natural causes to that of human activities—only to be *renaturalized* in the next, when derived from an innate trait, such as the ability to control fire. Not nature, but human nature—this is the Anthropocene displacement.³⁷⁰

This notion of the Anthropocene displacement is embodied in John Gray’s argument that “the destruction of the natural world is ... the consequence of the evolutionary success of an exceptionally rapacious primate.”³⁷¹ The *event-al* logic of this form of extinctionist disaster narrative resides in the positing of some de-historicized and omnipresent “Nature” (or, for Timothy Morton, a “hyperobject”) that is immune from critique and collective, social transformation. At worst, it is an excuse for apathy and inaction in the face of social and environmental crisis, with the belief that nothing can be done. “The disaster is perhaps passivity,” we recall Blanchot writing. Echoing Derrida’s *événement*, the Marxist critics object to the idea that “the *event* in cultural theory is the causeless, reversible history, utter *alea*; its arrival is always a re-arrival outside the regulative structure of specific historical relations.”³⁷² The event thus lies beyond the grasp of history.

³⁷⁰ Malm and Hornborg 2014: 65.

³⁷¹ Gray 2002: 7.

³⁷² Cotter et al. 2016: 227-8.

We need not adopt the Marxist critique wholesale to appreciate the implications of their objections against this so-called *event-al* logic. Tracing the conceptual history of disaster to the Ancient Greeks becomes a test-case for *event-al* logic in premodern societies. Ultimately, this is about the extent to which the responsibility and blame for disaster is distributed internally, to an individual or group of individuals or even humanity as a whole, or relegated to some outside principle, whether Nature, God, or Fate. To what extent does the disaster-as-event stand outside the structures of history? Are disasters ever considered natural? Under which conditions is disaster denaturalized, if at all? How does the intellectual history of the Ancient Greeks imagine the relationship between humans, gods, and nature in their conception of disaster? These questions give the study of ancient disaster a pertinence by connecting *particular* disaster experiences to *universal* ones, an exercise that contributes not only to a more integrated understanding of Ancient Greek disaster but also of disaster as a quintessential human experience.

PART II

DISASTER ETYMOLOGIES

(Post)modern Etymologies

The origins of the word disaster are frequently invoked, sometimes uncritically so, by modern scholarship. It seems that one way to answer the question “What is disaster?” is by referring to its etymology. One typical formula for arguments based on etymology is that “the *original* meaning of word x was y,” in which y reveals a new

aspect of *x* that leads to its re-evaluation.³⁷³ The unspoken assumption is that etymology gives us some true, original meaning, the “essence” of a word or concept, or at least a different perspective on a lexical item of which we *think* we know the meaning. For example, in a section titled *Etymologies*, Marie-Hélène Huet in her book *Culture of Disaster* briefly delves into the origins of the words calamity, catastrophe, peril, risk, and disaster, but it remains unclear to what purpose. Kate Rigby’s insightful work *Dancing with Disaster* is more explicit when she remarks that “those who approach [disaster] from a humanities perspective, like myself, generally have a weakness for words and are wont to inquire into the lexicon that is used to discuss such matters of concern.”³⁷⁴ Citing the *OED*, Rigby derives the English word disaster from French *désastre*, a word which “is commonly thought to have referred *originally* to the malign influence of an unfavorable planetary aspect or conjunction. [D]isaster figures as a matter of astrologically determined misfortune.”³⁷⁵ Rigby proceeds to do the same for catastrophe, noting its meaning as *dénouement*, the sudden turn that produces the final outcome in tragic drama (LSJ s.v. καταστροφή II). The term, Rigby says, “comes to us, *originally*, from Aristotle’s *Poetics*.”³⁷⁶ This view, though common, is in fact mistaken: Aristotle refers to the concepts of *dénouement* and reversal as λύσις and περιπέτεια, respectively, and he speaks of the μετάβασις from εὐτυχία to δυστυχία (e.g. *Poet.* 1455b). He never uses a

³⁷³ Del Bello 2007: 2 n. 6, emphasis is mine.

³⁷⁴ Rigby 2015: 16.

³⁷⁵ Rigby 2015: 16, emphasis is mine.

³⁷⁶ Rigby 2015: 17, emphasis is mine.

form of καταστροφή (or the verbal form) in the *Poetics*.³⁷⁷ Even so, Rigby asserts that *catastrophe* had become a synonym for disaster or calamity by the nineteenth century, “but with the lingering connotation of a terrible event that ... brings about a change of direction or perception. A *true* catastrophe, then, is not only a terminus but a turning point.”³⁷⁸ Huet, too, emphasizes that catastrophe “*originally* meant the ‘turning downward,’ or the fatal turning point that would seal the destiny of the tragic hero.”³⁷⁹ It is as if the true meaning of a word is prefigured in its origins.

For all its interpretive attractiveness, the underlying assumption in such etymologizing claims is that our understanding of “true” disaster, catastrophe, calamity, and so forth is enhanced by the word’s origins. This is problematic, as it amounts to an essentialist approach that leaves little room for specific historical and cultural contexts. To be sure, there is value in etymologizing that goes beyond a scholar’s frankly professed weakness for words. It involves, as Del Bello puts it, “tracing the copresence of different etymological senses, with ample conceptual groups that gives us a measure of the ideological and cultural momentum of given lexical units.”³⁸⁰ Such an approach would

³⁷⁷ The earliest reference in the LSJ to the meaning *dénouement* is in the comic poet Antiphanes (4th century BCE), fragment 191. Aristotle himself uses the noun καταστροφή only once, in the *Problemata* (921a), where it refers to the *return* of a vibrating string to axial position (LSJ s.v. καταστροφή 3). Aristotle never uses the active verb καταστροφέω, the adverb καταστροφικῶς, or the agent noun καταστροφεύς. He uses the middle-passive participle several times, as in the *Rhetoric* to refer to the periodic style (λέξις κατεστραμμένη, 1409a), but not in the *Poetics* and never to refer to tragedy. Cf. Hebbeker 1998: 13. On the history of the terminology, see Briesse and Günther 2009: 155-95.

³⁷⁸ Rigby 2015: 18, emphasis is mine.

³⁷⁹ Huet 2012: 3.

³⁸⁰ Del Bello 2007: 28.

treat words for disaster as signs that have meaning not in relation to some outside (“true” and “original”) referent, but in their differential relation to other signs. The potential value of etymology for our understanding of the cultures, people, and societies of the past is significant, as is clearly demonstrated in, for example, Benveniste’s work on Indo-European linguistics.³⁸¹ With respect to the context of Archaic Greek epic poetry, Gregory Nagy remarks on the dual role of etymologizing words and names: it “can help explain traditional poetic contexts; conversely, these same poetic contexts can help explain the etymologies.”³⁸² Rather than simply satisfying a scholar’s passion for the origin or “true” meaning of words, etymologies become most valuable when they are placed on a *continuum* of meaning, revealing their structural relationships to other conceptual groups. The “true” etymologies of disaster and other words, then, are less relevant than their relationships to each other. Admittedly, many if not most etymologies remain uncertain from the standpoint of modern linguistics. And yet, this does not take away from the fact that so-called popular or folk etymologies reveal something, if less about the word in question, still more about the cultural attitude or ideological conception of the word, and the cultural conditions that gave rise to both its first use and its changes over time.

For poststructuralist thinkers such as Maurice Blanchot, the etymology of disaster has yet another function. As Blanchot remarks, etymologies need not operate as a “preferred, or more original insight, ensuring mastery of what is no longer, then, anything

³⁸¹ Benveniste 2016 [1967].

³⁸² Nagy 1999 [1979], xvii.

but a word. On the contrary, the indeterminateness of what is written when this word [i.e. disaster] is written, exceeds etymology and draws it into the disaster.” Among the many readings of disaster that appear in Blanchot’s work *The Writing of the Disaster*, disaster emerges as a state of being separated from the star, a state marked by disconnectedness and disorientation. This line of interpretation of the etymology of disaster embraces both its supposed literal (*un-starred*) and figurative (*ill-starred*, *unfortunate*) meanings. It has been suggested that the literal meaning derives, via the French adjective *désastré*, from the older Italian adjectival form *disastrato*.³⁸³ In this view, the star is not an agent of evil or a depository of guilt and responsibility, but a point of reference, a fixed marker of orientation. The celestial signs of sun, moon, and stars are typical signs in the semiotic sense of τέκμαρ, as discussed in the previous chapter: they are sure signs by which to plot pathways across land and sea (cf. τέκμωρ δὲ βροτοῖς καὶ σῆμα, *HH*. 32.13). The star provides a safe passage, and being cut off from that protective alliance, one is in a *disastered* state or condition. Blanchot reads Stéphane Mallarmé’s poem “L’Azur” (1864) to illustrate how the azure-blue sky at daytime, a sky without stars, expresses the complete lack of orientation: “the blue of the sky is what best expresses the sky’s emptiness: the disaster as withdrawal outside the sidereal abode.”³⁸⁴ The lack of such signs in Blanchot’s association of disaster with the complete absence of visual signs does not only apply to the starless sky, but also to other environments such as the desert or the

³⁸³ Huet 2012: 3.

³⁸⁴ Hillger 2006: 41-58.

sea. We shall return to this sense of disaster as a state of disorientation—which phenomenologically relates to all three disaster modes—in Chapters Three and Four.

Blanchot's association of disaster with the complete absence of visual signs does not only apply to the starless or disastered sky at daytime, in which one star—the sun—outshines all other visual markers, but also to the night-sky. In Michel Tournier's Robinson Crusoe-inspired novel *Friday (Vendredi, ou les limbes du Pacifique, 1967)*, the disastered sky, or *ciel désastré*, refers to a sky made starless by the full moon, whose luminous presence outshines the stars. It is striking that in both instances, the disastered sky is not the vast, black expanse of darkness devoid of light; rather, it is the overbearing light of one bright source—the sun, the moon—that outshines everything else and drowns out all light. This image is reminiscent of that conjured by one of the emendations of Horatio's speech in *Hamlet*, in which the phrase *disaster'd in the sun* means that the sun outshines the “stars with trains of fire” (i.e. comets) by absorbing them.

Un Mot Chaldaïque

A key moment in the conceptual development of *disaster*—as a word and a concept—is the translation of Greek authors into European vernacular languages during the Renaissance. In fact, it is Plutarch again who plays a leading role in the transmission and translation of “disaster” into European intellectual culture. Several essays of the *Moralia* had been translated into Latin by Erasmus as early as 1514. One of these works was *De discernendo amico ab adulate, or How to tell a flatterer from a friend*. This dialogue, the subject of which must undoubtedly have served its readers at the French court well, was the first (and second) of Plutarch's works to be translated into French.

The second translation, based on Erasmus' Latin version, was done by the courtier Antoine du Saix, an author of some repute, in 1537. In his translation, Du Saix uses—for the first time in extant French literature, as far as we can tell—the word *desastre* (sic). The text and its cultural context bear clear traces of the fact that the word must have been a neologism, borrowed from Italian. Plutarch's Greek text, the Loeb translation, and Erasmus' Latinization are as follows:

ὅταν δ' ὁ δαίμων καταβάλῃ καὶ περιέλῃ τὸν ὄγκον, αὐτοῖς τοῖς πράγμασιν ἔνεστι τὸ νουθετοῦν καὶ μετάνοιαν ἐμποιοῦν. (Plutarch 68F)

But when the Heavenly power casts them down and strips off their importance, there is in these calamities alone admonition enough to work repentance. (Loeb transl.)

Num ubi fortuna fastum ac tumorem dejecerit ac sustulerit, tum rebus ipsis inest quod admoneat ac poenitudinem inducat. (Erasmus)

The context of the passage is the role of the friend in times of fortune and misfortune (τύχη, δυστυχία). The phrase ὅταν δ' ὁ δαίμων parallels a Euripidean line spoken by Orestes in his appeal to Menelaus (“When heaven is blessing you, what need for friends?” ὅταν δ' ὁ δαίμων εὖ διδῷ, τί δεῖ φίλων, Eur. *Or.* 667, transl. Kovacs), a line that we will revisit later.³⁸⁵ Plutarch sets out to answer this question by arguing that in times of fortune one needs a friend to speak frankly and reduce one's pride. When, on the other hand, “Heavenly power casts them down,” Plutarch argues, these “calamities” (τοῖς πράγμασιν, *rebus*) are enough by themselves to speak truth to power, and thus the friend is to offer consolation and encouragement instead. The English translation by Babbitt has,

³⁸⁵ Aristotle quotes the same line when addressing a similar question in the *Nicomachean Ethics* (1169b).

rightly, interpreted the neutral Greek word πράγματα (“affairs,” Erasmus similarly has *res*) as negative, and rendered it “calamities.” Du Saix must have felt the same way several centuries earlier, for his translation is much more elaborate and goes out of its way to incorporate the word *desastre*:

Car l’à où malheureté et, comme je disons à la court, ung desastre, leurs a resolu et evacué celle hydropisie de prosperité, lors, en leur propre infortune, ilz treuvent assez qui les admoneste et qui les induyt à repentence.³⁸⁶

Yet, it is not πράγματα / *res* / *calamities* which Du Saix translates as *desastre*; rather, *res ipsis* become *leur propre infortune* (“their own misfortune”). It is the supposed origin or agent of this *infortune* that prompts Du Saix to introduce the word *desastre*. In Plutarch, the origin or agent of misfortune—and subject of the temporal clause—is the δαίμων, the divine power that casts his victim down (καταβάλη). Erasmus has *fortuna*, which is accurate if more abstract, but Du Saix makes the subject *malheureté et ung desastre*, thus rendering the collocation “misfortune and disaster” as the agent that stands in for δαίμων.³⁸⁷ Disaster, here, is the cause and not the effect; it conveys something about the origin of where the *infortune* (calamities, *res*) comes from.

Du Saix inserts his own voice with the parenthetical comment *comme je disons à la court* (“as we say at the court”), which strongly suggests that the word *desastre* must have originated among the courts of the italophilic French aristocracy. Indeed, there is

³⁸⁶ A. du Saix *De disc.*: 94, in: Aulotte 1971.

³⁸⁷ *ung* is an old form of the indefinite article. The next attested use of *desastre* is in Rabelais, the well-known humanist who was a friend of Du Saix’s. The word occurs once, in *Tiers Livre* (ch. 36), where it refers to such an ironic and unfortunate turn of events that the narrator supposes that it would not have happened without some *desastre*. Here, again, the word conveys something about the origin of the misfortune. See also Aulotte 1965: 92.

evidence to support this idea in the satiric work *Two Dialogues of the Italianized French Tongue* (1578) by Henri Estienne, the French printer and classical scholar famous for the Stephanus pagination of Plato. In this Lucianic dialogue, the two characters Celtophile and Philausone are discussing court life. Celtophile, who has been absent from the French court for a long time while traveling abroad, asks Philausone for his help in re-introducing him to the courtly habits and manners. One of the changes, explains Philausone, is that it is in vogue to replace the word God with other words, such as *les astres* (“the stars”). At this point, Philausone adds:

Et nous avons aussi un mot fort commun, par lequel nous faisons grand honneur aux astres. CEL. Quel mot? PHI. *Desastre*, pour dire, Un convenient, Un accident, Un malheur, Une malencontre. CEL. Il me souvient l’avoir ouy dire depuis que je suis de retour. mais est-il beaucoup en usage? PHI. Autant qu’aucun autre mot nouveau ...³⁸⁸

Philausone lists various forms of the word, before Celtophile remarks that the word *Desastre* should be called “mot Chaldaïque,” a Chaldean word, because the word is evidently drawn from Chaldean astrology, which is expressly forbidden by the Bible. Philausone is not impressed: “Tant y-a qu’il est fort usité, comme je vous ay dict.” Estienne clearly recognized the astrological connotations of the word *desastre*, even quipping that its use technically amounts to an act of heresy. But Philausone is right: the Italian word *disastro* must have been adopted by the French aristocracy as a form of Italophilia, and as it gained in popularity it quickly spread beyond courtly life.

Theseus’ Advice

³⁸⁸ Estienne [1578] 138-9 (ed. Ristelhuber 1970: *Deux dialogues du nouv. lang.* vol. II)

Shortly before Estienne published his *Two Dialogues*, the bishop and formidable classical scholar Jacques Amyot (1513-1593) became the first Renaissance humanist to have translated all of Plutarch's works—both the *Parallel Lives* (1559) and the *Moralia* (1572)—into French. Unlike Du Saix, Amyot's translation was based on the original Greek. It is worth noting that while his translations of Plutarch, which he considered his main achievement, were widely read across Renaissance Europe, his influence spread to England by yet another way. Thomas North based his English translation of the *Parallel Lives* (1579) directly on Amyot's French version. North's edition, in turn, served as the main source for Shakespeare's Roman plays. With the French neologism *désastre* at his disposal, Amyot's translation includes many instances of the word and, arguably, contributes to the word's dissemination across European culture. As is to be expected, Amyot's *désastre* never has the meaning of natural disaster, but is used in the sense of “fatal event, misfortune of great magnitude.” The translations give us an idea as to what Greek words and constructions could prompt the use of the French *désastre*, as conceived by Amyot. A brief sampling of Amyot's *Moralia* yields a variety of constructions: the verbs σφάλλω (“trip up, stumble”) and πάσχω (“experience, suffer”), the noun συμφορά (“event”) and the adjective δεινόν (“terrible”).³⁸⁹

³⁸⁹ The latter three are associated in the prologue of Euripides' *Orestes*. The first lines of the play, spoken by Electra, are: “There is virtually nothing horrific (δεινόν), no suffering (πάθος), no god-sent affliction (ξυμφορά), whose burden man, being what he is, might not shoulder” (Οὐκ ἔστιν οὐδὲν δεινόν, ὧδ' εἰπεῖν ἔπος, / οὐδὲ πάθος οὐδὲ ξυμφορά θεήλατος, / ἧς οὐκ ἂν ἄραιτ' ἄχθος ἀνθρώπου φύσις, Eur. *Or.* 1-3, transl. Kovacs).

Let us consider one of these occurrences in detail, namely the noun συμφορά in Pseudo-Plutarch's *Consolatio ad Apollonium*, or *Letter of Condolence to Apollonius*.³⁹⁰ The subject of this essay is mourning as a means of coping with personal misfortune. Plutarch argues that it is best to move away from this state of misfortune (which he refers to as ἀτυχία and δυσπαθεία) as quickly as possible, as one would do in the case of bodily afflictions (τῶν σωματικῶν παθημάτων). But someone might object: "But I cannot, for I never expected to suffer these things, and did not anticipate (προσεδόκων) them" (Plut. *Mor.* 112D).³⁹¹ Plutarch counters that one *should* anticipate bad things to happen and mentally prepare for them. As an example worth emulating, he cites a speech by Theseus, from an unknown play by Euripides (Plut. *Mor.* 112D = Eur. Fr. 964D Nauck, transl. Babbitt):

But I have learned this from a certain sage,
And on these cares (φροντίδας) and troubles (συμφοράς) set my mind,
And on myself laid exile from my land
And early deaths and other forms of ills (κακῶν),
That if I suffer (πάσχοιμ') aught my fancy saw,
It should not, coming newly, hurt the more.³⁹²

Amyot, in an elaborate versification, renders the first two lines as follows:

L'aïant appris d'une personne sage,
Estant à part je pense en mon courage
Tout le desastre et malheur à venir,
Qui me pourroit oncques jamais venir

³⁹⁰ On the question of this dialogue's authorship, see Hani 1985: 3-39.

³⁹¹ "Ἄλλ' οὐ γὰρ ἥλιζον," φησί, "ταῦτα πείσεσθαι, οὐδὲ προσεδόκων."

³⁹² ἐγὼ δὲ ταῦτα παρὰ σοφοῦ τινος μαθὼν / εἰς φροντίδας νοῦν συμφοράς τ' ἐβαλλόμην, / φυγὰς τ' ἐμαντῶ προστιθεὶς πάτρας ἐμῆς / θανάτους τ' ἁώρους καὶ κακῶν ἄλλας ὁδοὺς, / ἵν' εἴ τι πάσχοιμ' ὦν ἐδόξαζον φρενί, / μή μοι νεῶρες προσπεσὼν μᾶλλον δάκοι

If the passage feels anachronistically Stoic in its implicit call for a state of *apatheia*, we have additional ancient testimony from Cicero, who rendered the lines from Euripides' unknown play into Latin in *Tusculan Disputations*. Cicero brings up Theseus' speech when discussing the position of the Cyrenaics, one of the Socratic schools around Aristippus of Cyrene (5th-4th c. BCE), that distress is not caused by just any evil but by unexpected and unanticipated evil. As Cicero notes right before his own translation of Theseus' advice, "the anticipation (*praemeditatio*) of the future mitigates the arrival (*adventum*) of evils, whose coming (*venientia*) one has long foreseen" (Cic. *Tusc.* 3.29).³⁹³ This seems to be a philosophical mode of divining disaster, in which the sage creates his or her own signs of pending misfortune that exist, for the present, only in the mind. Cicero further remarks that Theseus' "certain sage" (σοφοῦ τινος, *personne sage, viro docto*), who taught him to anticipate evil, is in fact Euripides' own teacher, Anaxagoras.

This example once again illustrates the connection between disaster and the unexpected or the unanticipated (τὸ ἀπροσδόκητον), such as we have already witnessed in Derrida's *événement*, Plutarch's *Julius Caesar*, and Ptolemy's defense of astrology, but which can be traced further back to the Cyrenaics if not to Anaxagoras and Euripides. Other articulations of this cultural attitude are found in the novel *Leucippe and Clitophon*, by Achilles Tatius (ca. 2nd c. CE), where Clitophon illustrates the principle of divining disaster explicitly in terms of coping with the unexpected (1.3.2-3):

The divinity is often wont (φιλεῖ) to talk to men about the future at night [i.e. in dreams], not so that they may be able to guard against (φυλάζονται) their

³⁹³ *praemeditatio futurorum malo rum lenit eorum adventum, quae venientia longe ante videris*

suffering (for it is not possible to overcome fate) but in order that they may bear it more easily when they suffer. For when disasters strike (ἐκπλήσσει) suddenly all together and unexpectedly (ἀπροσδόκητον), falling upon the soul unawares, they overwhelm it, while if anticipated (προσδοκώμενον) before the suffering, the mind can little by little, through practice, eat away at the sharp edges of sorrow.³⁹⁴

Achilles Tatius, like Plutarch, distinguishes between guarding against suffering and anticipating suffering. While the former is impossible because Fate cannot be avoided, the anticipation of future evil can ease the blow of disaster. The role of the divinity and the suggestion of oneiromancy give Clitophon's remarks a decidedly divinatory context. The information alone, however, is not enough: the mind or soul (ψυχή) needs to be trained and prepared so as to not be overwhelmed when disaster suddenly strikes. Practicing a similar psychological coping mechanism, though without divine intervention, Amyot's Theseus prepares for future suffering by imagining beforehand "tout le desastre et malheur à venir" (φροντίδας ... συμφοράς). In Amyot's translation/reception, the arrival of the disaster, its coming, is emphasized by the repetition of the word *venir*. By expecting the arrival of the future *arrivant* (*a-venir*), it is no longer an event—Derrida's *événement*—because it does not fall upon the sufferer vertically. To see disaster coming from afar, its arrival (*adventum*, *venienta*) is reconfigured to come horizontally.

Breaking the Stalk, Felling the Crops

³⁹⁴ φιλεῖ δὲ τὸ δαιμόνιον πολλάκις ἀνθρώποις τὸ μέλλον νύκτωρ λαλεῖν, οὐχ ἵνα φυλάζωνται μὴ παθεῖν (οὐ γὰρ εἰμαρμένης δύνανται κρατεῖν) ἀλλ' ἵνα κουφότερον πάσχοντες φέρωσι. τὸ μὲν γὰρ ἐξαίφνης ἀθρόον καὶ ἀπροσδόκητον ἐκπλήσσει τὴν ψυχὴν ἄφνω προσπεσὼν καὶ κατεβάπτισε, τὸ δὲ πρὸ τοῦ παθεῖν προσδοκώμενον προκατηνάλωσε κατὰ μικρὸν μελετώμενον τοῦ πάθους τὴν ἀκμὴν.

Much ink has been spilled at this point tracing the neologism *disaster* in English and French. Before examining the less straightforward case of Ancient Greek disaster terminology, let us first consider its Latin counterpart. Latin offers a more congenial starting point than Greek, since it presents us with a relatively straightforward set of abstract nouns: *calamitas*, *clades* and, to a lesser degree, *casus*.³⁹⁵ If defining disaster—understood as turning the disaster into a sign—is integral to divining disaster, the etymological angle is justified, not because it tells us something “essential” about the word, but because it reveals something about the ways in which the word functions within the language. For this reason, conceptual pairs and groups (neighboring signs) are of extra interest: the words that are associated with disaster reveal something about the cultural attitudes toward it.

The Latin word *calamitas*, which has found its way into most modern European languages (Fr. *calamité*, 14th c.; Sp. *calamidad*; Eng. *calamity*, 15th c.; Ger. *Kalamität*, 17th c.), has been derived in popular etymology from *calamus* (“reed, straw”), based on the notion that *calamitas* brings destruction to the crops.³⁹⁶ In his commentary on Terence’s *Eunuch*, Aelius Donatus makes this connection explicit when he says that farmers call hailstorms *calamitas*, because they crush the *calamus* (i.e. the *culmus* and

³⁹⁵ These terms, including *pestis*, have been singled out by Toner 2013: 7. This set of four, however convenient, is obviously not comprehensive and somewhat arbitrary, partly because Toner has borrowed it from Elizabeth Keitel’s study on disaster narrative in Tacitus, see Keitel 2010: 331-52.

³⁹⁶ *OLD* s.v. *calamitas* 1: “disaster to or failure of crops, blight, disease.” The *OLD* compares κολοβός (“maimed”). Huet 2012: 3 refers to this etymology.

seges, stalk and standing corn), thereby destroying the crop.³⁹⁷ Early usage confirms this agricultural connection. In *On Agriculture*, Cato recites a formulaic prayer for purifying the land with a *suovetaurilia* sacrifice (Cat. *De Agr.* 141):

Father Mars, to you I pray ... that you keep out, defend against, and ward off diseases seen and unseen, sterility and devastation, disasters (*calamitates*) and unseasonable conditions (*intemperiasque*).³⁹⁸

This archaic Roman prayer pairs *calamitates* with *intemperias* (“lack of temperateness, unseasonable conditions,” esp. excessive rain), as well as *morbus* (“disease”) and *viduertas* (“dearth”). *Vastitudo* means “waste land,” in the sense of a deserted and sterile space.³⁹⁹ In the earliest sources, *calamitas* is thus particularly connected to agriculture and the dangers of agricultural production. This is as close to the sense of our “natural disaster” as ancient disaster terminology gets.

Historically, the threat of the destruction of the crops is a serious one, as it could lead to loss of income for the farmer’s estate, scarcity, and even famine. In his *Letters to Farmers*, the Greek sophist Alciphron (probably 2nd c. CE), conveys some of the worry that farmers may have felt: “The violent hailstorm has sheared off our standing grain, and there is no remedy against famine (λιμοῦ φάρμακον οὐδέν)” (*Epist.* 2.3).⁴⁰⁰ The Roman

³⁹⁷ Don. on Ter. *Eun.* 79: *calamitatem rustici grandinem dicunt, quod comminuat calamum, id est culmum ac segetem.*

³⁹⁸ *Mars pater, te precor ... ut tu morbos visos invisosque, viduertatem vastitudinemque, calamitates intemperiasque prohibeas defendas averruncesque* (Cat. *De Agr.* 141). On Archaic Roman agricultural religion in general, see Turcan 2000: 14-43.

³⁹⁹ Cicero links this condition to pestilence (*alterum genus agrorum propter sterilitatem incultum, propter pestilentiam vastum atque desertum*; Cic. *Agr.* 2.26.70)

⁴⁰⁰ Ἀπέκειρεν ἡμῶν ἡ χάλαζα βαρέως ἐμπεσοῦσα τὰ λήια, καὶ λιμοῦ φάρμακον οὐδέν

calendar dedicated a festival to the god (or goddess) Robigo, which served to ward off blight from the crops.⁴⁰¹ These *Robigalia* were celebrated in April, when the crop was at its most vulnerable. Ancient testimony suggests that *robigo* is the term for mildew or wheat rust, an infectious fungal disease that still threatens wheat crops today. Servius, commenting on *Georgics* 1.151, notes that “*robigo* is a type of fault (*vitium*), which is called *calamitas* by farmers.”⁴⁰² He locates the origin of this *vitium* in the sky, noting that it usually issues “from a cloud” (*ex nebula*). Several sources report that a red puppy was sacrificed during the Robigalia, perhaps in an act of homeopathic magic, as the dog’s red fur matches the rusty-red color of the blight (and, conversely, the red color of ripening grain).⁴⁰³ When Ovid asked the priest why a dog should be sacrificed, the priest explains that this appeases Sirius, the Dog Star associated with heat, too much of which could ripen the stalk prematurely. At any rate, *calamitas* emerges as an environmental and agricultural threat, something that needs to be warded off, kept out, through measures sacred and profane. Aulus Gellius mentions that, besides Robigo, the god Avernuncus needs to be propitiated, too, to avert disaster from the crops. This deity’s name is derived, via *averrunco* (“ward off”), from the verb *averro* (“sweep away”); Cato uses the same verb in the prayer cited above.

⁴⁰¹ The festival of the Robigalia, celebrated on April 25, is one of the oldest in the Roman calendar; cf. Aul. Gel. 5.12.14; Plin. 18.285; Varro *De Agr.* 1.1.6; *De Ling.* 6.16; Ov. *Fast.* 4.901ff. On the Robigalia, see Fowler 1899; Scullard 1981. Also Evans 2008: 186-8, who shows that warding off *robigo* is conceived of as war; Ovid’s reference to rust and iron (mildew; weapons) underscores this military association.

⁴⁰² *robigo autem genus est vitii, quo culmi pereunt, quod a rusticanis calamitas dicitur.*

⁴⁰³ Columella, *De Re Rustica*, X.342ff; Festus (*Fr.* XLVIII, CCLXXXV); Ovid *Fast.* 4.901. ff.

In a non-agricultural context, Plautus associates *calamitas* with both *clades* and *intemperies* when Hegio's servant, in the play *Captives*, comments on the arrival of the Parasite, Ergasilus (Plaut. *Capt.* 909-11):

May Jupiter and the gods destroy you, Ergasilus, and your stomach, and all hangers-on, and anyone who gives a dinner to hangers-on hereafter. Disaster (*clades*), calamity (*calamitas*) and bad weather (*intemperies*) just came into our house.⁴⁰⁴

The religious context of warding off agricultural destruction has here been transported to the domestic sphere of comedy, but the connection to agricultural production nonetheless remains: the arrival of the Parasite into the home forebodes disaster, specifically in the sense of food shortage. The phrase *in nostrum advenit domum* is significant: the protective boundaries have been broken and disaster has entered the household itself (cf. Ter. *Eun.* 79). Its arrival, which is perceived as invasive, is a coming (*ad-venit*) from the outside in. Much like the Greek τέρας (and the related ritual φαρμακός), the only appropriate answer is forcible (ritual) expulsion.

This telling folk-etymology, linking *calamitas* via *calamus* with crop destruction and food shortage, continued well into the modern era, as evidenced by a Dutch dictionary from 1899. Under the entry “calamitous, adj.” (*calamiteus*, bn.) are mentioned so-called “calamitous polders” (*calamiteuze polders*), which are polders that have damaged dikes and consequently suffer from flooding. The entry continues: “literally, calamity (from *calamus* = reed) is a storm, which fells the [grain] crops.”⁴⁰⁵ The entry

⁴⁰⁴ *clades calamitasque, intemperies modo in nostram advenit domum.*

⁴⁰⁵ Woordenschat 1899: “bn. *calamiteus*: van polders gesproken, polders die aan groote overstroming en beschadiging der dijken blootgesteld zijn. Letterlijk

preserves the popular etymology from *calamus*, but shows how “calamity” has acquired a meaning particular to the flood-prone polder landscape of 19th-century Holland, where the destruction of crops due to storm is associated with flood rather than unseasonable precipitation or blight. By contrast, the English philosopher Francis Bacon (1561-1626), sensitive to the Mediterranean origins of the word, etymologized calamity in connection to drought, “when the corn could not get out of the stalke, ... which with us is rare, but in hotter countries common.”⁴⁰⁶

Another popular etymology derives *calamitas* from the verb *cado*, “to fall.” The etymological encyclopedia of Isidore of Seville associates *calamitas* with *cadendum* and the verb *cado* (“fall,” cf. *casus*) because of their apparent similarity.⁴⁰⁷ The association was underscored in antiquity by the alternative spelling *kadamitas* (reportedly so pronounced and written by Pompey the Great).⁴⁰⁸ In the nineteenth century, the British linguist and classicist T.H. Key connected *calamitas* both to crop (via *καλάμη*, *calamus*) and the root **kad* (fall), suggesting that calamity is “something supposed to issue from

is *calamiteit* (van *calamus* = een riet) een storm, die de korenaren neervelt”, in: Philippa 2003-9, s.v. *calamiteit*.

⁴⁰⁶ Bacon, *Sylva Sylvarum* 669.

⁴⁰⁷ Isid. *Etym.* 1.27.14 (mistakenly referenced in the TLL as 1.26.14, which does not exist; s.v. *calamitas*); cf. 7.6.4, where Isidore offers *calamitas* as a possible meaning for Eve, because her lying resulted in death—presumably Isidore connects Eve with the Fall through *calamitas* / *cadere*. For Isidore’s *Etymologies*, see the introduction to the English translation by Barney et al., 2006.

⁴⁰⁸ There are many cross-linguistic examples of this l/d alternance, e.g. Ὀδυσσεύς and Ulysses. The reference to Pompey is in Marcus Victorinus VI.8.15 (Keil), cf. Ernout & Meillet s.v. *calamitas*. Cf. Lindsay 2010 [1894]: 286.

the stars, a blight falling upon a crop.”⁴⁰⁹ One cannot help but assume that this linguistic association must have happened under the semantic influence of the word *disaster* as astro-meteorological phenomenon. Thus, how one conceives of the relationship between “falling” and “calamity” is revealing. For the Christian bishop Isidore, who suggests a link between Eve and *calamitas*, the relationship is between calamity and humanity’s moral Fall from Paradise. For the Victorian linguist T.H. Key, the relationship is between calamity and, presumably influenced by the English word *disaster*, something falling from the stars.⁴¹⁰ Today, the common consensus about the etymology of *calamitas* is that it derives from the PIE root **kel* (“strike, hit”).⁴¹¹ This means that it is cognate with a second term for disaster: *clades* (> *-cello* > **kel*, cf. *per-cello*, Grk. κλάω, “break”). Incidentally, this also means that Plautus’ collocation of *clades* and *calamitas* in the passage quoted from *Captives* effectively amounts to a *figura etymologica*.⁴¹² That the meaning of the root **kel* (“strike, hit”) is associated with the word and concept of disaster has already been suggested by Samuel Johnson’s rendering of the verb *disaster* as “the blast by the stroke” of a star. Indeed, the phrase “disaster strikes” is still part of everyday

⁴⁰⁹ Key 1868: 187. Key connects the roots **kad* and **fal* (Eng. *fall*; Lat. *fallere*; Grk. σφάλλω).

⁴¹⁰ *Calamitas*: Also compared to κάδαμος which Hesychius glosses as τύφλος (“blind”). For *clades*, compare κέλαδος (loud noise) and *clava* (club) (TLL); OLD has κλαδαρός (“quivering”), which cannot be correct, according to E&M. E&M also compare, among others, κόλος / κολοβός (“truncated, maimed”), κλαδέσαι, glossed by Hesychius. as σεῖσαι.

⁴¹¹ E&M s.v. *calamitas*; TLL s.v. *calamitas*; Philippa 2003-9 s.v. *calamiteit*. The suggestion was first made by Niedermann 1909: 52 ff, connecting *incolumis* and *calamitas*.

⁴¹² This is pointed out by Ernout & Meillet s.v. *calamitas*. Ernout & Meillet emphasize that *clades* is mostly passive (“a state of being struck”), while *caedes* has the active sense.

speech, as neatly illustrated by the tautological headline in one tabloid newspaper:

“Powerful earthquake strikes disaster-stricken Fukushima.”⁴¹³

Killing the Opportunity

Calamitas, as we saw in Servius, is also associated with *vitium* (“blemish, defect, fault” hence “vice”, from *vieo* “to twist, wind”), a word with a strong moral connotation, and, more specifically, a religious connotation connected to augury.⁴¹⁴ The inauspicious aspect of disaster is foregrounded in yet another collocation of *calamitas* with *vitium*, again in Roman comedy. In the second prologue of Terence’s *Hecyra*, or *Stepmother*, we learn that the previous two attempts at staging the play had been, so to say, a disaster. According to the first prologue, the play suffered from a *vitium* and a *calamitas*: the audience had been distracted by a tightrope walker, and the play had been “neither watched nor appreciated” (*neque spectari neque cognosci*, Ter. *Hec.* 2-3).⁴¹⁵ The ancient commentator Aelius Donatus, in his truncated style, notes that *vitium* has connotations of augury, in the meaning of an unfavorable sign (Don. *Hecyr.* Prol. 2 = Probus fr. 53, Velaza):

It comes from augury. For it is a *vitium* if there is only thunder. It is a *vitium* and *calamitas* if there is thunder and hail at the same time, and also lightning. *Vitium* is a metaphor from augury, just as consuls can be said to have augural vices (*vitio creati*). *Calamitas* is so called from *καλάμη*, and *clades* because of shouting

⁴¹³ “Powerful earthquake strikes disaster-stricken Fukushima.” Daily Star Stunday. March 1, 2017 [[Link](#)].

⁴¹⁴ L&S *vitium* II.B.2

⁴¹⁵ For the unusual prologue(s) of the *Hecyra*, see Goldberg 2013, 87.

(*clamatur*), so that the one is said of a hailstorm breaking the stalk, the other of deceit or fraud.⁴¹⁶

Donatus offers a double etymology, revealing a double meaning: *vitium* is metaphorical, stemming from a religious context, and *calamitas* is agricultural. Together, *vitium* and *calamitas* form a disaster characterized and preceded by complementary meteorological omens (thunder, hail, lightning) that do not bode well, besides the harm they may do to crops themselves. As we have already seen, Donatus associated *calamitas* and hail in his commentary on the *Eunuch* too. He makes explicit that *vitium* is a “metaphor from augury” (*translatio ab augurio*) and he refers to so-called “consuls with augural flaws” (*consules vitio creati*), whose auspices had been incorrectly taken and whose offices, like the previous renditions of the *Hecyra*, were thus tainted entirely.⁴¹⁷

Citing the grammarian Probus (1st c. CE), Donatus places *calamitas* in the familiar agricultural context (καλάμη, “reed,” cf. *calamus*) of destruction through harmful precipitation. But the second etymology offers a connection between *clades* and *clamare* (“to shout”) that is unique: so much so that editors have proposed emending the text to *clam datur* (“given secretly,” Wessner, accepted by *TLL*) or even κλάδοις *datur* (“given to shoots/branches,” Westerbeek), presumably to account for the phonology of /d/ in

⁴¹⁶ *Bene secundum augures. Vitium enim est, si tonet tantum. Vitium et calamitas, si tonet et grandinet simult, etiam fulminet. uitium translatio ab augurio, ut uitio creati consules dicuntur. Calamitas παρὰ τὴν καλάμην dicitur, clades quia clamatur; ut aliud sit grandinis culmum frangentis, aliud furti aut doli mali.* Donatus attributes these etymologies to Marcus Valerius Probus of Beirut, who had produced recensions of the works of Terence.

⁴¹⁷ For *vitium* and consuls *vitio creati*, see Konrad 2004: 172-4. A famous case is that of Tiberius Gracchus and the consular elections of 163 BCE, told by Cicero (*DND*, 2.11); see Potter 2002: 128ff. For a critique of the many modern commentators who adopt a skeptical approach to Roman omens and favor so-called “manipulation hypotheses,” see Rasmussen 2003: 154ff.

clades. More likely is that Probus, most of whose work is unfortunately lost, had the Greek verb κλάζω (“shout, scream,” cf. κέλαδος) in mind, although the meaning of *furti aut doli mali* remains unclear.⁴¹⁸ Perhaps it is supposed to link *clades* with *vitium*, in the meaning of vice or moral blemish. If Probus—and with him, Donatus—indeed postulated an etymological connection between *clades* and κλάζω, this may have been supported by their reading of Terence’s play. The attempt to characterize disaster by its soundscape becomes particularly meaningful in the context of the play’s performance. The shouting then refers to the *calamitas*—explicitly so called in the second prologue to the *Hecyra* (30-1)—of the first two failed performances, which were accompanied by “uproar, shouting of women” and “much tumult and (people) shouting, fighting for a spot” to watch the gladiators and cord-dancers (Ter. *Hec.* 36, 41).⁴¹⁹ Indeed, it is significant that the speaker of the second prologue announces: “Now there is no turmoil (*turba*): there is peace and quiet” (Ter. *Hec.* 49).⁴²⁰ The shouting and tumult had killed the opportunity for a successful performance, similar to the way in which ominous signs on the liver can taint a good sacrifice, or a thunderclap can ruin a consul’s inauguration. This is the disaster-as-sign, not as a message or announcement *per se*, but as a sign that kills the opportunity.

Accidental and Violent Fallings

⁴¹⁸ This is suggested by the online edition of Donatus, the HyperDonat ([link](#)).

⁴¹⁹ *strepitus, clamor mulierum ... tumultuantur, clamant, pugnant de loco.*

⁴²⁰ *Nunc turba nulla est: otium et silentium est.*

Both Isidore and Key, albeit for different reasons, had already postulated a semantic connection between *calamitas* and “falling.” For Isidore, the Fall from Paradise represents the primeval disaster, and for Key, disaster falls upon its victim from the stars. While these connections may be fanciful from a linguistic standpoint, one Latin term for disaster does in fact derive from the verb “to fall:” *casus* (> *cado*, > **kad*, “fall”). We have already encountered this verbal root in the context of the *accidental* nature of disaster. *Casus* can mean “a falling down,” for example of snow, or a fall from office, and also has a neutral meaning of “event, occurrence.” As with the word *accident*, the Latin *casus*—like Derrida’s “event”—contains a paradox about the things that “befall” us, namely the perception whether they happen by chance or not. Of course, the English word *chance* itself is ultimately derived from the Latin participle *cadens*, “falling,” perhaps in the context of throwing dice. On the one hand, *L&S* gives the meaning “chance” for *casus*, and the adverbial use of the ablative *casu* is translated as “by chance, by accident.” Examples show that *casus* is often contrasted with necessity (*necessitas*), or the will of the gods, as when Vergil tells that it was not known who was responsible for wounding Aeneas, “whether chance or god” (*casusne deusne*, Verg. *Aen.* 12.321; cf. prose examples in Suet. *Claud.* 13; Caes. *B.G.* 1.12; Curt. 4.7.13).

On the other hand, since the idea of suddenness and unexpectedness easily passes into that of hostility, *casus* signifies “adversity, misfortune, disaster” (*L&S* IICb1-2). Cicero, for example, uses the word *casus* to describe war, disease and famine at the same time (Cic. *Phil.* 1.13). The meaning of *casus* shifts from being something random and accidental to something that has a sense of agency or purpose behind it. Misfortune and disaster—as events—can be known beforehand, especially but not only in divinatory

contexts. Statius writes that the augur “saw the disasters (*casus*) and the dire signs” (*Theb.* 4.188-9). Ovid tells of the seer Tages, who was the first to teach the Etruscans “to open up future events (*casus*)” (*Met.* 15.559). In Book 8 of the *Aeneid*, Aeneas receives a sign (*signum*) from Venus—thunder crashing and an army fighting among the red clouds. As everyone is aghast at the ominous occurrence, Aeneas recognizes that he is the intended recipient of the sign and tells them “not to ask ... what fortunes (*casus*) these portents bring” (*Aen.* 8.532-3). While “chance” suggests the random and accidental nature of an event, for a chance-*event* (a contradiction in terms) to be recognized as significant (or signifying) it needs to be perceived with some degree of intentionality or purpose; it thus ceases to be chance. As Struck had noted, “Pure chance does not make for a portent.” I would add that pure chance does not make for a disaster, either. The Latin term *casus* reveals the contentious relationship between disasters perceived as, on the one hand, purely random, haphazard accidents, and, on the other hand, events that happen for a reason. For those schools of thought in which the universe is governed by some deterministic principle (Fate, or God), pure chance is not an ontological reality. The Stoic definition of *casus*, if represented accurately by the skeptic Marcus in *On Divination*, is “a sort of lot (*sortem*) in accordance with the will of the gods” (Cic. *De Div.* 2.40).⁴²¹ Augustine would define *casus* as that of which the *ratio* and *causa* are hidden.⁴²² According to these views, chance is an epistemological, not an ontological,

⁴²¹ *quasi sortem quandam cum deorum voluntate coniunctam.*

⁴²² Aug. *c. Acad.* 1.1.1.

state, one that is characterized by the *perception* that an event lacks apparent reason or cause.

Furthermore, in the political speeches of Cicero, we can see how disaster is phenomenologically imagined as *ruina*, a sudden, unexpected and violent “falling” (Cic. *De Prov. Cons.* 43, transl. Gardner):

Then came that storm (*tempestas*)!—black darkness (*caligo*) for loyal citizens, sudden and unforeseen panic (*subita atque improvisa formido*), gloom (*tenebrae*) over the Republic, ruin (*ruina*) and conflagration (*incendium*) for the country, Caesar terrified for his measures, all loyalists fearful of massacre, the crime, the greed, the penury, the effrontery of the consuls!⁴²³

Cicero draws on imagery of natural violence—storm (*tempestas*) and fire (*incendium*)—to illustrate political disaster. With a touch of drama, Cicero paints a picture of darkness (*caligo*) and gloom (*tenebrae*), and emotions of sudden and unforeseen fear for the Roman citizens. In another speech, Cicero criticizes the legal procedures against his client by comparing them to an act of “violence” (*vis*), *ruina quaedam atque tempestas*, which one translator renders “an avalanche, a hurricane” (Cic. *Pro Cluen.* 96). The word *ruina*, which Cicero uses in both speeches, is another instance of the semantic association between disaster and a falling down. In an abstract sense, *ruina* can mean “catastrophe, disaster” (L&S I-B), as in the first passage from Cicero. In a concrete sense, *ruina*, which derives from the verb *ruo* (“to fall with violence, rush down,” including from the sky), can refer to precipitation, utter military defeat, and fallen buildings (ruins), or to any sudden onrush of (natural) forces, as the translation “avalanche” suggests (cf. Lucan

⁴²³ *Ecce illa tempestas, caligo bonorum et subita atque improvisa formido, tenebrae rei publicae, ruina atque incendium civitatis, terror iniectus Caesari de eius actis, metus caedis bonis omnibus, consulum scelus, cupiditas, egestas, audacia!*

6.348-9: “a sudden avalanche of waters,” *subitaeque ruinam ... aquae*). In *De Ira*, Seneca the Younger compares the sudden and haphazard rush of barbarian armies (*barbaris forte ruentibus*) to an “avalanche” (*ruina*) falling upon the Roman legions—“unorganized, unfearful, unguarded” (*incompositi, interriti, incauti*, Sen. *De Ira* 2.6). Indeed, as Seneca’s use of *ruina* makes clear, it is especially associated with sudden, random, unorganized violence.

In conclusion, Roman disaster terminology gives us a sense of how disaster is constructed in an abstract sense. *Calamitas* and *clades* both come from the root **kel*, and thus signify something that strikes, or a state of being struck or hit by something. In the case of *calamitas*, the association is primarily agricultural, due in no small part to ancient etymologizing between *calamitas* and *calamus*, “reed.” At the same time, a connection between both words and the root **kad*, “to fall,” was believed to make sense, again because of the perceived notion that agricultural damage strikes from above. The imagined semantic overlap with the word *disaster* suggests that conceptually bad things befall us from the outside, especially from above. The word *casus* underscores linguistically the idea that disaster is imagined to be a falling upon. Its meaning oscillates between a falling upon as an accident or matter of chance, and a falling upon as an intentional, purposeful event. Just as *casus*, *ruina* is a falling down, though always violently so, as for example the sudden and random onslaught of an avalanche.

Greek Disaster Etymologies

Whereas Latin has several abstract nouns that can mean *disaster*, Ancient Greek, as we have seen, lacks such a term. If we are to define disaster, and trace its etymology,

the origins of which Greek words are we even to probe? Of course, the fact that the Greek language lacks a term that corresponds to our modern word *disaster* does not mean that the Greeks did not experience such a phenomenon. What it might suggest, however, is that they experienced it differently. How, then, do we isolate Greek terms for disaster? First, we can employ what may be called a reverse lexical approach: which Greek terms, according to the lexicon, are translated as “disaster”? It is instructive, in fact, to find that in the entire *LSJ* there is *not a single word* translated as “disaster.” The only noun that comes close is ἀλιφθορία, which *LSJ* renders “disaster at sea; shipwreck”; the compound only occurs once in extant Greek literature, and the part that refers to disaster is φθορία, which comes from φθορά and the verb φθείρω (“destroy, waste”).⁴²⁴ The word is often associated, as we will see, with the *loimos* scheme of sterility, as for example in Thucydides’ description of the Athenian plague. Among medical writers, φθορά refers to abortion or miscarriage.

The word “catastrophe,” beyond its use in dramatic contexts as dénouement, has no Greek equivalent either, according to the *LSJ*. The noun “calamity,” on the other hand, is offered as the translation of several nouns, including πάθος, πῆμα, πληγή, πῶμα, and πῶσις. We can supplement this list with Yonge’s English-Greek lexicon, yielding συμφορά, τραῦμα (Hdt.), κακοπραγία (Thuc., Isoc.), and παῖσμα (Hdt., Dem.) for disaster. We can immediately note several correspondences with Latin disaster terminology. Three of the nouns relate to a state of having been tripped up and falling

⁴²⁴ Chantraine s.v. φθείρω and Pokorny 487 connect it to the root *g^whōer-, comparing Skt. *ksarati*, “flow, disappear.” Cf. Ved. adj. *a-ksara* “imperishable” = ἄφθορος.

(πτῶμα, πτῶσις > πίπτω > **pet* “fall”; πταῖσμα > πταῖω, *unknown), and two to the act of a blow or stroke (πληγή > πλήσσω, “strike”, **plak* “hit”) or its result (τραῦμα, “wound,” > **tere* “rub, turn, bore,” cf. Germ. *drehen*, Eng. *throw*).⁴²⁵ Some meanings are not necessarily negative at all: πάθος (also πάθημα, > πάσχω) signifies something that happens to somebody, good or bad;⁴²⁶ the compound κακοπραγία (“misadventure”), a word confined to Thucydides mostly, has a neutral ring to it were it not for its prefix κακο-. One of the most common words for disaster is, not unlike *casus*, semantically neutral as well: συμφορά (“bringing together,” hence “event, chance”). This observation is supported by the tendency of early authors to add epithets to it when used negatively (e.g. συμφορά κακή, Aesch. *Pers.* 445).⁴²⁷ Etymologically, συμ-φορά (> **bher*) is related to the Latin *fortuna*, from which the modern English *fortune* is derived, which, although typically positive, can be either good or bad. Another Greek word that corresponds to *fortuna* is τύχη (related to the verb τυγχάνω, “to hit upon”), whose personification Tyche is equivalent to the Roman goddess Fortuna.

This initial list, however, unduly privileges nouns, whereas the Greek language tends to express concepts through verbs and adjectives as well, as we have already seen in Amyot’s translations (σφάλλω, πάσχω, δεινόν). Herodotus, we recall, used the phrase

⁴²⁵ For the PIE roots, I use simplified forms (which affect especially the laryngeals), as they appear in Watkins (2000) *The American Heritage Dictionary of Indo-European Roots*. All derived roots are based on Pokorny, and Watkins.

⁴²⁶ Chantraine, s.v. πάσχω.

⁴²⁷ LSJ s.v. συμφορά II.2, “but the word came to be used alone in a bad sense.” The noun does not occur in Homer or Hesiod; its earliest occurrence is in Alcaeus fr. 69, where it means a more neutral “turn of events”.

μεγάλα κακά (“great evils”), which De Selincourt has translated as “disasters,” for the terrible things that befell the Chians (Hdt. 6.27). Another common substantive adjective used for the abstract concept of disaster is δεινόν (“terrible”), which Amyot translated as “disaster” in Plutarch’s description of Alexander the Great’s unfortunate and ignoble demise. Its use is widely attested. Polybius, for example, uses δεινόν in a construction with the verb πάσχω: “they suffered irreversible horrors” (ἀνήκεστα δεινὰ ἔπαθον, 7.1.1-3). The adjective ἀνήκεστος, in fact, is commonly collocated with disaster terminology. From the verb ἀκέομαι (“to cure”), the adjective literally means “incurable,” and suggests both the irreversibility and the unavoidability of the disaster—both significant qualities.⁴²⁸ Thucydides associates the phrase παθεῖν ἀνήκεστον (“to suffer irreparably”) with the verb σφάλλω (“trip up;” 3.39.8), and speaks of falling into ξυμφοραῖς ἀνηκέστοις (“irretrievable calamities,” 5.11.3). Many examples of similar phrases are found in Procopius. Keen to portray Justinian as the devil himself, Procopius is especially interested in disasters, referring to them as κακά, παθή, and συμφοραί (*Anecd.* 18.36-40). He includes natural disasters such as river floods, which he refers to as wreaking ἀνήκεστα κακά (“irreversible havoc”), earthquakes (σεισμοί), and, of course, the famous Justinian plague (λοιμός) of 542 CE (*Anecd.* 18.40-44). Of course, these natural disasters, in Procopius’ understanding, are not natural at all, but man-made, insofar as Justinian is responsible for disturbing the order of both the natural and social world. It is Justinian who is the cause of this wide-spread “destruction” (φθόρος, 18.45).

⁴²⁸ The use and importance of ἀκήστος in disaster narrative has been noticed and discussed by Meier 2007.

Procopius' account neatly illustrates how so-called natural disasters, in our sense of the word, are expressed in Ancient Greek: through concrete occurrences. As far as abstract nouns, phrases, and verbs are concerned, however, some familiar etymological patterns have become visible (illustrated in the table at the end of this paragraph). As an abstract concept, disaster is closely allied to ideas of *falling*, *striking*, and *turning*. Disaster, as we have seen in Latin, does not only fall upon its victim, striking from above, it also, as we have seen in Greek, is about falling down (πίπτω, *ruo*), being tripped up (σφάλλω), stumbling over one's own feet or because of some external interference. The verb σφάλλω belongs to the context of a fight, specifically wrestling, and may refer specifically to tripping someone up by putting a stick between their legs.⁴²⁹ The noun σφάλος signifies some kind of shackle used to bind the feet. *Falling* thus conveys two different ideas. There is the notion that something *befalls* you, which expresses the verticality of the unexpected event. Disaster comes from the outside, and it comes by surprise. Hence its connection to the event, the *casus*, which enshrines the notion of uncertainty that accompanies the unexpected. The significance of that which befalls us oscillates between random chance and malicious intent. On the other hand, there is the notion of *falling down* in the struggle, tripping over something so that our legs, which ought to provide a firm foundation for our bodies (keep us ἀσφαλής), come crumbling down like ruins. With our feet immobilized and overturned, up becomes down: disaster as disorientation. Both *befalling* and *falling down* are connected to striking or breaking, which is in fact the root meaning of PIE **spel*, from which comes σφάλλω. They are also

⁴²⁹ Chantraine s.v. σφάλλω, cf. σφάλος

connected to *turning*, the former in the sense of a turn of events, the twists and coils of Fortuna that brings things together (συμφορά), the latter in the sense of an overturning, a καταστροφή, the fall that turns everything upside-down, or a turn against something (*adversum*), an obstacle in our path. Fortuna/Τύχη is about meeting or hitting upon something, which is what τυγχάνω means. As an archer who hits the mark, the verb can imply success: just as the transitive verb is opposed to ἀμαρτάνω (“to miss the mark”), so the intransitive meaning “succeed” is opposed to that of σφάλλω, “to stumble, fail.” It is no surprise, then, that the negation of this hitting upon—a non-hitting upon, ἀτυχία—signifies disaster. The words around the PIE stem **kwenth* (“suffer,” from which come πάσχω and πάθος) give expression to the notion that disaster, as Blanchot had already remarked, is passivity: “We are passive with respect to disaster.” This passivity is related to its externality, the disaster’s ability to strike from above and surprise us.

The dominant linguistic roots used to express the concept of disaster, as surveyed above, are plotted in the table below:

MAIN MEANING AND PIE ROOT	LATIN	GREEK	ENGLISH	FRENCH, GERMAN
FALL <i>*kad-</i>	<i>casus</i>			Zufall, Unfall ⁴³⁰ chance, Chance

⁴³⁰ English *fall* (causative *fell*) and German *fallen* (< pgm. **fallan-*) are often derived from PIE **pol-* (Pokorny; Watkins). But more recently a formation from the PIE roots **h₂po* “off, from” en **h₃elh₁-* “fall” has been proposed (Neri 2007; see DeVaan s.v. *aboleo*. This would mean that Latin *delere* and *ab-olere* “destroy,” and Greek ἀπόλλυμι “destroy utterly” are related. Cf. Philippa 2003-09, s.v. *vallen*.

<i>*ped-</i>	[<i>peccare</i>]	πίπτω [πτῶσις, πτῶμα, πταΐσμα]	chance, accident	
CARRY, BEAR <i>*bher-</i>	[<i>fors, Fortuna</i>]	συμ-φορά [ἀφορία]	(mis)fortune	
STRIKE, HIT, BREAK <i>*kel-</i> <i>*plāk-</i> <i>*bhlāg-</i>	<i>calamitas, clades</i> <i>plaga, plango</i> [<i>flagrum,</i> <i>flagellum</i>]	κλάω πλήγη, πλήσσω, πλάζω	calamity plague [flog, flail]	calamité, Kalamität Plage fléau, [Flegel]
STAR <i>*ster-</i>	[<i>astrum, stella</i>]	[ἀστήρ, (ἀ)στεροπή, τείρεα]	disaster	désastre, Desaster
(EX)PRESS, HIT <i>*dheugh</i>		τυγχάνω, άτυχία [δυστυχία, άτυχέω, άτύχημα, δυστύχημα, δυστυχέω]		
TURN, WIND <i>*streb(h)-</i> <i>*wer-</i> <i>*wendh-</i>	<i>ad-versum</i> <i>vitium</i>	κατα-στροφή	catastrophe adversity	catastrophe, Katastrophe
SUFFER <i>*k^went^h-</i>		πάσχω, πάθος [πάθημα, παθή, πένθος, πῆμα] ⁴³¹		

⁴³¹ The etymology of πῆμα is uncertain (Chantraine s.v. πῆμα). It has been connected to Greek πένθος (“grief”) and πένομαι (“toil, be poor”, cf. πόνος), and Latin *patior* (E&M s.v. *patior*). Frisk has suggested a connection with Sanskrit *paman* (“skin disease, scabies”), and *papman* (“suffering”).

SPLIT, BREAK OFF *spel-		σφάλλω [σφάλμα, ἀσφαλής]		
TEAR OUT, DIG OPEN *reu-	ruina	έρυσί-χθων	ruin	ruine, Ruin

“I Call the Sun to Witness”

If it is felt that the previous discussion of disaster terminology, based on isolated words and etymologies, is hampered by a dubious sense of synchronicity imposed upon the languages, surveying evidence from Plautus to Procopius, the findings ought to be tested by applying them to a singular case. Euripides’ *Heracles*, arguably Euripides’ most disastrous play, serves as the perfect display of disaster terminology and the Greek phenomenology of disaster as traced through the linguistic roots outlined in the table above.⁴³² A brief summary of the play: Heracles’ wife, children, and his father Amphytrion are about to be killed by Lycus, a tyrannical usurper of the Theban throne. Heracles is far from home, rescuing his friend Theseus from the Underworld, but returns just in time to slay Lycus. Then, the goddesses Iris and Lyssa (Madness) appear at the behest of Hera. Lyssa drives Heracles into a frenzy, making him kill his wife and children, although Athena intervenes before he can also kill his father. When Heracles

⁴³² This claim can be supported by a tally of the English word “disaster(s)” in the searchable Loeb translations. Of all three tragedians, *Heracles* scores highest with 11 occurrences, on par with, unsurprisingly, Aeschylus’ *Persians*. While these results are circumstantial evidence at best, they do give some indication as to how the plot is perceived by the translator, and, consequently, how readers may receive the text. The data set is bolstered by the fact that Kovacs is the translator of all of Euripides’ 18 extant tragedies. For *Trojan Women* as a disaster play, see Poole 1976: 257-87.

regains his sanity, he is faced with the horror he has inflicted and the shame of his polluted actions. His friend Theseus arrives and persuades Heracles to come with him to live in Athens.—The play’s content, then, is clearly disastrous: Heracles is struck by such misfortune that it resembles the end of everything. He is also about to become an outcast himself, tainted by the pollution (*miasma*) of the murder of his wife and children. Like Oedipus and Edmund, Heracles has become a τέρας, a monstrous and ill-starred individual whose presence both contaminates those around him and symptomizes some other evil. His dubious parentage, for example, marks him as a potential bastard, and he has fathered classic τέρατα such as the lame king Telephus and the athlete Theogenes, both of whom occasion λοιμός for their community and face ritual expulsion.⁴³³ Religious law dictates that Heracles must be exiled from Thebes. He is at once a victim and an agent of disaster.

At the same time, the play can be read as apocalyptic in the sense of a disruptive event that provokes revelation through *falling*, *striking*, and *turning*. To be sure, the event is Derrida’s *événement* in that it comes unexpected and from above: the divine interruption in the middle of the play, though not unprecedented, is certainly unusual. Just as order seems to be restored with the timely return of the hero and the defeat of the tyrannical Lykos, the plot is overthrown at a critical turning point in the play, a turning

⁴³³ Ogden 1997: 31, 36, 84 126-7, though Ogden does not explicitly call Heracles a *teras*; he is, however, associated with *terata* on many occasions. Possible evidence may include his death by fire and the antagonism with Lykos (“Wolf,” itself a typical scapegoat attribute, see Ogden 1997: 42; Lyssa has the same etymology). Also, Heracles imagines himself to be spurned as an outcast by both land and sea, similar to Oedipus in *S. O.T.* 1426-7. See Bond 1981 on line 1295 of Eur. *Her.*

point that is itself apocalyptic. As Iris and Lyssa descend onto the roof of the *skene*, probably by means of the stage-crane or *mechane*, the chorus of elders flees in panic at the sight of this φάσμα over the house (817). Their arrival is overwhelming. Iris, as we have seen in Homer, is a messenger-goddess whose name means rainbow, but lacks the positive associations of rainbows in the Judeo-Christian tradition. Iris is above all a τέρας, an ominous sign of disaster to come.⁴³⁴ In a surprising turn, Lyssa herself, who personifies Madness and whose name has the same etymology as Lykos (“Wolf”) and so would make for an appropriate avenger, is reluctant to drive Heracles mad, but ultimately yields to Hera’s higher authority (Eur. *Her.* 858-66, transl. Kovacs):

I call the Sun to witness that what I am doing I do against my will! But if I must perform this service for Hera and am obliged to follow on your heels with all speed like a huntsman’s pack of dogs, I shall go. The sea with its roaring waves is not so violent (λάβρος), not so violent the earthquake (γῆς σεισμὸς) or the sting of the lightning bolt (κεραυνοῦ τ’ οἶστρος) that fills the air with pain, as will be my dash into the breast of Heracles. I shall break down (καταρρήξω) his roof and cast (ἐπεμβάλω) his house upon his head, but first I’ll kill his children. And their slayer will not know that he has killed the sons he begot until he gets clear of my madness.⁴³⁵

Lyssa, a daughter of Night, calls upon the Sun as her witness.⁴³⁶ The solar imagery throughout the play is emphasized by Heracles’ and Theseus’ recent return “from the

⁴³⁴ Cf. Roscher on Iris: “Es war und blieb ihm ein τέρας, eine Unruhe erweckende Monstrosität” (2.321), cited in Lee 1982: 44-53.

⁴³⁵ Ἥλιον μαρτυρόμεσθα δρῶσ’ ἃ δρᾶν οὐ βούλομαι. / εἰ δὲ δὴ μ’ Ἥραι θ’ ὑπουργεῖν σοί τ’ ἀναγκαίως ἔχει, / εἰμί γ’ οὔτε πόντος οὔτω κύμασι στένων λάβρος / οὔτε γῆς σεισμὸς κεραυνοῦ τ’ οἶστρος ὠδῖνας πνέων / οἷ’ ἐγὼ στάδια δραμοῦμαι στέρνων εἰς Ἡρακλέους / καὶ καταρρήξω μέλαθρα καὶ δόμους ἐπεμβάλω, / τέκν’ ἀποκτείνασα πρῶτον· ὁ δὲ κανὼν οὐκ εἴσεται / παιῖδας οὓς ἔτικτεν ἐναρών, πρὶν ἂν ἐμὰς λύσσας ἀφῇ.

⁴³⁶ The theme of calling upon the sun as witness is common in Ancient Greek culture, as evidenced by many passages from Greek tragedy (e.g. Aesch. *Choe.* 958, *Ag.* 1323, *PV.* 91), and

sunless (ἀνελίων) realms of Hades and Kore” (*Her.* 607-8) back to “the light of day” (φάος, e.g. *Her.* 25, 524, 611, 1222, 1277). Now that Heracles has returned from the dark land of Death, the stage is paradoxically set for disasters in the sun.

The force of the madness that Lyssa is about to inflict is compared to natural violence: the crashing waves, the earthquake, the lightning bolt. The “sting” (οἷστρος) of the latter connotes the sting of madness, (sexual) passion, or pain, as οἷστρος properly means “gadfly,” the insect that infests cattle and drives them crazy. The poetic word λάβρος, thought by some to be connected to Latin *rabies* (“frenzy, madness”), is typically used for the natural elements.⁴³⁷ These not-so-natural disasters will strike from above: Lyssa will break down the roof and cast down the house. This foreshadowing of physical destruction comes true. The chorus—and with them, the audience—can hear parts of the disaster unfold as it happens off-stage. The disaster is first characterized by the uncertainty stemming from the auditory signs: as Amphitryon calls from within the house (ἰὸ στέγαι! ... ἰὸ δόμοι! ... αἰᾶ κακῶν! 888, 891, 899), the chorus hears unsettling noises and watches as a whirlwind (θύελλα) dramatically shakes (σεῖει) the house and the roof caves in (συμπίπτει στέγη, 904-5). Still inside, Amphitryon (if Diggle has assigned the lines correctly) makes clear that Athena is the agent behind the whirlwind, which takes on the cosmic dimensions of the Gigantomachy: “Hellish confusion (τάρραγμα τартάρειον) you send against the house, Pallas, as you once did against [the giant]

the role of Helios in the search for Persephone in the *Homeric Hymn to Demeter*. It can be traced to Near Eastern mythology, and is in fact found in solar rituals around the world.

⁴³⁷ Chantraine s.v. λάβρος

Enceladus!” (908-9).⁴³⁸ The soundscape of disaster, punctuated by irruptions of auditory signs, comes to a hellish climax with the rapid succession of *tar-tar* sounds that give expression to the whirling, stirring confusion associated with a catastrophic overturning.

The sum total of these signs hardly requires interpretation. When the messenger comes on stage, the chorus tell him: “No prophet do I need to tell me this!” (911).⁴³⁹ And yet, relentlessly, the scattered traces of the disaster-as-sign that took place within the house are now woven into a disaster-as-event by the narration of the messenger. The messenger tells how Heracles, in his madness, slaughters two of his children, before turning to his wife and third child, who quickly hide in a room. “But Heracles, as though he really were besieging the Cyclopean walls, dug under the doors, pried them open, and, pulling out the doorposts, laid low his wife and child with one arrow” (998-1000).⁴⁴⁰ An agent of the apocalypse, Heracles uproots the walls to reveal his victims. Yet, in his madness, Heracles has lost all orientation. He is not blind, literally, but he is semiotically maimed, wrongly connecting signifiers and signifieds, so that a doorpost becomes a city wall. Then Athena appears and hurls a rock at his chest, just as she did to the giant Enceladus, and this plunges Heracles into a dark sleep (1005). As he falls down (πίτνει), he crashes into a pillar which, in the collapse (πεσήμασι) of the roof, had broken upon the foundation (1006-8). The destruction is complete. Now the next turning point arrives: Heracles will wake up and be confronted with the unveiling of his disaster. The servants

⁴³⁸ τάραγμα τартάρειον ὡς ἐπ’ Ἐγκελάδωι ποτέ, Παλλάς, ἐς δόμους πέμπεις

⁴³⁹ μάντιν οὐχ ἕτερον ἄξομαι.

⁴⁴⁰ ὁ δ’ ὡς ἐπ’ αὐτοῖς δὴ Κυκλωπίοισιν ὦν / σκάπτει μοχλεύει θύρετρα κάκβαλὼν σταθμὰ / δάμαρτα καὶ παῖδ’ ἐνὶ κατέστρωσεν βέλει.

and his father have bound him to the pillar with fetters, immobilized by bonds of steel and sleep. This immobilization illustrates his disastered condition, which is characterized by a lack of mobility. (In fact, even after his literal bonds have been removed, he cannot stand up: “My joints are frozen fast” (ἄρθρα γὰρ πέπηγή μου, 1395), he would tell Theseus.) His waking is a turning point: literally, Amphytrion describes him as “turning back” (παλίντροπος), and “being turned to wakefulness” (ἐξεγειρόμενος στρέφεται, 1068-9). This is a turning back from madness, and a return—once more—to the light of day (Eur. *Her.* 1089-92, transl. Kovacs):

I am alive, and I see what I ought to see, the bright air, the earth, the shafts of sunlight (Ἡλίου). [But] I am fallen (πέπτωκα) as if into a wave and into dread confusion (ταράγματι δεινῷ) of mind—⁴⁴¹

Now that the cloud of madness and the darkness of sleep have lifted, Heracles finds himself in the Sun again. He is confused about being bound, and the corpses around him, and reassures himself that he is not back again in Hades: “No, I do not see Sisyphus’ rock nor Pluto nor yet the scepter of Persephone” (1103-4). Heracles tries to reorient himself by locating fixed markers, such as Sisyphus’ rock or Persephone’s scepter, but finds none. From disaster-as-sign to disaster-as-event, Heracles now embodies the disaster-as-condition, a state devoid of points of orientation and all meaning suspended. It is a state of having fallen into, and being struck by, an immobilizing mental confusion. In his own words: “I am utterly perplexed (πέπληγμαι). Wherever am I that I am so at a loss

⁴⁴¹ ἔμπρους μὲν εἰμι καὶ δέδορχ’ ἅπερ με δεῖ, / αἰθέρα τε καὶ γῆν τόξα θ’ Ἡλίου τάδε. / ὥς <δ’> ἐν κλύδωνι καὶ φρενῶν ταράγματι / πέπτωκα δεινῷ ...

(ἀμηχανῶ)?” (1105).⁴⁴² The geographic and spatial disorientation expressed here will be discussed in Chapter Four. Suffice it to say that Heracles is utterly dislocated and out-of-place. The perfect passive form of the verb πλήσσω (cf. Lat. *plango*, *plaga*, and Eng. *plague*) expresses a state of being struck or smitten by something, as for example by a direct blow in boxing, by lightning, or by a whip. In Heracles’ case, the πληγή came both from above and from within. It expresses the loss of orientation that marks his disastered condition. Heracles later gives expression to his upside-down state by using a building metaphor, saying how he has been “utterly overturned, foundations and all” (αὐτοῖσιν βάθοις / ἄνω κάτω στρέψασα, 1306-7). The structural damage he has brought upon his own house—literally and figuratively—is echoed by the utter overturning of his own self.

Disasters in the Sun

As Heracles regains his senses, his recovery amounts to a restoration of points of orientation, and signifiers start to match signifieds again, the first step toward defining his disaster. This means, of course, that he is now confronted with the actual disaster, the disaster-as-event, which Amphytryon has no choice but to reveal: “I am destroyed!” says Heracles, “it is some disaster (συμφορὰν) you are going to tell me of!” (1130). As Christian Wolff has commented, “the process of coming to understanding continues as Heracles wrestles with an identity now threatened after extreme disaster, in desperate need of recovery or perhaps redefinition.”⁴⁴³ Ashamed and polluted, he contemplates

⁴⁴² ἔκ τοι πέπληγμαι· ποῦ ποτ’ ὦν ἀμηχανῶ

⁴⁴³ Wolff 2001: 6-7.

suicide when he sees Theseus is about to arrive.⁴⁴⁴ Once again a man out-of-place (or even *παρὰ φύσιν*, the mark of a *τέρας*), he wonders where he can go to escape his misfortune, whether to soar to the sky or sink beneath the earth (1157-8).⁴⁴⁵ His solution is telling: in an act of de-apocalyptization, he veils his head in his garments. This action is typically explained by the religious notion that the *miasma* of the polluted person can spread via the gaze; Heracles would want to avoid contaminating his friend Theseus. But in covering his head with his garment, Heracles also hides his face from the light of the sun once again. In doing so, his action constitutes a reversal of fortune, not only in that he effectively returns to the Underworld, but also insofar as he himself, upon arrival in Thebes, had urged his wife and children, condemned to death by Lycus, to throw off their covers of Hades and look up at the light (562-4). Now his father and Theseus are imploring him—Heracles—to do the same, and “show his face to the sun” (*ῥέθορ ἀελίῳ δεῖξον*, 1203-4). Theseus brushes aside the fears of pollution: “No night can envelop you in darkness (*σκότος*) so black that it could hide (*κρύψειεν*) the blow of this disaster (*κακῶν σῶν συμφορὰν*)” (1216-7, transl. Kovacs). As much as Heracles returned him—Theseus—from the darkness of Hades, so Theseus himself is now determined to return his friend to the light of the sun as well. He tells Heracles (Eur. *Her.* 1226-8, transl. Kovacs):

⁴⁴⁴ See Yoshitake 1994: 135-53.

⁴⁴⁵ To be sure, the term *παρὰ φύσιν* is never directly applied to Heracles, as far as I am aware. For Heracles as *τέρας*, see note above.

Stand up, uncover (ἐκκάλυψον) your wretched head, look at me! Any mortal who is noble bears the calamities (πτώματ') from the gods and does not refuse them.⁴⁴⁶

The noun πτώμα (from πίπτω, which shares some of the semantic range of *ruo* and σφάλλω) can refer to a falling down in wrestling, to ruined buildings, corpses (i.e. bodies that have fallen down) and, in the abstract sense, disaster. Here, the origin of these “fallings upon” is divine, although it must be noted that the phrase “from the gods” (τὰ τῶν θεῶν γε) is in fact a conjecture by Headlam, adopted by Diggle, Bond, and others. On a semiotic and apocalyptic level, Headlam’s interruption is significant in that it removes the uncertainty of the disaster by assigning it a proper signifier (“τῶν θεῶν”) and signified (the divine). If this revelation is relatively minor, the most important one is the literal uncovering (ἐκ-καλύπτω) that Theseus demands of Heracles in re-asserting at least part of his heroic identity. Heracles is reluctant to define his own disaster, asking Theseus: “Why did you uncover my head to the sun?” (*Her.* 1231).

The answer to Heracles’ question has to do with Theseus’ disaster management. The role of Theseus in exposing Heracles to the sun mirrors Heracles’ earlier rescue of Theseus from the Underworld, as Theseus himself implicitly acknowledges (1336). What is more, Theseus seems to be particularly well-equipped to help Heracles cope with disaster and turn it into an apocalyptic, i.e. revelatory, moment. We have already seen how Cicero, Plutarch and Amyot had cited a speech by Theseus, from an unknown play by Euripides, in which Theseus shows himself mentally prepared to deal with unanticipated evils. Theseus is capable of being a friend to someone struck down by

⁴⁴⁶ ἀνίστασ', ἐκκάλυψον ἄθλιον κάρα, / βλέψον πρὸς ἡμᾶς. ὅστις εὐγενὴς βροτῶν, / φέρει τὰ τῶν θεῶν γε πτώματ' οὐδ' ἀναίνεται.

misfortune. So, too, in Euripides' *Heracles*: "Now you need friends," he tells Heracles (1337). The next two lines were first deleted by Nauck and have since been considered spurious: "When the gods honor us, we do not need friends. The help of a god, when he wants to give it, is enough" (1338-9).⁴⁴⁷ The first line (θεοὶ δ' ὅταν τιμῶσιν, οὐδὲν δεῖ φίλων) echoes the line—both in structure and in sentiment—from Euripides' *Orestes* that Plutarch and Du Saix had toyed with: "When heaven is blessing you, what need for friends?" (ὅταν δ' ὁ δαίμων εὖ διδῷ, τί δεῖ φίλων, Eur. *Or.* 667). The δαίμων would become *ung desastre* in Du Saix's translation. It is precisely such daemonic disaster has struck Heracles at this time.

We thus return to the question: who is to blame for misfortune? The connection between (bad) fortune and the gods is obvious in the play, and so is the individual divine agent lurking behind Heracles' suffering: the goddess Hera. Heracles recognizes that "We have all been miserably destroyed struck down by a single blow from Hera" (πάντες ἐξολώλαμεν / Ἥρας μιᾷ πληγέντες ἄθλιοι τύχη, 1392-3). Heracles' ability to externalize the origin of disaster by locating it with Hera is perhaps the second and most important revelatory turn in his post-disaster recovery. In this case, as Bond has noted, τύχη is "the outward sign of the god at work"—of Hera at work, to be precise.⁴⁴⁸ This τύχη is the

⁴⁴⁷ For the textual criticism of these lines, see Bond 1981: 397, where he says that "the combination of irrelevance with a near-repetition from another play [i.e. *Orestes*] may suffice to justify Nauck's deletion. Modern taste prefers the speech without it, though 1337 may seem abrupt as an ending. The interpolation would have been an early one, for 1338 f. appear in the Favorinus papyrus, dated c. 215 AD." Personally, I think the lines are far from irrelevant, and would argue that the relevance can in part be explained by the intertext with *Orestes*, which was produced after *Heracles*. Whether or not that renders these lines "authentic" or not is, as far as I am concerned, an unanswerable and ultimately uninteresting question.

⁴⁴⁸ Bond 1981: 409.

disaster-as-event, which in turn signifies the agency of a divinity. But the divine remains at some level removed. Even grammatically, it is the abstract τύχη that acts as the dative agent of the passive form of the verb πλήσσω, “to strike.” When Artemis withheld the winds at Aulis, Agamemnon was similarly “stunned by the fortune sent from the gods” (ἐξεπλήσσου τῇ τύχῃ τῇ τῶν θεῶν, Eur. *IA* 351). As the origin of disaster is assigned to the divine, the ultimate agency lurks *behind* the effects of his or her actions, the τύχη that strikes and stuns its victims. We shall focus on detecting this agency in the next chapter.

What this reading of Euripides’ *Heracles* demonstrates is not just the linguistic use of terms for *striking* and *falling* to conceptualize the Ancient Greek phenomenology of disaster, or the ways in which the three modalities of disaster interact with one another. It also reveals something about how Heracles—or any disastered individual for that matter—is imagined to cope with his disaster, particularly how *defining disaster* is a precondition and even a central facet of this disaster recovery, one that is apocalyptic in nature. This defining disaster, as I have argued, is characterized by the semiotic confusion that stems from his madness, which is marked by wrongfully connecting signifiers and signifieds. Upon waking, Heracles finds himself immobilized and perplexed, and he attempts to reorient himself with fixed markers. The revelation or unveiling that follows sends him into a state of hiding as he veils himself from the light of the sun. In Chapter Four, we will encounter Jason in a similar scenario, this time under the burning sun of the Libyan desert. To define disaster, however, Heracles needs to uncover his head and face his disasters in the sun. This is what defines the role of the quintessential friend—Theseus—who not only re-exposes him to the sun, but also helps him to externalize the disaster by locating its agency with the goddess Hera. Defining disaster, after all, is a

practice in etymology. It is a practice in locating the origins—real or imagined—of something of which we can only observe the effects, the *τύχη* that befalls us.

PART III

DEFINING GREEK DISASTER

A Disaster Lexicon

We have now examined the etymologies of disaster in several languages. We have considered how the Greek language gives expression to the phenomenology of disaster through words of *falling*, *striking*, and so forth. And so, in our quest to define disaster, we now move away from a linguistic and phenomenological approach to a more historical and contextual one, in which we consider specific disasters in the literary and historical imagination. But the question remains: how do we identify such disasters? We have not quite satisfied our attempt to construct a lexicon of Greek disaster terminology. After all, the abstract noun *disaster*, as we have noted, lacks a straightforward Ancient Greek equivalent, unlike the Latin terms *calamitas*, *clades*, and *casus*. And yet, the attempt to *define* disaster—that is, render it into a sign—is both implicit in the etymologies of the very word itself and, what is more, a precondition for dealing with it. What, then, are some of the equivalent linguistic signs for disaster in Ancient Greek?

Another way to isolate and identify Greek terms for disaster is to look for events that modern scholarship, based on its modern preconceived notion of disaster, has treated and translated as such. A quick survey of the Perseus database searching for the English

word *disaster* in translations of Greek texts yields hundreds of results. The evidence may be circumstantial, but modern translators have clearly “read” disasters all over Greek literature. In many cases, these disasters refer to historical events. It would be a mistake to overlook one of the most common disastrous events in the ancient imagination: war and military defeat. When Cicero lists the three *casus* that have befallen the Republic, he mentions war, disease, and famine (*bellum, morbus, fames*). War often leads to other disasters. In Francisco Goya’s famous prints *The Disasters of War* (in Spanish, *Los desastres de la guerra*), the middle series record the famine that devastated Madrid from 1811 to 1812 as a result of the war. From the perspective of historiography, military disasters are both events and signs, or symptoms, of great catastrophe yet to come. What constitutes a military disaster? Unlike wars, which can be drawn out over a long period of time and be waged across many different areas, battles are more easily located in time and space. Therefore, they lend themselves more readily for being incorporated into historiographical disaster discourse. By focusing on the literary representation of three historical military disasters (the Sicilian Expedition, the Battle of Chaeronea, and the Battle of Cannae), we can compile a synchronic disaster idiom across various authors and genres, although it must be pointed out that all references come from prose authors and that the genres of history and oratory are, unsurprisingly, dominant. Still, the lexicon strives to be exhaustive for each disaster, that is, all references in extant Greek literature to, for example, the Sicilian Expedition as disaster have been taken into account. This exercise yields no new vocabulary as compared to the one from the etymological exercise (e.g. συμφορά, πάθος, τὸ δεινόν, πίπτω), but several new insights emerge in this

contextual approach, most of which pertain to such external factors as author, genre, and time period.

Sicily and Chaeronea

The Sicilian Expedition, undertaken by the Athenians between 415 and 413 BCE, is generally identified by ancient and modern scholarship as a disaster, at least from an Athenian perspective.⁴⁴⁹ The translation of several different Greek words bears this out. Thucydides refers several times to this event as a *ξυμφορά*, which in the translations of both Smith and Warner is rendered “disaster.”⁴⁵⁰ In addition, Thucydides uses the combination *μεγάλην κακοπραγίαν* (Th. 8.2.1), again translated by both Smith and Warner as “great disaster.” In a construction with the familiar verb *σφάλλω*, Thucydides has *σφαλέντες δὲ ἐν Σικελίᾳ* (Th. 2.65.12), which Smith translates as “after they had met with disaster in Sicily.” Plutarch, juxtaposing the military disasters of Nicias and Crassus, compares Parthian and Sicilian *παθήματα*, and Pausanias refers to the Sicilian Expedition as a *πταῖσμα*.⁴⁵¹ Lucian uses *συμφορά*, when, in a jest at Plato’s failed stint as a parasite

⁴⁴⁹ For example, the final chapter in Kagan 2009, *Thucydides: The Reinvention of History* is entitled “Who was responsible for the Sicilian disaster?”, cf. Thallon 1914, ch. 12 “Athens after the Sicilian Disaster”. Gomme 1966, in his commentary on Thucydides, refers to “the disaster at Syracuse” (161).

⁴⁵⁰ Th. 8.24.5: *τὴν Σικελικὴν ξυμφορὰν*; Th. 8.96: *ἡ ἐν τῇ Σικελίᾳ ξυμφορά*; Th. 8.106.2: *τὴν ἐν τῇ Σικελίᾳ ξυμφορὰν*.

⁴⁵¹ “I think that Nicias is a suitable parallel to Crassus, and the Sicilian to the Parthian disaster.”

Ἐπεὶ δοκοῦμεν οὐκ ἀτόπως τῷ Νικίᾳ τὸν Κράσσον παραβάλλειν, καὶ τὰ Παρθικὰ παθήματα τοῖς Σικελικοῖς (Plutarch life of Nicias);

at the court of Dionysius of Syracuse, he compares Plato's failed adventure to Nicias' expedition, calling both a "Sicilian disaster" (ἡ συμφορά περὶ Σικελίαν).⁴⁵²

Disaster Lexicon for Sicilian Expedition:

συμφορά (Th., Luc.), κακοπραγία (Th.), σφάλλω (Th.), πάθημα (Plut.), πταῖσμα (Paus.)

A second military disaster, again from a Greek perspective, is the battle of Chaeronea (338 BCE), in which an alliance of Greek city-states, including Athens, lost against Philip II of Macedon.⁴⁵³ In the hypothesis to Lycurgus' speech *Against Leocrates*, the events are referred to as τὰ ἐν Χαιρωνείᾳ δεινὰ ("the disaster at Chaeronea," literally, "the terrible things at Chaeronea"). Two years after the lost battle, Aeschines attacks Demosthenes' political career in his speech *Against Ctesiphon*: Demosthenes is "the man who is responsible for all our disasters (κακῶν), ... the curse (συμφορὰν) of all Hellas!" (Aesch. 3.253), not least because of the defeat at Chaeronea, to which Aeschines makes explicit reference earlier in his speech. The old Teubner and Budé texts follow an emendation by Cobet, and read μέχρι τῶν ἐν Χαιρωνείᾳ ("up to the events at Chaeronea"), but the manuscripts read μέχρι τῆς ἀτυχίας τῶν ἐν Χαιρωνείᾳ (or: μέχρι τῆς

Ἀθηναίοις δὲ ἄλλα τε πολλὰ ἐλπίσασιν καὶ Ἰταλίαν πᾶσαν καταστρέψασθαι τὸ ἐν Συρακούσαις πταῖσμα ἐμποδὼν ἐγένετο μὴ καὶ Ῥωμαίων λαβεῖν πεῖραν. Paus. 12.7 ("One of the many ambitions of the Athenians was to reduce all Italy, but the disaster at Syracuse prevented their trying conclusions with the Romans.")

⁴⁵² καὶ αὕτη ἡ συμφορά Πλάτωνι περὶ Σικελίαν ὁμοία δοκεῖ γενέσθαι τῇ Νικίου (Luc. *Par.* 34)

⁴⁵³ Yunis 2000: 103 speaks of the "disaster at Chaeronea" in the context of Aeschines' critique of Demosthenes; Allen 2000: 9 refers to "the Chaeronea disaster" in the context of Lycurgus' rise to dominance; Shrimpton 1977: 130 discusses Demosthenes' funeral oration after "the disaster at Chaeronea."

ἀτυχίας τῆς ἐν Χαιρωνείᾳ), with the noun ἀτυχία (Aesch. 3.55).⁴⁵⁴ Despite the perceived textual difficulty, the word makes sense in this context specifically; for besides this occurrence, Aeschines uses ἀτυχία elsewhere in his speech to refer, again, to the loss at the battle of Chaeronea.⁴⁵⁵

The term ἀτυχία (cf. ἀτύχημα, δυστυχία, δυστύχημα, and its verbal forms) can perhaps be explained by the influence of rhetoric and the genre of oratory in conjunction with the increasing importance of the goddess and concept of Τύχη (Fate, or Fortune) in the 4th century.⁴⁵⁶ In fact, Demosthenes defends himself against Aeschines' accusations with the claim that "I had no control over Fortune, but Fortune controls all" (οὔτε τῆς τύχης κύριος ἦν, ἀλλ' ἐκείνη τῶν πάντων, Dem. 18.121). The historian Theopompus, himself a student of Isocrates and a representative of so-called rhetorical historiography, refers to Chaeronea as ἀτυχία as well ("disaster" in Flower's translation; fr. 329 = Plut. *Dem.* 21.1-2).⁴⁵⁷ This use is again echoed by Dionysius of Halicarnassus when he calls Chaeronea an ἀτύχημα (2.17.2), and by Pausanias (25.3), who says: τὸ γὰρ ἀτύχημα τὸ ἐν Χαιρωνείᾳ ἅπασι τοῖς Ἑλλησιν ἤρξε κακοῦ ("for the disaster at Chaeronea was the beginning of misfortune for all the Greeks," transl. Loeb). Pausanias later refers to this

⁴⁵⁴ In the latest Teubner, τῆς ἀτυχίας is restored, between brackets.

⁴⁵⁵ Aesch. 3.252: ἐγένετό τις, ἄχθομαι δὲ πολλάκις μεμνημένος, ἀτυχία τῇ πόλει ("there came—it pains me to call it to mind repeatedly—there came a certain disaster to the city," transl. Adams).

⁴⁵⁶ For Tyche, see Aesch. 2.131: τὰ δ' ἐν Φωκεῦσι διεφθάρη πράγματα πρῶτον μὲν διὰ τὴν τύχην and Isocrates, in his *Panegyricus*, refers to the disaster of the battle of Aegospotami as ἀτυχίαν. Elsewhere, the defeat at Aegospotami is called a πάθος (Plut. *Lys.*) and a πταίσμα (Paus. 38.10).

⁴⁵⁷ Flower 1994: 140. For Theopompus as the chief representative of rhetorical historiography, see the discussion in Flower 1994.

very statement again, but now parallels ἀτύχημα with σφάλμα (“trip up, stumble”), and κακοῦ with συμφορὰν, the latter pair apparently being more general than the former.⁴⁵⁸

Disaster Lexicon for Chaeronea:

τὰ δεινά (Lyc.), ἀτυχία (Aesch., Theop.), ἀτύχημα (Dio. H., Paus.), σφάλμα (Paus.)

Disaster at Cannae

One of the best documented military disasters in antiquity is the Battle at Cannae (216 BCE), in which Hannibal delivered a major blow to the Romans and shattered their morale.⁴⁵⁹ The battle is treated in detail by three historians—Polybius, Livy, and Appian—and mentioned explicitly as a disaster by many other authors, both in prose (e.g. Cicero, Plutarch, Dio Cassius, Augustine) and poetry (e.g. Lucan, Silius Italicus). The battle itself can be referred to in neutral terms (μάχη, *pugna*, *proelium*), but when authors emphasize the destructive and disastrous outcome of the battle, as they frequently do, they have recourse to idioms of disaster. Most references occur in Livy, who consistently refers to Cannae as *clades* (e.g. *Cannensem cladem*, 23.4.6, 5.9, 30.11, 30.19).⁴⁶⁰ Indeed, a brief survey reveals that *clades*, in part because of Livy’s influence, is the word most commonly applied to the disaster at Cannae, but eight other terms are used as well:

⁴⁵⁸ “I have already said in my history of Attica that the defeat at Chaeroneia was a disaster for all the Greeks” (εἴρηται δέ μοι καὶ ἐν τῇ Ἀτθίδι συγγραφῇ τὸ ἐν Χαιρωνείᾳ σφάλμα συμφορὰν γενέσθαι τοῖς πᾶσιν Ἑλλήσιν, Paus. 6.5).

⁴⁵⁹ For Cannae as “disaster,” see Daly 2002. A popular non-fiction book on military disasters bears Cannae in the title: Spilsbury 2010, *Military Disasters: From Cannae to Stalingrad*.

⁴⁶⁰ The same expression occurs six times more, in Books 24–28.

Disaster Lexicon for Cannae

<i>clades</i>	38	Livy (24), Valerius Maximus (7), Frontinus (3), Silius Italicus (3), Fronto
		(1), Gellius (1) ⁴⁶¹
ἀτυχία vel sim	6	Plutarch (4), Appian (1), Dio Cassius (1)
<i>malum</i>	3	Lucan (1), Silius Italicus (1), Augustine (1)
<i>ruina</i>	3	Livy (1), Seneca Elder (1), Silius Italicus (1)
<i>calamitas</i> ⁴⁶²	3	Cicero (2), Livy (1)
συμφορά	2	Dio Cassius
πταίω / πτώμα	2	Polybius, Dionysius of Halicarnassus
πάθος	1	Procopius

In all these instances, Cannae is explicitly connected to disaster, usually as epithet (τὴν Καννηίδα συμφοράν, Dio Cassius; *Cannensem cladem*, Frontinus) or in some other attributive construction (ἡ περὶ Κάννας ἀτυχία, Plut. *Marcellus*; τῆς ἐπὶ Κάνναις ἀτυχίας, App. *Hann.*; ablative absolute in Val. Max. 6.4: *civitate nostra Cannensi clade percussa*).

The table above prompts several observations. Regarding the terminology, the use among Greek authors of ἀτυχία (ἀτύχημα, δυστύχημα, and verbal constructions) enjoys a clear preference over συμφορά, which is only used by Dio Cassius—perhaps because Thucydides prefers this noun and Dio aims to emulate him. The same goes for πάθος, although the verbal form πάσχω/παθ- is frequently collocated with other nouns for disaster. The historian closest in time to the event itself, Polybius, only has one reference

⁴⁶¹ Aulus Gellius (5.18.5) mentions “that most prodigious disaster of the battle of Cannae” (*cladem illam pugnae Cannensis vastissimam*) with a reference to the fifth book of the *Annals* of Quintus Claudius Quadrigarius (= fr. 52). An almost identical passage occurs in Macrobius’ *Saturnalia* (1.26).

⁴⁶² The word *calamitas* is incompatible with the demands of the hexameter line, and thus not found in epic poetry.

to Cannae as a disaster (and barely one at that), even though he treats the battle at length at the end of Book 3.⁴⁶³ The contrast with Livy's myriad of references is stark, and may in part be explained by Polybius' relative outsider status as a Greek. In fact, it was the defeat of the Achaean League in 146 BCE, as we will see, that Polybius considered a true disaster. More importantly, Polybius' purpose of showing the superiority of the Roman constitution may have led to his singular approach to the disaster of Cannae and his conscious decision to downplay its significance as *destructive* event. After all, Polybius makes explicit reference to the defeat at Cannae at the opening of Book 6 as an opportunity to present the Roman constitution. The question for Polybius is not only how Rome survived the disaster of Cannae but how they managed to acquire world dominion so shortly after it.⁴⁶⁴ The Cannae disaster, then, is for Polybius more a transformative event that underscores the resilience of the Romans and the superiority of their constitution.

Lucan's claim that the evil (*malum*) of Cannae must now cede to Pharsalia does not seem to have been shared by most authors, Greek or Roman.⁴⁶⁵ As a national trauma,

⁴⁶³ Polybius (6.5) mentions the Battle at Cannae (τῇ περὶ Κάνναν μάχῃ): "Therefore, now that I have described its growth, I will explain what were the conditions at the time when by their defeat at Cannae the Romans were brought face to face with disaster." διὸ καὶ τὸν ὑπὲρ τῆς συστάσεως αὐτοῦ λόγον ἀποδεδωκότες πειρασόμεθα νῦν ἤδη διασαφεῖν ὁποῖόν τι κατ' ἐκείνους ὑπῆρχε τοὺς καιροῦς, ἐν οἷς λειφθέντες τῇ περὶ Κάνναν μάχῃ τοῖς ὅλοις ἔπταισαν πράγμασιν.

⁴⁶⁴ Brink and Walbank 1954: 22.

⁴⁶⁵ Lucan 7.407-11: *Pharsalia tanti / Causa mali. Cedant, feralia nomina, Cannae / Et damnata diu Romanis Allia fastis. / Tempora signavit leviorum Roma malorum, / Hunc voluit nescire diem.* "Pharsalia is the cause of so great a mischief. The fatal names of Cannae and of Allia, cursed long ago by the Roman Calendar, must give place to Pharsalia. Rome has marked the date of lighter calamities, but has decided to ignore this day."

the disaster at Cannae seems to have had far greater impact than Pharsalia (state-propaganda and imperial interests undoubtedly played a role here), although Cicero, who was present at that battle on the losing side, recognizes Pharsalia as “that most calamitous battle” (*illa calamitosissima pugna*, Phil. 1.23).⁴⁶⁶ The defeat at Cannae is explicitly connected to prodigies and omens, not only among the poets (Propertius and Prudentius speak of *sinistras Cannas* and *infaustas Cannas*, respectively), but also among historians such as Polybius, Livy, and Dio Cassius. Polybius reports that the city of Rome was in turmoil before the battle, oracular sayings were on everyone’s lips, and temples and houses were full of “signs and portents” (σημείων δὲ καὶ τεράτων, Pol. 3.112). Based on the authority of the historian Claudius Quadrigarius (1st c. BCE), Aulus Gellius mentions that the Battle of Cannae took place on August 2, 216 BCE, one of the *dies atri* on which warfare was officially forbidden—something which the generals had clearly ignored at their own peril. Livy, who never shies away from reporting strange omens, includes an elaborate list of portents at the start of Book 22. These omens announce Hannibal’s devastating Italian campaign and the disastrous battles of Lake Trasimenus (217 BCE) and Cannae. These *prodigia* (each of which violate some intuitive knowledge domain) are all spontaneous signs that function as premonitory warnings suggestive of battle, ranging from armies in the clouds to springs that gush forth blood.

In sum, the disaster lexicon confirms much of what the etymological approach had already revealed: nouns such as συμφορά; words related to suffering, such as πάθος /

⁴⁶⁶ Cf. Paternus, who calls Pharsalia *perniciosa rei publicae pugna* (“a battle disastrous for the Roman Republic”), 1.9.3.

πάθημα; words related to tripping up, such as σφάλμα, πταῖσμα / πτῶμα; words derived from τύχη, such as ἀτυχία / ἀτύχημα, and its verbal forms; and substantive adjectives such as δεινόν and κακόν, often in the plural. The terms are by no means interchangeable: σφάλμα and πταῖσμα refer to defeat in battle only, while πάθος/πάθημα and συμφορά are more general and can cover a wide variety of disaster.

Human, Divine, and Natural Disaster

Historians who have studied natural disasters in the Ancient World have long noted that there is no separate word or phrase, either in Greek or in Latin, that corresponds to the modern compound *natural disaster*, or in German, *Naturkatastrophe*.⁴⁶⁷ Since there is no term for this phenomenon, the same abstract nouns—συμφορά, πάθος, ἀτυχία, τὸ κακόν, and so forth—can be used for what we typically call natural disasters, namely floods, earthquakes, tsunamis, droughts, epidemics, or volcanic eruptions. For Thucydides, for example, the Athenian plague is a συμφορά, a πάθος, a πάθημα and a κακόν. The earthquake and tsunami at Helice are described, by various authors, as a συμφορά and a πάθος. Three fairly recent edited volumes on natural disaster in antiquity, *Naturkatastrofen in der Antiken Welt* (1996), *Naturkatastrophen in der Antike* (1999), and *L'Homme Face aux Calamités Naturelles dans l'Antiquité et au Moyen Âge* (2006) give an insight into what modern scholarship identifies as natural disaster in antiquity. The contributions that deal with specific events, rather than disasters in a particular author or time period, focus overwhelmingly on

⁴⁶⁷ Meier 2007; Sonnabend 1999.

earthquakes (and seaquakes, sometimes followed by flood; e.g. Helice 373 BCE, Rhodes 226 BCE, Antiochia 526 CE) and volcanic eruptions (Etna 475 BCE, Vesuvius 79 CE). This preference for dramatic geophysical disasters is striking and may reveal a modern bias in our thinking about natural disaster in the Ancient World. How, then, did ancient thinkers conceptualize disaster? If earthquakes, droughts and fires are not considered “natural,” how are they contrasted or grouped with other types of disaster, notably those that we would consider political, social, or anthropogenic?

There is only very little ancient testimony that offers direct categorizations, and all of it is late. Dio Cassius (2nd-3rd c. CE) writes that the fire of Rome in 80 CE, which he refers to as τὸ κακόν or “the disaster,” seemed to be “not of human but of divine origin” (οὐκ ἀνθρώπινον ἀλλὰ δαιμόνιον ἐγένετο, Dio. C. *Hist.* 66.24.3). The distinction is thus between human (ἀνθρώπινον) and divine (δαιμόνιον) disaster—a distinction that in Earnest Cary’s Loeb translation becomes explicitly about the origin or causation of the disaster. This distinction parallels the natural vs. manmade distinction, which defines disaster based on whether it originates with nature or with people. The Greek is a little more ambiguous, however. While ἐγένετο could suggest origin, the more neutral translation “was” or “happened” would shift the focus away from the origin of the disaster to the severity of its presence: the disaster was of divine rather than of human proportions. Indeed, Dio comes to the conclusion that the disaster was δαιμόνιον based on the extent of the damage that the fire caused. He lists the various public buildings and temples that went up in flames, and notes that from these one can “conjecture” (τεκμήρασθαι) how many other buildings must have been destroyed. While Dio’s distinction also speaks, indirectly, to the origin of disaster, the emphasis is on the fact that

this divine origin becomes manifest through the visible signs (τεκμήρια) of the present destruction. Dio classifies and defines the fire of Rome as divine, rather than human, based on the overwhelming scale of its destructive power. The disaster is thus conceived of as coming from the outside, from the δαίμων—the very word that Du Saix had first seen fit to translate as *desastre*.

The idea of divine disasters would be popular among Christian thinkers, for whom the disasters clearly partake in a punitive paradigm. The 5th-century church historian Sozomenus (6.2.13-6), for example, lists a host of natural disasters—earthquakes, tsunamis, droughts, famines, plagues—that are signs of God’s displeasure with Julian’s reign as emperor (4th c. CE). We have seen another variation of this in Procopius’ account of the natural disasters that accompanied Justinian’s reign. It is not until the late antique philosopher Simplicius (6th c. CE) that we find a more elaborate and explicit distinction between categories that we could recognize as natural and man-made disasters. In his commentary on Epictetus’ *Handbook*, Simplicius distinguishes between “common disasters that result from the universe” (τὰ κοινὰ κακὰ ἀπὸ τοῦ παντός συμβαίνοντα) and “those that result from people” (τὰ ἀπὸ ἀνθρώπων) acting in a bad way toward each other.⁴⁶⁸ Here, the emphasis is clearly on the origin of disaster (ἀπό), with the crucial distinction between ἀπὸ τοῦ παντός, which means the universe or the cosmos or even Nature, and ἀπὸ ἀνθρώπων, which refers to human origins. The natural disasters include “earthquakes and floods and fires, plagues and famines and destruction of all

⁴⁶⁸ Greek text from Hadot 1995; the English translation by Brittain and Brannon 2002 reads: “the widespread bad effects resulting from the universe” (79).

kinds of animals and crops” (σεισμούς καὶ κατακλυσμούς καὶ ἐκπυρώσεις, λοιμούς τε καὶ λιμούς καὶ φθορὰς παντοίων ζώων τε καὶ καρπῶν, 14.20-22).⁴⁶⁹ The human disasters include such things as the sacking of cities, piracy, murder, and tyranny. Simplicius’ category of cosmic or natural disaster is further subdivided into two groups of three: elemental violence (earth, water, and fire) and the sterility associated with the *loimos* scheme (λιμός, λοιμός, φθορά). The latter group especially may bear some traces of a more ancient concept of disaster, but his unique distinction between natural and human disasters—without explicit reference to the divine—sets Simplicius apart in the conceptual history of disaster.

Thucydides’ Disaster List

Perhaps the most famous and paradigmatic of disaster groupings is Thucydides’ programmatic statement in chapter 23 of the first book of the *History*. Thucydides connects the unprecedented disasters (referred to as παθήματα) of the Peloponnesian war with both human (e.g. sacked cities, exiles, civil discord) and natural (e.g. earthquakes, eclipses, famines) events alike (Thuc. 1.23.1-3, transl. Smith):

But the Peloponnesian war was protracted to a great length, and in the course of it disasters (παθήματα) befell Hellas the like of which had never occurred in any equal space of time. Never had so many cities been taken and left desolate, some by the Barbarians, and others by Hellenes themselves warring against one another; while several, after their capture, underwent a change of inhabitants. Never had so many human beings been exiled, or so much human blood been shed, whether in the course of the war itself or as the result of civil dissensions.

⁴⁶⁹ In the edition by Hadot 1995: 25-7; it should be noted that ἐκπυρώσεις is a conjecture, accepted by Meier 2007 and Brittain and Brannon 2002; it is perhaps based on lines 90 (Hadot 1996: 26), which pairs κατακλυσμούς with ἐκπυρώσεις; all MSS read ἐκπτώσεις in line 20.

And so the stories of former times, handed down by oral tradition, but very rarely confirmed by fact, ceased to be incredible: about earthquakes (σεισμῶν), for instance, for they prevailed over a very large part of the earth and were likewise of the greatest violence; eclipses of the sun (ἡλίου τε ἐκλείψεις), which occurred at more frequent intervals than we find recorded of all former times; great droughts (αὐχοί) also in some quarters with resultant famines (λιμοί); and lastly—that which wrought most harm and destroyed (φθείρασα) a considerable part of the people—the noisome pestilence (ἡ λοιμώδης νόσος). For all these things fell upon them simultaneously with this war.⁴⁷⁰

This type of list, which is by no means unique to Thucydides, includes what we today would call *natural* (earthquakes, droughts) and *complex* disasters (famine, epidemic disease), alongside *anthropogenic* ones (refugees, civil unrest) and even “normal” natural phenomena (solar eclipses). Clearly, this modern type of conceptual subdivision does not hold in ancient thought. Social and natural disturbances are seen as part of the same universal turmoil. Whether or not Thucydides himself thought there to be some connection between human and natural events is, as Gomme observed, unclear.⁴⁷¹ It could be that his comments refer only to the popular opinion. For our purposes, however, it is the list itself that is most instructive: earthquakes, eclipses, droughts and famines, and pestilence. These so-called natural disasters fall into two groups: earthquakes and

⁴⁷⁰ τούτου δὲ τοῦ πολέμου μῆκος τε μέγα προύβη, παθήματά τε ξυνηνέχθη γενέσθαι ἐν αὐτῷ τῇ Ἑλλάδι οἷα οὐχ ἕτερα ἐν ἴσῳ χρόνῳ. οὔτε γὰρ πόλεις τοσαῖδε ληφθεῖσαι ἡρημώθησαν, αἱ μὲν ὑπὸ βαρβάρων, αἱ δ' ὑπὸ σφῶν αὐτῶν ἀντιπολεμούντων (εἰσὶ δ' αἱ καὶ οἰκήτορας μετέβαλον ἀλίσκόμεναι), οὔτε φυγαὶ τοσαῖδε ἀνθρώπων καὶ φόνος, ὁ μὲν κατ' αὐτὸν τὸν πόλεμον, ὁ δὲ διὰ τὸ στασιάζειν. τὰ τε πρότερον ἀκοῇ μὲν λεγόμενα, ἔργῳ δὲ σπανιώτερον βεβαιούμενα οὐκ ἄπιστα κατέστη, σεισμῶν τε πέρι, οἱ ἐπὶ πλεῖστον ἅμα μέρος γῆς καὶ ἰσχυρότατοι οἱ αὐτοὶ ἐπέσχον, ἡλίου τε ἐκλείψεις, αἱ πυκνότεραι παρὰ τὰ ἐκ τοῦ πρὶν χρόνου μνημονευόμενα ξυνέβησαν, αὐχοί τε ἔστι παρ' οἷς μεγάλοι καὶ ἀπ' αὐτῶν καὶ λιμοὶ καὶ ἡ οὐχ ἥκιστα βλάψασα καὶ μέρος τι φθείρασα ἡ λοιμώδης νόσος· ταῦτα γὰρ πάντα μετὰ τοῦδε τοῦ πολέμου ἅμα ξυνεπέθετο.

⁴⁷¹ Gomme I 1956: 151.

eclipses, which are primarily signs; and droughts/famines and pestilence, which are part of the *loimos* scheme of sterility. All are, in turn, part of the signifying structure of war, emerging as symptoms of universal and unprecedented turmoil. That this list is conceptual rather than actual is clear: Thucydides only records two solar eclipses (2.28, 4.52.1), and no droughts or famines at all.⁴⁷² For our purposes, Thucydides' disaster list reveals less about actual historical disaster occurrences than about cultural conceptions of disasters—how they are grouped, how they relate to other disasters, and what role they play in historical discourse.

Let us focus on the earthquakes and eclipses in Thucydides' list. When Gomme notes that “eclipses are not disasters, like earthquakes,” it seems as if eclipses are the anomalous item in the list. I would suggest that earthquakes and eclipses, when understood as signs, are in fact complementary. One occurs on land, the other in the sky; they are even paired in 4.52.1. Both function as signs—at least in the public opinion, if not Thucydides'—to underscore the unprecedented nature of the war. In both cases Thucydides emphasizes their extraordinary extent: in location and severity for the earthquakes, and in frequency for the eclipses. Earthquakes were—and are—so common in this part of the Mediterranean that their frequency per se is not enough to make them significant, but their violence and geographic spread are. In fact, earthquakes were not necessarily disastrous at all, but could be considered “willkommene Erdbeben” and

⁴⁷² Cf. Rusten 2013: 142 n. 24: “Thucydides ... does not mention most of the war's solar eclipses (despite 1.23.3, they were not more numerous), presumably because they had no influence on public opinion or military planning.” I suspect Rusten is right about this.

acquire mostly symbolic meaning, as Chaniotis has shown.⁴⁷³ It is often pointed out that Thucydides' famous description of the earthquake and tsunami at Orobiae in Euboea (3.89) mentions only natural causes and makes no reference to the gods or divine portents.⁴⁷⁴ This hardly proves that Thucydides himself did not believe they could be signs, and this is besides the point at any rate. The same section (3.89), after all, opens with Agis, king of Sparta, retreating from his invasion of Attica in 426 BCE when he is confronted with a number of earthquakes.⁴⁷⁵ According to Xenophon, this same Agis would break off another invasion against Elis in 399 after an earthquake occurred, which he interpreted as a divine sign (*Hell.* 3.2). If we are to make out Agis' motivations, Xenophon's *Hellenica* records a comparable instance, this time with another Spartan king (4.7). Agesipolis and his army were marching against the Argives in 388, when an earthquake occurred. The recipients of the sign—Agesipolis and his soldiers—offered contrasting interpretations. While the troops were singing paeans to appease Poseidon and expected to retreat as Agis had done before, Agesipolis reasoned that since the god sent an earthquake now that the invasion was already underway, the god must be urging him on. In military contexts, earthquakes seem to be above all signs from the gods that prohibit or incite action (again the Spartans in Thuc. 5.50.5 and 6.95.1).

⁴⁷³ Chaniotis 1998: 404-16.

⁴⁷⁴ Gomme I 151, II 392.

⁴⁷⁵ Gomme does not want to attribute this military failure to superstition, but admits that based on Thucydides' careful description, this earthquake, or any other in the *History* for that matter, did not seem especially destructive. To me, this seems to reflect an unnecessary anxiety on Gomme's part to disassociate disaster and signs as somehow irrational.

Thucydides himself may be less inclined than Xenophon or Herodotus to speak directly in terms of divine portents, but Thucydides, too, records the famous but fictitious Delian earthquake in the context of premonitory signs—the earthquake that we discussed in the previous chapter as well.⁴⁷⁶ In a passage that has been recognized as recalling the language of the preface, Thucydides describes the war efforts building up (2.8.2-3):

And there were many prophecies being spoken, and many oracle-collectors were singing verses, both among those who were about to go to war and in other cities as well. What is more, Delos was moved (Δῆλος ἐκινήθη) just before this time, although it had never before been shaken in the memory of the Greeks. This was said and believed to be a sign (σημῆναι) of things to come.⁴⁷⁷

Whether Thucydides himself believed the earthquake to be a sign is, as Gomme points out, once again unclear. What is clear, however, is that Thucydides accepts this earthquake as fact, even though modern seismological research definitively concludes that no earthquake occurred on Delos at the time that either Herodotus or Thucydides indicates. As Rusten concludes, the imaginary earthquake and the oracles surrounding it point to a semiotic rather than a seismic event, also for Thucydides. While the earthquake portended future disaster (μέλλοντα κακά) in Herodotus' account, Thucydides leaves out κακά and instead places the portent in the context of pre-war excitement. The *kinesis* of Delos, in Rusten's interpretation, puts the capstone on the larger *kinesis*, or “mobilization,” in the pre-war fervor of the Greek city-states. What matters most for our purposes is that Thucydides' disaster list joins earthquakes and eclipses because both are

⁴⁷⁶ Rusten 2013: 135-45.

⁴⁷⁷ καὶ πολλὰ μὲν λόγια ἐλέγετο, πολλὰ δὲ χρησμολόγοι ἦδον ἔν τε τοῖς μέλλουσι πολεμήσειν καὶ ἐν ταῖς ἄλλαις πόλεσιν. ἔτι δὲ Δῆλος ἐκινήθη ὀλίγον πρὸ τούτων, πρότερον οὐπω σεισθεῖσα ἀφ' οὗ Ἕλληνες μέμνηνται· ἐλέγετο δὲ καὶ ἐδόκει ἐπὶ τοῖς μέλλουσι γενήσεσθαι σημῆναι.

disasters-as-signs. Reflective of the disaster mentality of the Classical period, Thucydides' list reveals a conception of disaster in which (what we would call) natural disasters are symptomatic for human disasters, and consistently occur alongside them.

Triad of Disaster

If earthquakes and eclipses are above all signs, then the second part of Thucydides' list focuses on disaster proper: drought and famine, and plague. The Athenian plague in particular looms large in Thucydides' history of the war, and we shall return to his account of it shortly. But before we do so, we shall analyze the important conceptual pair of λιμός and λοιμός, plague and famine. This pair, in turn, is part of a cluster that stands out the most in ancient thought—and, it seems, in the history of ideas at large—namely a triad consisting of plague, famine, and war, or sometimes civil war. Even if they do often occur together and result in, or exacerbate, the other, they are quite an incongruous triad from a modern classificatory perspective. Plague or epidemic disease is a natural disaster (of the biological type), famine is a complex disaster (triggered by atmospheric conditions, exacerbated by political conflict or social instability, and so forth), and war is an anthropogenic disaster. None of them is acutely unexpected or sudden: all three tend to be disasters with a slow onset, unlike earthquakes, storms, or floods. What these disasters have in common, however, is that they affect entire communities at a time, and based on their length and intensity they can truly threaten the survival of the community. They are also more common than geophysical disasters such as volcanic eruptions or tsunamis.

As Jouanna has shown, λιμός and λοιμός are frequently collocated, and not seldom do manuscripts offer the one as an alternative reading for the other—this is the case in Hesiod’s infamous list of the offspring of Eris, in *Theogony* 226-32. They need not appear as part of the triad. Sometimes λοιμός occurs alongside war or civil strife (στάσις). Scholars have noted, for example, that Thucydides’ description of the Athenian plague resembles his description of the civil strife on Corcyra.⁴⁷⁸ Indeed, these three disasters are often employed conjointly and interchangeably by our sources, including in oracles: an oracle was issued on the occasion of civil strife and plague throughout Greece (Fontenrose Q1 = Paus. 5.4.6); another oracle dealt with plague and famine in the Peloponnesus (Fontenrose Q3 = Phlegon *Ol.* 1.6); or, in an oracle associated with a 7th-century crisis, sources identify the disaster either as civil strife or as plague (Fontenrose Q54 = Philod. *Mus.* 4.18-37-8; Plut. *Mor.* 1146c). In the historical consciousness, plague, famine and (civil) war seem to be the most typical and consistent manifestations—or symptoms—of the abstract notion of disaster.

We have already seen how Cicero lists this triad succinctly in the *Philippics*, when he speaks of some “serious disaster” (*gravior casus*) befalling the Republic, “whether war, pestilence, or famine” (*si bellum, si morbus, si fames*).⁴⁷⁹ The tradition of this triad goes back to at least Hesiod’s *Works and Days*, where “famine” (λιμός) and “plague” (λοιμός) are paired as divine punishments for the unjust city, followed by an

⁴⁷⁸ On similar imagery in Thucydides’ accounts of the plague and civil strife, see Brock 2000.

⁴⁷⁹ Cic. *Phil.* 1.13.

assembled category indicative of war, “army, wall” (στρατὸν, τεῖχος) and seafaring, “ships” (νέας) (Hes. *WD*. 238-47):

But to those who care for evil arrogance and crooked deeds, to them far-seeing Zeus, son of Cronos, marks out (τεκμαίρεται) punishment. Often the entire city suffers from one evil man, who does wrong and devises reckless deeds, and upon them the son of Kronos from heaven brings great suffering (μέγα πῆμα), famine together with plague (λιμὸν ὁμοῦ καὶ λοιμὸν): the people perish (ἀποφθινύθουσι) and women do not bear children, and their households dwindle, by the will of Olympian Zeus; and again, at other times, he either destroys their broad army (στρατὸν) or their wall (τεῖχος) or punishes their ships (νέας) at sea, the son of Kronos.⁴⁸⁰

The passage, especially starting at line 242, has had a measurable impact on Greek conceptions of disaster and its relation to the divine. Plutarch says Chrysippus discusses the passage in his lost work *On Justice*, and Callimachus reworks it in his *Hymn to Artemis*. Hesiod’s influence in the cultural history of the Athenians is evidenced by this passage, which is cited verbatim and used for political purposes by Aeschines. The orator suggests, not without malice, that Hesiod’s poetry is as an oracle against Demosthenes’ policies (Aesch. 3.136):

If you take away the meter of the poet and examine his sentiments, I think you will see that these are not Hesiod’s poetry, but an oracle (χρησμόν) against the politics of Demosthenes. For indeed, fleet and army and cities have been utterly destroyed because of his policies.⁴⁸¹

⁴⁸⁰ οἷς δ’ ὕβρις τε μέμηλε κακὴ καὶ σχέτλια ἔργα, / τοῖς δὲ δίκην Κρονίδης τεκμαίρεται εὐρύοπα Ζεὺς. / πολλάκι δὲ ξύμπασα πόλις κακοῦ ἀνδρὸς ἀπηύρα, / ὅς κεν ἀλιτραίνῃ καὶ ἀτάσθαλα μητιάται / τοῖσιν δ’ οὐρανόθεν μέγ’ ἐπήγαγε πῆμα Κρονίων / λιμὸν ὁμοῦ καὶ λοιμὸν: ἀποφθινύθουσι δὲ λαοί. / οὐδὲ γυναῖκες τίκτουσιν, μινύθουσι δὲ οἴκοι / Ζηνὸς φραδμοσύνησιν Ὀλυμπίου: ἄλλοτε δ’ αὖτε / ἢ τῶν γε στρατὸν εὐρὺν ἀπώλεσεν ἢ ὃ γε τεῖχος / ἢ νέας ἐν πόντῳ Κρονίδης ἀποτείνυται [ἀποαίνυται] αὐτῶν.

⁴⁸¹ ἐὰν περιελόντες τοῦ ποιητοῦ τὸ μέτρον τὰς γνώμας ἐξετάζητε, οἶμαι ὑμῖν δόξειν οὐ ποιήματα Ἡσιόδου εἶναι, ἀλλὰ χρησμόν εἰς τὴν Δημοσθένους πολιτείαν: καὶ γὰρ ναυτικὴ καὶ πεζὴ στρατιὰ καὶ πόλεις ἄρδην εἰσὶν ἀνηρπασμένοι ἐκ τῆς τούτου πολιτείας.

What makes Aeschines' reference to the Hesiodic passage so effective is precisely the idea that the entire community suffers greatly (Hesiod's μέγα πῆμα) because of the wickedness of one evil man (Demosthenes as Hesiod's ἀνὴρ κακός). The question who is to blame for disaster can fall on the shoulders of one individual. Aeschines refers to Hesiod's hexameter lines as an "oracle" (χρησμόν) warning against Demosthenes' politics, which suggests that Hesiod's poetry could be applied prophetically to current affairs, one in which an individual must be held accountable for the disasters of a community. The μέγα πῆμα that befalls Hesiod's wicked city is the paradigm by which fourth-century Athenians define disaster.

Sterility and Strife

In Hesiod's wicked city, λιμός and λοιμός occur side by side. The pairing of these words, which are etymologically related, has attracted some scholarly attention.⁴⁸² But Martin West's modernizing comment that "malnutrition reduces resistance to disease," however true, misses the point.⁴⁸³ As a scourge from Zeus, the one does not cause or result in the other as West suggests; rather, disaster always comes in pairs or groups. Famine and plague are joined because of sterility and the halt of (proper) reproduction, as Marie Delcourt and others have long demonstrated. Barren lands bear no crops and barren women bear no children, at least not ones that resemble their parents, only τεράτα (cf. the section on *teras* in the previous chapter). This state or complex of disasters constitutes

⁴⁸² Jouanna 2006.

⁴⁸³ See also the critique by Jouanna 2006: 200, in his comprehensive study of λοιμός and λιμός.

what has been called the *loimos* scheme, and thus means more than simply plague.⁴⁸⁴ It is a dominant feature in the collective imagination of the Greeks about disaster; so much so, notes Parker, that it “constantly recurs both in myth and in the Greeks’ own perception of historical reality.”⁴⁸⁵ Herodotus, for example, records that after the Pelasgians had cruelly murdered the Lemnian women, “the earth did not bear fruit nor did women or flocks produce offspring the same way as before” (Hdt. 6.139).⁴⁸⁶

Hesiod’s evil city, too, is plagued by a halt in reproduction: “the people perish and women do not bear children, and their households dwindle” (*WD*. 243-4). Even though the birth of τέρατα is not mentioned here, this sterility is characteristic of the *loimos* scheme. The complementary passage on Hesiod’s righteous city makes this clear (*WD*. 225-31):

As for those that give straight judgments to members of the community and those outside it, and not deviate from what is just, their city blooms and the people flower in it. Peace, the rearer of youths, is throughout the land, not does far-seeing Zeus ordain (τεκμαίρεται) harsh war (πόλεμον) against them. Neither does famine (λιμός) nor disaster (ἄτη) ever attend men that do straight justice, but they tend their fields, the objects of their care, with abundance. For them the earth bears much food, and in the mountains the oak bears acorns at the top and bees in the middle. The woolly sheep are weighed down by their fleeces. And the women bear children that resemble their parents (τίκτουν δὲ γυναῖκες εὐοικότα τέκνα γονεῦσι). They continually thrive with good things. They do not sail in ships, and the grain-giving earth bears fruit.⁴⁸⁷

⁴⁸⁴ Delcourt 1938; Parker 1983: 257ff.

⁴⁸⁵ Parker 1983: 257.

⁴⁸⁶ οὔτε γῆ καρπὸν ἔφερε οὔτε γυναῖκές τε καὶ ποῖμναι ὁμοίως ἔτικτον καὶ πρὸ τοῦ

⁴⁸⁷ οἱ δὲ δίκας ξείνοισι καὶ ἐνδήμοισι διδοῦσιν / ἰθείας καὶ μὴ τι παρεκβαίνουσι δικαίου, / τοῖσι τέθλε πόλις, λαοὶ δ’ ἀνθεῦσιν ἐν αὐτῇ· / εἰρήνη δ’ ἀνὰ γῆν κουροτρόφος, οὐδέ ποτ’ αὐτοῖς / ἀργαλέον πόλεμον τεκμαίρεται εὐρύοπα Ζεὺς· / οὐδέ ποτ’ ἰθυδίκησι μετ’ ἀνδράσι λιμὸς ὀπηδεῖ / οὐδ’ ἄτη, θαλίσ δὲ μεμηλότα ἔργα νέμονται. / τοῖσι φέρει μὲν γαῖα πολὺν βίον, οὔρεσι δὲ δρυὶς / ἄκρη μὲν τε φέρει βαλάνους, μέσση δὲ μελίσσας· / εἰροπόκοι δ’ ὄιες μαλλοῖς καταβεβρίθασιν· /

Without mentioning λοιμός, Hesiod refers to the abundance and fertility of the righteous city. One line in particular anticipates the later oaths about τέρατα that we encountered in the previous chapter: “And the women bear children that resemble their parents.”

Children that do not resemble their parents are either deformed or illegitimate—the disastereed state of such mythological τέρατα as Oedipus, and, as we have seen, bastards such as Edmund.

The association of deformity—especially in the foot, i.e. lameness—with λοιμός is made explicit in Callimachus’ reprisal of Hesiod’s wicked city. In the *Hymn to Artemis*, the goddess Artemis—whose arrows, like those of her brother Apollo, cause the plague—practices her archery. Confronted with the unrighteous city, she angrily aims her bow at it (Call. *H.* 3.124-34, transl. Stevens):

On their herds pestilence (λοιμός) feed, on the worked fields, a frost (πάχνη). Old men cut their hair in mourning over their sons, their wives die either stricken in childbirth, or having escaped that fate, breed children none of whom stands on a straight ankle (σφυρὸν ὀρθόν). But those on whom you would gaze smiling and gracious, their fields bear abundant corn, abundant their race of four-footed beasts, and abundantly does their household increase. Nor do they go to a tomb, except when they are carrying out something very old. Nor does dissension (διχοστασίη) wound their tribe, which ravages even well-established houses.⁴⁸⁸

One of Artemis’ spheres of influence is childbirth, particularly the protection of women during labor (cf. Eur. *Hip.* 166-9, and Artemis Hecate, A. *Suppl.* 677). The reference to

τίκτουσιν δὲ γυναῖκες εὐκότα τέκνα γονεῦσι· / θάλλουσιν δ’ ἀγαθοῖσι διαμπερές· οὐδ’ ἐπὶ νηῶν / νίσονται, καρπὸν δὲ φέρει ζείδωρος ἄρουρα.

⁴⁸⁸ σχέτλιοι, οἷς τύνη χαλεπὴν ἐμμάζεαι ὀργήν· / κτήνεά φιν λοιμὸς καταβόσκειται, ἔργα δὲ
πάχνη, / κείρονται δὲ γέροντες ἐφ’ υἰάσιν, αἱ δὲ γυναῖκες / ἢ βληταὶ θνήσκουσι λεχωίδες ἢ ἐ
φυγοῦσαι / τίκτουσιν τῶν οὐδὲν ἐπὶ σφυρὸν ὀρθὸν ἀνέστη. / οἷς δὲ κεν εὐμειδὴς τε καὶ ἵλαος
αὐγάσσηται, / κείνοισι εὖ μὲν ἄρουρα φέρει στάχυν, εὖ δὲ γενέθλη / τετραπόδων, εὖ δ’ οἶκος
ἀέξεται· οὐδ’ ἐπὶ σῆμα / ἔρχονται πλὴν εὖτε πολυχρόνιον τι φέρωσιν· / οὐδὲ διχοστασίη τρώει
γένος, ἢ τε καὶ εὖ περ / οἴκους ἐστηῶτας ἐσίνατο·

children that are born with crooked ankles refers to those who are lame, a deformity typically associated with τέρατα. This may also be an explanation, as Stephens points out, of the cult name Artemis Orthia, that is, She Who Stands Upright.⁴⁸⁹ The righteous city, by contrast, is blessed with abundant crops and fertile offspring, as well as a lack of dissension, or civil strife (διχοστασίη).

The category of war, and civil war or strife in particular, suggests that the triad of disaster does not only have an agricultural but also always a political dimension. The two are linked: if there is a halt in natural reproduction, there is also something wrong in the socio-political sphere, and vice versa. In the *Laws*, Plato would claim that what disease is to the body, λοιμός is to the seasons, and injustice to the body politic (906c).

Callimachus' use of διχοστασίη is no doubt meant to echo its earliest attested use, namely Solon's elegy on Justice and Lawfulness, in which he exhorts the Athenians to reject civil strife (Sol. *Fr* 4 = Dem. 19.254-6).⁴⁹⁰ It is Demosthenes who transmits Solon's fragment, which underscores the political context in which this sentiment is rehearsed in fourth-century Athens. Furthermore, Solon's fragment may help explain the third term in Hesiod's portrayal of the righteous city. In addition to the familiar disasters of the triad (πολέμος and λιμός), Hesiod's passage pairs λιμός with another term, ἄτη, which is typically translated in this context as "disaster, ruin." Commenting on this line, Martin West suggests that ἄτη might refer to a blight or spoilage of crops (like the wheat rust

⁴⁸⁹ Stephens 2015: 139; Ogden 1997: 11. It can also mean "She Who Causes To Stand Upright," as it does when applied to Asclepius, the god of healing. For an extensive analysis of *Orthia* in language, ritual, and myth, see Calame 2001: 165ff.

⁴⁹⁰ See also the comments by Stephens 2015: 139.

associated with *calamitas*), or somehow corresponds to λοιμός in line 243. However well this would fit our triad, there is no evidence to suggest that ἄτη can mean blight, or ruin to crops specifically. In Homer, it means delusion or blindness, always in the sense of a mental or intellectual error that leads to a mistaken act, but without any connotation of moral guilt. In Hesiod, ἄτη is part of a moral scheme as the disastrous *result* of this blindness, and hence refers to the penalty that is meted out for hubris and injustice (cf. *WD*. 216).⁴⁹¹ Conceptually, ἄτη is grouped together with λιμός (or λοιμός, dependent on the manuscript) as the offspring of Strife (ἔρις) in the *Theogony*. Solon, in the same elegy, lists ἄτη as a characteristic of the evils (κακά) of Lawlessness (Δυσνομία) (which are also paired in *Theogony* 230-2), a list that also includes διχοστασίη. Thus, whereas πόλεμος is likely to refer to external strife (i.e. being defeated in battle by enemies), ἄτη may well refer to the delusion that results in strife within the community.

David's Disaster: κοινὸν πάθος

These same three disasters—plague, famine, war—show up in the Biblical tradition as well, where the question of blame and accountability comes to the fore. In the Second Book of Samuel, God's prophet Gad allows David to choose his punishment after he transgressed God's law by holding a census: "Shall there come on you three years of famine in your land? Or three months of fleeing from your enemies while they pursue you? Or three days of plague in your land?" (2 Sam. 24:13). The Septuagint has θάνατον

⁴⁹¹ Dodds 1951: 38 and Dawe 1967. On *ate* in its objective (ruin, disaster) and subjective (delusion, blindness) meaning respectively, see Doyle 1984.

(“death”) for the Hebrew *deber* (“plague, pestilence”), but the context makes clear that the plague is meant: in a later verse (2 Sam. 24:25) the plague is referred to as *maggephah* (“blow, plague, slaughter in battle”), though the Septuagint has θραῦσις (“destruction”).⁴⁹² Here, even more clearly than in Hesiod’s *Works and Days*, God not only communicates—through the prophet—but also controls the distribution and cessation of disasters in response to a religious transgression.

The first-century Roman-Jewish author Josephus, who discusses the passage in his *Jewish Antiquities*, identifies the plague explicitly as λοιμός, and lays out David’s predicament as follows (7.321-2):

Whether he would have famine (λιμόν) come upon the land for seven years,⁴⁹³ or be defeated by his enemies (after being) in battle (πολεμήσας) for three months, or have plague and disease (λοιμὸν καὶ νόσον) hurled upon (ἐνσκήψαι) the Hebrews for three days. And David, faced with an impossible (ἀμήχανον) choice of great evils (μεγάλων κακῶν), was distressed and very troubled.⁴⁹⁴

Here we find the triad of disaster (λιμός, λοιμός, πολέμος) that together forms a group of “great evils” (μεγάλα κακά) from which David must choose. (Note also the language that the λοιμός strikes from above like a thunderbolt, expressed with the verb σκήπτω, indicative of Derrida’s *événement*.) Josephus continues to describe David’s thought process: if he chooses famine or war, people might think that he is protecting himself,

⁴⁹² *Deber* is from the root *dabar* “speak” which can mean “destroy” in the sense of appointing or arranging something in a destructive sense (cf. Pest-god Dibbara). *Maggephah* is derived from the root *nagaph*, “strike” (cf. *plaga*, πλῆγη).

⁴⁹³ Instead of the three years found in the Hebrew Bible.

⁴⁹⁴ πότερον θέλει λιμὸν γενέσθαι κατὰ τὴν χώραν ἐπὶ ἔτη ἑπτὰ, ἢ τρεῖς μῆνας πολεμήσας ὑπὸ τῶν ἐχθρῶν ἡττηθῆναι, ἢ λοιμὸν ἐνσκήψαι καὶ νόσον ἐπὶ τρεῖς ἡμέρας τοῖς Ἑβραίοις. ὁ δ’ εἰς ἀμήχανον ἐκλογὴν μεγάλων κακῶν ἐμπεσὼν ἐλυπεῖτο καὶ σφόδρ’ ἦν συγκεχυμένος.

since he has plenty of grain stored up and mighty fortresses to shield himself from enemies. Rather, David prefers to fall into the hands of God rather than those of the enemy (2 Sam. 24:14 and Jos. *Ant.* 7.323), and chooses plague, the great equalizer. Josephus elaborates David's decision by saying that it is a "common disaster (πάθος κοινόν) both for kings and for subjects, in which fear is equal for all" (7.323).⁴⁹⁵ And so, "God sent plague (λοιμὸν) and destruction (φθοράν) upon the Hebrews" (7.323). This is the same pair (λοιμός and φθορά) that Thucydides used for the Athenian Plague, and indeed, in the detailed description of the plague that follows, Josephus seems to have drawn inspiration from Thucydides.⁴⁹⁶

For Josephus, and the tradition of biblical exegesis more generally, the plague is especially associated with divine punishment, an idea that would continue into the Medieval period. The triad of communal disaster persists in European cultural history. For example, the author of the 17th-century *Journal of the Plague Year* notes: "We had in Catalonia then the three greatest plagues God can inflict upon a people—famine, disease, and war—all of which we had in abundance."⁴⁹⁷ As for an Enlightenment example, Voltaire, in his *Philosophical Dictionary*, begins the entry on War as follows: "Famine, plague and war are the three most famous ingredients of this wretched world."⁴⁹⁸ Where

⁴⁹⁵ πάθος κοινὸν καὶ βασιλεῦσι καὶ τοῖς ἀρχομένοις, ἐν ᾧ τὸ δέος ἴσον ἀπάντων γίνεται

⁴⁹⁶ Loeb s.v. note b, p. 179: "This amplification of the brief Scriptural statement, "So the Lord sent pestilence upon Israel," is probably an imitation of the famous description of the plague in Thucydides ii. 47 ff., which also furnished the model for similar passages in later books of the Antiquities."

⁴⁹⁷ In the edition by Amelang 1992: 36.

⁴⁹⁸ In the edition by Williams 1994: 7.

Voltaire breaks with tradition, however, is in his assertion that war is the worst of the three, for while famine and plague come from Providence, war, which combines the two, “comes to us from the imaginations of three or four hundred people scattered across the world with the name of princes or ministers.”⁴⁹⁹ This, in a way, is the logical conclusion of David’s preference not to fall into the hands of his enemies. With the notion that war is anthropogenic, while plague is not, the unity of the triad starts showing cracks, anticipating the modernist distinction between natural and man-made disaster.

Darius’ Disaster: λοιμός or στάσις?

In Josephus’ interpretation, David’s choice is for a πάθος κοινόν, a communal disaster. As a punitive principle, this is similar to the Hesiodic notion that the god punishes the entire community for the transgression of a single individual. While all three disasters ultimately come from the outside, i.e. from God, the choice for λοιμός indicates a preference for an internal, communal punishment: David does not wish to suffer at the hands of his enemies, a type of disaster that is externally inflicted. A similar situation arises in Aeschylus’ *Persians*, which again sheds light on how disasters are grouped together, and how, within the triad of disaster, military defeat compares to plague and civil strife. The context of the play is Xerxes’ miserable homecoming after the defeat at the Battle of Salamis (480 BCE). Before Xerxes arrives on stage, Queen Atossa summons the ghost of Xerxes’ father, Darius. King Darius asks Atossa how Persia was brought to the brink of disaster: “In what way? Did some stroke of pestilence (λοιμοῦ σκηπτός) or

⁴⁹⁹ Williams 1994: 7.

civil strife (στάσις) come upon the state?” (*Pers.* 715). Delcourt has explained Darius’ question as a choice between a divinely sent disaster (λοιμός) or a human one (στάσις). But in the next line, Atossa answers that neither is the case: instead, the entire army was defeated on expedition. Rather than relying on the division divine/human disaster, Darius’ question is best explained by his assumption that it must have been an internal disaster that laid low the Persian empire. Both λοιμός and στασίς are imagined to be internal disasters-as-events that affect the entire community; they fall upon them from above (as indicated by σκηπτός) but are essentially an internal, communal affair. Darius does not even entertain the option that disaster was afflicted upon the Persians externally at the hands of their enemies, which is why Atossa’s news after the lost battle of Salamis is so shocking.

Considering Darius’ question in the context of its literary production, there is also the possibility that Aeschylus wishes to emphasize how the Persians simply cannot comprehend that their mighty army should have been vanquished by an external enemy—the Greeks. In fact, a similar sentiment is expressed by the Persian general Mardonius, yet another Greek representation of the Salamis Disaster in Book 8 of Herodotus’ *Histories*. The historical content is the same as that in Aeschylus’ *Persians*. After the defeat at Salamis, “when Xerxes learnt of (ἔμαθε) the calamity (πάθος) that had befallen him, ... he planned his escape” (Hdt. 8.97). Here, the juxtaposition of *mathos* and *pathos* is significant as it reveals a connection between (personal) disaster or suffering and teaching or understanding. This is reminiscent of Croesus’ famous dictum in Book 1 of the *Histories*: τὰ δὲ μοι παθήματα ἔόντα ἀχάρिता μαθήματα γέγονε (1.207), which is

often rendered: disaster has been my teacher.⁵⁰⁰ As it was for Darius, disaster can be revelatory. At any rate, after Salamis, Xerxes sends a messenger to Persia with news of “his present misfortune” (τὴν παρεοῦσάν σφι συμφορὴν, 8.98; cf. συμφορὴν μεγάλην in Mardonius’ speech, 8.100). His general Mardonius, fearful of his honor and still eager to subdue the Greeks, persuades Xerxes to stay—or at least to let him (Mardonius) stay to command the remaining troops. Mardonius musters the following argument (Hdt. 8.100):

It may be that the Phoenicians, Egyptians, Cypriots, and Cilicians have proved themselves to be cowards, but this disaster (πάθος) can in no way be attributed to Persians.⁵⁰¹

The sentiment is clear: the Persians are portrayed as unwilling to accept blame for their military disaster, instead accusing the mercenary troops of cowardice. Xerxes talks Mardonius’ proposal over with Artemisia, repeating Mardonius’ claim (Hdt. 8.101):

... for the Persians, he says, and the land army are in no way to blame for our disaster (πάθος), and of that they would willingly give proof (ἀπόδεξις).⁵⁰²

Artemisia advises Xerxes to march away and to let Mardonius stay. If Mardonius wins, the victory will be Xerxes’, and if Mardonius should suffer defeat (ἤν τι πάθῃ), it will be “no great disaster” (οὐδεμία συμφορὴ μεγάλη, 8.102) so long as Xerxes is safe.

Mardonius did suffer defeat one year later at the Battle of Plataea (479 BCE), which Pausanias would refer to as the παῖσμα of Mardonius (Paus. 2.3.8). In the

⁵⁰⁰ Talbert 1991: 17; on the educational value of suffering in the Ancient Mediterranean, see 9-23. For a similar sentiment, cf. A. Ag. 177 (τὸν πάθει μάθος); Soph. OC. 7 (στέργειν αἱ πάθαι). In all these instances, the source of both teaching and suffering is divine.

⁵⁰¹ εἰ δὲ Φοίνικές τε καὶ Αἰγύπτιοι καὶ Κύπριοι τε καὶ Κίλικες κακοὶ ἐγένοντο, οὐδὲν πρὸς Πέρσας τοῦτο προσήκει τὸ πάθος.

⁵⁰² λέγων ὥς μοι Πέρσαι τε καὶ ὁ πεζὸς στρατὸς οὐδενὸς μεταίτιοι πάθους εἰσὶ, ἀλλὰ βουλομένοις σφι γένοιτ’ ἂν ἀπόδεξις

Persians, Aeschylus has the ghost of Darius utter a prophecy that predicts the events at Plataea as “a crowning catastrophe” (*Pers.* 807: κακῶν ὕψιστ’, transl. Sommerstein) or, in another dramatic rendering, “the mother of disasters’ (transl. Raphael and McLeish) that is yet to come. For Herodotus, the Persian disaster at Plataea was a clear proof of divine involvement in human affairs, since it fell on the same day as the Persian defeat at Mycale (9.100). But even if disaster ultimately has outside, divine origins, there is nonetheless a distinction between disasters that wreak havoc within the community (such as λοιμός and στάσις) and those that are afflicted from without the community by external enemies. Darius’ initial assumption that total annihilation must come from λοιμός or στάσις is complemented by Mardonius’ assertion that the Persians are not to blame for their military defeat. Aeschylus and Herodotus portray the Persians as incapable of imagining that their disaster should have come *externally*, at the hands of the Greeks.

A Touch of λοιμός

When Darius fears a stroke of pestilence (λοιμοῦ σκηπτός) has devastated the Persians, he is essentially attempting to define a disaster that he has not witnessed himself but the effects of which have been described to him. The only other occasion on which Aeschylus refers to λοιμός is the prayer of the Danaids in the play *Suppliants*. Praying for their Argive hosts, the Danaids ask the gods that “plague (λοιμός) may never empty this city of men, nor may <strife> (<ἔρις>) bloody the soil of the land with its fallen natives”

(*Suppl.* 659-62).⁵⁰³ The conjecture ἔρις, accepted by Page's OCT, fits the context well and mirrors Aeschylus' association of λοιμός and στάσις in the *Persians* as disasters that come from the outside but destroy the community from within.

Indeed, plague looms large in the Greek imagination, not least because Greek literature as we know it opens with a case of λοιμός in *Iliad* 1. Historically, the Athenian Plague, which broke out thrice between 430 and 426 BCE, is certainly considered to be a true disaster. Thucydides describes the Athenian Plague extensively, introducing it first as ἡ λοιμώδης νόσος ("pestilential disease," 1.23, c.f. 2.47.3, also νόσημα, e.g. 2.51.1). It is significant that the first visitation of the plague coincides with the Spartan invasion: disasters operate in tandem. Thucydides relates how the Athenians—whom "the plague and the war visited both at once" (ἡ νόσος ἐπέκειτο ἅμα καὶ ὁ πόλεμος)—blamed Pericles and held him responsible for the disasters that had befallen them (ταῖς ξυμφοραῖς περιπεπωκότες, 2.49.2). The plague is a συμφορά, a κακόν (2.47.4) and a πάθος (2.54.1). Diodorus refers to the Athenian Plague as a "pestilential disease" (τῆς νόσου τῆς λοιμικῆς), and in general terms as συμφορά (D.S. 12.58.1). Thucydides describes the action of the disease with the verb φθείρω: "the plague was destroying the Athenians in both their army and their city" (ἡ νόσος ἔν τε τῇ στρατιᾷ τοὺς Ἀθηναίους ἔφθειρε καὶ ἐν τῇ πόλει), and again, the plague is "destroying the army" (φθείρουσα τὴν στρατιάν; 2.57.2, 58.2). The outbreak of a plague is a "falling down upon" (ἐγκατασκήψαι, 2.47.3, cf. λοιμοῦ σκηπτός A. *Pers.* 715), a verb that applies to the falling down (or, transitively,

⁵⁰³ μήποτε λοιμὸς ἀνδρῶν / τάνδε πόλιν κενώσαι, / μηδ' ἐπιχωρίοις <ἔρις> / πτώμασιν αἱματίσαι πέδον γᾶς.

the hurling down) of lightning as well (*S.Tr.*1087; *D.C.* 45.15.5). Thucydides describes the magnitude of this particular plague in hyperbolic terms; even though it has broken out before (2.47.3),

still no plague (λοιμός) of such extent nor any such destruction (φθορά) of human lives is on record anywhere (οὐδαμοῦ ἐμνημονεύετο). For neither doctors could handle the disease, since they were first treating it without any knowledge (ἀγνοίᾳ), ... nor any other human skill. And the supplications in the temples or the visits to oracles and such, all were futile, and at last people stopped using them, overcome by the disaster (τοῦ κακοῦ).⁵⁰⁴

Plato and Plutarch refer to the Athenian Plague as λοιμός, too, but, part from the discussion of the oracle in 2.54, this is the only place where Thucydides speaks of λοιμός, again in an oracular context. It is significant that the word is paired with φθορά (“ruin, destruction; miscarriage, abortion”), which has the same root as φθείρω, and which Josephus had seen fit to imitate for the story of David’s Biblical plague.

Remembering Disaster

It would seem as if historians are particularly fond of disasters. This has everything to do with memory, something which we have already seen Thucydides emphasize in his disaster list: the disasters are unprecedented and surpass everything else on record in severity and frequency. He makes the same claim about the Athenian plague: “no pestilence of such extent at least ... is on record anywhere” (οὐ τοσοῦτός γε λοιμός ... οὐδαμοῦ ἐμνημονεύετο, 2.47.3). It is both a literary trope and a reality that historians

⁵⁰⁴ οὐ μέντοι τοσοῦτός γε λοιμός οὐδὲ φθορὰ οὕτως ἀνθρώπων οὐδαμοῦ ἐμνημονεύετο γενέσθαι. οὔτε γὰρ ἰατροὶ ἤρκουν τὸ πρῶτον θεραπεύοντες ἀγνοίᾳ, ..., οὔτε ἄλλη ἀνθρωπεία τέχνη οὐδεμία· ὅσα τε πρὸς ἱεροῖς ἐκέτευσαν ἢ μαντείοις καὶ τοῖς τοιούτοις ἐχρήσαντο, πάντα ἀνωφελεῖ ἦν, τελευτῶντές τε αὐτῶν ἀπέστησαν ὑπὸ τοῦ κακοῦ νικώμενοι.

tend to mark out disaster as something worth recording and remembering. This continues up to the modern day. Indeed, part of the *raison d'être* of present-day disaster studies seems to be the belief that we live in a disaster-ridden era that is somehow unprecedented; as sociologist Robert Perrow put it in 2007, “[different types of disaster] have all increased in the United States in recent decades, and no diminution in sight.”⁵⁰⁵ In her 2014 book, the Director of the Natural Hazard Center, Kathleen Tierney, singled out the most recent decade: “The first decade of the twenty-first century was marked by disasters of epic proportions, both in the United States and around the world.”⁵⁰⁶ In his recent book *Global Crisis*, historian Geoffrey Parker analyzes “the unprecedented calamities” of the seventeenth century—revolutions, droughts, famines, invasions, wars, and regicides—and ascribes them to one overarching catastrophe, namely climate change. When individual disasters follow in rapid succession and seem to form a pattern, the perception is that they are symptomatic of some greater, global catastrophe, whether real or imagined.

Perception, as always, may eclipse empirical reality. When the ultimate disaster of Augustine’s times—the Sack of Rome—led to increased accusations that the Christians and their neglect of the old gods were to blame for these unusually disastrous times, Augustine tasked his pupil Orosius with documenting past disasters in order to prove

⁵⁰⁵ Perrow 2007: 1. In support of his dramatic opening statement, Perrow cites figures from one of the world’s largest reinsurance firms, Swiss Re. (The reinsurance market trades in insurances as a form of risk management for insurance companies.) Unsurprisingly, the cited benchmark for qualification as disaster involves such arbitrary figures as “20 deaths, or 50 injured, or 2,000 homeless, or \$70 billion in losses,” etc.

⁵⁰⁶ She illustrates her claim by listing disasters, including the 9/11 attacks, the 2004 tsunami, Hurricane Katrina, the Chile Earthquake, and the financial crisis.

empirically that the present was in fact less calamitous than the past. Orosius admits that at first “the disasters of my own times seemed to have boiled over and exceeded all usual limits,” but after consulting the data he concludes: “I have discovered that the days of the past were not only as oppressive as those of the present but that they were the more terribly wretched the further they were removed from the consolation of true religion.”⁵⁰⁷ Leaving aside his fascinating conclusion and the obvious ideological interests it serves, Orosius’ empirical-historical method disproved the perception (including his own) that the present times were excessively disastrous. Nonetheless, disasters can stand as markers or orientation points (*events*) in the otherwise confusing chaos of history, and they offer a chance for those involved to distinguish themselves. According to Suetonius, the emperor Caligula complained that his own prosperous rule was not marked by any memorable “public disasters” (*calamitatibus publicis*) and hence threatened with oblivion (*oblivionem*); “and so, from time to time, he desired the destruction of armies, famine, plague, fire, or an earthquake” (Suet. *Calig.* 31).⁵⁰⁸ Scholars have argued that disasters were among the best opportunities for Roman emperors to show their generosity and garner prestige that way. For our purposes, Caligula’s perverse list of desired *calamitates* also demonstrates once again a conception of disaster that indiscriminately associates different types of disaster. The historian turns disasters-as-events into disasters-as-signs

⁵⁰⁷ Orosius *Hist.* 1, prol.

⁵⁰⁸ *atque identidem exercituum caedes, famem, pestilentiam, incendia, hiatum aliquem terrae optabat*

to construct the narrative of his history, anchored in fixed orientation points. And for that, any disaster will do.

Polybius on Pity and Folly

Rituals and monumentalization can play a role in constructing and sustaining disaster narratives, and one can suppose that these may serve cathartic functions and a way of coping with past disaster. There is a point, however, at which the suffering of disaster is *prolonged* through memory. We have seen how the Battle of Cannae was remembered among Greek and Roman historians alike, with the notable exception of Polybius, as the epitome of disaster. As I have suggested, Polybius may have had good reason to downplay the significance of Cannae, but another reason presents itself elsewhere in his *History*. In Book 38, Polybius identifies the defeat of the Achaean League in 146 BCE, to which he was personally connected, as the ultimate Greek disaster (τῆς τῶν Ἑλλήνων ἀτυχίας, 38.1.1; μεγίστας συμφορὰς, γεγονέναι κατὰ τὴν Ἑλλάδα, 38.1.9) the reasons for which are worth examining up close (Plb. 38.1, transl. Paton and Walbank):

For though both the whole of Greece and her several parts had often met with mischance (ἐπταικυίας), yet to none of her former defeats can we more fittingly apply the name of disaster (τῆς ἀτυχίας) with all it signifies than to the events of my own time. For not only are the Greeks to be pitied (ἐλεῆσαι) for what they suffered (ἔπαθον), but we cannot fail to think that what they did was still more disastrous (ἡτυχηκέναι) to them when we know the truth in detail.

The passage opens with a contrast of simple cases of defeat (expressed by the participle ἐπταικυίας, from πταίω, “trip up, stumble”) and true disaster (ἀτυχία), deserving of its name and connotation—indeed, Cannae was only a πταῖσμα (though a complete one, τοῖς

ὅλοις ἔπταισαν πράγμασιν). Greece had not suffered this before: when referencing the struggles during and after the Peloponnesian War—as when the Spartans “stumbled” (ἔπταισαν, 38.2.9) against the Thebans, a mere παῖσμα—Polybius says that “all these events may be described as misfortunes (συμπτώματα) but not by any means as disasters (ἀτυχήματα)” (38.2.10). True disaster is ἀτυχία or ἀτυχίμα (not παῖσμα or συμ-πτῶμα), it leads to suffering (ἔπαθον), and elicits pity (ἐλεῆσαι). Polybius then argues that the Greek disaster is even greater than the downfall of Carthage, which is generally considered the “greatest calamity” (μεγίστου πάθους) (Plb. 38.1.4-6, transl. Olson):

The ruin of Carthage is indeed considered to have been the greatest of calamities (μεγίστου πάθους), but when we come to think of it the fate of Greece was no less terrible and in some ways even more so. [...] The Carthaginians, having been utterly exterminated by the calamity which overtook them (ἅμα ταῖς περιπετείαις ἄρδην ἀφανισθέντες), were for the future insensible (ἀνεπαίσθητοι) of their sufferings (συμπτωμάτων), but the Greeks, continuing to witness their calamities (ἐφορῶντες τὰς αὐτῶν ἀτυχίας), handed on from father to son the memory of their misfortune (ἀκληρίαν).⁵⁰⁹

Polybius here addresses the relationship between memory and disaster: utter extermination (literally, “being made unseen, invisible,” ἀφανισθέντες) means the total loss of memory horizon. Future generations of Carthaginians are therefore insensible and unperceiving (ἀνεπαίσθητοι) of their suffering while the Greeks look upon their plight every day, and are thus constantly reminded of their defeat. The Greek disasters are

⁵⁰⁹ δοκοῦντος γοῦν μεγίστου πάθους γεγονέναι τοῦ περὶ τοὺς Καρχηδονίους οὐκ ἔλαττον ἢ τις ἡγήσαιτο, κατὰ δέ τι ὁμειζον τὸ περὶ τὴν Ἑλλάδα τότε συμβάν. ... καὶ Καρχηδόνιοι μὲν ἅμα ταῖς περιπετείαις ἄρδην ἀφανισθέντες ἀνεπαίσθητοι τῶν σφετέρων εἰς τὸ μέλλον ἐγένοντο συμπτωμάτων, οἱ δ' Ἕλληνες ἐφορῶντες τὰς αὐτῶν ἀτυχίας παισὶ παίδων παραδόσιμον ἐποίησαν τὴν ἀκληρίαν

disasters in the sun, illuminated and continuously witnessed. The disaster state is perpetuated with memory. We recall how Heracles, struck by disaster in Euripides' tragedy, wishes he was like a rock, devoid of mind and memory. The Polybius passage has an unmistakable tragic quality: the sudden reversal of fortune (περιπετεΐαις, which is translated as "calamities"), suffering, and pity make Greece an even greater tragic anti-hero than Carthage.⁵¹⁰ Polybius makes the point explicit (Plb. 38.1.7-9, transl. Olson):

So that inasmuch as we consider that those who remain alive and suffer punishment are more to be pitied than those who perished in the actual struggle, we should consider the calamities (περιπετεΐαις) that then befell Greece more worthy of pity than the fate of Carthage, unless in pronouncing on the matter we discard all notion of what is decorous and noble, and keep our eyes only on material advantage. Every one will acknowledge the truth of what I say if he recalls what are thought to have been the greatest misfortunes (τὰς δοκούσας μεγίστας συμφοράς) that had befallen Greece and compares them with my present narrative.⁵¹¹

Polybius considers the disasters of Greece more worthy of pity than the extermination of Carthage. Gruen has demonstrated that, rather than making the Greeks appear as the poor victims of fate and misfortune, Polybius in this passage redefines ἀτυχία as disaster with a connotation of guilt, "a shameful misfortune generated by the folly and wickedness of those who suffered it."⁵¹² Indeed, Polybius will go on to say that "we should consider that

⁵¹⁰ On theatrical metaphors in Polybius, see Grethlein 2013: 229 and Walbank 1957-79 ad 11.5.8, on a passage where Tyche appears as the stage director introducing "disasters" (συμφοράς) onto the stage of history (23.10.16).

⁵¹¹ ὥστε καθ' ὅσον τοὺς ζῶντας μετὰ τιμωρίας ἐλεεινοτέρους νομίζομεν τῶν ἐν αὐτοῖς τοῖς δεινοῖς ἐκλείποντων τὸν βίον, κατὰ τοσοῦτο καὶ τὰς τότε περιπετεΐαις τῶν Ἑλλήνων ἐλεεινότερας νομιστέον τῶν συμβάντων Καρχηδονίοις, ἐὰν δμῆ τις ἀφροντιστῶν τοῦ καθήκοντος καὶ τοῦ καλοῦ, πρὸς αὐτὸ δὲ τὸ συμφέρον ἀποβλέπων ποιῇται τὴν ἀπόφασιν. ὅτι δ' ἔστι τὸ νῦν εἰρημένον ὑφ' ἡμῶν ἀληθές, εἶποι τις ἂν ὑπομνησθεὶς καὶ παρα<θεῖς> τὰς δοκούσας μεγίστας συμφορὰς γεγόνεναι κατὰ τὴν Ἑλλάδα πρὸς τὰ νῦν ὑφ' ἡμῶν λεγόμενα.

⁵¹² Gruen 1976: 47.

all states or individuals who meet with exceptional calamities (συμφορᾶς) are unfortunate (ἀκληρεῖν), but that only those whose own folly (ἄβουλίαν) brings reproach on them suffer disaster (ἀτυχεῖν)” (Plb. 38.3.7-8, transl. Olson).

We have thus returned to the question of blame (“the excellent foppery of the world”), but rather than assigning disaster to “the sun, the moon, and the stars,” Polybius finds the origin of disaster in humanity itself. Disaster, guilt, and shame are closely intertwined. When Rhodes was struck by an earthquake, Polybius reports, the people used it as an opportunity to win favor and money, so that the disaster became the cause of improvement rather than damage (Plb. 5.88.1-4). The wisdom of the Rhodians must be contrasted with the “ignorance” (ἄγνοια, 5.88.3) of those who are unable to turn disaster into profit. Defined in terms of material loss, the disaster was never truly a disaster. The people of Rhodes found a way out of their predicament, in a way that, say, the doctors during the Athenian plague were not: they succumbed to their ἄγνοια (Thuc. 2.47.3). If the Greeks brought their suffering upon themselves, their ability to continuously witness it marks, for Polybius, their true disaster. Disaster is then not something that falls upon people—from above, from the outside, unexpected and unique—but something that is continuously happening, perpetually repeated in the minds of its victims and survivors. As such, they arouse pity. We will see in the next chapter that this allows the disaster to become a sign—a cultural symbol—that represents something greater than its more limited referent in time and space.

CHAPTER THREE

“How Can I Have Lunch?”

(1799 CE)

Agency and Punishment

Aegira, Bura, lofty Heliceia,
Whose walls would soon be clad with thick sea-moss.

—Poet Unknown, quoted in Philo of Alexandria

If, as they say, God spanked the town
For being over-frisky,
Why did He burn His churches down
And spare Hotaling’s whiskey?

—Charles K. Field

Ah now, the prophecy of old is come to completion,
that my father spoke, when he said Poseidon would be angry
with us, because we are convoy without hurt to all men.
He said that one day, as a well-made ship of Phaiakian
men came back from a convoy on the misty face of the water,
he would stun it, and pile a great mountain over our city, to hide it.

—Homer, *Odyssey*

Introduction

Disasters function as signs in many ways, including as cultural symbols. In the United States of the 20th century, the earthquake and fire that devastated San Francisco in 1906 has been such a disaster, one that has defined calamity in the popular imagination for a century.⁵¹³ A disaster becomes a cultural symbol through a process that geographer Kenneth Hewitt has called “historical-geographical compression,” in which a particular disaster such as the San Francisco Earthquake comes to represent the entire phenomenon of seismic risk.⁵¹⁴ Mircea Eliade has discussed the ahistorical quality of the popular imagination as “the inability of collective memory to retain historical events ... except as it transforms them into archetypes.”⁵¹⁵ Polybius had argued that true disasters do not involve total annihilation; rather, the state of disaster is perpetuated through memory. Shaped by a continuous memory horizon, archetypal disasters in turn prohibit forgetting. One such disaster archetype in the Ancient World is arguably the earthquake and tsunami that destroyed the town of Helice in 373 BCE.

This chapter is about coping with disaster. Not in a technocratic sense, through such means as rescue work or aid programs, but through measures of meaning-making—that is to say, semiotics. I further develop the idea, raised in the previous two chapters, that *divining disaster* is a form of what may be called *hermeneutic disaster management*. The meaning of disaster is negotiated by incorporating it in a semiotic structure, a

⁵¹³ Steinberg 2000: 25.

⁵¹⁴ Hewitt 1983: 11-12.

⁵¹⁵ Eliade 1954: 46.

sequence of signs that I call the disaster continuum. The choice for the Helice disaster is justified on three grounds. First, it is among the first natural disasters documented extensively in the history, rather than mythology, of the Ancient Greeks in the Classical period.⁵¹⁶ Second, the Helice disaster becomes an archetype of disaster in Antiquity and well beyond, which ensures that its meaning is continually re-negotiated in a variety of sources. Helice becomes symbolic for a certain type of event. Third, the Helice earthquake and tsunami is a historical disaster that in modern-day disaster studies is readily classified as *natural*. By definition, this assumes—from a modern standpoint—that the causes of this disaster lie essentially beyond human control. The wealth of Ancient Greek and Roman testimony thus allows us to gauge the perceived *naturalness* of the Helice disaster according to ancient standards. In this sense, the Helice disaster differs from the Athenian Plague, which arguably functions as an archetype too, but which, as an epidemic disease, falls into the more hybrid category of biological disasters. Since Helice functions both as an archetype and as a typical *natural* disaster from a modern viewpoint, it makes for an ideal test-case for the *event-al* thinking discussed in the previous chapter.

This chapter is divided into three parts. Part I, *A Sunken City*, focuses on the Helice disaster itself, or rather, the discourse that generates the process of making sense of it. As a point of entry, I use a travelogue of an 18th-century Sicilian writer, Saverio

⁵¹⁶ It is true that the Spartan earthquake of 464 BCE and the Malian Gulf tsunami of 426 BCE are historical disasters that preceded the Helice earthquake and tsunami, but they do not meet the second criterion of disaster archetype, and their traces in ancient literature are therefore significantly fewer than those of Helice.

Scrofani, who claimed he could still make out the ruins of Helice under the waters of the Corinthian Gulf. His expression “How can I have lunch?” serves as the title of this chapter, because it represents the power of the disaster continuum of signs to mediate between past, present, and future. Scrofani struggles to cope not so much with the disaster itself, but with the *signs* of disaster. Facilitated by the submerged ruins of the Greek town, which function as indexical signs, the continuum connects a disaster of the past with the fear for a disaster in the future, namely the eruption of Mt. Etna. Turning to the ancient discourse about Helice, the disaster is defined by a spectacle of absence: the radical invisibility of the sunken city and, yet, the lingering visibility of its ruins. The meaning of the disaster has typically oscillated between two interpretative models that modern scholarship identifies as either religious or (proto-)scientific. I argue that the traditional opposition between religious (and, implicitly, ‘irrational’) explanations of disaster, on the one hand, and natural (and hence ‘rational’) explanations on the other, distracts from what both positions have in common as strategies of meaning-making, namely the assumption that signs precede disaster, and hence that the disaster itself can function as sign. The sender of the sign—its agent—can be divine or natural, but in either case the explanatory model is about assigning meaning through *agency*. Establishing agency thus emerges as a basic component of hermeneutic disaster management.

Part II, *Moral, Monstrous Agency*, considers disaster agency through the various forms of agency discussed so far, including the agency of cognitive science, the Agency Paradigm of disaster studies, and the semiotic agent, or sender-of-the-sign, in Jakobson’s communicative model. Ancient and modern testimonies of disaster alike suggest that a further qualification of this agency is required, namely one that conceives of the

relationship between the sender and the receiver of the disaster-as-sign in moral terms. With Guthrie's continuity between religious and secular anthropomorphizing in mind, this moral agency manifests itself not only through such concepts as divine anger and divine punishment, but also through metaphors and discourse that associate emotion, war, or punishment with disaster. If disaster is imagined as a form of punishment or an act of anger, identifying the agency behind the disaster becomes central to the effort of hermeneutic disaster management. Drawing on examples from modern disaster discourse from a wide variety of contexts—including the disaster archetype of the San Francisco earthquake of 1906—I seek to demonstrate that attributing moral agency to disaster is not only ubiquitous; it also allows us to see Poseidon's punishment as decidedly less alien and 'primitive' than modern scholarship would have us believe. Notwithstanding their ontological differences, the wrath of Poseidon and the wrath of Hurricane Katrina partake of the same spectrum of moral disaster agency within disaster discourse.

In Part III, *Poseidon's Disaster Agency*, I argue that Helice becomes symbolic not just for a certain type of event, but also for a certain type of agency. To understand how meaning is assigned to Helice in the ancient sources, we must understand how Poseidon's perceived agency contributes to how the disaster is culturally constructed. The choice to focus on the disaster agency of Poseidon is a deliberate one, informed first and foremost by his perceived involvement in Helice. Poseidon is the god of natural disaster *par excellence*, associated with storms, floods, and earthquakes. Just as the plague is typically a sign of Apollo's agency, so do earthquakes and tidal waves indicate Poseidon's agency. I adopt a structuralist approach that examines not so much the field of action in which the god intervenes, but the mode of action by which he does so. Specifically, I draw on

Poseidon's modes of action in myth to argue that it is defined by his ability to cover things that used to be visible and to expose things that used to be invisible. Poseidon is a master of covering/uncovering and rooting/uprooting. I conclude this section with a demonstration of how divining Poseidon's disaster can be done successfully—and even preventatively—in Greek myth, when the *rule* of the abduction is furnished by prophecy (i.e. a divinatory sign). This is evidenced by the Phaeacian king Alcinous, who, faced with the marvelous sign of a stunned ship, is forced to cope with the signs of disaster so as to prevent future disaster. Poseidon's disaster agency, as symbolized on the level of myth, informs how Helice is historically experienced, and, in turn, how Poseidon is identified as the agent based on the effects that are observed.

PART I

A SUNKEN CITY

Spectacle of Absence

It was the middle of a cold winter's night when suddenly the earth trembled. Statues came tumbling down their pedestals as a succession of violent quakes shook houses and temples, reducing them to rubble. The people of the town were caught unawares in their sleep, and many of them perished instantly, buried under the debris of crashing roofs and crumbling walls. Those who survived the initial shocks rushed out of their homes, disoriented and panicked, and fled the ruins of their fallen town. But it was not over yet. At the break of dawn, a towering tidal wave came rushing inland and

washed away what was left of the town, even though it was about two kilometers removed from the shore. The water swallowed up every last visible trace of human life, drowning the town's survivors and submerging buildings and belongings under the dark waves of the Corinthian Gulf. Two thousand men from neighboring towns were sent to recover the bodies and bury the dead, but all had vanished. The only thing that remained visible were the battered tree tops of Poseidon's sacred grove. Years later, the land had been redistributed and resettled, but when the sea was calm, fishermen could still make out the ruins below the surface as they made their way across the lagoon. Sailors knew they had to watch out especially for one dangerous shoal, formed by the bronze statue of Poseidon standing under water. Fishing nets would get caught in the hippocampus that Poseidon was still holding.⁵¹⁷

Such is the narrative, based on the ancient sources, of the disaster that struck the Achaean town of Helice in 373 BCE. Earthquakes have always been a serious hazard in the Eastern Mediterranean, and the proximity of ancient Helice to the North Anatolian Fault made, and makes, it especially vulnerable to seismic activity. The memory of Helice lived on throughout Classical Antiquity as the archetypical natural disaster, aided by the ruins of the sunken city that still remained visible to Ovid, Pliny, Pausanias, and even to the Byzantines. It was not until recently that archaeologists uncovered the sunken

⁵¹⁷ Aelian *De Nat. Anim.* 11.19; Arist. *Meteor.* 343b, 368a-b; Dio. Sic. 15.48-49; Ovid *Met.* 15.293-5; Paus. 7.24.6, 7.24.12, 7.25.8-9; Plin. *Nat. hist.* 2.206; Sen. *Nat. Quaest.* 6.23.4, 6.26.3, with reference to Callisthenes (= *Fr.Gr.Hist.* 124 F 19); Strabo 8.7.2, with references to Heraclides (= Wehrli F 46a) and Eratosthenes (= Berger F III B 103);

city—not under the Corinthian Gulf, but under sedimentary deposits further inland.⁵¹⁸

Disaster ruins, straddling the visible and the invisible, have always occupied a principal place in the collective memory. They keep alive, Polybius would say, the memory of disaster. Submerged cities become the stuff of legends. Scholars have suggested that Plato, who must have been about fifty years old when the Helice disaster happened, based his story of Atlantis on it.⁵¹⁹ The sunken cities still call out to us. Ernest Renan opened his *Souvenirs* with the sunken city of Ys in coastal Brittany, whose church spires could still be seen and whose drowned church bells—sailors would swear—could still be heard on a quiet day.⁵²⁰ The British major Heber Drury, in his translation of a Dutch traveler’s letters from India, was so excited by the legend of the sunken city of old Goa that he included a poem, of his own composition, celebrating the legend.⁵²¹ Marcus Aurelius had already compared Helice and Pompeii as “dead cities.”⁵²² Drury’s poem, however, contrasted Goa with Pompeii, since the latter had recently been brought to light again:

⁵¹⁸ Marinatos 1960: 186-93. Ongoing excavations started in 2000, with the first breakthrough in 2001; the 373 BCE destruction layer was discovered in 2012, see Katsonopoulou 2002 and 2005. Further bibliography on the Helike Project website [[link](#)].

⁵¹⁹ See Ellis 1998; Jordan 2001. “Atlantology” is often—and in many cases rightly—associated with the worst forms of pseudo-archaeology (e.g. Freksa 1997); see the reviews by Fears 2002, 394-8. On the reception of Atlantis, see Wyss 2014: 32-9. The association of Atlantis with Helice goes back to Antiquity: Philo of Alexandria mentions Atlantis alongside Helice (*De Aet. Mun.* 40-1). The hypothesis—discussed and deemed plausible by Walter 2017: 43—that Helice influenced Plato’s tale of Atlantis seems to be supported by an anecdote in Diogenes Laertius, which relates how the Spartan man who transported Plato from Sicily to Aegina and sold him there as slave, died in the Helice disaster.

⁵²⁰ Renan 1897: 1

⁵²¹ Visscher 1862: Letter V.

⁵²² Marc. Aurel. 4.48.1 (πόσαι δὲ πόλεις ὄλαι, ἦν’ οὕτως εἶπω, τεθνήκασιν, Ἑλίκη καὶ Πομπηῖοι καὶ Ἡρκλάνων.)

“But thou fair Goa! not again / Shall rise from out the boundless main. / In all thy beauty buried deep / Beneath the wave for ever sleep.”⁵²³

The paradox of visible invisibility dominates discourse about Helice, too. The sunken city is an example of what has been called the “spectacle of absence,” an image of disaster in which the mutual exclusivity of the visible and the invisible no longer holds.⁵²⁴ The point is to see that something is no longer there; and so, paradoxically, it remains there. If ruins can still be seen, their presence mediates the absence of what is no longer present. In the 18th century, the Italian traveler Saverio Scrofani claimed he could still see the remains of Helice beneath the waves of the Corinthian Gulf.⁵²⁵ Peering into the sea from his boat, he could make out “a street, a corner of the theater and another great building that could be the assembly.” The spectacle stirred up powerful emotions: “What sad impression does this sight make on us!”⁵²⁶ The ruins triggered in Scrofani the memory of, and a sense of foreboding for, his native Sicily:

O Sicily, o my fatherland! You too have been on the eve of a similar disaster [*sciagura*] many times... Etna still smokes, Etna does not stop threatening you... How can I have lunch this morning, my dear, with a scene before my eyes that is so horrible, with a presentiment so cruel? How? ⁵²⁷

⁵²³ Visscher 1862: 35.

⁵²⁴ Stubblefield 2015: 11, where the term is used to understand the visual representations of 9/11.

⁵²⁵ The veracity of Scrofani’s travel account is not beyond suspicion. On Scrofani’s somewhat unorthodox place in 18th-century travel writing, see Bufalini 1997: 43-51. In a much more sober account, Richard Chandler, whose travel account of Greece was published in 1795, writes that he saw a piece of thick wall on the sea-shore that he thinks may belong to Helice, see Chandler 1817: 313. See also Constantine 1984.

⁵²⁶ Scrofani 1988 [1799]: 89. Translation is mine.

⁵²⁷ *O Sicilia, o mia patria! Tu pure sei stata più volte alla vigilia di simile sciagura ... L'Etna fuma ancora, l'Etna non cessa di minacciarti ... Come pranzare, mio caro, questa mattina, con*

The visible remains of Helice recall to Scrofani the menacing threat of Italy's most active volcano, a natural disaster in waiting. For Scrofani, the memory of environmental violence serves as a reminder that Sicily is vulnerable to such a fate, too. The spectacle of absence may be contagious.

Divining the Helice Disaster (I): Scrofani

It is easy to see how the ruins of a disaster site can function as signs of, and signs for, past and future disaster. They are an example of Pierre Nora's *lieux de mémoire*, "sites of memory," neatly constructed packages of a controllable past.⁵²⁸ Scholars have argued that the recent boom in memory studies is based on trauma: "[A]cademics speak incessantly of memory because our epoch has been uniquely structured by trauma."⁵²⁹ Trauma, understood as a "psychic injury" (OED s.v. 2) or mental wound, is typically the result of the (repressed) memory of a disaster experience. For Scrofani, past, present and future are plotted on a *disaster continuum of signs*, in which the calamities of the past (the memory of Helice) and the threats of future ones (the "cruel presentiment" of Sicily's fate) are negotiated through signs in the present (the ruins).⁵³⁰ In mechanics and

una scena avanti agli occhi così funesta, con un presentimento così crudele? Come? (Scrofani 1988 [1799], pp. 89-90. Translation is mine.

⁵²⁸ Nora 1996.

⁵²⁹ Klein 2000: 138; cited, with further bibliography, in Alcock 2002: 20.

⁵³⁰ Modern disaster studies frequently use the term disaster continuum in the context of disaster management (e.g. disaster management continuum, disaster development continuum, disaster recovery continuum). This continuum is typically depicted as a cycle, from pre-disaster (preparation and prevention) to post-disaster (response, recovery, and mitigation); e.g. Veenema 2007. For the idea of disaster as a continuum of signs, I am indebted to Gordon and Gordon 2009.

mathematics, a continuum suggests a continuous sequence of elements passing into each other without much observable differentiation, yet quite distinct at the extremes. With the elements of the continuum made up of signs, the sequence progresses along a chain of signification that is by definition subject to interpretation.

The sign, according to Peirce, operates *ad infinitum* so long as it is recognized as a sign. Scrofani recognizes the underwater ruins as a visual, indexical sign of Helice.⁵³¹ Helice-as-sign invokes the past and establishes the anterior end of the continuum. As a reminder of past disaster, the sign, through a process of analogy, is simultaneously a warning for future disaster in Sicily. Helice's ruins are analogous to a second sign Scrofani has observed, namely the billowing smoke from Etna's restless stack, which is the ominous sign of future calamity that establishes the posterior end of the disaster continuum. The inferential procedure is abductive. The abduction of the past Helice Disaster functions as one of the *rules* that in turns forecasts the future Sicily Disaster (*rule 2* in the second abduction):

Abduction 1 Helice	
result	sunken ruins (= sign)
rule	if there are sunken ruins, there was a disaster
∴ case	there was a disaster (= past)

Abduction 2 Sicily	
result	smoking Etna (= sign)

⁵³¹ For ruins and architectural heritages as indexical signs, see Sadowski 2009: 121.

rule 1	if Etna smokes, it may erupt
rule 2	just as the disaster of Abduction 1 happened, so could this one
∴ case	there may be a disaster (= future)

As with Herodotus (6.27), Scrofani’s inferential reasoning suggests a retrospective abduction (the past Helice disaster) that leads to a prospective abduction (the future Sicily disaster). The relation between the two indexical signs—ruins and smoke—is one of analogy, but with different temporal directions: just as the *ruins* signify disaster in the *past*, so the *smoke* signifies disaster in the *future*. The analogy becomes a *rule* in the second abduction, one that gives more immediacy and urgency to the implicit rule that a smoking volcano signifies a possible eruption. The function of the analogy as *rule* is to bridge different localities and temporalities through the power of signification; in this way, the *rule* functions as a certain sign, a *tekmar* that helps bridge the invisible through the visible.

Still, Scrofani’s interpretation of Helice-as-sign does not seem to constitute an act of divination proper, even if it clearly falls within Ginzburg’s semiotic or divinatory paradigm. While Scrofani infers from the sign “special knowledge” about the future, namely the idea that Mt. Etna may erupt, the definition of the divinatory sign presented in Chapter One also requires that from the sign is inferred a divine agent. Scrofani anthropomorphizes Etna, assigning to it the intentionality of making threats, but there is no suggestion of any agency behind Helice-as-sign. And yet, there are several philological indications that suggest it is appropriate to speak of *divining* disaster, even if Helice does not function as a divinatory sign per se. The Italian word that I translate as

“disaster” is *sciagura*, which is derived, via the Latin *exauguro* (“to desecrate, to profane”) from *auguro*: to observe and interpret omens and signs.⁵³² Past disaster is connected to future disaster through the “presentiment” induced by the visual signs of Helice’s ruins.⁵³³ Scrofani’s experience at Helice is thus one of meaningful occurrence.

The present on this disaster continuum consists in Scrofani’s reaction to his encounter with the signs: how can I have lunch in the face of this horrible disaster?⁵³⁴ How to go about one’s daily business, even doing something as simple as eating, when one has observed the signs of past disaster and divined from these the threat of future disaster? This question differs from the question asked most commonly in the modern study of disaster—by behavioral psychologists, sociologists, and anthropologists—namely, how individuals, societies, and cultures cope with disaster. Scrofani’s question, poignantly, is how to heed and cope with *the signs of* disaster, especially as they relate to one’s memory of the past and affect one’s sense of vulnerability and uncertainty for the future. True to the spirit of the traveler, Scrofani’s answer is to sail on quickly across the Corinthian Gulf to Salona (*Corriamo!*, “Let’s hurry!”), leaving the traumatic ruins of Helice behind. But instead, I shall turn the ship around and sail back to Helice to consider

⁵³² Treccani s.v. *sciagura*, *sciagurato* ([link](#)). Lat. *auguro*, *augur*, *augurium* etc. derive from *augeo* (“increase, augment”) and are part of the religious vocabulary of (favorable) omens that assure the growth or increase of an action or enterprise. (E&M s.v. *augeo*.)

⁵³³ The word presentiment (Italian *presentimento*) invokes the practice of divination (*divinatio*, μαντική) as defined by Cicero: “the presentiment and knowledge of future events” (*est praesensionem et scientiam rerum futurarum*, Cic. *De Div.* 1.1).

⁵³⁴ This is a good example of Paul Ricoeur’s “enigma of anteriority:” the experiences of the present appear enigmatically under the guise of “the-always-already-there,” which is a mark of phenomenological time, rather than cosmological time. See Ricoeur 2006.

Scrofani's question in the ancient Greek context: how did the ancient Greeks heed, and make sense of, the signs and memory of Helice?

Helice's Ancient Testimony

For Scrofani, the disaster continuum enables the spatial and temporal transposition from 4th-century BCE Helice to 18th-century CE Sicily. The referent of the sign is dependent on the observer, who determines the horizon of expectations within which the sign is interpreted. The decoding of the sign is based on the cognitive processes of abductive inference and analogy. While disasters unfold in the interactions between environment and society, the signs of disaster are represented primarily, though by no means exclusively, in discourse. It is easy to see how travel narratives such as that of Scrofani construct ruins—the result of disaster—as signs. But ancient discourses about Helice not only construct the *disaster itself as sign*, they also represent the disaster as part of a continuum of signs. The uncovering of Helice in disaster discourse from Heraclides, Diodorus, and Pausanias oscillates between the radical *invisibility* of the sunken city and the lingering *visibility* of its ruins.

Although we have no eyewitness accounts of the Helice disaster (unlike, for example, Pliny the Younger in the case of the Vesuvius eruption), Strabo passes on the contemporary report of Heraclides Ponticus, the 4th-century philosopher who was alive at the time of the earthquake (8.7.2, transl. Jones):

And Heraclides says that the disaster (τὸ πάθος) took place by night in his time, and, although the city was twelve stadia distant from the sea, this whole territory together with the city was hidden from sight (καλυφθέντος); and two thousand men who had been sent by the Achaeans were unable to recover the dead bodies; and they divided the territory of Helice among the neighbors; and the disaster

happened in accordance with the anger of Poseidon (συμβῆναι δὲ τὸ πάθος κατὰ μῆνιν Ποσειδῶνος).⁵³⁵

Heraclides' account presents several details that highlight one main point: the city vanished completely. The first sign of this is, paradoxically, the utter absence of signs: city and territory are "covered over, hidden from sight" (καλυφθέντος), a verb that expresses burial, death, or the cover of night; the disaster is said to have occurred at nighttime, when people would have been asleep and too disoriented to respond appropriately (cf. Diodorus' account below); the reported distance from the sea makes the town's total inundation the more dramatic; and the mention of 2,000 Achaean rescue workers—for all its interesting implications—serves to emphasize the complete loss of human life and the subsequent redistribution of the land rather than Pan-Achaean solidarity in the wake of disaster. This is no total annihilation, but a spectacle of absence. Heraclides' final and most elaborate point is the divine context of the disaster, which happened "in accordance with the anger of Poseidon" (κατὰ μῆνιν Ποσειδῶνος). He continues to describe how the Ionians were denied a request for a statue of Poseidon (or alternatively, a model of the temple), even after the Achaean Council had voted the Heliconians to oblige. In fact, half of Heraclides' report, as transmitted by Strabo, consists of details regarding the religious transgression that resulted in provoking Poseidon's wrath, which is why the passage has been attributed to his lost work *On*

⁵³⁵ Ἡρακλείδης δὲ φησι κατ' αὐτὸν γενέσθαι τὸ πάθος νύκτωρ, δώδεκα σταδίου διεχούσης τῆς πόλεως ἀπὸ θαλάττης καὶ τούτου τοῦ χωρίου παντὸς σὺν τῇ πόλει καλυφθέντος, δισχιλίους δὲ παρὰ τῶν Ἀχαιῶν πεμφθέντας ἀνελέσθαι μὲν τοὺς νεκροὺς μὴ δύνασθαι, τοῖς δ' ὁμόροις νεῖμαι τὴν χώραν. συμβῆναι δὲ τὸ πάθος κατὰ μῆνιν Ποσειδῶνος.

Piety.⁵³⁶ For Heraclides, then, Helice-as-sign reveals something about the origin and cause of its destruction, and the agency behind it all.

The historian Diodorus Siculus, whose main source is Ephorus (4th century BCE), adopts an interpretive framework similar to that of Heraclides.⁵³⁷ In Diodorus' account, the themes of invisibility and divine origins reappear, but he dramatizes the event further by stressing its unprecedented nature (15.48.1-3, transl. Oldfather, adapted):

During their term of office [= 373/2 BCE] great earthquakes occurred in the Peloponnese accompanied by tidal waves which engulfed the open country and cities in a manner past belief; for never in the earlier periods had such disasters (πάθη) befallen Greek cities, nor had entire cities along with their inhabitants disappeared (ἀφανισμός) because some divine force contrived destruction and ruin for mankind (θείας τινὸς ἐνεργείας τὴν ἀπώλειαν καὶ φθορὰν τῶν ἀνθρώπων μηχανησαμένης). The extent of the destruction (συμφορᾶς) was increased by the time of its occurrence; for the earthquake did not come in the daytime when it would have been possible for the sufferers to help themselves, but the blow came at night, so that when the houses crashed and crumbled under the force of the shock, the population, owing to the darkness and to the surprise (ἄπροσδόκητον) and bewilderment occasioned by the event, had no power to struggle for life. The majority were caught in the falling houses and annihilated (ἠφανίσθησαν), but as day returned some survivors dashed from the ruins and, when they thought they had escaped the danger, met with a greater and still more incredible disaster (παραδοξότερα συμφορᾶ). For the sea rose to a vast height, and a wave towering even higher washed away and drowned (ἀφανισθέντες) all the inhabitants and their native lands as well.⁵³⁸

⁵³⁶ Schutrumpf 2008 (26A); Gottschalk 1980 agrees, but also points to Heraclides' *On Oracles*, since the reason why the Heliconians acted the way they did is because of an oracle "that their city would be in danger if the Ionians sacrificed at the altar of Poseidon" (95). It is significant that the only other passage attributed to *On Piety* tells the story of the solar eclipse of 430 BCE, which almost prevented Pericles' expedition from sailing against the Peloponnese (Plut. *Pericles* 35.1-5).

⁵³⁷ For Diodorus' sources, and for Book 15 in particular, see Stylianos 1998: 25-132.

⁵³⁸ ἐπὶ δὲ τούτων κατὰ τὴν Πελοπόννησον ἐγένοντο σεισμοὶ μεγάλοι καὶ κατακλυσμοὶ χώρας καὶ πόλεων ἅπιστα· οὐδέποτε γὰρ ἐν τοῖς ἐπάνω χρόνοις ἐγένοντο πάθη τοιαῦτα περὶ πόλεις Ἑλληνίδας, οὔτε τῶν πόλεων αὐτάνδρων ἀφανισμός, θείας τινὸς ἐνεργείας τὴν ἀπώλειαν καὶ

Diodorus makes essentially three points that are interconnected: 1) the disaster was unprecedented; 2) the disaster brought total destruction; 3) the disaster had a divine context. Rather than a random chance-event, the disaster is the result of targeted machinations of “some divine force” (θείας τινὸς ἐνεργείας).⁵³⁹ The extraordinary extent and totality of destruction are themselves indicative of divine origins: never before had entire cities been wiped off the map. And yet, the destruction of Helice is once again represented as not so much a total annihilation as a complete disappearance, or ἀφανισμός (Diodorus also uses two forms of the verb ἀφανίζω). Indeed, the disappearance of Helice is itself a visual sign—a sign through conspicuous absence. Something that is supposed to be there is suddenly no longer there. In the same way, the occultation of the moon and stars, a phenomenon also known as ἀφανισμός, signifies through disappearance.⁵⁴⁰

“The God Is Wont To Send Signs”

φθορὰν τῶν ἀνθρώπων μηχανησαμένης. ἐπέτεινε δὲ τὸ μέγεθος τῆς συμφορᾶς ὁ καιρὸς· οὐ γὰρ ἡμέρας συνέβη γενέσθαι τὸν σεισμόν, ἐν ᾗ δυνατόν ἦν τοὺς κινδυνεύοντας βοηθεῖν ἑαυτοῖς, ἀλλὰ νυκτὸς τοῦ πάθους συμβάντος αἱ μὲν οἰκίαι διὰ τὸ μέγεθος τοῦ σεισμοῦ καταρριπτούμεναι συνεχέοντο, οἱ δὲ ἄνθρωποι διὰ τε τὸ σκότος καὶ τὸ τῆς περιστάσεως ἀπροσδόκητον καὶ παράδοξον ἀδυνάτως εἶχον ἀντιλαμβάνεσθαι τῆς σωτηρίας. οἱ μὲν οὖν πλείους ἐναποληφθέντες τοῖς πτώμασι τῶν οἰκιῶν ἠφανίσθησαν· ἐπιλαβούσης δ' ἡμέρας τινὲς ἐξεπήδων ἐκ τῶν οἰκιῶν, καὶ δόξαντες ἐκπεφυγέναι τὸν κίνδυνον μείζονι καὶ παραδοξοτέρα συμφορᾷ περιέπεσον· τῆς γὰρ θαλάσσης μετεωρισθείσης ἐπὶ πολὺ καὶ κύματος ὑψηλοῦ ἐξαιρομένου κατεκλύσθησαν ἅπαντες σὺν ταῖς πατρίσιν ἀφανισθέντες.

⁵³⁹ Diodorus uses the same term for divine force to explain how the Delphic Oracle escaped from being pillaged by the Persians, see Dio. S. 11.14.4.

⁵⁴⁰ E.g. Theophr. Fr. 6.2 (ed. Wimmer).

The divine context of disaster is also emphasized by a third account of the Helice disaster, namely that by the travel-writer Pausanias. His details of the religious transgression differ somewhat from that offered by Heraclides (the Heliconians had murdered some suppliants seeking refuge at the altar of Heliconian Poseidon), but the result is much the same (7.24.6):

The anger (τὸ μήνιμα) of Poseidon came without delay; an earthquake at once struck (κατασκήψας) their land and rendered the buildings and the very site on which the city stood invisible for posterity to see (ἄφανές ἐς τοὺς ἔπειτα ἐποίησε). The god is wont to send signs (προσημαίνειν ὁ θεὸς εἶωθεν), usually the same in all cases (κατὰ τὰ αὐτὰ ὡς τὸ ἐπίπαν), before violent and far-reaching earthquakes—either continuous rain storms or droughts occur before earthquakes for a long time, and the air is contrary to the time of year each time. ...⁵⁴¹

The disaster is again defined by the spectacle of absence, rendering the city “invisible” (ἄφανές). The lack of signs establishes the posterior end of the disaster continuum, with explicit reference to posterity (τοὺς ἔπειτα). The word ἄφανής is not only associated with the underworld (as epithets of Hades and Persephone), it is also a technical term in Greek astronomy for the obscuration of the moon.⁵⁴² An ἄφανής κόσμος is an invisible, i.e. starless sky, one that is utterly dark, lacking points of orientation.⁵⁴³ Topographically speaking, Helice has been erased from the map and can no longer serve as orientation point. This is Helice in a *disastered* condition, a state of disorientation. Through its

⁵⁴¹ οὐκ ἐμέλλησε τὸ μήνιμα ἐκ τοῦ Ποσειδῶνος, ἀλλὰ σεισμὸς ἐς τὴν χώραν σφίσιν αὐτίκα κατασκήψας τῶν τε οἰκοδομημάτων τὴν κατασκευὴν καὶ ὁμοῦ τῇ κατασκευῇ καὶ αὐτὸ τῆς πόλεως τὸ ἔδαφος ἄφανές ἐς τοὺς ἔπειτα ἐποίησε. τὰ μὲν οὖν ἄλλα ἐπὶ τοῖς σεισμοῖς, ὅσοι μεγέθει τε ὑπερήρκασι καὶ ἐπὶ μήκιστον δικνοῦνται τῆς γῆς, προσημαίνειν ὁ θεὸς κατὰ τὰ αὐτὰ ὡς τὸ ἐπίπαν εἶωθεν—ἢ γὰρ ἐπομβρίαὶ συνεχεῖς ἢ αὐχμοὶ πρὸ τῶν σεισμῶν συμβαίνουσιν ἐπὶ χρόνον πλείονα, καὶ ὁ ἀὴρ παρὰ τὴν ἐκάστοτε τοῦ ἔτους ὥραν

⁵⁴² As divine epithet: Sapph. Fr. 55; S. OC. 1566. As astrological term: Vett. Val. 1.14, 6.22.

⁵⁴³ Vett. Vall. 1.2.

conspicuous disappearance, however, the city continues to function as a sign, in the same way that the obscured moon and the eclipsed sun function as signs.

While Heraclides and Diodorus both refer to the invisibility of post-disaster Helice, Pausanias directly employs semiotic and divinatory language to interpret pre-disaster Helice. In a line that immediately calls to mind Herodotus' statement that "there are typically signs beforehand" (φιλέει ... προσημαίνειν, 6.27), Pausanias mentions that "the god is wont to send signs beforehand" (προσημαίνειν ὁ θεὸς ... εἶωθεν). Both formulations contain a verb conveying customary or typical actions (φιλέει, εἶωθεν) followed by the word προσημαίνειν, which highlights the connection to the prognostic arts and sciences of the divinatory paradigm. By indicating that divinely sent signs usually precede violent earthquakes, as they must have done at Helice, Pausanias adds an anterior semiotic layer to the disaster. The earthquake and tidal wave then appear in a sequential chain of signification, in which signs sent by the gods foreshadow the pending disaster. The divine involvement in producing the signs is expressed with the verb εἶωθεν ("is wont"). The preceding signs—of which rainstorms and droughts are but the first items in a long list—expand the divine context of the disaster to suggest predictability and regularity for future occurrences, thus establishing the entire progression of the disaster continuum. The phrase "usually the same in all cases" (κατὰ τὰ αὐτὰ ὡς τὸ ἐπίπαν) must be read as part of the semiotic strategy to manage expectations about disaster, indicating the search for a fixed and reliable sign (*tekmar*) that can guarantee the same sign for the same event, while allowing for occasional discrepancies. What is more, as we have seen with Herodotus, the generalizing implications of this statement renders it

a likely *rule* for the process of inference that is inherent in *divining disaster* as a logical operation.

These discourses of Helice, which may well have sources in common, plot the disaster on a continuum of visibility and invisibility. The disaster is characterized by the city's total and utter destruction yielding a conspicuous absence of the city-as-sign. The disaster itself is embedded in a dual landscape of the natural and the divine: the earthquake and tidal wave are manifestations of Poseidon's anger. The signs that *are* visible, as reported by Strabo, underscore this duality: "Eratosthenes says that he himself saw the place, and that the ferrymen say that there was a bronze Poseidon in the strait, standing erect, holding a hippocampus in his hand, which was dangerous (κίνδυνον) for those fishing with nets" (8.7.2 = Berger *F* III B 103).⁵⁴⁴ The submerged statue not only proves that there lies a city on the bottom of the strait, it also serves as a forceful reminder that the god may have had a hand in this. Even the sign that remains—symbol of Poseidon—is a danger. The image of Poseidon's bronze statue, submerged under the Corinthian Gulf yet still threatening the fishermen, encapsulates the interactions between the natural and divine elements in constituting the destruction of Helice along a continuum of visual signs that, alternately, reveal and conceal the sunken city.

Explaining the "Natural": Religion and Science

⁵⁴⁴ Ἐρατοσθένης δὲ καὶ αὐτὸς ἰδεῖν φησὶ τὸν τόπον, καὶ τοὺς πορθμέας λέγειν, ὡς ἐν τῷ πόρῳ ὀρθὸς ἐστήκει Ἰοσειδῶν χάλκεος, ἔχων ἵπποκαμπὸν ἐν τῇ χειρὶ, κίνδυνον φέροντα τοῖς δικτυεῦσιν.

The duality of divine and natural signs in establishing the disaster continuum of signs complicates existing scholarly views of ancient disaster, which tend to see ancient responses to disaster along two separate strands of interpretation. According to Holger Sonnabend,

there were two ways of interpreting environmental change and natural disasters in antiquity. First, the religious explanation was that these changes or disasters were signs of the gods or even punishment ... An alternative approach was provided by scholars, who searched for explanations and who found (like Thales and Aristotle) non-religious, reasonable, rational explanations.⁵⁴⁵

The problem with Sonnabend's statement is that it sets up the etic categories of "religion" and, implicitly, "science" as a mutually exclusive dichotomy, one irrational (note the incredulous inclusion of "even" before punishment) and the other rational.⁵⁴⁶ Disasters can be "signs of the gods," but this belief is understood to inform religious explanations only. Sonnabend further suggests that "scholars" such as Thales and Aristotle provided "reasonable" explanations—but reasonable to whom? Such a dichotomy risks perpetuating the problematic view that the human understanding of disaster has progressed, or at least evolved, from a 'bad' model of irrational, religious fear to a 'good' model of scientific and secular rationalism. In this view, science is opposed to religion, with ancient religion often dismissed as inherently fatalistic.⁵⁴⁷

⁵⁴⁵ Sonnabend 2012: 264.

⁵⁴⁶ On religion as a heuristic, non-native term, see for example Smith 2012.

⁵⁴⁷ Cf. Hayden White's grand narrative of Greek Fatalism. More generally, it is telling that the fatalist label is typically applied by scholars hailing from a Western, Christian tradition to religions that are commonly regarded as Other, whether Greek paganism or Islam. See e.g. Bush 1991: 160-1. On fatalism and Greek religion, see Beerden 2013: 195-6 with bibliography.

Fritz Krafft makes a similar argument about specific environmental disasters, such as earthquakes:

The entire Greek area of settlement was so susceptible to seaquakes and earthquakes that this phenomenon not only played a role in myths (Poseidon) and popular belief, but also in every attempt to explain the world as a natural system (in this case also in order to remove the fear of earthquakes being seen as supernatural, *arbitrary* acts of the gods).⁵⁴⁸

Krafft employs a similar dichotomy that separates religious explanations from scientific ones. Whether Sonnabend's "natural" disaster or Krafft's "natural" system, the modern conception of what is "natural" may hinder our understanding of ancient conceptions of the interaction between humans and their environment, especially during so-called "natural" disasters such as the one that sunk Helice in 373 BCE. Any role for the divine is then easily dismissed as a form of superstition. Both scholars take a one-directional approach that starts with the environmental upheaval, which is then accounted for by various systems of knowledge, some rational and some irrational. But to what extent does a certain belief system already inform the experience and interpretation of disaster? Who decides what constitutes a disaster anyway?

Intentional vs. Arbitrary

To be sure, the distinction between religious and scientific explanations is part of ancient discourse as well, but it is worth paying close attention to what exactly is at stake. Diodorus pits natural and divine explanations against each other in his account of the Helice disaster (15.48.4):

⁵⁴⁸ Krafft "Earthquake" Brill's New Pauly. Emphasis mine.

Concerning the occurrences (συμπτωμάτων) there has been much inquiry. The natural philosophers attempt to attribute the causes (αιτίας) of these kinds of disasters (παθῶν) not to the divine, but to some natural and necessary circumstances (κατηναγκασμένας περιστάσεις), while those piously inclined toward the divine present some plausible causes (αιτίας) for the occurrence, namely that the disaster (τῆς συμφορᾶς) happened on account of the anger of the gods against those who had acted impiously toward the divine (εἰς τὸ θεῖον ἀσεβήσασι).⁵⁴⁹

Diodorus bases his distinction between scientific (“natural”) and religious (“pious”) explanations on the presumed contrast between natural, “necessary” (κατηναγκασμένας) and divine, providential causes. This contrast is illuminated by a passage in Plutarch that uses similar language. In the context of Nicias’ reliance on diviners to interpret a lunar eclipse, Plutarch answers the question why Anaxagoras kept secret his theory about the phases of the moon: “For people did not tolerate the natural philosophers, who were called at that time talkative airheads, because they reduced divinity to unreasoning causes, unpremeditated powers, and necessary states (αιτίας ἀλόγους καὶ δυνάμεις ἀπρονοήτους καὶ κατηναγκασμένα πάθη)”⁵⁵⁰ The critique is not that scientific explanations deny the existence of, or even a role for, the divine, but that they deprive (the verb is διατρίβω, “to wear away”) the divine of a personal, intentional interest in earthquakes and eclipses as signs. Reading this critique against scientific explanations in reverse, it suggests that religious explanations, by contrast, assign states that are preventable, powers that are premeditated, and causes that are reasoned. According to most of

⁵⁴⁹ περὶ δὲ τῶν συμπτωμάτων μεγάλης οὔσης ζητήσεως, οἱ μὲν φυσικοὶ πειρῶνται τὰς αἰτίας τῶν τοιούτων παθῶν οὐκ εἰς τὸ θεῖον ἀναφέρειν, ἀλλ’ εἰς φυσικάς τινας καὶ κατηναγκασμένας περιστάσεις, οἱ δ’ εὐσεβῶς διακείμενοι πρὸς τὸ θεῖον πιθανὰς τινας αἰτίας ἀποδιδούσι τοῦ συμβάντος, ὡς διὰ θεῶν μῆνιν γεγεννημένης τῆς συμφορᾶς τοῖς εἰς τὸ θεῖον ἀσεβήσασι.

⁵⁵⁰ Anax. A18 = Plut. *Nic.* 23: οὐ γὰρ ἡνείχοντο τοὺς φυσικοὺς καὶ μετεωρολόσχας τότε καλουμένους, ὡς εἰς αἰτίας ἀλόγους καὶ δυνάμεις ἀπρονοήτους καὶ κατηναγκασμένα πάθη.

Anaxagoras' fifth-century contemporaries, then, it is religion that provides reasoned causes, not science.

As a cognitive strategy, the religious explanation offers the possibility of assigning agency and intentionality to the disaster, which then becomes a meaningful event: it happened for a specific and identifiable reason. Assigning responsibility to divine anger means placing the origin of the disaster within the human sphere. Disaster is thus brought—at least potentially—under human control, and can be prevented, mitigated, and averted. Diodorus' critique against the natural philosophers is that they reduce disasters to arbitrary events. In the treatise *Natural Questions*, Seneca explicitly says that no angry god is responsible for the earthquake that struck Campania in 62 CE. Seneca's goal is indeed to remove fear of earthquakes, but not, as Krafft suggest, because they are *arbitrary* acts of the gods.⁵⁵¹ In fact, Seneca seeks to turn earthquakes precisely into arbitrary acts—just not of the gods, but of nature or fate (which, to be sure, Stoics consider both providential and divine). They could happen anywhere at any time, so there is no point in worrying. It is precisely the religious context found in Diodorus and others that shows the earthquake to be *not* arbitrary, but an appropriate and intentional divine response to a particular transgression. Making disasters arbitrary events diminishes the role of human responsibility, and hence the potential for human control.

⁵⁵¹ Krafft's use of "arbitrary" could be taken to mean not "random, by chance, capricious" (Merriam-Webster 1a) but "tyrannical, unrestrained" (M-W 2a-b), in which case my critique cannot be upheld. However, the original German text ("Götterwillkür") leaves little doubt about the intended meaning of randomness.

Attributing Agency

The dichotomy that Sonnabend sets up between religious and scientific explanations belies the ways in which multiple, competing systems of knowledge can be employed simultaneously.⁵⁵² Someone who, unlike Heraclides and Diodorus, is considered by modern scholars to have taken a “scientific view” is Aristotle’s nephew Callisthenes.⁵⁵³ According to Seneca, who mentions Helice in his *Natural Questions*, Callisthenes attributed earthquakes to underground winds. This theory, wide-spread in Antiquity, argues that when the trapped air cannot be released, it results in tremors in the earth. Seneca approves of this theory, suggesting that the air slips under the earth through hidden passages under the sea: “Accordingly, this power the sea has for moving the earth is assigned to Neptune. Anyone who has learned elementary literature knows that in Homer he is called the Earthshaker.”⁵⁵⁴ In referring to Neptune/Poseidon, Seneca involves the religious system of knowledge in his interpretation of earthquakes, appealing to the cultural authority the Homeric tradition has over Seneca’s audience—as well as over Seneca himself. While Seneca does not claim that Poseidon caused the earthquake, he cannot escape the association with the belief system that he, and “anyone who has

⁵⁵² Levy-Strauss has written: “In the same way we may be able to show that the same logical processes operate in myth as in science, and that man has always been thinking equally well; the improvement lies, not in an alleged progress of man’s mind, but in the discovery of new areas to which it may apply its unchanged and unchanging powers.” Cited in Gordon and Gordon 2009: 34.)

⁵⁵³ Gottschalk 1980: 94.

⁵⁵⁴ Sen. *Nat. Quaest.* 6.23.4: *Ideo frequentissime mari apposita vexantur et inde Neptuno haec assignata est maris movendi potentia. Quisquis primas litteras didicit scit illum apud Homerum Εὐοσίχθονα vocari.*

learned elementary literature,” is part of. Seneca partakes of both religious and scientific models of explanation, according to which the disaster agency is attributed to Poseidon.

Modern parallels of this commonplace strategy are not hard to find. The American geologist Clarence E. Dutton, writing on the latest discoveries in seismology in 1904, describes the experience of an earthquake in almost religious terms:

The first sensation is a confused murmuring sounds of a strange and even weird character. Almost simultaneously loose objects begin to tremble and chatter. Sometimes, almost in an instant, sometimes more gradually, but always, quickly, the sound becomes a roar, the chattering becomes a crashing The roar becomes appalling. Through its din are heard loud, deep, solemn booms that seem like the voice of the Eternal One, speaking out of the depths of the universe.⁵⁵⁵

The earthquake is preceded by a series of auditory signs. The Agency Paradigm is unmistakable. From a phenomenological perspective, Dutton’s description suggests that the cognitive strategy (clearly, the Agency Detection Device) of positing an animate and communicative materiality (“murmuring” and “chatter”) is useful in making sense of the sensory experience of an earthquake, even if the “weird character” of the phenomenon ultimately gives way, for Dutton, to the monotheistic framework with which he and his audience are familiar.⁵⁵⁶ Dutton resorts to religious discourse to make sense of the experience of the earthquake’s soundscape, while his book relies on the scientific discourse of the day to explain the workings of the geophysical phenomenon as seismic activity. Whether or not his use of the Agency Paradigm is poetic or accidental (Guthrie’s third level of anthropomorphizing) is not entirely clear, and, at any rate, does not matter:

⁵⁵⁵ Dutton 1904: 42, 44.

⁵⁵⁶ See the discussion in Rigby 2015: 26-7.

as Guthrie has noted that, as a cognitive phenomenon, Demeter and Chiquita Banana are of one piece.

Hermeneutic Disaster Management

What unites scientific and religious explanations alike, then, is the belief in signs preceding disaster, which establish the anterior end of the continuum, or for the disaster to function as a sign of something else. In either case, these signs in turn suggest agency. Preceding signs manifest themselves consistently in the natural environment (the medium), although the sender, or agent, of the sign can be Nature or a divinity such as Poseidon. When Seneca quotes Callisthenes directly in the *Natural Questions*, the context is precisely the signs that preceded the Helice Disaster: “‘Among the many prodigies,’ [Callisthenes] says, ‘by which the overturning of the two cities, Helice and Buris, was foretold, especially notable were both the immense columns of fire and the Delos earthquake.’”⁵⁵⁷ Callisthenes takes for granted that the Helice disaster (the word “overturning,” *eversio*, suggests that the disaster rather than the earthquake itself is meant) was preceded by signs, and the word *prodigia* specifically points to divinatory signs. These signs can be environmental: the prodigies were an earthquake on the island of Delos (something that geo-archaeology shows cannot have happened) and columns of

⁵⁵⁷ Sen. *Nat. Quaest.* 6.23.3: “*Inter multa,*” inquit, “*prodigia quibus denuntiata est duarum urbium, Helices et Buris, eversio, fuere maxime notabilia columna ignis immensi et Delos agitata.*” Cf. 7.5.4.

fire.⁵⁵⁸ The latter probably refers to a comet.⁵⁵⁹ In fact, the comet of 373/2 BCE was also reported by Aristotle, and by Diodorus, for whom it “portended” (προεσήμαινεν) the end of Spartan hegemony at the Battle of Leuctra in 371 BCE.⁵⁶⁰ Strabo contextualizes the Helice Disaster by marking its temporal proximity to the Battle of Leuctra, thus implicitly linking the two events as well.

Pausanias, who observed that divinely sent signs usually precede severe earthquakes such as the one at Helice, lists a detailed set of environmental and meteorological signs, such as unseasonable weather, dried up springs, sudden blasts of wind, unusual shapes of stars, great flames in the sky, and violent rumblings beneath the earth. These signs originate in nature, not culture, and Pausanias is clear about their sender: “These and many other things the god is wont to show (ἐθέλει προενδείκνυσθαι) before violent earthquakes occur.”⁵⁶¹ While Pausanias assigns the Helice disaster to the workings of divine providence, he nonetheless details the meteorological and atmospheric signs preceding an earthquake, followed by a pseudo-scientific typology of earthquakes based on the motion of the shocks and severity of impact—all while embracing the context of religious transgression. Furthermore, these signs, while originating in nature, are characteristically *unnatural*, by being either overtly ominous

⁵⁵⁸ On the lack of seismic activity on Delos, see e.g. Pavlopoulos et al. 2011; Mourtzas 2012; both are cited in the important article by Rusten 2013: 135-45.

⁵⁵⁹ Alternatively, it could refer to earthquake lights, a physical phenomenon where lights seem to emanate from the ground before an earthquake, see Thériault et al. 2014; for a general audience, see the article in *National Geographic* by Howard 2014.

⁵⁶⁰ Dio. Sic. 15.50.2. Cf. Stylianou 1998: 382.

⁵⁶¹ Paus. 7.24.8. ἄλλα τε πολλὰ ὁ θεὸς ἐπὶ τοῖς βιαίοις τῶν σεισμῶν προενδείκνυσθαι

(e.g. unusual shapes of stars) or outright calamitous in themselves (e.g. dried up springs). Divine and natural explanations are not mutually exclusive. Approaching ancient disaster from a semiotic perspective bridges this artificial divide between religion and science in understanding ancient—and modern—disaster discourse.

Diodorus' distinction between pious and natural interpretations lays bare the concern with identifying the responsibility, rather than mere causality, of disaster. Heraclides, Diodorus and Pausanias all make sense of the destruction of Helice by assigning the disaster to a divine context with human responsibility. By linking the religious transgression committed by the Heliconians to the wrath of Poseidon through the earthquake, the disaster becomes a man-made disaster. To assign responsibility to necessary or random natural forces would be to allow disasters that are devoid of meaning—a negative form of meaning-making. Instead, this hermeneutic form of disaster management—coping through interpretation—relies on the belief that signs are part of the disaster continuum, not only because it makes it possible to predict the event (usually after the fact, as I will discuss shortly), but also because it regularizes the disaster, integrating it within a sequence of events.

Divining the Helice Disaster (II): Aelian

The proper and timely heeding of the signs could, in theory, lead to a hermeneutic disaster management capable of prevention or at least anticipation. The failure to interpret the signs and thus to anticipate the disaster is, in the case of Helice, transmitted in a story by the Roman author Aelian (2nd-3rd c. CE). In the *Characteristics of Animals*,

Aelian reports that the local animals had anticipated the earthquake at Helice and had escaped to the nearby hill-town of Cerynea in time before the disaster (11.19):

For when the people of Helice treated so impiously the Ionians who had come to them, and murdered them at their altar, then it was (in the words of Homer) that ‘the gods showed forth signs among them’ (τοῖσιν δὲ θεοὶ τέραα προῦφαινον). For five days before Helice disappeared (ἀφανισθῆναι) all the mice and martens and snakes and centipedes and beetles and every other creature of that kind in the town left in a body by the road that leads to Cerynea. And the people of Helice seeing this happening were filled with amazement, but were unable to conjecture the reason (ἐθαύμαζον μὲν, οὐκ εἶχον δὲ τὴν αἰτίαν συμβαλεῖν).⁵⁶²

Aelian’s account continues the established tradition of the Helice Disaster as divine punishment, and as a spectacle of absence (again, the verb ἀφανίζω is used twice). But Aelian adds a divinatory context preceding the disaster, different from that offered by Pausanias.

The inhabitants of Helice recognized the fleeing animals as a sign (or at least they considered it a marvel, ἐθαύμαζον), but they could not figure out the reason (αἰτία) for their behavior.⁵⁶³ Significantly, Aelian quotes part of a Homeric verse from the *Odyssey* (θεοὶ τέραα προῦφαινον, 12.394). The context is one of the central transgressions of the poem, namely the slaughter of Helios’ sacred cattle at the hand of Odysseus’ hungry companions. Odysseus tells the Phaeacians how the meat on the spits, roasting in the fire,

⁵⁶² ἐπειδὴ γὰρ ἡσέβησαν ἐς τοὺς Ἴωνας τοὺς ἀφικομένους οἱ Ἑλικήσιοι, καὶ ἐπὶ βωμοῦ ἀπέσφαξαν αὐτούς, ἐνταῦθα δὴπου (τὸ Ὀμηρικὸν τοῦτο), τοῖσιν δὲ θεοὶ τέραα προῦφαινον· πρὸ πέντε γὰρ ἡμερῶν τοῦ ἀφανισθῆναι τὴν Ἑλίκην, ὅσοι μῦς ἐν αὐτῇ ἦσαν καὶ γαλαῖ καὶ ὄφεις καὶ σκολόπενδραι καὶ σφονδύλαι καὶ τὰ λοιπὰ ὅσα ἦν τοιαῦτα, ἀθρόα ὑπεξῆει τῇ ὁδῷ τῇ εἰς Κερύνειαν ἐκφερούσῃ. οἱ δὲ Ἑλικήσιοι ὁρῶντες ταῦτα πραττόμενα ἐθαύμαζον μὲν, οὐκ εἶχον δὲ τὴν αἰτίαν συμβαλεῖν.

⁵⁶³ While much evidence of animals predicting earthquakes is anecdotal, scientists have long been interested in animal behavior before earthquakes. [Link. Smithsonian Magazine 2016]. Most recently, a German scientist has equipped cattle in Italy with sensors to determine if their collective behavior changes before an earthquake. [Link New York Times article 2017]

started bellowing like cattle, and the skins crawled. Such were the portents (τέρατα) the gods showed; after six days of feasting on the meat, the companions set sail and Zeus struck them all down in a storm. Aelian's use of the Homeric context emphasizes the religious transgression of the Heliconians, and the belief that the gods will send signs in warning of the pending disaster, which in both cases occurs after some delay (five days in Aelian, six days in Homer). In both contexts, the signs consist of animal behavior, although in Aelian's case the animals are alive and part of the natural world. Their behavior, however, is unnatural in that they act like humans, traveling by road collectively in one body, even though they belong to different species. They are therefore real τέρατα, violating the intuitive knowledge domain of psychology. As discussed in Chapter One, the Homeric cattle, slaughtered and roasted, emit unnatural auditory (bellowing) and visual (skins crawling) signs that distort the process of transitioning from nature (animal) to culture (artefact), from being raw to being cooked (the text explicitly says the bellowing meat consisted of "cooked and raw" parts, ὀπαλέα τε καὶ ὠμά, *Od.* 12.396).⁵⁶⁴ The ominous sign of the τέρας, then, is here created by the unnatural behavior of natural things.

The Heliconians, the reasoning goes, could have divined disaster if only they had successfully abduced the case (a disaster is coming) from the result (the strange occurrence, or τέρας, of animals fleeing town). This prospective abduction can be tabulated below:

⁵⁶⁴ On natural and cultural signs, specifically in the context of foodstuffs, see Beerden 2013: 118-22.

<i>Abduction</i>	
result	animals fleeing town (= sign, τέρας)
rule	the gods show forth τέρατα before disaster
∴ case	a disaster will happen

It is not that the Heliconians failed to observe the sign, or that they did not recognize the sign as such. Yet they neglected to use it as the basis for a process of inference. Looking for the αἰτία, the Heliconians fail to formulate an appropriate *rule* that would lead them there. The *rule*, in fact, is once again of particular interest. We could assume that Herodotus' *rule*—signs usually precede disaster—is operative as well, but Aelian's reference to the Homeric line is sufficient as an explanation for the strange occurrence of the τέρας. Similar to how Thucydides uses the verb τεκμηριόω to prove something based on Homeric testimony, so too does Aelian's use of the Homeric line function as a stable, almost prophetic, sign or *tekmar*. The *rule* itself works again by analogy: just as the Homeric τέρατα announce disaster, so do the Heliconian τέρατα. The divinatory context of the *rule* lends a prophetic quality by analogy to the observation and interpretation of Helice's τέρατα.

Economy of Signification

While the anticipation of disaster by heeding the signs of fleeing animals offers a hypothetical advantage in hermeneutic disaster management, the fact of the matter is that the detection of these signs on the anterior end of the disaster continuum mostly takes place, as we have seen in Herodotus and others, *post eventum*. The disaster continuum

creates an economy of signification, in which the supply and demand of signs is regulated by both cultural expectation and personal perspective. J.Z. Smith discusses the economy of signification in the context of ritual:

If everything signifies, the result will be either insanity or banality. Understood from such a perspective, *ritual is a strategy in the exercise of choice*. What to include? What to hear as a message? What to see as a sign? What to perceive as having double meaning? What to exclude? What to allow to remain as background noise? What to understand as simply ‘happening’? ⁵⁶⁵

Earthquakes, comets, and unusual animal behavior are seldom considered as simply ‘happening,’ and are thus easily seen as signs. But Smith’s economy of signification does not address what happens after the sign is recognized. Even if earthquakes are readily interpreted as signs, the linking of signifier and signified remains subject to a process of interpretation—what does the sign stand for? Cultural expectations regulate this linking: signs usually precede disasters; Helice is a disaster, so there must have been preceding signs. Callisthenes interpreted the earthquake of Delos as a sign announcing the destruction of Helice—even though there never was an earthquake on Delos. The demand for a sign has produced an imaginary earthquake. Similarly, the animal behavior reported by Aelian, while not entirely without scientific basis, is likely to have been created by the economy of signification.⁵⁶⁶ Callisthenes saw another portent for Helice in the comet of

⁵⁶⁵ Smith 1982: 56. Emphasis in the original. The reference is to Plutarch *De vitioso pudore* 534c. The story here is that a couple of mule drivers, who had just delivered a set of sacred vessels to the temple of Athena Polias, asked the priestess for a drink of water from the vessels. The priestess decided against it, thereby exercising, as Smith has it, “her sense of the economy of signification.” Using the water for the sake of quenching the mule drivers’ thirst would undermine the *significance* of the sacred water and reduce it to the banal.

⁵⁶⁶ On the evolutionary mechanism that might have led to the preternatural ability in some animals to sense disasters such as earthquakes, see Kirschvink 2000: 312-323.

373/2 BCE, while for Diodorus—and perhaps for Strabo—this comet foreshadowed the Spartan defeat at the Battle of Leuctra. The meaning of the signs must be negotiated and is constantly re-interpreted, depending on the decoder's perspective.

Recognizing the signs—and the chain of signification in particular—is essential to hermeneutic disaster management. The importance of heeding and interpreting the signs is succinctly captured by Pliny the Elder in his *Natural History* (2.200):

An earthquake does not represent a simple disaster (*simplex malum*), nor is the danger confined to the earthquake itself, but equally, or more so, it is dangerous as an omen for the future (*ostento*). The city of Rome never experienced an earthquake without this being forewarning (*praenuntium*) that something was about to happen.⁵⁶⁷

For Pliny, earthquakes are dangerous and potentially disastrous as seismic events. But they are even more dangerous as semiotic events, insofar as they portend future disaster. One has to heed not only the signs on the anterior end of the disaster continuum, such as Aelian's fleeing animals or Pausanias' dried up spring, but also—and, according to Pliny, especially—the signs on the posterior end. The Helice disaster can be remembered to signify later disasters, such as the Battle of Leuctra, or can be feared to signify future ones, such as the eruption of Mt. Etna. The many memory horizons of disasters, real or imagined, offer insights into the various interpretive strategies that individuals, societies, and cultures employ to come to terms with the occurrence of past disasters and the threat of future ones. Disaster is constructed along certain cultural norms and expectations.

When the Italian traveler Scrofani saw the sunken ruins of Helice, he could not eat his

⁵⁶⁷ *Nec vero simplex malum aut in ipso tantum motu periculum est, sed par aut maius ostento. Numquam urbs Roma tremuit, ut non futuri eventus alicuius id praenuntium esset.*

lunch, distraught at the sight of the past and the presentiment of the future. The hermeneutic disaster management of Helice suggests that the ancients employed a coping strategy by embedding disaster in a signifying continuum. An essential part of this network of signification, at least in the Ancient Greek context, is the presumed agent behind the sign. Ultimately, the meaning of the disaster-as-sign is bound up with the divine agency that sent it.

PART II

MORAL, MONSTROUS AGENCY

Agency Reconsidered

The importance of divine agency as a factor of meaning-making in the discourse of the Helice disaster—both in the primary and secondary sources—requires an excursion into the very concept of agency. After all, agency has thus far been a defining element of divining disaster as a mentality in three different but complementary ways. First, in the field of disaster studies, as we have seen, the Agency Paradigm is used when disasters of all kinds are identified primarily in terms of their perceived external cause or agent. Second, in the cognitive study of religion, the (Hypersensitive) Agency Detection Device allows humans to perceive agents where none may in fact exist. Third, in Jakobson’s communicative model, the sender of the sign is a semiotic agent that sends an encoded message to a recipient. The link between these uses of agency—which meet in the very concept of *divining disaster*—resides in Guthrie’s levels of anthropomorphizing. The

figure of Poseidon is endowed with an agency that is operative within the Agency Paradigm of disaster; as a counterintuitive, anthropomorphized, and hidden agent whose presence is revealed through its perceived effects in the physical world; and as a sender of divinatory signs, both those preceding the disaster and the disaster-as-sign itself. If, as I have argued, a semiotic perspective is preferable to a binary division between religious and natural explanation in understanding ancient conceptions of disaster, then it is the concept of *agency* that plays a key role in this semiotic perspective. What I am proposing here is that a focus on disaster agency allows us to discern a radical continuity in the mentality of *divining disaster* that does away with ‘irrational’ religious explanations, on the one hand, and ‘rational’ natural ones, on the other. If we accept Guthrie’s proposed spectrum of secular and religious anthropomorphizing as valid, at least from a cognitive viewpoint, then the *disaster agency* of Poseidon and, say, Hurricane Katrina are of one kind. In the excursion on agency that follows, I propose a revision to the Agency Paradigm based on a moral context to account for the range of secular and religious anthropomorphizing that perceive the disaster as sent by, or embodied in, some moral agent.

The very notion of an agent suggests the presence of a patient, a suffering victim: something is done to someone. The relationship between agent and patient can be conceived of as either intentional and willful, or haphazard and random. Here the Agency Paradigm splits along the fault line of responsibility. In present-day American disaster discourse, certain voices on the periphery routinely go so far as to claim that disaster was an act of God meant to punish a particular group of people considered guilty of some

perceived sin.⁵⁶⁸ The appeal to higher, divine powers is the most evocative example of the Agency Paradigm; if the divine powers are punishing a community because of some transgression it has committed, we can rightly speak of a Moral Agency, or Punitive, Paradigm. The Moral Agency or Punitive Paradigm lays the responsibility for the disaster with the community itself (or a group or individual within it). The divinity's punishment is simply an expected and appropriate—indeed, almost automated or natural—response to a transgression. Indeed, this familiar paradigm is rooted in Biblical as well as Greek religious thought, as evidenced by such examples as God's punishment of David in 2 *Samuel* and Poseidon's wrath in the case of Helice. The Moral Agency Paradigm continues to be invoked with various degrees of anthropomorphizing, ascribing imagery of divine (or satanic) agency to natural disasters.⁵⁶⁹ In the following sections, I draw on examples from modern disaster discourse, especially disaster archetypes such as the San Francisco Earthquake of 1906, to shed light on the notion of moral and punitive agency that seems so clearly operative in the Helice discourse.

⁵⁶⁸ On this topic in general, see Steinberg 2000 and the second edition of 2006, which includes Hurricane Katrina. In an interview with "Hannity & Colmes" on Fox News, Hank Erwin, State Senator of Alabama, argued in response to Hurricane Katrina that God uses "weather to express a message to America." Erwin asserted that Katrina was God's wrath on a sinful coast, known for gambling and wickedness. When co-host Colmes asked Erwin why the French Quarter, "where most of the sins take place," was still standing (another case of Hotaling's Whiskey, see below), Erwin offered the theodicy that "when sin enters society, innocent people suffer." *Fox News* 2005 [[link](#)]

⁵⁶⁹ Names and metaphors are meaningful: the heatwave that tormented much of Southern Europe in the summer of 2017 was dubbed, appropriately, "Lucifer." According to this article, however, the only thing the Italians consider "malevolent" and "unnatural" is air-conditioning. "Europe Swelters Under a Heat-Wave Called Lucifer." *The New York Times*. Aug. 6, 2017. [[Link](#)]

Angry Poseidon, Angry Summer

In identifying the disaster with its perceived external agent, the Agency Paradigm assumes that a community is under attack by a force that is out of, or even beyond, “our” control, at least for the moment. (The definition of this “our” is particularly relevant in the shaping of disaster discourse: who defines the disaster? Who assigns responsibility and blame?) This paradigm lends itself to an analogy with war. It is telling, for example, that FEMA falls under the Department of Homeland Security, whose responsibilities include border security and terrorist threats.⁵⁷⁰ The conceptual overlap between natural disaster and war also works in reverse (i.e. war is like natural disaster): in response to the increased nuclear threat from North Korea, Japanese authorities announced that they would alert the public in the event of an attack by means of public address systems that are currently used for alerting cities to earthquakes and tsunamis.⁵⁷¹ In addition to analogies of war, the paradigm also lends itself for analogies of emotion. In the case of Helice, the force behind the disaster is Poseidon. His motivating agency is not perceived to be neutral: Poseidon is said to be angry, and the disaster is a response to a specific transgression. The analogy of emotion—anger in particular—is accompanied by the idea that there is wrongdoing, a belief that still permeates modern disaster discourse today.

⁵⁷⁰ Prior to the creation of DHS in 2003, FEMA had been an independent agency since its creation in 1979.

⁵⁷¹ “How To Survive Nuclear War: Japan Warns Citizens About North Korea Attack.” *Newsweek*, June 26, 2017. [[Link](#)]

News media and politicians regularly partake in the Agency Paradigm and its analogies of war and emotion, especially when responding to natural disasters.⁵⁷² When hurricane Matthew hit the Caribbean in October 2016, reports spoke of how the storm takes “its last lashes at Haiti,” and “whips the Florida Coast.” It continued “its siege up north,” while “the Carolinas brace for the fury of Matthew.”⁵⁷³ Other news organizations posted pictures of ruined residences, showing the “wrath of Matthew.” The sensationalist metaphors (lashes, whips, brace, fury, wrath), which are standard hurricane rhetoric, suggest violent, abusive blows of punishment and corresponding emotions of anger. The storm is given a proper name, which further enhances its perceived agency. But there is more at stake here: the naming of hurricanes originates not with the personification but with the gendering of natural forces. After labeling a storm that hit South Florida in 1949 Bessie’s Hurricane, the Weather Bureau formalized this practice of gendering hurricanes as female the following year. The feminization of hurricanes is an example of what anthropologist Sherry Ortner has called the “mutual metaphorization” that occurs between gender and the nature/culture binary.⁵⁷⁴ The feminine, especially amidst the sexual politics of post-war America, was assigned the qualities of nature’s most destructive and uncontrollable forces. Throughout the 1950s and 60s, female hurricanes

⁵⁷² For the role of media in reporting disasters, see e.g. Goltz 1984.

⁵⁷³ “Hurricane Matthew Pounds Cuba After Drenching Haiti.” CNN News. October 4, 2016 [[Link](#)]; “Nearly 2 Million Under Evacuation in US Ahead of Hurricane Matthew, 126 Killed in Caribbean.” ABC News. October 6, 2016 [[Link](#)]. “Businesses That Jump into Action After A Natural Disaster.” CNBC News. October 6, 2016. [[Link](#)]; “The Wrath of Hurricane Matthew in Pictures.” ABC News. October 8, 2016. [[Link](#)]

⁵⁷⁴ Ortner 1996: 179.

were routinely described as “wild, capricious, fickle, whimsical, and erratic, creating the sense that nature was literally out of control.”⁵⁷⁵ Under increasing pressure from advocacy groups, the Weather Bureau started assigning male names to storms in 1978.⁵⁷⁶

The idea that nature can be violent and angry is not confined to hurricanes alone. The period of record-breaking heat-waves that swept over Australia in early 2013 was dubbed “Angry Summer.”⁵⁷⁷ A bellicose prime minister Gillard assured the people of Queensland, who had been afflicted by wildfires, that while the whole country was being “challenged by nature, we are a strong and smart nation and we’ll get through this, as we always do, by pulling together.”⁵⁷⁸ Indeed, the use of such metaphors reinforces the idea that the disaster has a certain agency that threatens the community. The clearly perceptible Patterns of War approach presupposes the idea that “our” lands are under attack, besieged by this external agent, who is a violent and hostile Other—whether a hurricane named Matthew, Katrina, or Mother Nature herself.

Punishment, or “A Blessing in Disguise”

⁵⁷⁵ Steinberg 2000: 68.

⁵⁷⁶ Ironically, the gender roles have taken on a different significance in recent years: a study found that people perceive hurricanes with female names as less threatening; as a result, they tend to lead to higher casualties.

⁵⁷⁷ “Australia Links Angry Summer to Climate Change—At Last.” *The Guardian*. March 3, 2017. [[Link](#).] The official climate report by Australia’s national climate commission was entitled “Angry Summer.” [[Link](#).]

⁵⁷⁸ “Major Flood Crisis Hits Queensland, Australia.” *BBC News*. January 28, 2013. [[Link](#)]

The idea of disaster as punishment remains available as an explanatory tool, too, in discourse that is dominated by moral language. In the wake of major disasters such as Hurricane Katrina in 2015 and the 2004 Indian Ocean Tsunami, several religious authorities referred to the idea of collective punishment for the sins of a specific group.⁵⁷⁹ The right-wing governor of Tokyo, Shintaro Ishihara, characterized the 2011 East Japan Earthquake and Tsunami as punishment or judgement from heaven (*tembatsu*); conservative radio host Glenn Beck similarly suggested that the tsunami could be “a message from God.”⁵⁸⁰ Governor Ishihara’s comment is worth quoting in full:

Japanese politics is tainted with egoism and populism. We need to use the tsunami to wipe out egoism, which has attached itself like rust to the mentality of the Japanese people over a long period of time.⁵⁸¹

While modern usage of *tembatsu* need not be religious per se, the moral framework is clear.⁵⁸² Language of dirt (tainted, rust) dominates the interpretation that identifies disaster with the workings of a purging agency. The punishment is transformative in the sense that it “wipe[s] out” the transgression, or, in the case of a tsunami, whose destructive but purifying waters wash away Japanese sins. Following the Great Kanto

⁵⁷⁹ On Hurricane Katrina as collective punishment, see “Katrina: Wrath of God?” *NBC News*. [[Link](#)] For the rejection of collective punishment by several religious authorities after the Indian Ocean Tsunami of 2004, see “Deadly Tsunami Resurrects Old Question of Why.” *Los Angeles Times*. Jan. 8, 2005. [[Link](#)]

⁵⁸⁰ “Tokyo Governor Apologises For Calling Tsunami ‘Divine Punishment.’” *The Guardian*. Mar. 15, 2011. [[Link](#).]

⁵⁸¹ See previous note.

⁵⁸² Private correspondence with Janine Sawada, Professor of East Asian Studies and Religious Studies, Brown University, Oct. 18, 2017.

Earthquake of 1923, the famous manga artist Rakuten Kitazawa drew a cover image for the magazine *Jiji Manga* that showed a giant cat-fish—the Japanese symbol for earthquakes—covering up a startled woman with more modest clothing; the caption reads “Vices rectified by the earthquake.”⁵⁸³ As Weisenfeld has argued, it is no coincidence that in Japanese disaster discourse one subgroup is singled out (women) as representing the moral vices that triggered the disaster in the first place.⁵⁸⁴

The San Francisco Earthquake of 1906—itsself an archetype of seismic catastrophe—gave rise to similar moral sentiments. The earthquake, in fact, proved a major impetus for the Pentecostal Movement. The preacher and writer Frank Bartleman (1871-1936), who was part of the Azusa Street Revival (1906), commonly considered the birth of the Pentecostalist Movement, declared that the earthquake was God’s judgment on a “terribly wicked city.”⁵⁸⁵ He set out these views in a pamphlet entitled “The Earthquake!!!”, of which more than 100,000 copies were distributed across the Bay Area. Bartleman’s doomsday tract ends on an apocalyptic note: “The present, seeming calamity is but a blessing in disguise for a lost and ruined race, if we will have it so.”⁵⁸⁶ A similar narrative of moral purification, though without overt reference to divine punishment, is

⁵⁸³ Weisenfeld 2012: 185-6.

⁵⁸⁴ The leading seismologist, and chair of geophysics at Tohoku Imperial Univeristy, Kusakabe Shirota (1875-1924) associated women with the negative geomantic entity *yin/land* (*in*, in Japanese): the shaking of earthquakes was thus connected to female unrest and restlessness. See Weisenfeld 2012: 184-5.

⁵⁸⁵ Bartleman 1925: ch.3 (online at this [link](#)). On the origins of Pentecostalism, see Espinosa 2014; on Bartleman, the Pentecostalism Movement, and the San Francisco Earthquake, see Svensen 2009: 66-72.

⁵⁸⁶ Bartleman 1906 (online at this [link](#))

sketched by the American poet and frontiersman Joaquin Miller (1837-1913), who witnessed the earthquake and fire firsthand:

In truth I know nothing in nature quite so innocent as an earthquake. ... I think that fires are good, especially in hell. San Francisco was not a clean city, like Chicago and Boston – she was nasty. From what I can read the city is much healthier than it was before, and the people are much better behaved. Before the fire I was overrun here by bullies, egotists, adventurers – they were loud and vulgar. ... [T]here had never been such a rich city in the history of the world – rich in rye and bourbon from Kentucky – rich in all brands of wines. Never had there been a fire so richly fed.⁵⁸⁷

Similar to how Ishihara imagines the purifying power of the tsunami to “wipe out egoism,” Miller portrays a dirty city whose moral transgressions (“egoists” and “rye and bourbon” being some of them) are cleansed by the purifying power of fire: “The city is much healthier than it was before.” The disaster turns out to be a blessing.

But how does one account for observed anomalies in the system of moral punishment? For Bartleman, the disaster is a “blessing in disguise,” perhaps especially for those who died while innocent: “There are innocent in every city, and God is mindful of them. He will spare them from the destruction, or better yet, take them to heaven in it, out of this wicked world.”⁵⁸⁸ The demise of the innocent and righteous in a disaster calls for theodicy (in the form of heavenly rewards, according to Bartleman) in the same way that the survival of the guilty and immoral does. While Miller was right to point out the obliteration of the many liquor depots in the city, the fires had left unscathed,

⁵⁸⁷ Miller 1906, for the *Oakland Tribune*, May 6, 1906 [[Link](#)]. For more narratives on the San Francisco Earthquake, see Lotchin 2011, and the online collection “Eyewitnesses to the Earthquake and Fire,” *The Virtual Museum of the City of San Francisco*. [[Link](#).]

⁵⁸⁸ Bartleman 1906 (online at this [link](#))

miraculously, the largest whiskey repository on the West Coast, known as A.P. Hotaling's warehouse. Local poet Charles K. Field composed the following verses in response: "If, as they say, God spanked the town / For being over-frisky, / Why did He burn His churches down / And spare Hotaling's whiskey?"⁵⁸⁹

Acts of Nature, Acts of God

Even as the interpretation of the intended purpose of a disastrous event can be challenged by observation, the Punitive Paradigm—and the Agency Paradigm in general—continues to be applied in myriad ways. In 1993, nearly 20% of those surveyed in a Gallup poll agreed with the following statement: "The recent floods in the Midwest are an indication of God's judgment on the people of the United States for their sinful ways."⁵⁹⁰ The floods are presented as a sign—an indexical sign—of God's rightful judgment. The fact that 20% agreed with the punitive expression of the statement does not mean that the remaining 80% rejected the Agency Paradigm. It is likely that the vast majority considered natural disasters not an act of a wrathful divinity, but simply the violent workings of a natural world, disinterested and uncaring about human civilization (much as Niall Ferguson referred to Katrina as an act of "pitiless Nature"—the capital N is telling).⁵⁹¹ Pushed to the extreme, the Agency Paradigm can support a view of "natural" disaster as a completely randomized event dictated by natural forces that are, in

⁵⁸⁹ In: Schenk et al. 2014: 147-8.

⁵⁹⁰ "1 in 5 See Floods as God's Wrath," *St. Louis Post Dispatch*, July 23, 1993, cited in Steinberg 2000: xxi. On religion and disaster more generally, see Dynes and Yutzy 1965: 34-48.

⁵⁹¹ Ferguson 2005 (*Daily Telegraph*), [link](#)

the words of one scholar, “by definition, uncontrollable.”⁵⁹² If the random and indiscriminate forces of Nature are to blame, (moral) responsibility is deflected away from the community altogether. This is precisely the view regarding earthquakes propagated by Stoics such as Seneca.

As we have seen, however, such a view belies the insight, emphasized by the Vulnerability Paradigm, that not everyone is equally vulnerable to disaster. If, as another disaster scientist has it, “natural disasters occur as purposeless, asocial events,” it is all too easy to forego any responsibility whatsoever.⁵⁹³ In fact, in its secularized legal usage, an Act of God is an event that lies completely outside of human agency and cannot be prevented or foreseen. It is used by insurance companies to forego responsibility, most often of some natural disaster such as flood. “God” is simply the ultimate unpredictable Other, a force of randomized nature, who dissolves all human responsibility. In the early twentieth century, the banking and insurance company Wells, Fargo & Company used to issue express receipts with the notice: “This company will not be responsible for acts of God, Indians, or other public enemies of the government.”⁵⁹⁴ These agents (God, Indians, other public enemies) are perceived to operate outside of the normal realm of responsibility and are thus not part of the social contract. The fact that Indians are included underscores their status as some alien Other, a hostile and unpredictable force of nature beyond human control.

⁵⁹² Baum 1987.

⁵⁹³ Warheit 1976.

⁵⁹⁴ Clevenger 1909: 18 ([link](#)); cited in Prince 1920: 14.

The Monstrous

We need not have recourse to the monsters of the modern popular imagination, such as vampires, aliens, or great white sharks, to see how monsters are part of disaster discourse, too, especially where the Agency Paradigm is concerned.⁵⁹⁵ After Hurricane Harvey and Irma in the summer of 2017, *TIME Magazine* ran an article that opened as follows: “A hurricane is a monster with two orders of magnitude. It is a weapon of mass destruction ... [a]nd it’s a precision-targeted weapon too.”⁵⁹⁶ The Patterns of War approach is unmistakable, and the enemy—a hurricane in this case—is imagined as a monster. A reporter from the *Miami Herald* tweeted that anticipating Hurricane Irma was “like waiting for a monster to show up.”⁵⁹⁷ Monsters have long been part of disaster discourse, and not just in a metaphorical sense. My study of τέρας in Chapter One has shown how the birth of monstrous offspring, for example, functions as a symptom and embodiment of disaster.

In their study of monstrosity and disaster, Gordon and Gordon offer a typology of monsters that distinguishes three main types.⁵⁹⁸ Ancient monsters disrupt harmony and bring chaos. They may take the form of a monstrous act—such as killing a brother or sleeping with one’s mother—that must be corrected for the sake of the community’s

⁵⁹⁵ The bibliography on monsters is extensive. A standard work on monsters as Others is Kearney 2002. A comprehensive guide to the cultural and conceptual history of the monstrous is Asma 2009. For monsters in a religious context, see Beal 2002.

⁵⁹⁶ “The Angels of Irma.” *TIME Magazine*. Sept. 25, 2017, p. 36.

⁵⁹⁷ “Hurricane Irma: ‘A Low Howl,’ ‘Tearing Through the Trees,’ ‘Like Waiting for a Monster.’” *The New York Times*. Sept. 10, 2017. [[Link](#)]

⁵⁹⁸ Gordon and Gordon 2009.

survival. Destroying or expelling the monster thus becomes a form of sacrifice. Modern monsters are “naturally unnatural,” being excessively large or excessively small, or even excessively smart. Alternatively they may possess attributes that are not supposed to mix, such as the female genius or the black Jew; they simply cannot be authentic. Frantz Fanon suggested that the educated black man, in the racist’s imagination, is like Rodin’s *The Thinker* with a permanent erection. The third type is the postmodern or nihilistic monster, which embodies an absolute indifference to, or absence of, meaning. Their destruction is mechanized and excessively egalitarian: zombies, psychopaths and terrorists do not particularly care who their victims are; there is nothing unique about their targets. Rather than endangering shared values, this postmodern monster threatens to consume the meaning of value itself.

Monsters thus appear in the Agency Paradigm of disaster, either operating as a proxy for another, possibly divine, agent (e.g. Poseidon sending a sea-monster in response to a transgression), or as an autonomous, violent threat to the established order (e.g. Typhoeus threatening Zeus’ rule). But the monstrous can also be understood from the perspective of the Uncertainty Paradigm as a warning sign (cf. Latin *monstrum*, from *moneo* ‘to warn’ and *monstro* ‘to show’; and the birth of deformed babies or τέρατα).

Gordon and Gordon write:

There is, then, a lesson to be learned from such creatures; they speak to us, summoning in us a crisis of the self, because it is we who are being warned, which means that there must be something *we* are ultimately doing wrong and that is up to *us* to fix.⁵⁹⁹

⁵⁹⁹ Gordon and Gordon 2009: 29.

Monsters are revelatory. Phenomenologically, the appearance of the monster is not just dangerous in itself (Pliny's earthquake as *simplex malum*), it also signals that something is wrong (Pliny's earthquake as *praenuntium*). One has to find out what that is—the monster both signifies and enacts disaster. A modern disaster such as climate change, envisioned as a monster, bears out this dual role of sign and agent. Its concomitant relation to responsibility and guilt is neatly illustrated in a cartoon by political cartoonist Tom Toles. A big, green, blob-shaped monster called “climate change” takes the defendant's stand in a courtroom, declaring: “Maybe that storm was one of mine, maybe it wasn't. You can't prove a thing, so you'll just have to let me go.”⁶⁰⁰ The recent storm (presumably the deadly tornado that struck Moore, Oklahoma on May 20, 2013) is linked to climate change as its sign and its proxy. Yet it is climate change that appears as the monster, challenging the chain of signification and denying (legal) responsibility for the storm. The irony, of course, is that climate change has all too many human defendants who are prepared to testify against its responsibility for individual disasters.

Contagion

Yet another potent modern instance of a disaster operating under the Agency Paradigm of the monstrous is the *Aedes aegypti* mosquito, which is responsible for the spread of Zika as well as other viruses. A 2016 article in a local Florida newspaper explicitly likens the mosquito to a monster, one that “knows human vulnerabilities and

⁶⁰⁰ “A Loophole You Could Lose a Planet Through.” *Washington Post*. May 22, 2013 [[Link](#)]

preys on them.”⁶⁰¹ In all fairness to the mosquito, it is only the carrier (the vector, in medical terms) that transmits the pathogen. Its monstrosity consists in its role as a messenger bearing a noxious gift. This is the notion of contagion, the spread of disease by contact and, in the case of human-to-human transmission, the ultimate perversion of social exchange, a trope that lies at the heart of many plague narratives. By turning their victims into monsters, zombies and vampires partake in this perversion, too.⁶⁰² In step with the Agency Paradigm, the Patterns of War approach is commonly deployed in discourse about disease. After the development of a working vaccine following the 2014 Ebola outbreak, a WHO official noted that “we will not be defenseless” when the next outbreak hits; a *Boston Globe* article described Ebola as “raging” and the need for it to be “controlled” with the vaccine, which “opens up new, faster, more efficient ways to encircle and strangle the virus.”⁶⁰³ The virus needs to be tamed, put into chains, brought into the embrace of bonds so that it can give up its secrets, much as Menelaus did with shape-shifting Proteus, and Peleus with wily Thetis. Even before the discovery of infectious agents such as viruses, bacteria, and other micro-organisms as possible causes of disease (monsters by virtue of being excessively tiny), Galen referred to the plague as a “wild beast” (*therion*).⁶⁰⁴

⁶⁰¹ “Fighting A Zika Monster: Why The Aedes Aegypti Mosquito Is So Hard To Control.” *WLRN*. Aug. 25, 2016. [[Link](#)]

⁶⁰² In the history of ideas, contagion and miasma (corruption of the air) have long been rival and co-existing notions of explaining the source and transmission of the plague. See Gordon 1999.

⁶⁰³ *Boston Globe* Donald G. McNeil Jr (NYT), Friday Dec. 23, 2016, p. A6.

⁶⁰⁴ Ps-Galen, *On Theriac to Piso* 281 [[link](#)]

The battles against Ebola or plague are presented as communal fights, but metaphors of war and battle are also found in individual patients suffering from disease. Susan Sontag's famous essay *Illness as Metaphor* has critically demonstrated this in the case of cancer, and later of AIDS as well.⁶⁰⁵ Cancer, in particular, provides a powerful semiotic image of disaster, as the anarchic disruption of the sign. Maurice Blanchot writes:

‘Cancer’: why does it frighten us with a name, as if thereby the unnamable were designated? ... Here is a cell that doesn't hear the command, that develops lawlessly, in a way that could be called anarchic. It does still more: it destroys the very idea of a program, blurring the exchange and the message. It wrecks the possibility of reducing everything to the equivalent of signs. Cancer, from this perspective, is a political phenomenon, one of the rare ways to dislocate the system, to disarticulate, through proliferation and disorder, the universal programming and signifying power. This task was accomplished in other times by leprosy, then by the plague.⁶⁰⁶

The proliferation of leprosy and plague “in other times” was established by actual contagion; cancer, in Blanchot's reading, appears as a postmodern monster precisely because it proliferates through dislocating the signifying systems within the body. Like the cancerous cells, the contagion of the plague also blurs the exchange and the message—both a medical reality and a literary trope that goes back, as we have seen, to Thucydides (2.37.3)—but between, rather than within, bodies.

⁶⁰⁵ Sontag 1978; Sontag 1989. Senator John McCain's recent diagnosis with brain cancer led to another round of war related comments, including “McCain faces his greatest battle yet” and “Cancer doesn't know what it's up against,” and those arguing against the use of such language. See “John McCain Faces His Greatest Battle.” *CNN News*. July 20, 2017. [[Link.](#)]; “Grief, Support Pours In After McCain Brain Cancer Diagnosis.” *CNN News*. July 19, 2017. [[Link.](#)] For critique of such language, see: “Why Cancer Is Not A War, Fight, Or Battle.” *CNN News*. July 21, 2017. [[Link.](#)]; “It's O.K. to be a coward about cancer.” *TIME Magazine*. July 21, 2017, pp. 21-22.

⁶⁰⁶ Blanchot 1986: 86.

As Gordon and Gordon have suggested, disaster victims can become monsters, too, both in popular discourse and political rhetoric. A disaster such as the AIDS epidemic in the 1980s, or the current opioid epidemic, produces stigmatized victims that are a continuation of the initial sign, marked by the disaster and carrying it with them.⁶⁰⁷ As a consequence, the responsibility and blame is now relegated onto the victim:

They become both the signifier and the signified; their ill fate must, in some way, be of their own doing—their failure properly to have read the signs. *Our* success in reading such signs must, then, take the form of eschewing its messenger.⁶⁰⁸

The victim as part of the disastrous sign continuum is not confined to disease. In certain political climates, immigrants in general and refugees in particular are perceived as tainted with, and carriers of, disaster. Inviting them in is to invite disaster in.

Consequently, marked by their religion or the color of their skin, they must be shunned or at least quarantined (the Australian detention center on the island of Nauru is a case in point).⁶⁰⁹ In 2006, the far-right politician Geert Wilders infamously warned that the Dutch immigration policy would lead to a “tsunami of islamization,” an image that casts (Muslim) immigrants as an invasive and destructive natural disaster that is outside of human control.⁶¹⁰ The French nationalist politician Jean-Marie le Pen, responding to the

⁶⁰⁷ Cf. Huet 2012: 201.

⁶⁰⁸ Gordon and Gordon 2009: 10.

⁶⁰⁹ The refugee-as-prisoner motif is on striking display in the former prisons of Haarlem and Arnhem, the Netherlands, which have been transformed into housing for refugees; both prisons, now national monuments, are circular and dome-shaped, because they were designed based on Bentham’s panopticon model. “Dutch Prisons Offer Asylum To Refugees.” *The Sydney Morning Herald*. May 18, 2016. [[Link.](#)]

⁶¹⁰ “Wilders Bang Voor ‘Tsunami Van Islamisering.’” *De Volkskrant*. October 6, 2013. [[Link.](#)]

Ebola crisis in 2014, personified the disease as “Monseigneur Ebola.” Le Pen suggested it could solve Europe’s immigration problem, which he referred to as “a cataclysmic phenomenon.”⁶¹¹ This type of rhetoric associates immigration with disaster to suggest that extraordinary measures are needed to confront and combat it. After Hurricane Katrina, the sign continuum pressed on along racial lines, with white victims predominantly portrayed as “survivors” and “residents,” and black victims as “looters” and “criminals.”⁶¹² Gordon and Gordon note: “The stories of illicit behavior, of rape and pillage, were themselves the continuum, the movement of signs, that “we” should shun such populations.”⁶¹³ Those who help also risk becoming infected. The sign continuum of disaster operates as a semiotic contagion, but, again, the vulnerability is not distributed equally: The Other (as defined by gender, religion, race) is especially vulnerable.

A Genealogy of ‘Modern’ Disaster

As far as our modern understanding of disaster is concerned, it is the Enlightenment project that is widely credited with (or blamed for) ushering in a view of catastrophe that is firmly rooted in a rational examination of physical causes. Agency is thus brought down from heaven to earth, to the human realm. Such is the modern narrative about the evolution of the disaster mentality: “Explaining the natural causes of

⁶¹¹ “Jean-Marie Le Pen Suggests Ebola As Solution To Global Population Explosion.” *The Guardian*. May 21, 2004. [[Link](#).]

⁶¹² “Who’s a Looter? In Storm’s Aftermath, Pictures Kick Up a Different Kind of Tempest.” *The New York Times*. Sept. 5, 2005. [[Link](#).] Cf. Chambers 2006, cited in Gordon and Gordon 2009: 122 n. 10.

⁶¹³ Gordon and Gordon 2009: 11.

catastrophes, trying to understand [them], is thus of crucial importance in humanity's taking responsibility for its own history."⁶¹⁴ In this context, the infamous Lisbon Earthquake of 1755 is generally regarded as the first "modern" disaster. What is "modern" about it is not the start of so-called rational discourse about disaster, nor the acknowledgement of human responsibility, both of which can be easily traced back to antiquity; rather, as Huet points out, we have inherited from the culture of Enlightenment a "sense of emergency ... by sweeping away the divine explanations of human wreckage to seek among humans alone the cause of human ills and in nature alone the cause of physical chaos."⁶¹⁵ Certainly, the mechanistic worldview and technological project of the Enlightenment, in which humans (white, male, European humans, to be precise) exert their control over the rebellious and chaotic elements of nature and society, had edged out the lingering Biblical view by the turn of the twentieth century. The natural evils of medieval theology had become fully secularized and rationalized as natural disaster. To be sure, as Rigby is quick to note, the naturalization of disaster has made possible better disaster preparation (such as improved building regulations and early warning systems) along with an ethos that prefers humanitarian aid over scapegoating.⁶¹⁶ It has also spurred the scientific investigation of natural phenomena, allowing the creation of vaccines, the monitoring of volcanoes, and the tracking of tropical storms. But it has also created a false sense of control over nature, which has led to increased vulnerability. Steinberg has

⁶¹⁴ Mercier Faivre and Thomas 2008: 11.

⁶¹⁵ Huet 2012: 7.

⁶¹⁶ But see the critique of disaster aid in Gordon and Gordon 2009.

pointed out that Florida's reputation as a hurricane state is partly man-made:

Conceptually, moreover, the naturalization of disaster has at the same time perpetuated the Agency Paradigm through the creation of new agents.

The genealogy of ecocriticism is often traced back to Adorno and Horkheimer, whose *Dialect of Enlightenment*, a critique of modernity penned amidst the catastrophic unfolding of the Second World War, theorizes how the domination of nature translates into the domination of other humans. They defined the program of Enlightenment as “the disenchantment of the world; the dissolution of myths and the substitution of knowledge for fancy.”⁶¹⁷ The mechanistic and techno-scientific worldview would secure man's sovereignty over the natural world, through classification and “the regulative thought without whose fixed distinctions universal truths cannot exist.”⁶¹⁸ They show, however, that the myth-busting prowess of enlightenment rationality is underpinned, paradoxically, by a mythic fear of nature as Other: we have inherited from the Enlightenment an “anthropologically primitive fear and need to control rebellious nature.”⁶¹⁹ Each natural disaster, by exposing the lack of control, threatens to overturn this myth of mastery over nature, and challenges the political system charged with doing so. From this perspective, a disaster represents loss of control and sovereignty of the State over some Other, which can take the form of a hurricane, the HIV virus, Indians, women, or refugees. The Enlightenment, then, made a lasting contribution not only to the naturalization of disaster,

⁶¹⁷ Adorno and Horkheimer 1979: 3.

⁶¹⁸ Adorno and Horkheimer 1979: 14.

⁶¹⁹ Rabinbach 1997: 17.

but also—and especially, perhaps—to the politicization of disaster.⁶²⁰ On the one hand, this means that responsibility for disasters lies with the government, which is expected to predict, prevent and mitigate disaster. To do so, government imposes extraordinary measures to regain control: it is no coincidence that the context for Foucault’s famous discussion of panopticism as a system for surveillance is provided by the plague. On the other hand, the politicization of disaster means that specific interests of power are involved in ascribing meaning—and especially the lack thereof—to disaster. If under the Moral Agency Paradigm the blame is typically assigned to a customary set of scapegoats, the interpretive strategy of denying disaster its meaning can be said to be its exact polar opposite: an Amoral Agency Paradigm.

Helice Revisited (I): Anger and Survival

How does this Moral Agency Paradigm—with its connections to punishment, monsters, and contagion—aid our understanding of an ancient disaster such as the earthquake that leveled Helice in 373 BCE? The ancient narratives about Helice clearly partake of this paradigm: for Heracleides, Diodorus and Pausanias, the earthquake is understood in relationship to the god Poseidon, whose anger is motivating his agency. The word for anger, in Strabo’s transmission of Heracleides, is *μῆνις*, which is typically associated with divine anger, or anger of cosmic consequences.⁶²¹ It is one of the central

⁶²⁰ See Huet 2012: 8.

⁶²¹ In addition to Poseidon’s anger at Helice, Strabo uses *μῆνις* only twice more, in the exact same construction (*κατὰ μῆνιν* + divinity) and in both cases to express divine anger: *κατὰ μῆνιν Ἀθηνᾶς συνέβη* (13.1.40; shipwreck), *κατὰ μῆνιν τῆς θεοῦ* (12.8.9; disease).

themes of the Homeric *Iliad*.⁶²² Diodorus' *Library* has a total of 8 instances of μῆνις, all of which apply to divine anger. Pausanias' use of μήνιμα, which shares the same root as μῆνις, applies mostly to divine anger, and occasionally to the anger of exceptional individuals such as mythical heroes and legendary figures. Alexander the Great's destructive "anger" (μήνιμα), for example, "struck down" (κατέσκηψε) from Macedon to crush the Thebans (7.17.2). When Pausanias speaks of Poseidon's wrath, the earthquake similarly "strikes down" (κατασκήψας) Helice. The stroke from above (σκήπτος) is a central symbol of disaster phenomenology, as we have seen in Chapter 2. As I will show in Chapter 3, the verb κατασκήπτω is typical for divine visitations of all kind, not least the ultimate weapon, Zeus' thunderbolt.

The Patterns of War approach is visible, for example, in Pausanias' typology of earthquakes. The second type of earthquake is compared to the assault of battering-rams (lit. "machines for the siege of a city").⁶²³ What is clear is that the effects of divine or cosmic anger are defined by utter disaster and an overwhelmingly destructive outcome. The section on the destruction of Thebes, in fact, comes as an illustration of the latter part of Pausanias' remark that "Greece at that time [i.e. the Roman conquest] descended into a complete state of submission, although parts of it had been harmed and utterly ruined from the beginning by divine power (τοῦ δαίμονος)."⁶²⁴ Seen through the Agency Paradigm, discourse of the wrath of Poseidon falls into the same cognitive category as,

⁶²² An illuminating study of μῆνις in Homeric epic is Muellner 1996.

⁶²³ τοῖς ἐξ πολιορκίαν μηχανήμασιν (7.24.10)

⁶²⁴ Ἐξ ἅπαν δὲ ἀσθενείας τότε μάλιστα κατῆλθεν ἡ Ἑλλάς λυμανθεῖσα κατὰ μέρη καὶ διαπορθηθεῖσα ἐξ ἀρχῆς ὑπὸ τοῦ δαίμονος 7.17.1

for example, a reference to the wrath of Hurricane Katrina. Comparison here serves, as discussed before, primarily an imaginative function. I am not so much arguing for the existence of “real” similarity (that Poseidon is ontologically similar to, identical to, derived from, or in the same genus as Katrina) as that it is useful to *imagine* that they are similar.⁶²⁵ For by imagining them to be similar, we can comprehend the readiness with which ancient discourse associates disaster with an external agency. As part of a disaster *mentality*, Poseidon’s agency turns out to be more familiar than expected.

What, then, is the moral framework of the Helice disaster? For Pausanias, the destruction of Helice is proof of the inviolable rights of suppliants: “The anger of the god of Suppliants (Hikesios) is shown to be inexorable, both in the case of Helice and in many others besides.”⁶²⁶ While the cult title Hikesios is only attested for Zeus (and perhaps for Apollo), Pausanias cites other examples of this violation involving other gods (Cylon and Athena; Spartans and Poseidon) that rendered the transgressors at Helice “accursed, polluted” (ἐναγεῖς, 7.25.3), thus invoking the wrath of the Suppliant god. The disaster victims owe the disaster to their own moral actions. Their disaster state renders them contagious, and everyone is swept up in the punishment. Pausanias is adamant that nobody survived the Helice disaster: the earthquake is a weapon of mass destruction. And yet, as in TIME Magazine’s assessment of Hurricane Irma, “it’s a precision targeted weapon too.” Diodorus reports that only the transgressors died in the Helice disaster: “They

⁶²⁵ See Freidenreich 2004, and his analysis of the methodology used in J.Z. Smith’s essay on Jonestown.

⁶²⁶ Τὸ δὲ τοῦ Ἰκεσίου μήνιμα πάρεστι μὲν τοῖς ἐς τὴν Ἑλίκην, πάρεστι δὲ καὶ ἄλλοις διδαχθῆναι πολλοῖς ὥς ἔστιν ἀπαραίτητον (7.25.1)

say that except for those who committed the sacrilege no one else perished in the disaster.”⁶²⁷ The vulnerability of the community is contingent upon varying degrees of proximity to the transgressors.

A modern editor of Diodorus, Charles Sherman, wryly asks about the guilt of the ten Spartan ships that, according to Aelian, were anchored off Helice and were also destroyed by the tidal wave.⁶²⁸ Are the Spartan ships a reversed case of Hotaling’s Whiskey, challenging Diodorus’ attempt at theodicy? Any attempt to reconcile Diodorus’ and Pausanias’ seemingly incompatible accounts based on “what actually happened” is decidedly beside the point. Rather, as the discourse of Hurricane Irma suggests, the two responses are typical of hermeneutic disaster management. Both accounts can be more readily understood as complementary, similar to how Hurricane Irma is imagined to be both universally destructive and precision targeted, *at the same time*. Again, I am not suggesting that Irma and Poseidon are ontologically comparable in their destructive capacity, but that, with a view to the perceived agency of the disaster, two seemingly incompatible notions (universal vs. targeted destruction) become comprehensible through an imagined similarity. Far from equating different systems of knowledge or suggesting that we “learn” from these parallels, this modern comparison generates a hypothesis about strategies of hermeneutic disaster management in ancient discourse.

Helice Revisited (II): Signs and Meaning

⁶²⁷ λέγουσιν, ὅτι πλὴν τῶν ἀσεβησάντων οὐδείς ἄλλος περιέπεσε τῇ συμφορᾷ (15.49.6)

⁶²⁸ In Sherman’s Loeb edition of Diodorus; the reference is to Aelian 11.19.

The purpose of what I call hermeneutic disaster management is to restore meaning, and this is precisely where the semiotic framework comes in. Here Blanchot's reading of cancer as disarticulating force is evocative: "wreck[ing] the possibility of reducing everything to the equivalent of signs," disaster disrupts the exchange and the message. *Hermeneutic disaster management thus operates by restoring the possibility of reducing everything to signs.* The semiotic model here is Jakobsonian, with its emphasis on the communicative aspect of the sign.⁶²⁹ The communicative model explains the role of agency in assigning meaning to disaster: if there is a sender of the sign, the sign can function as a message. The warning signs mentioned by Pausanias and Aelian are a good example of the cultural implementation of this semiotic model: the divinity communicates in advance the pending disaster through signs. Applied to ancient discourse, however, the focus on semiotics blends some of the artificial boundaries between cultural history and literary analysis—the search for meaning in a world as represented through text, and the search for meaning in the text itself. We have observed the same connection between anthropological and textual means of divining disaster in Herodotus. In Pausanias, as in Herodotus, the explicit remark that the god is wont to send signs before disaster reflects a cultural belief about communication, with Poseidon as the sender or encoder, and the Heliconians as the (failed) receivers or decoders. At the same time, the literary *representation* of the Helice disaster by Pausanias and others oscillates, as I have noted at length, between the radical *invisibility* of the sunken city—expressed

⁶²⁹ See Chapter One, Part IV.

by καλύπτω and forms of ἀφανίζω/ἀφανής—and the lingering *visibility* of its ruins. This is expressed implicitly and is only uncovered through comparative literary analysis.

To illustrate this point, let us consider Pausanias' typology of earthquakes once more. The third, and most violent type of earthquake, is compared to the symptoms of a feverish man, whose breathing is rapid and labored. This is the type that struck Helice, and "it is this shock alone that leaves no signs (σημεῖα) on the ground that it was ever inhabited."⁶³⁰ In contrast to the feverish man, for whom "the symptoms (ἐπισημαίνει) are everywhere set upon his body," the earthquake leaves behind no visible signs. Seen from a semiotic perspective—akin to the Uncertainty Paradigm, according to which disaster threatens or reflects a loss of meaning—this is a fascinating notion: on the one hand, this disaster—measured by its impact—is characterized by the total absence of signs; on the other hand, by signifying the most destructive type of earthquake, the absence of signs is itself meaningful, and *re-establishes meaning*. Significantly, in the narratives about Helice, we never witness the actual moment or experience of the loss of meaning.

Meaning is always already restored by the disaster narrative itself. Can we say that the literary and narrative function of disaster discourse plays a role in hermeneutic disaster management complementary to such cultural historical phenomena as detecting agency in the environment? This may seem to push the limits of interpretation, but certainly the suggestion that narrative itself is a form of coping with (the signs of) disaster is not controversial at all. What I am suggesting, then, is that disaster discourse—as analyzed

⁶³⁰ μόνη τε ἡ τοιαύτη κίνησις οὐδὲ τοῦ οἰκισθῆναι ποτε ὑπολείπει σημεῖα ἐν τῇ γῇ (7.24.11)

through the semiotic perspective—both offers insight into strategies of, and simultaneously *is part of*, a hermeneutic management of disaster.

PART III

POSEIDON'S DISASTER AGENCY

Signs, Symbols, Myth

The meaning of Helice in ancient discourse is bound up with the agency of Poseidon. Considering the disaster as a divinatory sign, the identity of the agent is revealed through its effects. As Helice is covered over, Poseidon is revealed. If the Helice discourse is informed by Poseidon's perceived disaster agency, our understanding of the meaning of Helice depends on the way Poseidon is imagined to operate. In turn, Poseidon's disaster agency as reflected in myth reveals some of the symbolic and religious assumptions on which the cultural construction of Helice is based. The transition from a "historical" disaster such as Helice to the "ahistorical" disasters of mythology is more straightforward than it may appear at first sight. Already, the case-study of Helice discourse has provided us with a first glimpse into the structural patterns on which the cultural construction of disaster is based. The Moral Agency Paradigm has given us the notion of a communicative or punitive deity, and a community at risk of transgression and punishment. The semiotic perspective has provided us with a system of signs through which the meaning of disaster is negotiated, both implicated within the text (narrative level) and explicated through the text (cultural historical level). The way in

which *text*, broadly conceived as “any collection of signs which together form a coherent whole,” produces meaning—in narrative and in the physical world—lies at the heart of the hermeneutic enterprise.⁶³¹ In hermeneutic disaster management, then, text is an effective way to restore the possibility of reducing everything to signs.

Myth, as I use it here as well as in Chapter Four, can play the role of a traditional and authoritative set of signs (“a symbolic narrative”) that makes sense of the world, especially a world in which disaster, like a cancer, is continuously blurring message and exchange through the anarchic proliferation of the sign.⁶³² Homer’s testimony, for Thucydides, provided sure signs, τεκμήρια. Referencing the work of Ernst Cassirer, Gordon and Gordon remark that “Myth, in our context, brings meaning to this chaos of signs, the sign continuum, by making it symbolic.”⁶³³ What does it mean to make signs symbolic? In *An Essay of Man*, Cassirer distinguishes between signs (or signals) as operators and symbols as designators. This distinction, for Cassirer, separates animals from humans. Signs are part of the “physical world of being;” symbols of the uniquely “human world of meaning.”⁶³⁴ The transition from sign to symbol, therefore, suggests the transition from the physical world to the abstracted world of human consciousness. The

⁶³¹ Martin and Ringham 2006: 199.

⁶³² Martin and Ringham 2006: 130; Blanchot 1986: 86. For definitions of myth and the emphasis on tradition, compare Burkert 1979: 23: “A traditional tale with secondary, partial reference to something of collective importance” and Bremmer 1987: 7: “Traditional tales relevant to society.”

⁶³³ Gordon and Gordon 2009: 33.

⁶³⁴ Cassirer 1944: 32. For a critical analysis of Cassirer’s distinction between signs and symbols, see Schultz 2000: 64-8.

chaos of signs, whether manifest through an utter lack, or an anarchic proliferation, of signs, becomes itself a symbol on a narrative level. In the discourse on Helice, as we have seen, the absence of signs has itself become significant—or, in Cassirer’s terminology, symbolic. Cancer, as one of Blanchot’s manifestations of disaster, wrecks the possibility of reducing everything to the equivalent of signs. Conversely, symbols, according to Cassirer, *cannot* be reduced to mere signs. Thus, a state of disaster becomes meaningful by reducing it to the equivalent of signs, which help connect events in the physical world of being; myth, in turn, transposes the sign to the human world of meaning by rendering it symbolic.

The difference in the semiotic terminology of “symbol” between Cassirer and Peirce is worth elaborating on. For Peirce, as we have seen, the symbol is not distinguished from a sign, but rather a type of sign (the other types being icon and index), whose relationship to its referent is entirely arbitrary or conventional. Compared to the icon and index, whose relationship to the referent is based on resemblance and causality, respectively, the symbol is most removed from the referent (physical object in reality). Peirce’s symbol thus shares this quality of separation from the physical world with Cassirer’s symbol, which likewise is a designator in the human world of meaning. (The separation between humans and animals that Cassirer envisioned seems to be maintained: some animals may be able to decipher Peirce’s icon—e.g. a picture of an apple—but not Peirce’s symbol, e.g. the word “apple.”) Where I diverge sharply from Cassirer’s theory of symbols is in his description of the act of myth-making as one of emotional excitement, which he considers continuous with religious thought in a sense reminiscent

of Tylorian animism.⁶³⁵ We can, however, cautiously bracket these objections, since my concern is less with *how* mythical concepts and symbols are formed (and certainly not in some universal anthropological or Cassirer's Neo-Kantian way) as with what myths and symbols reveal about certain cultural historical conceptions, in this case concerning disaster. On this mythological plane, disaster is rendered meaningful through symbols. The question is: which symbols?

“God of Brute Force”

The general assumption I work with, then, is that the symbolic language about disaster informs disaster discourse such as we find it in the testimonies of Helice. While Aelian, who places the signs preceding Helice explicitly in the mythological context of Homeric epic, seems to be an obvious example validating this assumption, I have something more implicit and subconscious in mind. The fact that the Helice disaster is associated, from Heracleides to Seneca, with Poseidon is suggestive of a certain model of Agency. Why this god in this case? The answer to this question can be answered, at least superficially, by referring to the god's field of action, or sphere of influence. Seneca, for example, refers to the Homeric epithet “Earth-shaker” to confirm that the “power of the sea for moving [the earth]” (*maris movendi potentia*) has been assigned to Poseidon.⁶³⁶

⁶³⁵ See the critique in Kirk 1970: 261-8.

⁶³⁶ The extent to which Poseidon is Lord of the Water versus Husband of Earth (partly based on the difficult proposition that *da-* in Mycenaean *Poseidaon* refers to Earth) is much debated. For references, see Burkert 1985: 402 n. 2; for Poseidon Lord of Horses (interpreted as chthonic animals) as an indication of the sea being a secondary characteristic, see references in Burkert 1985: 403 n. 37. Against this: e.g. Nilsson *GGR* 450.

Indeed, Poseidon seems to be the deity of natural disaster *par excellence*, “a god who sends destructive storms at sea, earthquakes, seaquakes, volcanic eruptions and other natural disasters (*Naturkatastrofen*).”⁶³⁷ We can compare two similar statements on Poseidon’s field of action by Walter Burkert and Jan Bremmer:

Poseidon remains an embodiment of elemental force; sea storm and earthquake are the most violent forms of energy directly encountered by man, while the horse was the strongest energy which man could then control. One can grapple with such power and one must always take account of it, but clarity and illumination does not proceed from it – this must come from Athena or Apollo; and the only thing entirely irresistible is the heavenly thunderbolt.⁶³⁸

P[oseidon]’s connection with the nervous energy of the horse, the unpredictable strength of sea and earth and the brute force of ecstatic warriors demonstrate that he was associated with the terrifying powers of man and nature. At the same time, in situating P[oseidon]’s shrines outside the polis, the Greeks communicated a value judgment about the acceptability of brute force in human society, a judgment reinforced by the juxtaposition of P[oseidon] and Athena or Apollo in Greek mythology: the god of brute force and chaos is always subordinate to the gods of intelligence and order.⁶³⁹

Both scholars point out the limitations of Poseidon’s elemental force in ancient Greek religion: he is subordinate, on the one hand, to gods such as Athena and Apollo, who establish order and bring enlightenment, and, on the other, to the most powerful expression of violence, namely that of Zeus’ thunderbolt.

To fully understand the role of Poseidon in the Greek experience of the Helice disaster, we cannot rely on Poseidon’s supposed sphere of influence alone. One of the

⁶³⁷ Simon 1969: 69.

⁶³⁸ Burkert 1985: 139.

⁶³⁹ Bremmer *NP* “Poseidon.”

structuralist principles as formulated by Dumezil suggests that the polytheistic system of the Greeks can only be understood when the gods are analyzed in relation to one another. Poseidon and Zeus the Suppliant are both linked to the destruction of Helice in Pausanias' account. The god Dionysus, who in Euripides' *Bacchae* supervises the earthquake that shakes the foundations of Pentheus' palace, invokes "Lady Earthquake" (Ἐννοσι πότνια, 585).⁶⁴⁰ The epithet ἐλελίχθων ("Earth-shaker") is applied to Poseidon (Pi. *P.* 6.50) and Dionysus (S. *Ant.* 153). According to the scholiast, Dionysus is so called because the frenzied dance movements of his Bacchantes shake the earth. The power to shake the earth, it seems, is not limited to Poseidon. Still, other epithets attest to Poseidon's ability to move the earth, including Ἐνοσίχθων and Ἐννοσίγαιος (both "Earth-Shaker") and the cult title "Securer" (Ἀσφάλειος). Pausanias (3.11.9) reports that Poseidon the Securer had a sanctuary in Sparta together with Athena of the Marketplace. Furthermore, Poseidon's epithet "Earth-mover" or "Earth-holder" (Γαίηοχος, Γαίαοχος) is also applied to Zeus and Artemis.⁶⁴¹ In the latter case, Artemis "Earth-mover" is called upon to ward off the plague of Thebes alongside Athena and Apollo (Soph. *OT* 160). The polytheistic system of the Greeks suggests that a variety of divinities can be involved in causing, and warding off, disaster; the relations among them reveal a dynamic, rather than a static, picture of disaster agency.

⁶⁴⁰ Dodds 1960: 150 translates "Sovereign Spirit of Earthquake." Woodruff 1998: 24 has "Queen of Commotion."

⁶⁴¹ The meaning of this epithet is uncertain because of the latter part of the compound: an inscription from Sparta (*IG* V 1.213) has *gaiawochos*, which would suggest the epithet does not belong to *echein* ("hold"), but to the root **uegh-* "to move, carry." Chantraine has postulated "to shake." See Burkert 1985: 402 n. 21.

Poseidon's Mode of Action

Besides what Marcel Detienne calls *the already-structural* (e.g. multiple gods sharing a sanctuary or epithet), “the surest validation for an analysis of the relations between gods or the definition of the field of action peculiar to a divine power would stem from some native statement, particularly one of a theological nature: a statement by [someone] ... who, down the ages, transmitted not only the most *conscious belief* but also, along with those, all that was abandoned to the *historical subconscious of the language* and the civilization that the language conveyed.”⁶⁴² On the one hand, an explicit native statement such as that of Seneca transmits the “conscious belief” that earthquakes fall under Poseidon’s province. On the other hand, the language of invisibility that dominates Helice discourse (Heracleides: καλύπτω; Diodorus: ἀφανισμός; Pausanias: ἀφανής; Aelian: ἀφανίζω) reveals the “historical subconscious of the language” transmitting the manner in which Poseidon intervenes. This leads to another one of Dumézil’s structuralist principles, namely that “the thing to discover is not *where* a god intervenes, but *how* he does.”⁶⁴³ The god’s field of action is thus distinguished from the god’s mode of action.

We can apply these principles to Diodorus, who offers more elaborate “clear proofs” (ἐμφανεῖς ἀποδείξεις) that it was Poseidon who destroyed Helice (15.49.4-5). Diodorus presents four such proofs: earthquakes and floods fall under Poseidon

⁶⁴² Detienne 2008: 61. Emphasis is mine.

⁶⁴³ Detienne 2008: 61. Emphasis in the original.

“authority” (ἐξουσίαν, cf. *potentia*); ancient belief has it that the Peloponnese was Poseidon’s “dwelling-place” (οἰκητήριον); the country is considered “sacred” (ιεράν) to Poseidon, and he is honored above all by all its cities; and, finally, there are great caverns and bodies of water under the Peloponnese, including two underground rivers, one of which plunges in the ground and, in former times, completely “disappeared” (ἡφανίζετο), while the second one plunges into a “chasm” (χάσμα) from where it flows “hidden under the earth” (κεκρυμμένος κατὰ γῆς). This seems to be a mixture of theological, geographical, and environmental proofs. First, that earthquakes fall under Poseidon’s authority is a theological assumption, one that is transmitted by, for example, as old and theological a tradition as Homer. Second and third, the geographical location of the disaster (Helice, on the Peloponnese) is suggestive of Poseidon as well, since this space is both home to him (οἰκητήριον) and considered sacred to him by the inhabitants. Both these proofs are transmitted as conscious beliefs.

The fourth proof is, at first sight, somewhat strange: the underground rivers bear no direct relationship to the events at Helice at all. While Poseidon is no river god, the subterranean rivers that can inexplicably emerge as springs are likely associated with his control over the earth.⁶⁴⁴ A chorus in Aeschylus praises the water of the Theban river Dirke, which “Earth-holder Poseidon” and the children of Tethys send forth (A. *Sept.* 304).⁶⁴⁵ I would suggest that Poseidon’s agency over the earth becomes manifest,

⁶⁴⁴ See also Bremmer *NP* “Poseidon.”

⁶⁴⁵ Cf. Pind. *O.* 6.58. The epithet Epilimnios (Poseidon of the Lake) may be connected to this aspect of the deity as well (*SEG* 28.690; 32.1273; Hesychius s.v.). Burkert 1985: 139 points to the Aeschylus passage to suggest that “all springs are said to be sent by Poseidon,” but that seems an

specifically, in his ability to make things disappear, and possibly re-appear, *by covering over things that should be visible and exposing things that should be invisible*. The presence of rivers “hidden under the earth” (κεκρυμμένος κατὰ γῆς), and their marvelous re-appearance to the surface, exemplifies Poseidon’s control over the earth to cover up or expose things (possibly with larger, eschatological implications, given the reputation of underground rivers such as the Styx). This environmental proof, then, turns out to be the most precise: this is exactly what happened at Helice, as the parallel language of disappearance (ἀφανίζω, κρύπτω) testifies, subconsciously or otherwise. The third proof stands out because it tells us *how* Poseidon intervenes.

Supporting evidence of this interpretation of Poseidon’s mode of action in afflicting disaster is found in Pausanias. As we have seen, here, too, Helice is wiped off the map by a divinely sent earthquake followed by a tidal wave. But Pausanias compares the disaster to the utter disappearance of a Lydian city on Mt. Sipylus, which “vanished into a chasm” (ἐς χάσμα ἀφανισθῆναι, Paus. 7.24.13). Pausanias tells us that the mountain split, water welled up, and the chasm became a lake called Saloë. The resulting absence of traces is similar to Helice (ἀφανισθῆναι, cf. ἀφανές). In fact, Pausanias points explicitly to the environmental change that hides the visible ruins from view: “the ruins of the town were visible (δῆλα) in the lake, until the water of the torrent hid them from view (ἀπέκρυψεν, 7.24.13).”⁶⁴⁶ What this passage demonstrates, then, is the power of Poseidon-induced disaster to completely cover up, hide from view, and render invisible

exaggeration to me. There is, however, a clear connection between Poseidon *Hippios* (of the Horse) and fresh-water springs

⁶⁴⁶ ἐρείπια πόλεως δῆλα ἦν ἐν τῇ λίμνῃ, πρὶν ἢ τὸ ὕδωρ ἀπέκρυψεν αὐτὰ τοῦ χειμάρρου.

both those it seeks to punish and the very signs or traces of it. In the following sections, I demonstrate how Poseidon's mode of action regarding disaster first takes shape on the symbolic level of the Homeric epics and other sources of Greek mythology.

Breaking Open the Earth

The first representation of an earthquake in Greek literature—and, I would argue, of disaster more generally besides the λοιμός of Book 1—occurs in Book 20 of the *Iliad*. An epic scene of divine strife (the word ἔρις bookends the passage) pitches gods against gods before the walls of Troy, with earth and sky both in turmoil (*Il.* 20.55-66):

So the blessed gods stirring on both drove them
Together, and broke out among themselves the weight of their strife (ἔριδα).
Terribly thundered he father of gods and men
From high above, while Poseidon from deep under (νέρθε) shuddered (ἐτίναξε)
the boundless earth and the sheer heads of the mountains.
And all the feet of Ida with her many waters were shaken (ἐσσεύοντο)
And all her crests, and the city of Troy, and the ships of the Achaeans.
Aidoneus, lord of the dead below, was in terror
And sprang from his throne and screamed aloud, for fear that above him
Earth-Shaker (ἐνοσίχθων) Poseidon might break the earth open (ἀναρρήξειε)
And the houses (of the dead) be exposed (φανείη) to mortals and immortals
Ghastly and moldering, so the very gods shudder before them;
Such was the crash that arose as the gods clashed together in strife (ἔριδι).⁶⁴⁷

The scene portrays the three dominant cosmic powers—the brothers Zeus, Poseidon and Hades—in their respective *fields* of action, engaged in their respective *modes* of action.

⁶⁴⁷ Ὡς τοὺς ἀμφοτέρους μάκαρες θεοὶ ὀτρύνοντες / σύμβalon, ἐν δ' αὐτοῖς ἔριδα ῥήγνυντο
βαρεῖαν· / δεινὸν δὲ βρόντησε πατὴρ ἀνδρῶν τε θεῶν τε / ὑπόθεν· αὐτὰρ νέρθε Ποσειδάων
ἐτίναξε / γαῖαν ἀπειρεσίην ὀρέων τ' αἰπεινὰ κάρηνα. / πάντες δ' ἐσσεύοντο πόδες πολυπίδακος
Ἴδης / καὶ κορυφαί, Τρώων τε πόλις καὶ νῆες Ἀχαιῶν. / ἔδεισεν δ' ὑπένερθεν ἄναξ ἐνέρων
Αἰδωνεύς, / δείσας δ' ἐκ θρόνου ἄλτο καὶ ἴαχε, μὴ οἱ ὕπερθε / γαῖαν ἀναρρήξειε Ποσειδάων
ἐνοσίχθων, / οἰκία δὲ θνητοῖσι καὶ ἀθανάτοισι φανείη / σμερδαλέ' εὐρώεντα, τὰ τε στυγέουσι
θεοὶ περ· / τόσπος ἄρα κτύπος ὄρτο θεῶν ἔριδι ξυνιόντων.

Zeus thunders from on high, while Poseidon shakes from down below (ἐτίναξε, ἐσσειόντο). Poseidon's power to shake things is all-encompassing: significantly, from bottom to top (not from top to bottom, e.g. "the feet of Ida ... and all her crests") and from earth to sea (e.g. "the city of Troy, and the ships of the Achaeans"). In the realm below, Hades fears that Poseidon "might break open" (ἀναρρήξειε) the earth and the Underworld "might be exposed" (φανείη). Exposing the houses of the dead to the light of day, for immortals and mortals to see, is a prospect of unspeakable horror: the next line contains a formula typically associated with Tartaros, the dark pit or "great chasm" (χάσμα μέγα) underneath Hades.⁶⁴⁸

Poseidon has personal and structural connections to Tartaros. It is a place that should remain hidden away in darkness, or Erebos (cf. *Ap. Bibl.* 1.1-3).⁶⁴⁹ Indeed, a late Roman source suggests that the type of earthquake (*chasmatia*, gaping) that swallowed up Helice sinks its victims down "into the deep abysses of Erebos, hidden in eternal darkness."⁶⁵⁰ It does not only represent death, but also the containment of chaos in the service of cosmic order. Hesiod refers to the place as a τέρας, which indicates its monstrous ability to signify something that ought to be concealed. Tartaros is the place that imprisons the Titans, who pose a challenge to the cosmological regime established by the Olympian gods. In fact, the gates that guard the entrance to Tartaros are built by

⁶⁴⁸ σμερδαλέ' εὐρώεντα, τά τε στυγέουσι θεοί περ (*Il.* 20.65); ἀργαλέ' εὐρώεντα, τά τε στυγέουσι θεοί περ (*Hes. Th.* 739, 810).

⁶⁴⁹ In Orphic cosmogony, the four primordial elements are Chaos, Night, Erebos, and Tartaros (*Ar. Av.* 685ff).

⁶⁵⁰ *ad Erebi profundos hiatus abactae, aeternis tenebris occultantur* (*Am. Marc.* 17.13).

Poseidon, so the Titans can be “hidden” (κεκρύφονται, *Th.* 730). What is more, the gates are guarded by the Hundred-Handers, one of whom is Poseidon’s son-in-law. Poseidon’s hypothetical ability to expose Tartaros to mortals and immortals thus threatens to overturn the established order. Variations of the epic formula “shining upon mortals and immortals” are typically reserved for the sun (e.g. ἀθανάτοισι φαείνοι / καὶ θνητοῖσι βροτοῖσιν, *Od.* 3.2-3, cf. θνητοῖσι καὶ ἀθανάτοισι φανείη, *Il.* 20.64, the line ending is similar, with active and passive optatives of φαίνω, respectively). In fact, a similar threat of exposing the houses of the dead is uttered by Helios himself in the *Odyssey*. The context is the cattle of the sun-god, which Odysseus’ companions have foolishly slaughtered. Helios tells Zeus: “Unless they pay me fitting recompense for my cattle, I will go down to Hades and shine among the dead” (*Od.* 12.382-3). Zeus responds that Helios should “keep shining upon mortals and immortals” (ἀθανάτοισι φάεινε / καὶ θνητοῖσι βροτοῖσιν, *Od.* 12.385-6). As compensation for his lost cattle, Zeus promises to strike Odysseus’ ship with lightning and shatter it to pieces. Helios’ threat is based on his control over (the movement of) the sun. Hades’ fear in *Iliad* 20, by contrast, is based on Poseidon’s control over (the breaking open of) the earth. In either case, we are dealing with disasters in the sun.

Leveling the Achaean Wall

The power of Poseidon to break things open is attested in one other context in the *Iliad*, which sheds further light on his ability to inflict disaster by covering up and rendering unseen. The same verb ἀναρρήγνυμι (“break up/open,” *Il.* 20.63), quite rare in Archaic poetry, is used in a passage describing Poseidon’s desire to destroy the Achaean

wall.⁶⁵¹ The Achaeans, anxious to protect their ships beached on the shores of Troy, have fortified their camp with ramparts, ditches, and walls (*Il.* 7.436-41). The gods take notice, and at an Olympic council Poseidon complains to Zeus that no appropriate hecatombs have been given. What is more, the fame of the great Achaean wall threatens to eclipse that of the Trojan walls, which had been built by the hands of Poseidon and Apollo. While the latter argument seems more personal to Poseidon and explains his particular interest in the matter, both the failed sacrifices and the rivalry with the Trojan wall are ultimately threats to divine *kleos*. In his reply, Zeus addresses this concern explicitly, reassuring Poseidon that “your fame (κλέος) will last as long as the light of dawn is scattered” (*Il.* 7.458, cf. line 451). Poseidon’s *kleos* is tied to the fate of the Achaean and Trojan walls. Zeus realizes this and tells Poseidon (*Il.* 7.459-63):

Come now, after once more the flowing-haired Achaeans
are gone back with their ships to the beloved land of their fathers,
break up (ἀναρρήξας) their wall and scatter (καταχεῖν) it into the salt sea
and again cover (καλύπτειν) the great beach with sand;
so let the great wall of the Achaeans go down to destruction (ἀμαλδύνηται).

The mode of destruction employed by Poseidon (or at least so proposed by Zeus) is not only to break up and to scatter, but also to “cover” (καλύπτειν)—the same verb Heracleides would use for Helice. Poseidon’s concern with the utter removal of any visible sign of the wall is motivated by the threat to his *kleos*. Breaking up the Achaean wall, scattering it

⁶⁵¹ ἀναρρήγνυμι occurs three times in the *Iliad*, and not in the *Odyssey*, Hesiod, or the lyric poets before Pindar. Twice the verb describes an action by Poseidon (7.461, 20.63); the objects of the verb are the Achaean wall and the earth, respectively. The other occurrence in the *Iliad* is of two lions “renting apart” the carcass of a bull, in the description of the shield of Achilles (*Il.* 18.561). The verb’s association with outbursts of natural violence resurfaces in Aristotle, who uses the passive form to describe floods and volcanoes (*Mete.* 368a26; *Mir.* 846a9, respectively).

into the sea, and finally covering the beach with sand ensures the total effacing of the wall's traces. The verb ἀμαλδύνηται, which the scholiast in fact glosses as ἀφανίζεται ("disappear"), underscores this effect: literally, ἀμαλδύνω means to soften or smoothen; in the case of the wall, it is a disappearing by smoothening or leveling.

In this sense, ἀμαλδύνω has a semiotic meaning that suggests effacing, wiping clean, removing identifying markers. Besides the context of the leveling of the Achaean wall, this use is demonstrated in the one other Archaic attestation of the verb, an illuminating passage in the *Hymn to Demeter*. Distraught and angry, Demeter has removed herself from the company of the gods. She travels the human world in disguise, "effacing (ἀμαλδύνουσα) her looks for a long time, so that nobody among men or broad-girdled women would recognize (γίγνωσκε) her upon sight" (*HH* 2.94-5). The goddess erases the visual markers that would give away her divine aspect, for the purpose of not being recognized. She is, quite literally, undercover. The semiotic sense of ἀμαλδύνω is also exemplified by a passage in Apollonius. It tells how hunters rise early to avoid the light of dawn, "lest it efface (ἀμαλδύνῃ) the quarry's fresh track and scent, drying it up (ἐνισκίμψασα) with its white beams" (*A.R.* 4.112-3). Here, the power of the sun erases, rather than reveals, visual and olfactory signs.⁶⁵² The effacing of such signs—whether the Achaean wall, Demeter's looks, or the quarry's tracks—renders their surface a blank slate, devoid of points of orientation and hence beyond recognition, a disaster state. In

⁶⁵² The hunters in the *Argonautica* rely on the cover of darkness to counter the parching power of the sun to erase signs. Similarly, in *Iliad* 23, Apollo uses a dark cloud and "covers" (κάλυψε) the body of Hector to prevent the sun from "drying up" (σκήλει) his flesh (*Il.* 23.189-91). The sun has the paradoxical quality to hide things, through scorching, that should be exposed (tracks; corpse).

the case of the erasing of the Achaean wall, this is achieved through two elements exemplary in their disorienting uniformity: water and sand, the sea and the beach (or, possibly in a different context, the sandy desert).⁶⁵³ In this way, Poseidon inflicts disaster by smoothening out and covering up the visual signs that threaten his *kleos*.

This interpretation is strengthened by the opening of *Iliad* 12, when the epic poet returns to the ordained fate of the Achaean wall in more detail.⁶⁵⁴ The poet announces that in the tenth year, when Troy has been sacked and the Achaeans have returned home, “then at last Poseidon and Apollo took counsel to level (ἀμαλδῦναι) the wall, letting loose the strength of the rivers” (*Il.* 12.17). Three gods are involved in the destruction of the wall: Apollo, Zeus, and Poseidon (*Il.* 12.24-32):

Phoebus Apollo turned the mouths of these waters together
and nine days long threw the flood against the wall, and Zeus rained
incessantly, to break the wall faster and wash it seaward.
And the Earth-Shaker (ἐννοσίγαιος) himself holding in his hands the trident
guided them (ἡγεῖτ'), and hurled into the waves all the foundations (θεμεῖλια)
of logs and stones, which the toiling Achaeans had put in place,
and made all smooth (λεῖα) again near the hard-running Hellespont
and once again covered (κάλυψε) the great beach with sand
after leveling (ἀμαλδύνας) the wall.

Apollo manipulates the landscape by redirecting the rivers, Zeus rains down heavily from above, and Poseidon, who is portrayed as the leader of the effort, attacks the very foundations (θεμεῖλια) of the wall. This is consistent with his titles Earth-Shaker

⁶⁵³ Herodotus gives an account of a sandstorm (known today as *simoom*, “poison wind”) in the Egyptian desert, which “buried” (καταχῶσαι) the army of Cambyses and made it “disappear” (ἀφανισθῆναι) under the sand (*Hdt.* 3.26). Cf. *Hdt.* 4.173.

⁶⁵⁴ “The present passage reads like a naïve device to explain why no Achaean wall, or its ruins, stood in the poet’s days. This is the view taken by bT here and at 7.445, cf. Aristotle fr. 162 Rose” (= Strabo 13.1.36). Kirk 317. On the wall, see also Scodel 1982: 33-50.

(ἐννοσίγαιος), Securer (Ἀσφάλειος), and Upholder of Foundations (θεμελιοῦχος, *SEG* 30.93, *Inscr. Del.* 290.116), and his tendency to destroy, as we have seen, from the bottom up. (This is the essence of overturning, or καταστροφή.) Significantly, Homer explicitly mentions that Poseidon made the land all “smooth” (λεῖα) again, before concluding with a close variant on the lines in Book 7 (462-63) that includes covering with sand and leveling. In the joint effort to destroy the Achaean wall, Poseidon’s mode of action involves breaking up and overturning foundations—not, as in the cosmic earthquake of *Iliad* 20, to expose things, but now to cover up that which threatens his *kleos*.

Covering with Mountains (I): Phaeacia

Poseidon’s mode of action in inflicting disaster is, in part, defined by the antitheses of covering up/exposing, which, as I have argued, mark his disasters as semiotic events. Poseidon, moreover, is a master of enclosing and trapping. He shuts up the Titans in Tartarus, and he traps Odysseus at sea. Poseidon makes things disappear by covering them up after he has trapped them. Building walls, as the ones that enclose the Titans in Tartaros, is an obvious example of Poseidon’s ability to trap things. Another example is his ability to root and uproot things, as a close parallel to the scene of the Achaean Wall in *Iliad* 7 reveals.⁶⁵⁵ The ability to root/uproot is already intimated by Poseidon’s strategy of undermining the foundations (θεμελία) of the Achaean wall. On

⁶⁵⁵ Kirk 288-9 already notes that the two Homeric scenes are close parallels. On the role of both scenes as “negative aition,” see de Jong 2001: 321.

the flipside, of course, it was Poseidon who laid the foundations of the Trojan wall as well as the gates and walls encircling Tartaros, concealing the Titans. The parallel scene occurs in the *Odyssey*, a poem that centers on the antagonistic relationship between Poseidon and Odysseus. In this context Poseidon complains to Zeus about threats to his *kleos*. If in *Iliad* 7 it was the Achaean Wall that posed the threat, in *Odyssey* 13 the early homecoming of Odysseus is cause for complaint. Poseidon tells Zeus that the Phaeacians—who, like Polyphemus, are Poseidon’s progeny—have dishonored him by granting Odysseus passage on their ship and showering him with lavish gifts. (Odysseus’ attempt at passage, or *poros*, constitutes his trying to navigate his way out of being a disastered individual.) Poseidon suggests the following punishment (*Od.* 13.149-52):

Now I wish to wreck (ῥαῖσαι) the beautiful ship of the Phaeacians
as it returns from its journey on the misty sea,
in order that they may stop and desist from conveying
people, and I would cover (ἀμφικαλύψαι) their city with a great mountain.

Poseidon’s mode of action once again consists in inflicting disaster by covering something over (-καλύψαι) on all sides (ἀμφι-), specifically by hiding it under rock and earth (a mountain), just as the coffin envelopes the dead man’s bones or the dark mist of death shrouds the dying warrior (e.g. *Il.* 23.91, 16.350).⁶⁵⁶

In addition, Poseidon wishes to wreck the ship, as he so often does. Shipwreck is a way of trapping people at sea, cast adrift on a raft or stranded on an island. Odysseus, of

⁶⁵⁶ The verb ῥαῖσαι (< ῥαίω), typical for Poseidon’s ability to wreck ships (cf. *Od.* 5.221, 6.326, 23.235), is of particular interest: the etymology of the word (this is a conjecture by Frisk, see Chantraine 966) is thought to be a cross between ῥήγνυμι (“break”) and παίω (“strike”)—ἀναρρήγνυμι, as we have seen, is associated with Poseidon both in *Iliad* 20 (cosmic earthquake) and *Iliad* 7 (Achaean wall).

course, is shipwrecked, and so is Locrian Ajax, the only hero besides Agamemnon to die on his homecoming from Troy. Poseidon drove him against the rocks of Gyrai (identified as modern Gyaros, a tiny island in the Cyclades).⁶⁵⁷ Ajax survived, but boasted that he had escaped the waves in spite of the gods. Poseidon heard him, and with his trident split a piece off Gyrai; this “splinter” or “piece” (τρύφος) crashed into the water, dragging Ajax with it (4.500-9). It is this piece of rock that kills Ajax, as it “carried him down into the sea (πόντον), endless and tossing” (*Od.* 4.510).⁶⁵⁸ Unlike θάλασσα or πέλαγος, the term πόντος designates the unknown open sea, “where the shores are lost to view and where all that can be seen are the sky and the water which, during starless nights or in misty storms become indistinguishable, forming a single, dark, indistinct mass where there is no point of reference to help one find one’s way.”⁶⁵⁹ Thus, Poseidon breaks off a rock that conceals its victim under the ever-tossing waves of the deep sea, erasing all sign of him. Ajax has been disastered.

Covering with Mountains (II): Polybotes

Parallels to this mode of action include Poseidon’s treatment of the giant Polybotes and his treatment of some his sons. Diodorus tells the latter story: Poseidon’s sons by the nymph Halia (later Leucothea) refuse Aphrodite passage to Rhodes, and the

⁶⁵⁷ Cf. Lycophron’s *Cassandra* 387-407: Ajax’s death is retribution for his violation of the prophetess Cassandra. Hornblower 2015 ad loc.

⁶⁵⁸ τὸν δ’ ἐφόρει κατὰ πόντον ἀπείρωνα κυμαίνοντα. Significantly, the epithet ἀπείρων is similarly applied to πόντος in *Theogony* 678, a key disaster passage during the Titanomachy (with many parallels to the divine strife in *Iliad* 20) that is discussed in the next chapter.

⁶⁵⁹ Detienne and Vernant 1991: 152.

goddess punishes them with madness. They rape their mother Halia and abuse the locals, and so Poseidon “buried them under the earth” (κρύψαι κατὰ γῆς, D.S. 5.55.7) for their wicked deeds. As we have seen, Diodorus uses a similar phrase for his fourth proof of Poseidon’s agency at Helice, in the context of the underground rivers “buried under the earth” (κεκρυμμένος κατὰ γῆς). The case of Polybotes is more specific. During the Gigantomachy, “Polybotes, as he was chased through the sea by Poseidon, came to Cos; and Poseidon, breaking off (ἀπορρήξας) that piece of the island which is called Nisyros, threw it on him” (Apollod. 1.6.2). In the same battle Athena throws the island of Sicily on the giant Enceladus, but Poseidon is the only one who does so by breaking it off. Strabo tells the same myth about Poseidon and Polybotes, specifically as *aition* for the island Nisyros. He uses the same uncommon noun τρύφος that Homer used to designate the broken-off piece of Gyrai that doomed Ajax. Strabo writes: “Having broken off (ἀποθραύσας) a piece (τρύφος) of Cos with his trident, he threw it upon him, and the missile became the island Nisyros, holding down the giant lying beneath it” (10.5.16). Although none of the ancient sources make this connection, Nisyros is a volcanic island, suggesting another instance of the volcano-as-buried-monster motif. Buried under Mt. Etna on Sicily lies the monster Typhoeus, according to Pindar and Aeschylus, or, according to Callimachus, the giant Enceladus, Athena’s victim whom we have already met in our discussion of Euripides’ *Heracles* in Chapter Two.⁶⁶⁰

The visual record of the Polybotes myth underscores Poseidon’s mastery over the earth. In addition to Poseidon’s wielding of Nisyros on the Parthenon frieze, two Attic

⁶⁶⁰ Call. *Fr.* 117 (382) and Scholiast on Pindar *O.* 4.11.

red-figure vases from the Late Archaic and Early Classical periods show Poseidon wielding an enormous rock looming over the giant as he is about to fall down (*LIMC* s.v. Poseidon 177-8, cf. 180).⁶⁶¹ In both cases, the artist has depicted several small animals on the rock, including a scorpion, octopus, snake and deer; and an octopus, scorpion, and hedgehog. By depicting the animals, the artist makes clear that the rock is in fact an entire island, complete with indigenous fauna. But the presence of the animals serves another function that has to do with Poseidon's ability to uncover things. The animals depicted on these vases are experts at deception and hiding, whether through cunning (octopus, hedgehog, scorpion), chthonic connections (snake, scorpion), or swiftness of foot (deer). An ancient proverb, for example, warned against the scorpion lurking under every stone (e.g. Praxilla 750; Soph. *Fr.* 37; Ar. *Thesm.* 529); a drinking-song offers a particular interpretation: "Under every stone, my friend, a scorpion lurks. Take care that it does not strike you: all manner of trickery (δόλος) accompanies what is unseen (τῷ ἀφανεῖ)" (*PMG* 903). The rock hurled by Poseidon certainly represents brute force, but the creatures depicted on it also suggest that the breaking off, or unearthing, of the stone reveals things that are usually unseen. Poseidon has not just broken off any rock, he has overturned something at its very foundations, bringing to light animals that excel at hiding but no longer remain hidden. Hurling Nisyros thus shows Poseidon's mastery over the roots of the earth. A late fifth-century red-figure depiction of Poseidon's battle with Polybotes (*LIMC* s.v. Poseidon 179), in fact, leaves out Nisyros but adds Gaia, whose

⁶⁶¹ 202916 (Vienna) Beazley no. 202472, 202916; 202427 (Vatican); two black-figure vases depict the rock without animals or plants (*LIMC* s.v. Poseidon 174-5).

presence not only signals her maternal relation to Polybotes, but also underscores Poseidon's role as Earthshaker and Earthholder.

Rooting the Phaeacian Ship

Regardless of Poseidon's *ability* to cover the Phaeacian city under a mountain, Zeus allows neither that nor the wrecking of the ship. Instead, Zeus suggests "to turn [the ship] into a rock (θεῖναι λίθον) that resembles a fast ship, nearby the shore, so that all may marvel (ἵνα θαυμάζωσιν) at her" (*Od.* 13.156-7).⁶⁶² On the one hand, the petrified ship offers a semiotic marker within the physical landscape, not only for the Phaeacians (in the text), but quite likely for audiences of the epic performance as well (outside the text), with strong aetiological implications.⁶⁶³ On the other hand, transforming the ship to stone is suggestive of the manner in which Poseidon is imagined to operate. (And possibly Zeus, who transformed the τέρας of the snake devouring fledglings into a stone monument at Aulis.) When the Phaeacian ship returns, Poseidon lies in wait like a hunter, ready to act upon Zeus' suggestion (*Od.* 13.162-4):

Earth-Shaker came near her [the ship], and he
turned her into stone (λαῖαν ἔθηκε) and rooted her below (ἐρρίζωσεν ἔνερθεν)
driving with the flat of his hand. Then he went away.

⁶⁶² Whether or not Zeus denies the request to hide the city under the mountain has been much debated since Antiquity, but it does not affect my reading of the passage. All manuscripts and Aristarchus have μέγα in *Il.* 13.158; several modern editions, however, follow Aristophanes' emendation, μή. The issue is discussed in Friedrich 1989: 395-9.

⁶⁶³ Roman sources (Pliny *HN* 4.12.53; Pomponius Mela 110-111) mention the identification of a rock rising from the sea outside the harbor of Corcyra (modern Corfu) as Odysseus' ship, but the tradition is undoubtedly older (Heubeck 174; cf. Thuc. 1.25). On the petrified ship as folktale motif, see Hansen 1997: 455-6 (in Morris, Powell *New Companion to Homer*)

What is Poseidon doing here? He does not smite the ship, nor does he end up covering the city of the Phaeacians under a mountain. Turning the ship into stone, he firmly “roots the ship from below” (ἐρρίζωσεν ἔνερθεν) with his hand. Here Poseidon’s ability to create roots and foundations is on display. The epithet ῥιζοῦχος (“upholding the roots”) is attested for Poseidon in Callimachus (*Fr.* 285). Oppian, at the close of Book 5 of the *Halieutica*, offers a prayer that connects ῥιζοῦχος directly with foundations: “May Poseidon Asphalios support and guard the unshaken (ἄστυφέλικτα) foundations below (θεμεΐλια νέρθε), which hold the roots (ῥιζοῦχα) of the earth” (678-80).

The Phaeacian ship becomes rooted, thus effectively becoming an island. This invites comparison to Delos, the wandering island that became rooted (again). In Callimachus’ *Hymn to Delos*, the god Poseidon is invoked as the one who “from below lifted [the islands] all from the foundations and rolled them into the sea” (Call. *Del.* 32-3). Callimachus alludes specifically to Poseidon’s action in *Odyssey* 13 in the next line: “Down the depth of the sea he rooted them from below (πρυμνόθεν ἐρρίζωσε), so that they might forget the mainland” (Call. *Del.* 34-5).⁶⁶⁴ The implications of the comparison with Delos will be discussed further in the next chapter; suffice it to say for now that turning the Phaeacian ship to stone does not only testify to the aetiological imagination of the Aegean landscape, but also to Poseidon’s mastery over foundations and roots.

Fixing something in place, rooted to the foundations of the depth, is expressed by the verb ῥιζόω. While Poseidon’s action of immobilizing the ship by rooting it to the spot like an island may seem rather benign, this is decidedly an act of subjugation. When the

⁶⁶⁴ Stephens 2015: 186.

Phaeacians see what has happened to their ship, they ask: “Oh my, who has bound (ἐπέδησ’) our swift ship on the sea as she was sailing home?” (*Od.* 13.168-9). The ship has been immobilized as if bound by fetters, a disaster state in which Heracles found himself, too, upon waking. The implications of binding (the verb is πεδάω, < πέδη, “fetter”) for ideas of sovereignty in Greek thought are well-established.⁶⁶⁵ The ultimate weapon, Zeus’ thunderbolt, roots its victims to the spot and binds them; Poseidon’s trident functions as the thunderbolt’s double. We are reminded once again of Poseidon’s role in fixing the walls and gates that keep the Titans fettered in Tartaros after being immobilized by the thunderbolt and the Hundred-Handers. Specifically, Hesiod says “there is no exit for them, for Poseidon has put in place doors (θύρας δ’ ἐπέθηκε) of bronze, and a wall that extends all along on both sides” (*Th.* 732-3). Doors and walls are a means of covering over and concealing. At the same time, those who are behind shut doors are immobilized. In the *Hymn to Aphrodite*, the story is told that Eos locked her lover Tithonos in the bedroom and “put in place doors” (θύρας δ’ ἐπέθηκε, *HH.* 5.236) to keep him there, since he could neither move his limbs nor sit upright. Overcome by old age but deathless, Tithonos is “without any vigor” (οὐδέ τι κῆκυς, *HH.* 5.237), just as the shade of Agamemnon, rising from the Underworld to meet Odysseus, is “without any vigor” (οὐδέ τι κῆκυς, *Od.* 11.393). Being immobilized, while not quite the same as being dead, is a state of not being fully alive; rather, it is, as Blanchot would have it, *differed death: disaster*.

⁶⁶⁵ Detienne and Vernant 1991: 55-106.

Taming and Binding Alcatheos

For immortal gods that cannot be killed, being bound is the worst fate. Ares, for example, experienced this at the hands of Otos and Ephialtes, whose “harsh bond tamed him” (χαλεπὸς δέ ἐ δεσμὸς ἐδάμνα, *Il.* 5.391). There is indeed a close semantic connection between binding and taming, since bonds are an important means of taming or subduing (δαμνάω, δαμάζω, δάμνημι), including of wild animals such as the horse, an animal that has a special connection to Poseidon.⁶⁶⁶ In his treatise on horsemanship, Xenophon describes a method of breaking in horses through a figure-of-eight maneuver known as πέδη, “fetter” or, in equestrian terms, “ring” (*X. Eq.* 3.5, 7.13). Poseidon is typically said to “tame” ships through storms and gales, as the formulaic line ending Ποσειδάων ἐδάμασσεν testifies (e.g. *Od.* 11.399, 24.109). In a passage from the *Iliad*, Poseidon tames not a ship but a warrior, and he does so by magically rooting him to the spot, or binding him. The Greek hero Idomeneus battles with Alcatheos when Poseidon comes to Idomeneus’ aid (*Il.* 13.434-8):

But now, at the hands of Idomeneus, Poseidon subdued him (ἐδάμασσε), and,
having bewitched (θέλξας) his flashing eyes, he bound (πέδησε) his shining limbs
So that he could neither retreat nor evade,
But like a *stele* (ἀλλ' ὥς τε στήλην) or a tree with towering leaves
He stood there, motionless (ἀτρέμας ἐσταότα).

In this passage, we see the close association of the semantics of binding and taming, and Poseidon’s active role in it. Unlike the Phaeacian ship, which literally turns to a motionless rock, the hero Alcatheos is a *stele* or tree only by comparison. The sturdy

⁶⁶⁶ On the close semantic relationship between taming and binding see Detienne and Vernant 1991: 76ff. On Poseidon *Hippios*, see Detienne and Vernant 1991: 187-219.

materials—stone and wood—underscore the notion that Alcatheos, like the ship, has been immobilized. The effects of binding are real enough. The verb θέλξας (< θέλω) suggests a magical and transitory intervention: this is how Hermes puts people to sleep, how Circe transforms men into animals, and how the Sirens’ song bewitches its victims (*Od.* 5.47, 10.291, 12.40). Alcatheos is magically rooted to the spot, just as the tree to which he is likened extends its roots deep into the earth. The comparison to στήλη is especially noteworthy, because the word can mean a block or stone used to buttress a wall (*Il.* 12.259), or a monument, in particular a gravestone. The first meaning, certainly when juxtaposed to the tree, would suggest a position of being fixed in the ground for support; it emphasizes Poseidon’s mastery over foundations. The second meaning conveys the sense of semiotic marker, in particular one that communicates death (cf. *sema*).⁶⁶⁷ (In five out of seven Homeric instances, στήλη is mentioned alongside τύμβος, “tomb mound,” underscoring the importance of this meaning.⁶⁶⁸) Being rooted to the spot signifies death, as it indeed does for Alcatheos. Unable to flee or defend himself, he becomes easy prey for Idomeneus, like a trapped animal caught in the bonds of a net. In this sense, Alcatheos becomes his own grave marker, petrified and paralyzed.

Immobilizing Horses

⁶⁶⁷ In Classical Greek, the semantic distinction between *stèle* and *sema* as foundation and marker of death can be seen in a passage in Thucydides, which tells how the walls of Athens were built hastily, as evidenced by the mishmash of stones both polished and unwrought. Thucydides says that many “pillars” (στήλαι) of the wall were taken “from graves” (ἀπὸ σημάτων) (Thuc. 1.93).

⁶⁶⁸ *Il.* 11.371, 16.457 = 16.675, 17.434, *Od.* 12.14.

One parallel passage later in the *Iliad* sheds further light on the connection between immobilizing and death. At the death of Patroclus, the immortal horses he had borrowed from Achilles are so distraught that they are completely motionless. The opening formula is nearly identical to Poseidon's stunning of Alcatheos: "But just as a *stele* remains steadfast (ἀλλ' ὥς τε στήλη μένει ἔμπεδον), one that is placed over a tomb mound (τύμβῳ) of a dead man or woman, so they remained motionless (ὥς μένον ἀσφαλέως) holding the well-built chariot" (*Il.* 17.434-6). While the point of the comparison is the fact that both *stele* and horses stay in place (μένει, μένον), the funerary connotation (the *stele* as grave marker and the context of Patroclus' death) is equally significant.⁶⁶⁹ As the horses stand motionless, they neither want to retreat "to the wide Hellespont" (ἐπὶ πλατὺν Ἑλλάσποντον) nor go back into battle. This effect is similar to the stunned Alcatheos, who is said to be unable to retreat or evade. The inclusion of the formulaic line ending ἐπὶ πλατὺν Ἑλλάσποντον (ἐπὶ πλατεῖ Ἑλλησπόντῳ) is significant: the formula occurs twice more in Homer to refer to the tomb that will contain the bones of Achilles, which will in fact be mixed with those of Patroclus (*Il.* 7.86, *Od.* 24.82; cf. *Il.* 23.125-6).⁶⁷⁰ The immobilization of the horses and their unwillingness to return to the Hellespont, then, foreshadows the death of their master, Achilles.

What is more, the tomb of Achilles, as Nagy has shown, becomes a kind of lighthouse, a beacon for the salvation of sailors battered at sea.⁶⁷¹ The steadfast *stele*,

⁶⁶⁹ Edwards 1991: 106.

⁶⁷⁰ This is pointed out by Edwards 1991 *ad loc.*

⁶⁷¹ On the tomb of Achilles, see Nagy 2010, esp. 149-51 on the tomb as lighthouse.

marker of death, becomes a sure sign (τέκμαρ) that helps navigate sailors to safety. In Euripides' *Hecuba*, for example, Polymestor tells Hecuba that her “grave” (σῆμα) will be a “guiding mark for sailors” (ναυτίλοις τέκμαρ, 1273). What does Poseidon have to do with this? Piloting ships is Athena's sphere of action, as is steering horses. Poseidon's province lies with the brute and unpredictable strength of the element itself: the rough sea and trembling earth, as well as the wild and nervous colt. He can jolt them into action, or root them to the spot, both of which are potentially dangerous. The immobilized horses invite comparison to the stunned Alcatheos and petrified Phaeacian ship. While Poseidon is not actively involved in the paralysis of the horses as he is with Alcatheos and the ship, the language suggests that their behavior falls under Poseidon's sphere of action. Besides Poseidon's straightforward association with horses as Poseidon *Hippios*, these two horses in particular were a gift from Poseidon to Achilles' father Peleus (*Il.* 23.277-8). The comparison with the *stele* mirrors Alcatheos directly (ἀλλ' ὥς τε στήλη), and the Phaeacian ship indirectly, both by metaphor (horse :: ship) and by metonymy (stone *stele* :: stone ship).⁶⁷²

Immobilizing Chariots

The idea that Poseidon subdues ships and horses by rooting them to the spot helps explain why Antilochus, the runner-up of the famous chariot race in *Iliad* 23, is asked to swear an oath by Poseidon. Diomedes, under the protection of Athena, has won the race and claims first prize, but Achilles pities Eumelos, who has crashed, and wants to offer

⁶⁷² The metaphor is explicitly attested in Homeric epic: Penelope uses it in *Od.* 4.708-9.

the second prize to him instead of Antilochus. Antilochus protests and Achilles defuses the tension, until Menelaus, who finished third, accuses Antilochus of cheating with a chariot maneuver. Menelaus demands that Antilochus lays his hand on his horses and “swear by the Earth-Mover and Earth-Shaker that you did not bind (πεδῆσαι) my chariot on purpose with a trick” (*Il.* 23.584-5). The Byzantine commentator Eustathius already noted that πεδῆσαι (< πεδάω) is a strong word here, and Edwards has wondered whether the verb could be “another echo of the racing jargon?”⁶⁷³ I would argue that the verb is best explained in direct relation to the invocation of Poseidon. While it is true that, as Edwards has suggested, Poseidon is lord of horses and has ancestral ties to Antilochus, we can more fully appreciate the invocation by considering the action of which Menelaus accuses Antilochus.

At first glance, this seems to be Athena’s domain: control over horses is her expertise, and so is trickery. In fact, through the clever advice of Nestor, who is an expert at the sort of cunning intelligence (*metis*) that belongs to Athena, Antilochus was able to round the turning post at the right time so as to cut off Menelaus. Nestor’s advice praises *metis* over *bie* (strength): Antilochus should keep his eye on the turning post, and “hold [the horses] steady” (ἔχει ἀσφαλέως) so as to take advantage of a bottleneck in the track. Antilochus heeds his father’s advice, but uses a different trick.⁶⁷⁴ As Menelaus and Antilochus hurtle toward the post, there “was a trench in the earth (ὥχμος ἔην γαίης),

⁶⁷³ Edwards 1991: 233.

⁶⁷⁴ Thus Edwards 1991: 217; Gagarin 1983: 35-9 has argued that Antilochus overtakes Menelaus at the turn, thus following Nestor’s advice. This argument is hard to reconcile, however, with lines 373-5, which explicitly state that they (Diomedes, at any rate) were already on the final stretch. See Edwards 1991: 218.

where winter water had pooled and broken out (ἐξέρρηξεν) of the road, and hollowed out (βάθυνε) the place all around” (*Il.* 23.420-1). Menelaus proceeds along what is left of the road, while Antilochus begins to drive outside the track. He will have to rejoin the track, at which point the road is too narrow for both of them and Menelaus holds back to avoid a crash. In doing so, Antilochus has immobilized Menelaus’ chariot and stopped him in his tracks. The use of πεδῆσαι may be racing jargon, but if so, it involves tactics (whether magical *defixiones* or otherwise) that are the concern of Poseidon.

The evidence is environmental, so to speak: the binding or impeding of Menelaus’ chariot happens at a narrow passage in the road, where the force of earth and water have adversely affected its conditions. Poseidon’s field of action is unmistakable. The earth is broken open, forming a trench or a ditch (ῥωχμὸς < ῥήγνυμι) and torrent water has hollowed out the place after breaking out (ἐξέρρηξεν < ῥήγνυμι) from under the road. It is noteworthy that Aristophanes read “the place from below” (χωρον ἐνερθεν) instead of “the place all around” (χωρον ἅπαντα). As we have seen in the cosmic earthquake, Poseidon operates by shaking “from below” (νέρθε ... ἐτίναξε, *Il.* 20.57). The scholiast describes the road as a χάσμα (bT), the yawning abyss by which Tartaros is known. The scale is much smaller, of course, but this is Poseidon’s domain nonetheless. A passage in Strabo on the Homeric epithets for Lacedaemon further supports this point. Attempting to explain κητώεσσα and καιετάεσσαν (Zenodotus’ alternative reading of *Il.* 2.582 and *Od.* 4.1), Strabo reports that some say “the trenches (ῥωχοί) caused by earthquakes are called *kaietoi*” (8.5.7), a word which is apparently derived from the Laconian term for prison (*kaietas*), which Strabo says is a kind of cavern. Although Strabo makes no mention of Poseidon, the underground prison and the connection with earthquakes

(Laconia was famously prone to earthquakes, cf. Strabo εὔσειστος δ' ἡ Λακωνική, 8.5.7) are suggestive of Poseidon's sphere and mode of action.⁶⁷⁵ Antilochus did indeed impede Menelaus with a trick, taking advantage of a terrain uprooted by earth and water to immobilize Menelaus' chariot. We can now more fully appreciate why Menelaus demands an oath sworn by Poseidon.

Ironically, Antilochus meets his end in a similar situation on the battlefield at the hand of Memnon. The story, which goes back to the *Aethiopis*, is referenced in the Sixth Pythian Ode by Pindar, celebrating the victory in a chariot race. The ode, dedicated to Poseidon ἐλελίχθων ("Earth-Shaker"), narrates how Nestor's chariot is rooted to the spot, an easy prey for Memnon's spear.⁶⁷⁶ Antilochus remains standing (μένων, Pind. *P.* 6.38) and takes the spear instead, thus saving his father with his own death. The immobilization of the chariot is expressed with the verb form ἐπέδα (< πεδάω, "bind with fetters"), and the subject of the verb is Nestor's horse. The horse, Poseidon's animal, stopped the chariot in its tracks after being hit by Paris' arrows. Again, the use of πεδάω in this context signals a situation where a vehicle—a horse-drawn chariot, a ship—is suddenly rooted to the spot. Poseidon's role is to keep these vehicles steady by controlling the

⁶⁷⁵ It is worth mentioning that the Homeric epithet κητώεσσα is explained (both by the scholiast and by Strabo) to mean "large," based on the word κῆτος, which means sea monster, or, as the scholiast has it, "the largest of all water animals" (πάντων μείζον εἶναι τῶν ἐνύδρων ζώων, *Il.* 2.581 D scholia). As a sea-monster, he *ketos* is commanded by Poseidon. For example, Poseidon sent a *ketos* after the Trojan king Laomedon has failed to pay his debt to Poseidon and Apollo for building the walls of Troy (see, e.g., Ps.-Ap. 2.103; Dio. S. 4.42.1; Ov. *Met.* 11.207).

⁶⁷⁶ The "shaking" (as in: "cause to vibrate," LSJ s.v. ἐλελίζω, III) in this particular epithet may in fact be connected specifically to Poseidon Hippios, and refer to the trembling of the earth caused by the horses' hooves. As mentioned above, when the same epithet applies to Dionysus (*S. Ant.* 153), the scholiast explains that the frenzied dance movements of the Bacchantes cause the earth to shake.

natural elements and animal impulses, but the tactical use of terrain or hostile arrows can force the horse to a sudden halt and sudden disaster.

Immobilizing Ships

From the perspective of the observer, the experience or witnessing of sudden immobilization naturally invites speculation as to its cause. It is a marvel, or *thauma*, that prompts a process of inferential reasoning as to its origin or agent, thus functioning as a potentially divinatory sign. Within the narrative confines of epic poetry, the agency behind these various forms of immobilization is readily and explicitly identified with Poseidon. A curious bit of folklore sheds further light on the implications of experiencing immobilization, particularly as it pertains to ships at sea, Poseidon's realm *par excellence*.⁶⁷⁷ It was believed in Antiquity that the remora, or suckerfish, could stay a ship (hence the Latin *remora*, "delay," and its Greek name, *echeneis*, "holding a ship").⁶⁷⁸ Oppian describes this extraordinary marvel in detail: the tiny fish gapes its mouth around the keel of the ship, and no longer does the ship heed the helm, or obey the waves and winds, "but, fixed fast (παγεῖσα), remains (μῖμνει) against her will and is fettered (πεπέδηται) for all her haste, rooted (ρίζωθεῖσα) on the mouth of a feeble fish" (Opp. *Hal.* 1.232-4). The sailors tremble at these "invisible bonds of the sea" (ἀείδελα δεσμὰ θαλάσσης, 235), and the "fetter" (πέδην, 241) this fish has cast around their ship.

⁶⁷⁷ As much as ships are the horses of the sea, so too are chariots: Apoll. *Arg.* 4.1326, Oppian *Hal.* 1.354.

⁶⁷⁸ For this belief, see Plut. *Moral.* 641b; Ael. *De An.* 2.17 (9.17); Phil. 117; Plin. 9.79; Ov. *Hal.* 99; Lucan 6.674 f; Oppian *Hal.* 1.217-42.

Oppian compares the stunned ship to a deer, which, hit by a hunter's arrow, is rooted to the spot in fear and pain, an easy prey for the hunter. (Who, we may ask, is the equivalent of the hunter in the simile?)

The ship's immobilization by the remora is expressed with the verbs ῥιζόω (as the Phaeacian ship) and πεδάω (as the Phaeacian ship, the chariots, and Alcatheos), as well as πήγνυμι, which means to fix something in place. Its immobility is conceived of as being bound by bonds and fetters (δεσμά, πέδη). Significantly, Aelian compares this binding of the ship by the suckerfish to a horse being tamed: "like someone checking most vigorously a disobedient and savage horse with bit and tightened rein, [the suckerfish] stays the ship's onrush and, having bound it (πεδήσας), holds it in place" (*De Nat.* 2.17).⁶⁷⁹ In Roman times, the suckerfish was used for magical purposes (*veneficium*, sorcery), such as love charms and hindering litigation in court (Plin. *Nat. Q.* 9.79).⁶⁸⁰ This suggests that the miraculous and unexpected halting or slowing down of things is readily associated with, and attributed to, supernatural causes. The ship stayed by the suckerfish is cause for wonder and astonishment; in Oppian's terms, a θαῦμα (217) and a θάμβος (236), or for Ovid, a *mirum* (*Hal.* 99). The *thaumastic* quality of these events reinforces the possibility of divine or supernatural agency.⁶⁸¹

Divining Disaster (I): Alcinous

⁶⁷⁹ ὥσπερ οὖν ἵππον στομίῳ ἀπειθῇ καὶ τραχὺν χαλινῷ σκληρῷ βιαίότατα ἀνακρούσας, ἀναστέλλει τῆς ὀρμῆς καὶ πεδήσας ἔχει

⁶⁸⁰ Pliny notes that its only good quality is the prevention of pre-term labor.

⁶⁸¹ Hesychius offers θαύματα and σημεῖα as glosses for τεράστεια.

This *thaumastic* quality is significant, because this is what allows a strange occurrence to be recognized as a sign. It functions as a τέρας, alerting and warning its observers that something is not right. The connection with the semiotic process of *divining disaster* thus immediately suggests itself. Indeed, the disastered ship of the Phaeacians constitutes a mythical example of divining disaster, one brought about by the *thaumastic* quality of the ship-turned-rock. Zeus' intention, after all, is that all may marvel at it (θαυμάζωσιν *Od.* 13.157). Confronted with this *thauma*, the Phaeacians turn to each other and wonder: what does this mean? At this very moment, the ship becomes a sign—a divinatory sign—as it sets in motion a process of inference that leads both to a divine agent and special meaning about both past and future. The value of this inferential process, which is abductive, depends on the strength of the *rule*. Fortunately, the Phaeacians can turn to a *rule* that is based not on guesswork, but on the certain sign provided by an elaborate oracular pronouncement. This allows the Phaeacians to divine disaster successfully, not only to explain a past occurrence, but also to prevent disaster in the future.

Confronted with the strange, observed fact of the disastered ship (the sign, or *effect*), Alcinous remembers a prophecy told by his father, Nausithous (*Od.* 13.172-8):⁶⁸²

⁶⁸² The final line, “Now all these things have come to pass” (τὰ δὲ δὴ νῦν πάντα τελεῖται, *Od.* 13.178), is also spoken by the seer Halitherses (*Od.* 2.176), who recognizes at the opening of the *Odyssey* that the return of Odysseus is at hand. A slight variation of this formula is spoken by Odysseus in the *Iliad*, when he observes that Calchas' interpretation of the snake omen back at Aulis has come to pass (*Il.* 2.330). This would mean they are now in their final year at Troy, and so he convinces the men to stay. In other cases, too, the formula is spoken by an individual in relation to some prediction, and can be followed by a call for action (e.g. ἀλλ' ἄγε, *Il.* 2.331; ἀλλ' ἄγεθ', *Od.* 13.179). Halitherses, recognizing the bird omen that the assembly just witnessed, urges the suitors to stop squandering Odysseus' possessions, because “great disaster” (μέγα πῆμα) and “murder and doom” (φόνον καὶ κῆρα) await them. At the moment of the original omen, the

Oh no! Surely, the prophecies (θέσφαθ') spoken long ago (παλαίφατα) have come upon me, those of my father, who used to say Poseidon bore a grudge against us, because we are safe convoys for everyone. He said that one day [Poseidon] would wreck a beautiful ship of Phaeacian men returning from a convoy on the misty sea, he would wreck it, and wrap a great mountain around our city. So the old man declared. Now all these things are coming to pass (τὰ δὲ δὴ νῦν πάντα τελεῖται)

This is Alcinous' *how-can-I-have-lunch* moment. Faced with the signs of disaster, it is upon the Phaeacian leader to manage the process of meaning-making. Luckily, the meaning of the ship, and its implied call for action, is predicated upon a prophecy. The prophecy fixes the wondrous occurrence in an explanatory chain of events that includes cause, effect, and agency: Poseidon (agent) is angry because of the convoys (cause), and will wreck a ship (effect/result 1) and destroy the city (effect/result 2). The transition, for Alcinous as interpreter of the signs, is from aural sign to visual sign. Alcinous had *heard* this prophecy (-φατα in θέσφατα and παλαίφατα implies a *spoken* decree), and its fulfilment is now *visible* in the signs enacted around him, starting with the wrecked ship. Logically and semiotically, the abduction that Alcinous performs is as follows:

<i>Abduction</i>	<i>Alcinous</i>
result	ship turned to stone (= sign)
rule	Poseidon is angry because of convoys and will wreck a ship and destroy the city
∴ case	Poseidon is angry because of convoys (<i>past</i>) and will destroy the city (<i>future</i>)

people experience it as thaumastic: the fighting birds at the assembly on Ithaca leave everyone in wonder (θάμβησαν, Od.); the omen by which Calchas predicts the duration of the battle for Troy has everyone marveling (θαυμάζομεν).

Alcinous acts as the interpreter of his father's prophecy, correctly linking the visible sign of the stunned ship to the sequence of events. The logical procedure Alcinous engages in is abduction, since he is reasoning from the observed effect or *result* (the stunned ship), via the *rule* (the prophecy), to the *case* (Poseidon bears a grudge). The abduction has both prospective and retrospective implications, revealing both cause-and-effect in the past, and further effects in the future. The key here is the rule that pops into Alcinous' mind. Contained in the prophecy, the *rule* can be spelled out as a syllogism: if Poseidon bears a grudge, he will 1) turn our ship to stone, and 2) cover our city with a mountain. The first of these signs has come to pass, the second not as of yet. Alcinous' recognition is timely enough to prevent the fulfilment of the second part of the prophecy, namely the destruction of a Phaeacian city under a mountain. The prophecy implies that the final disaster might be averted by addressing the agent and the cause. This is exactly what Alcinous proceeds to do: he orders the Phaeacians to stop convoying people and to offer sacrifices to Poseidon.

While abduction typically yields uncertain knowledge—Peirce, we recall, said abduction is nothing but guessing—the particular status of the rule, namely the fact that it is a prophecy, here intervenes epistemologically. In Homer, *τά θεόφρατα* refers strictly to true knowledge originating from the gods. Alcinous's timely abduction allows him to prevent the fulfilment of the second effect contained in the prophecy—the destruction of the city. He orders the Phaeacians to stop conveying people and sacrifice to Poseidon. Alcinous thus correctly divines disaster through abductive reasoning that, because of a true prophecy, yields certain knowledge. In this sequence of events, the ship plays a

double role as both disaster itself and sign of disaster. The loss of a ship and its sailors can be said to be disastrous, but it must be pointed out that this is by no means stressed by the Phaeacians or the epic poet. The ship merely incites wonder. Its function as sign supersedes the event itself: the ship is above all a disaster-as-sign. The message (Poseidon is angry) might have eluded the Phaeacians if not for the prophecy, although the ship, in some way, can be understood as *symbolic* of Poseidon, or, as Zeus seems to have in mind, divine agency in general. What makes the ship even more interesting, however, is that its signifying powers extend beyond the epic poem itself: a rock outside of Corcyra (modern Corfu) was identified in Antiquity with the stunned ship. In Peirce's semiotics, this rock functions as an *iconic* sign because it resembles a ship; it is also functions as an *indexical* sign because it is believed to be contiguous with the ship. At any rate, the stunned ship from the *Odyssey* has found a referent in the physical world.

Divining Disaster (II): Polyphemus

Alcinous' hermeneutic disaster management, made possible by the timely recognition of the sign and the correct formulation of a *rule* based on prophecy, averts further disaster. But not everyone is as successful at divining disaster. Even if a prophecy provides a framework for certain knowledge, the failure to recognize the signs in a timely fashion can prevent averting disaster. This is the case for Alcinous' distant relative, the Cyclops Polyphemus, whose realization that a long-spoken prophecy is being fulfilled comes too late (*Od.* 9.507-12):

Oh no! Surely, the prophesies spoken long ago have come upon me.
There used to be a certain seer (μάντις) here, a noble and great man,
Telemus Eurymides, who excelled in the art of divination (μαντοσύνη)

and grew old divining (μαντεύόμενος) for the Cyclopes.
And he told me all the things that would later come to pass (τάδε πάντα
τελευτήσεσθαι),
that at the hands of Odysseus I should lose my eyesight (ἀμαρτήσεσθαι ὀπωπῆς).

Polyphemus utters the exact same line as Alcinous (*Od.* 9.507=*Od.* 13.172), and the seer whose prophecy he recalls, Telemus, is as reliable as Nausithous.⁶⁸³ The prophecy in question, however, is embedded in a more complex situation, namely the identity of Odysseus and the recognition of one particular sign: his name.⁶⁸⁴

In conditional form, the *rule* contained in the prophecy would read: If Odysseus shows up, you will lose your eyesight. The reason for Polyphemus' failure to recognize this sign is that Odysseus famously re-names himself Nobody. Only when Odysseus reveals his true name, taunting Polyphemus as he sails away (*Od.* 9.502-5), does Polyphemus realize that the prophecy has been fulfilled, and there is nothing he can do about it. Polyphemus could have concluded this the moment he had been blinded, reasoning abductively from the *result* (loss of sight), via the *rule* (prophecy) to the *case* (this man is Odysseus). To prevent his personal disaster, Polyphemus would have had to isolate beforehand the unknown term of the prophecy (or *rule*), namely the name "Odysseus." His failure to do so is not just contingent upon Odysseus' cunning in withholding his name. Polyphemus explicitly declares that he had expected this Odysseus from the prophecy to be a "great and handsome man" (*Od.* 9.513), whereas he turns out

⁶⁸³ On this parallel, Heubeck 1988-1992: *ad loc* notes that "the poet likes such inventions, but they have no basis in tradition."

⁶⁸⁴ On the importance of Odysseus' name, and its connection to folklore, see Page 1973: 19; Brown 1966; Brown 1996.

to be “small, worthless and weak” (*Od.* 9.515). Thus, Polyphemus’ use of Telemus’ prophecy is too little too late, because the assumption he made about what Odysseus should look like was incorrect.⁶⁸⁵ Even if a prophecy provides a framework for sure knowledge, the failure to interpret the signs in a timely fashion can still ruin everything. Polyphemus is looking, but just does not see. Semiotically impaired, he is therefore terrible at abduction. As a result, he is not only blindsided, he is, quite literally, blinded.

With Polyphemus’ loss of sight, we seem to be far removed from typical disasters such as earthquakes and cities buried under mountains. And yet, on the one hand, for Polyphemus himself, blindness is the ultimate individual disorientation. On the other hand, in the narrative of the *Odyssey*, this episode sets in motion Odysseus’ curse, of being *disastered* himself at the hands of Poseidon, who has vowed to avenge his son. Indeed, while Poseidon’s disaster agency is consistently lurking in the background, we are transitioning to the semiotic state of the disaster-as-condition, which is the focus of the next chapter.

⁶⁸⁵ Another difference with Alcinous’ interpretation is that his prophecy consists of two effects (the ship and the city), which allows for the first one to function as a proper sign, whereas for Polyphemus the one effect (blindness) already fulfills the prophecy. The entire prophetic framework, in fact, is much smaller, and there is no explicit cause for Polyphemus’ misfortune, although Odysseus claims that the blindness is a retributive justice for violating the laws of Zeus Xenios.

CHAPTER FOUR

“Hell, Upside Down”

(1972 CE)

Uncertainty and Suffering

Of course, being out of Sarajevo, for people from Sarajevo, is also hell.

—Ademir Kenovic

The utility of geography in matters of small concern, also, is quite evident; for instance, in hunting. A hunter will be more successful in the chase if he knows the character and extent of the forest; and again, only one who knows a region can advantageously pitch camp there, or set an ambush, or direct a march. The utility of geography is more conspicuous, however, in great undertakings, in proportion as the prizes of knowledge and the disasters that result from ignorance are greater.

—Strabo, *Geography*

Shining solitude, the void of the sky, deferred death: disaster

—Maurice Blanchot, *The Writing of the Disaster*

PART I

IMAGINING DISASTER

From New York to Athens

Modern disaster mythology owes much to the 1970s. The golden era of the disaster movie saw the screening of such films as *Airport* (1970), *The Poseidon Adventure* (1972), *The Towering Inferno* (1974), *Earthquake* (1974), *The Hindenburg* (1975), *Avalanche* (1978) and *The Swarm* (1978).⁶⁸⁶ Irwin Allen, who produced *The Poseidon Adventure*, *The Towering Inferno*, and *The Swarm*, became known as the Master of Disaster. Clearly, Allen and others had tapped into a market with a demand for the representation of disaster experiences.⁶⁸⁷ What that experience was imagined to look like is captured by the *The Poseidon Adventure*, generally considered to be the first fully-formed disaster movie. Allen summed up the basic industrial formula as follows:⁶⁸⁸

We have a perfect set-up of a group of people who have never met before and who are thrown together in terrible circumstances. In the first six minutes, 1,400 people are killed and only the stars survive.

⁶⁸⁶ The standard works about disaster movies include Sontag 1965; Yacowar 1977; Roddick 1980; and Keane 2001.

⁶⁸⁷ As Roddick notes, “One doesn't need to be a structuralist to observe this fact [i.e. that the disaster movie cycle of the 1970s met some basic need in mass culture], and innumerable unsupported explanations have been put forward to account for it: a sort of post-Watergate depression, a national inferiority complex after the Vietnam debacle, or even a 'bread and circuses' attitude caused by 'the erosion of democracy and the Western materialist way of living'— all of which are both a little too obvious and wholly impossible to substantiate.” (Roddick 1980: 244)

⁶⁸⁸ An interview with the *Hollywood Reporter* in 1972, quoted in Roddick 1980: 243.

The plot is simple: a cruise ship is overwhelmed by a tidal wave caused by a seaquake, the boat capsizes, and only a handful of people survive in the psychological and physical drama that ensues. At its core, then, *The Poseidon Adventure* is a survival movie. The meaning of survival, however, is plotted on a map of symbolism and mythology. The central importance of the elemental forces is obvious: the first four disaster movies listed above correspond to air, water, fire, and earth, respectively. The disaster movie employs the natural elements to violently confront human hubris: flying disasters, such as *Airport*, are based upon “the tradition of man’s punishment for the hubris of presuming to fly”—the airplane as a modern reincarnation of Icarus.⁶⁸⁹ The same can be said for ships, particularly luxurious ones. In *The Poseidon Adventure*, a cruise ship is on its final voyage before retirement, and the passengers are celebrating New Year’s Eve in the opulent ballroom. A hubristic confidence in human technology, fueled by commercialism and greed, spells disaster for the ship. Captain Harrison tells the owner’s unscrupulous representative, the Greek Linarcos (whom Harrison calls an “irresponsible bastard”—it seems the Ancient Greek hubris of seafaring, as felt in for example Hesiod’s poetry, is reborn in the figure of Linarcos), that the ship cannot take the extra cargo and full speed, but he acquiesces nonetheless. Similarly, *The Towering Inferno* opens with a celebratory reception for the world’s largest building, only to come crashing down in flames (and, paradoxically, water) over the course of the movie. Arguably the most successful disaster movie of all times, *Titanic* (1999), is based on the exact same premise.

⁶⁸⁹ Yacowar 1977: 92.

On the other hand, the natural elements are central to creating the state of semiotic isolation that characterizes the disastered condition. In *Airport*, the airport, which is supposed to be a safe haven, is cut off from all communication with the outside world by a snowstorm. Ships at sea are by definition at risk of being cut off from the outside world. In *The Poseidon Adventure*, the last contact with the mainland is through a radio announcement that an enormous tidal wave is on its way. After that, this lifeline of communication is broken—signs can no longer be exchanged with the outside world. As Reverend Scott tells the panicked crowd: “We’re cut off from the rest of the world. They can’t get to us. Maybe we can get to them.” But the resulting semiotic disorientation continues in yet another way. As the ship starts to sink, it goes topsy-turvy and all familiar reference points are lost. Up becomes down and vice versa. The tag line of the original theater poster reads “Hell, Upside Down,” showing the ship half upside down in the water, its rear end still sticking out ominously. Survival thus becomes salvation, as it does in many disaster movies:

If *The Poseidon Adventure* is more or less alone in making explicit use of religious imagery, the idea of the disaster as a *primitive elemental test sent by God* is strongly present in all the movies⁶⁹⁰

Besides the overt Christian references in *The Poseidon Adventure* (the two reverends, the Christmas tree, one couple’s planned excursion to the Holy Land), the movie draws on classical mythology for some of its symbolism. The cruise ship, on its way from New York City to Athens, is called the *S.S. Poseidon*. When Linda, who is destined to die in the hellish fires of the upside-down engine room, inquires about the ship’s main

⁶⁹⁰ Roddick 1980: 254. Emphasis mine.

ornamental statue, Captain Harrison explains that this is “the god of the sea, also god of storms, tempests, earthquakes and other miscellaneous natural disasters.” (Incidentally, this is the only utterance of the word *disaster* in the movie.) The statue appears to be based on the famous Artemision Bronze, which, quite appropriately, was found in a shipwreck off the coast at Cape Artemision and is currently on display at the National Archaeological Museum in Athens. Although scholars have long debated the identity of the statue as either Zeus or Poseidon, based on whether the figure is wielding a missing thunderbolt or trident, the movie has settled the issue by adding the trident. Thus the sea-travelers have decidedly subjected themselves to the god Poseidon, whom Captain Harrison refers to as a rather “ill-tempered fellow.” With the theme of hubris in mind, the journey to Athens becomes a test, a punishment even, for its commercial travelers.

“We’ve Turned Over:” Imagining Disaster

What does *The Poseidon Adventure* have to do with our understanding of Ancient Greek representations of disaster? It is easier to argue that the film provides insight into the disaster mentality of the 1970s in America. Besides the casual instances of classical reception that are all too apparent in the movie’s title and itinerary, the film seems to do nothing to illuminate the ancient context on which it draws, which, to be sure, should be wholly unsurprising for a genre the main purpose of which is to entertain.⁶⁹¹ And yet, I

⁶⁹¹ Hardwick and Stray 2008: 4: “It is sometimes said that reception sheds light on the receiving society but not the ancient texts or contexts. Most people involved in reception would accept that on the contrary the relationship between ancient and modern is reciprocal (although they may disagree about how best to assess this) ...”

would suggest that the phrase “Hell, Upside Down” provides a helpful point of entry into the visual representation of disaster for comparative purposes. My primary concern is once again with a heuristic comparison, one that serves an imaginative function by shedding light not so much on the ‘actual’ experience of disaster (which is here filtered through the medium of a Hollywood blockbuster anyway) but on how this experience is imagined and represented in vastly different and seemingly unrelated contexts, and how the mentality of *divining disaster* is on display in, and illuminated by, these representations. In turn, I will suggest ways in which these representations themselves function as a form of hermeneutic disaster management. In a chapter that is mostly devoted to analyzing mythological rather than historical texts—Homer, Hesiod, Pindar, Aeschylus, Apollonius, Callimachus—the idiosyncracies of the operation of *divining disaster* in these genres become more visible, and easier to comprehend, when set against the more familiar genre of the modern disaster movie. I am not arguing that *The Poseidon Adventure* is ontologically similar to, say, Apollonius’ *Argonautica* in how disaster is treated; rather, it is useful to *imagine* that they are similar, for in doing so, we can more readily comprehend the hermeneutic function of this kind of story-telling as it relates to disaster. The observed similarities may seem to point in the direction of the *universality* of a certain phenomenology of disaster, as for example the experience of disorientation, but we must be cautious in assuming such connections, and this lies well beyond the scope of this study at any rate.

The Poseidon Adventure provides a recognizable and familiar way to engage with disaster imagery, in particular as it relates to what has been called the “geographicalness” of the disaster experience, a term used in the field of disaster studies and which I will

discuss below in Part II. The tag line “Hell, Upside Down” is an extreme visualization of disaster geography, one that combines spatial disorientation (upside down) with a moral, punitive, and vaguely theological connotation (hell). The latter is important, because these are categories of meaning-making. The scene of the capsizing ship, which, given its cinematic challenges at the time, may seem comically preposterous to the modern viewer, is a key moment in the movie, at least from the perspective of *defining disaster*. It sets the stage for hell, upside down. The visuals are clear enough, as passengers slide down the increasing incline of the tilting floor or drop down, eventually, from dining tables now suspended from the roof, but the confusion and disorientation of the dazed passengers is nonetheless explicitly addressed in the movie’s dialogue:

Linda Rogo: [dazed] Jesus Christ. What happened?

Reverend Frank Scott: We’ve turned over.

Mike Rogo: Linda, Linda honey, are you all right?

Linda Rogo: Hi... where the hell have you been?

Mike Rogo: Where do you think? Flying around on my ass!

Linda’s casual use of religious terms (“Jesus Christ,” “hell”) may be seen as expletives without further meaning, but it certainly sets the tone for the meaning-making that is required in this extreme situation. Linda’s crucial question (“What happened?”) gives voice to the uncertainty of the whole experience, and it is no doubt significant that the Reverend gives the definitive answer: “We’ve turned over.” More than a factual statement, this is a theological statement as well: they are now in a disaster state of being overturned, which, as the Reverend seems to realize, means that their ordeal—their test for survival—has now begun.

The next question Linda asks is addressed to her husband (“Where the hell have you been?”), to which he replies: “Flying around on my ass!” Besides the comic relief that Ernest Bognine’s character here provides, the comment complements the Reverend’s attempt at *defining disaster*. Linda’s quest for meaning (*what* and *where*) is answered by two instances of spatial disorientation, one general (*we* have turned over) and one particular (*I* was flying around). This spatial disorientation lies at the heart of *divining disaster*, for it is through re-orienting themselves with fixed signs that the disaster condition can be lifted and its sufferers saved. This happens figuratively as well as literally, since most of the movie is concerned with *finding the way out*—that is, through the engine room at the back of the ship where the hull is relatively thin and where rescue workers can reach them, as they eventually will. The upside-down ship is a maze of disorienting corridors, and once familiar landmarks have either become unrecognizable or are submerged in water or consumed by flames. The readers of the signs are unlikely heroes. By relying on unexpected guides with special knowledge (Robin, a little boy with an unusual knowledge of the ship’s architecture; and Acres, an injured servant and a foreigner, who knows the ship’s servant alleys), Reverend Scott, who is himself an outcast, guides the protagonists through the ship’s labyrinth until he sacrifices himself, falling into the fires of the boiler room while securing a path for the others. His Christ-like sacrifice becomes the way out for the others. In the end, their rescue comes from above: “My God, there is somebody up there,” says Mike Rogo in a statement that sounds vaguely theological (it is indeed followed by acknowledging the Reverend’s contribution: “The preacher was right!”), as their rescuers start cutting through the hull. They clamber into the helicopter, before the ship submerges completely.

“Robinson Crusoe on a World-Wide Scale”

The visual representation of the ship half-sunken in the water, as depicted on the original movie poster, neatly encapsulates the disorientation of the disaster experience.⁶⁹² The effect of two more recent remakes is not quite the same: the posters of both *The Poseidon Adventure* (2005) and *Poseidon* (2006) show the ship completely upside down, fully submerged under water. The difference is that while the more recent images depict the finality and completion of the disastrous event, the original poster depicts disaster in progress, oscillating between up and down, the disorienting experience of the world tilting in uncertain directions. A ship upside down is not disorienting *per se*; a ship capsizing is (“flying around on my ass”). Strikingly, the film poster of *Earthquake* (1974) achieves the same effect: with the shattered word “EARTHQUAKE” diagonally placed across the poster, it shows people, buses, and buildings falling, suspended in midair as the ground crumbles away beneath them. The diagonal line—of the capsizing ship, the quaking earth—characterizes the symbolism of the disaster experience as disorientation. The experience of earthquakes as disorienting and similar to the tossing sea has an equivalent in Ancient Greek. In the Classical period at least, the same term used to describe the rolling swell of the sea is also used for the tossing motion of an earthquake (σαλός, Eur. *IT.* 46)—Poseidon’s hand, of course, can be detected in both. But there is an important difference: unlike the sea, the earth is usually experienced as a stable and

⁶⁹² For the original theater poster, see [here](#).

secure element. The feeling of security is intimately connected to this experience, but profoundly shaken up, as Charles Darwin observed, during earthquakes:

A bad earthquake at once destroys our oldest associations: the earth, the very emblem of solidity, has moved beneath our feet like a thin crust over a fluid: -- one second of time has created in the mind a strange idea of insecurity, which hours of reflection would not have produced.⁶⁹³

While the universality of this experience cannot be taken for granted, one visual representation of this idea from Antiquity readily come to mind. The well-known relief from the house of L. Caecilius Iucundus in Pompeii shows the effects of the Campanian earthquake of 62 BCE in exactly this way: the Temple of Jupiter is tilted to one side, establishing a diagonal line across the relief. The relief visualizes the connection between spatial disorientation and the experience of insecurity.⁶⁹⁴

The violence associated with the elemental force of earth and sea, in particular their ability to overwhelm ships and buildings by overturning, is, however destructive, always localized and individualized. Inspired by the San Fernando earthquake of February 1971, the creators of *Earthquake* wanted to experiment with large-scale disasters that affect millions, not just “a bunch of people getting on a boat or a plane.”⁶⁹⁵ Still, this is by no means universal disaster. Disaster movies tend to portray natural and technological disasters, such as storms, earthquakes, fires, and aviation accidents,

⁶⁹³ Darwin 1906: 289, cited in Hewitt 2016 [1997]: 48.

⁶⁹⁴ The socio-political upheaval of civil strife (στάσις) in Prusa prompted Dio Chrysostom to remark that strife is “just as in an earthquake, when everything is moved and everything is suspended and nothing is safe” (ὥσπερ ἐν σεισμῷ πάντα κινεῖται καὶ πάντα μετέωρά ἐστι καὶ οὐθὲν βέβαιον).

⁶⁹⁵ In: Davis *Ecology of Fear* [link](#)

particularized and individualized, allowing for heroes, villains, and the entire spectrum of human character. The experience of universal disaster belongs to a different genre, that of the apocalypse. The myth of universal catastrophe unshackled itself from the natural world—the Great Flood of world mythology, Stoic *empyrosis*, the plague in Mary Shelley’s *The Last Man*—with the advent of the nuclear age. In the 1980s, at the height of the Cold War, the anthropologist Anthony Oliver-Smith wrote that “our own age seems particularly shadowed not only by our many wars and disasters, but also by the possibility of ultimate catastrophe—nuclear holocaust.”⁶⁹⁶ Splitting the atom has been Prometheus’ latest trick, the crown jewel of science and technology. But the ultimate mastery over the smallest elements in nature can also have global catastrophic consequences: “Everyone ... is now bonded in a catastrophic vision by the threat of nuclear war.”⁶⁹⁷ Bonded in a catastrophic vision is precisely what Michel Serres has in mind, too:

Adversity is now attacking that which attaches and binds us all together and connects us universally, our earth and our species, complete sums of our cords and alliances. Since Nagasaki we have our disappearance in our power, and the danger curve is rising exponentially. ... Individual, local, ancient and primitive death is being succeeded by a modern, specific, and global death, our collective worldwide horizon.⁶⁹⁸

The threat, or realization, of universal catastrophe has been the subject of science fiction movies since the 1950s. Susan Sontag, in her essay on the imagination of disaster in

⁶⁹⁶ Oliver Smith 1986: 1.

⁶⁹⁷ Oliver Smith 1986: 2.

⁶⁹⁸ Serres 1995: 119.

science fiction films, argues that “the lure of such generalized disaster as a fantasy is that it releases one from normal obligations.”⁶⁹⁹ She continues:

The trump card of the end-of-the world movies—like *The Day the Earth Caught Fire* (1962)—is that great scene with New York or London or Tokyo discovered empty, its entire population annihilated. Or, as in *The World, the Flesh, and the Devil* (1959), the whole movie can be devoted to the fantasy of occupying the deserted city and starting all over again—Robinson Crusoe on a world-wide scale.⁷⁰⁰

Sontag’s examples can be complemented with numerous recent iterations of the same theme. But the image of Robinson Crusoe on a world-wide scale does more than evoke the fantasy, as Sontag has it, of “starting all over again.” Rather, in the Crusoe myth, the universal disaster is once again concentrated in the individual—the lone survivor of a shipwreck, desolate on a deserted island, an image that goes back to such outcasts as Philoctetes and such wanderers as Odysseus. Robinson Crusoe embodies the disasterer individual who has lost all points of orientation.⁷⁰¹

The Banality of Disaster

Sontag concludes that these disaster films function as an escapist release from boredom and banality. For imaginary disasters such as the one in *The Poseidon Adventure*, the events *as represented in the narrative*, are indeed anything but banal, and Sontag’s claim could be supported by the assumption that the viewer identifies with, or

⁶⁹⁹ Sontag 1965: 45.

⁷⁰⁰ Sontag 1965: 45.

⁷⁰¹ Especially in Michel Tournier’s postmodern retelling, *Friday* (or, in the original French, *Vendredi, ou les limbes du Pacifique*, 1967).

experiences vicariously, the suffering aboard the doomed ship. And yet, the disaster film is among the most banal genres on the big screen, indulging in overdetermination, excessive visibility, and an obscene overload of images.⁷⁰² The film itself renders the disaster banal through the act of representation. From the perspective of hermeneutic disaster management, this banality is not necessarily ‘negative’ the way banality is typically used by cultural critics. Rather, I would argue that this banality is precisely what characterizes the transformation of the disaster-as-event (the unexpected, unanticipatable *événement*) to the disaster-as-sign, when the disaster is re-absorbed in the endless cycle of representation, iterability, and meaning. Banality is only the expected result, at least in modern-day representations, of hermeneutic disaster management.

The relationship between banality and (over)representation reveals a key quality of the phenomenology of disaster, one that is best understood from the perspective of the Uncertainty Paradigm. In an anecdote that is meant to illustrate the banality of disaster, the cultural critic Meaghan Morris recalls how one Christmas Eve, in 1974, the television broadcast she was watching in Sydney, Australia, was suddenly interrupted by a special news flash:

Usually, on hearing that, you get an adrenaline rush, you freeze, you wait, you hear what’s happened, and then the mechanisms of bodily habituation to crisis take over to see you through the time ahead. This occasion was alarmingly different. The announcer’s voice actually stammered: “er . . . um . . . something’s happened to Darwin . . .”⁷⁰³

⁷⁰² Thus, Morris 1988, in her analysis of Baudrillard’s use of the term.

⁷⁰³ Morris 1988: 9.

The real catastrophe, Morris suggests, is the lack of information and the rupture in representation. No pictures, reports, or images follow, just silence—the soundscape of disaster established by the *absence of signs*. The question that Linda Rogo asked aboard the *Poseidon* (“What happened?”) is not answered, and the announcer’s stammer followed by silence is as devastating and disorienting as the capsizing ship. It took another 24 hours, Morris wryly observes, before everyone realized “that Darwin had merely been wiped out by a cyclone ... [w]hereupon we went into the ‘natural disaster’ genre of TV living, and banality resumed for everyone, except for the victims.”⁷⁰⁴ As long as the event remained unknown, the absence of information resulted in the imagined disappearance of Darwin (*The Sun*’s headline would read “The Day Darwin Died”), until it reappeared after the true signified (the cyclone Tracy) was identified, and its representation restored. Morris’ experience is one in which the true catastrophe is the rupture in the representation of disaster—not the disaster itself—and is thus closer to the experience of the viewers of *The Poseidon Adventure* than to that of the fictitious Linda Rogo, herself the victim. Still, both events can be understood from the Uncertainty Paradigm, as instances of *nonrepresentation* that accompany the disaster and threaten to disrupt any sense of meaning.⁷⁰⁵ As one scholar of media culture has stated: “A context

⁷⁰⁴ Morris 1988: 10.

⁷⁰⁵ Cf. Stubblefield 2014: 18, who discusses this in the context of 9/11.

in which loss of TV signal carries greatest cause for alarm, even images of destruction have the capacity to reassure the viewer that everything is ok.”⁷⁰⁶

If our discussion of disrupted TV signals seems to have brought us only further from the Ancient Greek world, I will demonstrate that the opposite is the case. It is true that, as far as modern-day, live disasters are concerned, the media is tasked with managing “the interrelation with the visible and the invisible.”⁷⁰⁷ Marie-José Mondzain, whose genealogy of contemporary media starts with the “iconocracy” of the Byzantine church, poses the question: is there really a significant difference in “submitting to a church council or to CNN?”⁷⁰⁸ Her point is that the power of those overseeing the process of interrelation and control over the image—both through discourse and dissemination—is galvanized in the icon. In the context of hermeneutic disaster management, *the interrelation between the visible and the invisible* is precisely what

⁷⁰⁶ Mimi White, “Site Unseen: An Analysis of CNN’s War in the Gulf,” in *Seeing through the Media: The Persian Gulf War*, eds. Susan Jeffords and Lauren Rabinovitz (New Brunswick, NJ: Rutgers University Press, 1994), 138.

⁷⁰⁷ Stubblefield 2015: 16.

⁷⁰⁸ Mondzain 2004: 223. Mondzain acknowledges a shift or distinction in the relation that these iconocracies manage. Stubblefield summarizes her position as follows: “At the core of this distinction is a move from the metaphysically driven model outlined above to what is often portrayed in terms of a “flattening out” of the image. On account of a variety of interrelated forces which include the advent of digital representation, a general move away from “documentary culture,” and a skepticism regarding master narratives, images in the contemporary sphere are no longer engaged in re-presenting signifieds in the world, let alone the Absolute. Instead, the image is enmeshed in a horizontal structure of self-referentiality whose relation to the real does not precede or transcend the parameters of representation itself. This seemingly self-sustaining network of images is the basis for global formations of power which, according to Mondzain, employ the logic of the incarnation not necessarily to summon the Divine but to reinforce the hold that these formations have on the visual economy itself. These relations are made legible in the twenty-first-century disaster where the kind of metaphysically charged invisibility discussed above manifests as traumatic “breaks” in representation.” (Stubblefield 2015: 16)

enables the nonrepresentation of the disaster-as-event to become, as it were, visible. If this phrase is reminiscent of Solon's (and Tzetzes') definition of *tekmairomai* / *tekmerion*, it is because the cognitive activity—marking sequences in time and space through fixed signs—is essentially the same. The disastered condition is characterized by the interruption of this activity, the sudden impossibility of, or halting in, the ability to conjecture the invisible from the visible. Certain individuals or organizations with a special claim to knowledge—Greek seers, Byzantine bishops, CNN, the little boy Robin—help navigate through the disastered landscape by receiving, interpreting, and disseminating the signs. The emphasis on vision and visibility ostensibly prioritizes landscapes over other scapes. In *The Poseidon Adventure*, for example, the disastered landscape is associated with the visual disorientation brought about by the ship upside down; the Helice disaster can be understood in this context, too. But it must be admitted that the lack of signs that characterizes the disastered condition becomes manifest in other scapes as well, notably the *soundscape* of disaster. Here, the excess or overrepresentation of signs—loud noises, people yelling, children crying, roarings seas or rumbling skies—can indicate disaster in all its reassuring banality, while the conspicuous absence of signs, as in the unexpected interruption in the broadcast or the sudden disappearance of Helice, can indicate the nonrepresentation of disaster. *Both represent the disastered condition.*

PART II

DISASTER GEOGRAPHY

Feeling Out of Place

When Herodotus tells the story of Jason and the Argonauts, he locates one of their adventures in the mysterious Lake Tritonis, somewhere off the Libyan coast (Hdt. 4.179). Jason and his crew realize too late that they have sailed into the treacherous and disorienting shoals of the lake. Suddenly there is no way out, and, as so often in the epic, Jason finds himself “at a loss” (ἀπορέοντι). The sea-god Triton appears and orders him to bring the tripod that he keeps aboard the *Argo*. In return, Triton promises to show the Argonauts “the way out” (τὸν πόρον) and to send them all on their way “safe and sound” (ἀπήμονας).⁷⁰⁹ The story continues with another prophecy uttered by Triton, namely that whenever a certain descendant of the *Argo*’s crew carries off the tripod to his home, then one hundred Greek cities will be built around Lake Tritonis. What interests us here, however, is the role of Triton’s prophetic ability in securing a safe passage out of a disastrous situation. The story of the Argonauts and Lake Tritonis is told in more detail by Pindar and Apollonius, and both will be dealt with in this chapter, but Herodotus has boiled the story down to its essentials. The Argonauts find themselves in a state of disorientation: the usual paths of navigation are unavailable to them. As when Heracles

⁷⁰⁹ The adjective is very rare in prose. Only attested four times before the 1st c. BCE. Twice in Herodotus, here and in 1.42, in a speech by Adrastus. Once in Plato’s *Phaedrus*, in Socrates’ speech on the immortality of the soul. Once in a fragment of the orator Alcidas.

awakes from his disorienting madness (see Chapter Two), Jason is perplexed and in a state of *aporia*. It is clear that this state is associated with danger and, quite possibly, suffering (πῆμα, cf. ἀπῆμων). Plotting a course out of this state and across the sea—an activity that, we recall from Chapter One, is designated by the verb τεκμαίρομαι—requires fixed markers (τέκμαρ) of orientation. The sea-deity Triton steps in to provide these markers that help the Argonauts reorient themselves, end their suffering, and find their way out and, eventually, home. For the Argonauts, the geography of disaster is underwritten by their desire for a *nostos*, or home-coming, that is “safe and sound” (ἀπῆμων), without πῆμα, “suffering”—a key word in this chapter.

The image of a seafaring ship stranded in a land-locked lake conjures up an image of utter displacement. Something that is out of place, or *παρὰ τόπον*, is readily seen as a sign, as one of the definitions of σημεῖον testifies (Chapter One). In this chapter, I argue that this imagery of *out-of-placeness* characterizes the phenomenology of Ancient Greek disaster, and, what is more, that it helps to explain *divining disaster* on a spatial or geographical level. The connections between disaster and geography are well-known to sociologists and anthropologists. Geographer Kenneth Hewitt distinguishes three broad aspects in the geography of disaster, which can be illustrated based on our study of the Helice disaster.⁷¹⁰ First, there are the formal and mappable relationships between hazards and vulnerability. In the case of Helice, such factors as the town’s proximity to the fault line and the sea made it vulnerable to seismic and hydrological hazards. This aspect of disaster geography does not concern us here. Second, the geography of disaster is

⁷¹⁰ Hewitt 2016 [1997]: 40-2. (*Regions of Risk*)

witnessed in the disruption and “unravelling” of spatial order. As supporting infrastructure is destroyed within and beyond the disaster zone, the space is cut off from the rest of the world. This was achieved, quite radically, by the tidal wave that washed over the town of Helice and caused it to disappear. The “unravelling” of the fabric of the spatial order disrupts communication, loosening or even undoing the visible and invisible bonds that keep the plane in touch with the control tower, the ship connected to the mainland, and the town an identifiable point on the map. The unravelling of the spatial order is central to the disaster experience.

Hewitt’s third aspect of the geography of disaster points to the “geographicalness of experience,” a geography of belonging as experienced by members of a community, for which collective memory is key. This emic form of disaster geography is characterized by *out-of-placeness*: the shock of being disoriented, feeling lost, a stranger in one’s own home. The loss of place ‘out there’ is connected with its vivid, ‘internal’ survival through remembrance. Hewitt gives the example of a woman’s recollection after an air raid: “... when I returned my house was burned down. I had the house key in my hand, but there was no door there.”⁷¹¹ Her house no longer exists ‘out there’ on the map. Still, the woman’s internal map, which retains the pre-disaster geography, leads her straight to a door, key ready in hand, that is no longer there. While there are no survivors’ accounts of the Helice disaster, or anything that can pass for disaster ethnography, the discourse that springs from it makes clear that *memory* is negotiated by the indexical

⁷¹¹ Quoted in Hewitt 1994: 19. (“When the Great Planes Came and Made Ashes Of Our City ... : Towards An Oral Geography of the Disasters of War.” *Antipode* 26 (1): 1-34.

signs of Helice's geography, real and imagined. The oscillation between its radical invisibility and its continuous resurfacing, whether through underwater traces, Poseidon's statue peeking out over the surface, or even the textual testimony of Heracleides and others, they reinforce the memory of, and effectively ensure the continuity of, the disasterer landscape—a landscape at once radically disconnected from its protective star yet perpetually divined and defined due to its ability to function as a sign. This chapter is concerned with the geography of disaster in the second and especially the third sense.

“There Were No Landmarks”

If the previous chapter was dominated by the Agency Paradigm of disaster, this chapter naturally views disaster from the perspective of Uncertainty. In particular, I develop the idea of the disaster-as-condition, or the *disasterer* state, as one that is marked by disorientation. Semiotically speaking, the disasterer state—which can apply to a person, a place, anything—indicates that something functions as a sign: a monstrous, indexical sign (*teras*) that points to a place, person, or object as being out-of-place. This state is lifted by being re-oriented with the help of a fixed marker, a stabilizing sign (*tekmar*) that anchors this place, person, or object into a spatial order that restores its meaning. On the symbolic level of myth, this disorientation of the *disasterer* state is expressed by two seemingly opposite ideas: a state of being bound, and a state of wandering. While the former suggests being fixed in one place, geographically fettered and immobilized, the latter suggests being lost, geographically unfettered and boundlessly roaming. The central figures of these two states are Prometheus, shackled to the rocks of the Caucasus, and Io, forced to wander the ends of the earth. The fact that the

two cross paths in *Prometheus Bound* already points to the importance of that work for this chapter.

This paradoxical disaster state, which this chapter examines in and especially *through* myth, can be seen in anthropological and sociological studies of disaster in the modern era, too. Kai Erikson's study of the 1972 Buffalo Creek flood disaster in West Virginia was among the first to take this emic perspective seriously. Both the ideas of *immobilization* and *being lost*, for example, are expressed by these survivors of the Buffalo Creek flood disaster:

“We find ourselves standing, not knowing which way to go or where to turn,” said one survivor. “They should call this whole hollow the Bureau of Misplaced Persons,” said another, “we’re all just lost.”⁷¹²

The immobilization is articulated with the word “standing,” the sense that directionality is lost because it is unclear where to go or “where to turn”—literally as well as figuratively. The second survivor gives a meaning to “being lost” that suggests *misplacement*, or not being in the right place. This sense of misplacement, of being a stranger in one's own home, is echoed by another Buffalo Creek flood survivor:

We don't have a neighborhood anymore. We're just strange people in a strange place. We feel our lives have been completely turned inside out by what has happened.⁷¹³

⁷¹² Erikson 1978: 2010. Emphasis mine.

⁷¹³ Quoted in Erikson 1978: 211.

The verb *to turn*, which, as we have seen in Chapter Two, plays an important role in the semantic phenomenology of the Ancient Greek disaster experience, surfaces again. Lives have been “completely turned inside out,” resulting in the feeling of misplacement.

Being lost as the experience of being misplaced complements the common sense that being lost means not being able to find one’s way out (cf. *aporia*). This geographic disorientation is expressed by the language of disappearance that dominates, as we have seen, the Helice discourse. Orientation points that used to be there, are no longer there: the *disastered* space becomes a blank space on the map. One can literally not find one’s way. A tornado survivor expresses this sentiment as follows:

I’ve lived in this little town all my life. I mean, I was actually lost. I didn’t know where I was at because there were no landmarks, nothing to go by ...⁷¹⁴

The lack of landmarks, the semiotic markers (*tekmar*) that allow survivors to orient themselves within the landscape, defines the disastered condition. The absolute darkness experienced by the Argonauts, known as *katoulas* and discussed below, is an extreme, mythical example of this condition of complete disorientation, in which all directionality is lost. The way out (*poros*) consists in re-assigning the fixed markers (*tekmar*) that have been washed away, obscured, or confused. This part of hermeneutic disaster management—the post-disaster meaning-making recovery—is concerned with *categorization*, made possible by the semiotic and divinatory awakening that Prometheus has gifted to humankind. New landmarks alone are not sufficient; the landmarks need to

⁷¹⁴ Quoted in Wolfenstein 1957: 58. *Disaster: A Psychological Essay*

be mapped onto the disaster landscape. It must not only be seen, it must be seen *as the thing it replaces*, donning the characteristics of both indexical and iconic signs.

Anthropologist Barbara Bode has done extensive fieldwork among the people of Huaraz, a Peruvian town devastated by the earthquake and avalanche of 1979. When the government urged the people of Huaraz to relocate, the survivors were reluctant to do so:

To survivors, it would not be Huaraz were it not ‘in its place’ ... To be ‘in its place’ was right and good. It was hoped that the streets, too, could remain in their places and could retain their own names. “We would be very sad and confused if streets were called by other names,” people said.⁷¹⁵

The failure to keep the streets in their place would result in confusion. Randomness and arbitrariness (μάψ, ματήν) are antithetical to hermeneutic disaster management. The streets must remain *in their places*—i.e., they must be indexical signs—and they must retain *their own names*—i.e., they must be iconic signs. In the Ancient Greek context, the element of (perceived) randomness that is often present in divinatory rites serves to secure the belief that something ends up in the right place. This process neutralizes the very randomness employed to render something meaningful. The example of Epimenides’ ritual re-orientation of Athens after a plague serves to illustrate this aspect of divining disaster.

Remapping Post-Disaster Athens

Epimenides, a legendary diviner from Crete who was placed in the 7th and 6th c. BCE, engaged in what is best described as the post-disaster geographic reordering of

⁷¹⁵ Bode 1989: 79. *No Bells to Toll: Destruction and Creation in the Andes*

Athens. The details of Epimenides' life are scattered across various sources, notably Plutarch, but a coherent picture emerges.⁷¹⁶ The story goes that Athens was suffering from plague (λοιμός), or both plague and civil war (στάσις), as a result of the polluted murder of Cylon at the hands of the Alcmeonids. Even after they had been expelled, the city was still suffering from ritual pollution. According to Diogenes Laertius, the Athenians then consulted the Oracle at Delphi about what to do—a first step in divining this disaster. The Pythia told them to find Epimenides, someone “skilled in divine matters” (δαινὸς τὰ θεῖα), and to bring him to Athens.⁷¹⁷ When he arrives in Attica, he assembles a flock of sheep, some black, some white. From the spot where the *miasma* originated, he frees the sheep and lets them wander at will, while he and his attendants closely follow them around, with the mission of sacrificing the animal at the exact spot where it would lie down. Durand and Borgeaud have analyzed Epimenides' purification as an attempt at the literal remapping of the sacrificial space of the city—it is a cultic reorientation, a disclosing of fixed markers, previously obscured, based on the seemingly random wanderings of the sheep. In this way, the animals function as indexical signs, marking the orientation spots in this new cultic landscape: “a new religious beginning, after the momentaneous [*sic*] dead-end.”⁷¹⁸

Epimenides' successful effort in reorienting the cultic, post-disaster landscape of Athens is further illuminated by a crucial aspect of his mantic persona. He is typically

⁷¹⁶ Plutarch *Life of Solon* 84; Maximus of Tyre 38.3; Diogenes Laertius 1.109-110; *Constitution of Athens*; Pausanias.

⁷¹⁷ Maximus of Tyre 38.3; Plutarch *Life of Solon* 84.

⁷¹⁸ Borgeaud 1999: 299.

considered a charismatic, itinerant seer, someone who had no teacher (οὐδὲ οὗτος ἔσχεν εἰπεῖν αὐτῷ διδάσκαλον, Max. Tyr. 38.3), and who was considered, as Cicero has it, an expert of inspired rather than technical divination (Cic. *De Div.* 1.34-6). But the label applies more to the way in which he acquired his skill than to the way in which he practices divination—the ritual practice with the sheep and the sacrifices are an instance of technical, rather than natural, divination. Diogenes tells the story how Epimenides had become a seer in the first place, a story intimately connected to the method by which he would divine disaster at Athens later in his life (Diog. 1.109). As a young man, Epimenides was looking for some lost sheep, but got tired and went to rest inside a cave by the side of the road at noon (a propitious hour, including for Jason, as we will see). When he woke up, he no longer recognized the world or people around him. Quite disoriented and “at a loss” (διαπορούμενος, Diog. 1.109), he eventually found his younger brother, now an old man, and thus it came to light that he had slept for decades. This experience then gave him mantic powers. Thus, his feat of Athens’ cultic *reorientation* by following sheep to fixed guide marks turned out to be an appropriate compensation for the ultimate *disorientation* he experienced in his youth, also as a result of tracking sheep. We should note here what Aristotle says about Epimenides in the *Rhetoric* (1418a):

Deliberative speaking is more difficult than forensic, and naturally so, because it concerns the future, whereas forensic speaking concerns the past, which is already known, even by diviners, as Epimenides the Cretan said (for he did not divine the

future, but things that were past but obscure) (ἀλλὰ περὶ τῶν γεγονότων μὲν ἀδήλων δέ).⁷¹⁹

This kind of mantic power he displays seems to be concerned with some aspect of the past and present that, without the divinatory sign, would remain obscure and invisible. Epimenides divines disaster, not through predicting it or even diagnosing it (the Pythia had done that), but as a remedy for disaster, by mapping onto the visible world that which was previously hidden, obscure, or ἀδήλος.

Sideways and Upside Down: Clashing and Wandering Rocks

The legendary story about Epimenides may tell us something about how, in the post-classical imagination, the Athenians of the Archaic period dealt with disaster. The ancient experience of disaster, however, cannot be accessed through sociological and anthropological fieldwork like that of Hewitt, Erikson, and Bode, at least not directly.⁷²⁰ Still, the *representation* of the experience remains available, channeled through literary sources, including those with even fewer historical pretensions than those concerning Epimenides. In the following sections, I focus on the myth of the Argonauts' suffering on their voyage home as an exemplary representation of disaster, and the disaster condition, in the ancient imagination. On the one hand, the Argo is subjected to a state of wandering (πλάνη); on the other hand, the ship and its crew are bound and immobilized

⁷¹⁹ τὸ δὲ δημηγορεῖν χαλεπώτερον τοῦ δικάζεσθαι, εἰκότως, διότι περὶ τὸ μέλλον, ἐκεῖ δὲ περὶ τὸ γεγονός, ὃ ἐπιστητὸν ἤδη καὶ τοῖς μάντεσιν, ὡς ἔφη Ἐπιμενίδης ὁ Κρής (ἐκεῖνος γὰρ περὶ τῶν ἐσομένων οὐκ ἐμαντεύετο, ἀλλὰ περὶ τῶν γεγονότων μὲν ἀδήλων δέ)

⁷²⁰ Toner 2013 attempts to capture the 'original experience'—I have no such intentions.

on many an occasion, not least in the middle of the Libyan desert. While many earlier retellings of the Argonauts are lost to us, Apollonius' *Argonautica*—for all its Hellenistic idiosyncracies, such as the mixture of scientific and fabulous geography—continues in the tradition of Argonautic stories the earliest traces of which are found in Homer. In *Odyssey* 12, Circe lays out the route for Odysseus, and warns of the Wandering Rocks (Πλαγκταί πέτραι), located near Scylla and Charbydis (*Od.* 12.61-72). These rocks are impassable: not even Zeus' doves can fly past them, and no ship has sailed past them that has not been destroyed by waves and blasts of fire, with the exception of the Argo. Against this Homeric backdrop Apollonius crafted the Argo's return voyage in the fourth book of the *Argonautica*, for which he draws freely on the geography of the *Odyssey*.⁷²¹ What makes the Wandering Rocks so dangerous, besides the wind and fire that beat down on the place, is their spatial instability. Apollonius describes their movement as vertical: the rocks "at one moment soared to the heavens like great cliffs, and at the next sunk to reach the bottom-most depths of the sea as the vast mass of wild swell washed over them" (*Arg.* 4.945-7).⁷²² With Thetis at the rudder of the *Argo* plotting a straight path through the rocks (Θέτις δ' ἴθυνε κέλευθον, 4.937) the Nereids lift the ship high above the water, passing it from one to the other, as if they were playing a ball game on the beach (4.948-55).

⁷²¹ E.g. Hunter 1993: xxvi.

⁷²² αἶθ' ὅτε μὲν κρημνοῖς ἐναλίγκιαι ἤερί κῦρον, / ἄλλοτε δὲ βρύχαι νεάτω ὑπὸ κεύθεϊ πόντου / ἠρήρεινθ', ὅθι πολλὸν ὑπείρεχεν ἄγριον οἶδμα. All translations of the *Argonautica* are by Richard Hunter (1993).

The Wandering Rocks, or *Planctae*, are in the later tradition often conflated with the Clashing Rocks, or *Symplegades* (συμπληγάδες).⁷²³ Apollonius, however, locates the Symplegades at the Bosphorus, which the Argonauts pass through on their way to Colchis in Book 2, while the Planctae are located around Sicily and are part of the journey home in Book 4. The role of Athena and related deities in navigating through these dangerous passages by creating a *poros* has been expertly analyzed by Detienne and Vernant, and their assessment of what these treacherous places represent is worth quoting in full:

At all these spots in the sea, gigantic, moving rocks rear up, constantly shifting both sideways and upside down. They convey an image of an area in which all directions are confused, where left and right, and up and down are interchangeable and ever-changing.⁷²⁴

The shifty and rollicking state of these rock formations is reminiscent of the winds.

Pindar, in the Fourth Pythian Ode, describes the twin rocks of the Symplegades as “alive” (ζωαί), and “rolling more swiftly than the ranks of loud-roaring winds” (κυλινδέσκοντό τε κραιπνότεραι ἢ βαρυγδούπων ἀνέμων στίχες, P. P. 4.208-10). The shifting mobility of these rocks makes them analogous to the winds; the adjective κραιπνός (“swift, rushing”) is typically applied to the winds as well (e.g. *Od.* 5.385, 6.171). After the Argonauts had passed through, the Symplegades “were firmly locked together and rooted (ἐρρίζωθεν) in one spot forever” (*Arg.* 2.604-5), thereby lifting the disaster condition.⁷²⁵ Thus, “by

⁷²³ Lindsay 1965 (Clashing Rocks)

⁷²⁴ D-V 222

⁷²⁵ πέτραι δ' εἰς ἓνα χῶρον ἐπισχεδὸν ἀλλήλησιν / νωλεμέες ἐρρίζωθεν

rooting them to the bottom of the sea, immobilizing them forever, the Argo gave orientation to the expanse of the sea.”⁷²⁶

At the Wandering Rocks in *Argonautica* Book 4, the effect of chaos is heightened by the fires and winds that are usually raging there as well, although Hera has ordered Hephaestus and Aeolus to stop as the Argo passes; still, the sea is said to be boiling, and a dense mist shrouds the light of the sun. Hephaestus and Aeolus make a natural pair, as both control the winds. Aeolus, who himself lives on a floating island, chains up the paths of the winds by shutting them in a bag (*askos*); Hephaestus, in his role as artisan and blacksmith, similarly controls the winds enclosed in the smithy’s bellows (*askos*).⁷²⁷ The incessant horizontal and vertical movements of these rocks—even with their analogous counterpart, the winds, under control—are the Greek equivalent of “Hell, Upside Down,” at least as far as the geographic and semiotic disorientation is concerned. The difference is that in the Greek imagination, these places are inherently part of the seascape itself, and not just created by particular circumstances such as an underwater quake, too much cargo, a villainous ship owner, and so forth. The chaotic overturning of directionality at the Clashing and Wandering Rocks is emblematic of the disaster condition, in which the boundaries between elements become in some way mixed up. The two rock formations derive their names from the verbs πλάζω (“turn aside,” middle-passive: “wander”, noun: πλάνη) and πλῆσσω (“strike, clash,” noun: πληγή). The two words are

⁷²⁶ D-V 170 n. 111.

⁷²⁷ See D-V 170-1 n. 111, and further references.

closely associated, as are their namesake rocks.⁷²⁸ We shall return to this state of wandering; suffice it for now to say that it is a defining characteristic of the disastered condition.⁷²⁹

It is worth noting that, besides the divine guides that are typically present in myth, Strabo records a euhemerizing interpretation, which he attributes to Polybius, of the extraordinary navigation skills needed to pass through dangerous places. Strabo compares the wanderings (πλάναι) of Jason and Odysseus, and identifies the Strait of Messina, between Sicily and Calabria, as a passage that is exceptionally difficult to navigate. Strabo approves of Polybius' interpretation that Homeric geography has referents in the actual Mediterranean as they knew it, and that Charybdis can in fact be identified with the Strait of Messina. In the *Odyssey*, Charybdis is a monster on a rock near a fig tree, who thrice a day sucks in seawater and belches it up again (*Od.* 12.84ff). This results in a dramatic and disorienting rise and fall of the sea level, which Homer describes as follows (*Od.* 12.237-43, transl. Shewring):

When she spewed it forth, she seethed and swirled (κυκωμένη) through all her depths like a cauldron set on a great fire, and overhead the spray fell down on the tops of the two rocks. But when she sucked the sea-water in, one might look right down through the swirling eddy (κυκωμένη), while the rock roared hideously around her and the sea-floor came to view, dark and sandy.⁷³⁰

⁷²⁸ At *Od.* 5.389, Aristarchus took πλάζω as a dialectical form of πλήσσω.

⁷²⁹ On wandering, see Montiglio 2005.

⁷³⁰ ἦ τοι ὅτ' ἐξεμέσειε, λέβης ὥς ἐν πυρὶ πολλῷ / πᾶς' ἀναμορμύρεσκε κυκωμένη· ὑψόσε δ' ἄχνη / ἄκροισι σκοπέλοισιν ἐπ' ἀμφοτέροισιν ἔπιπτεν. / ἄλλ' ὅτ' ἀναβρόξειε θαλάσσης ἄλμυρὸν ὕδωρ, / πᾶς' ἔντοσθε φάνεσκε κυκωμένη, ἀμφὶ δὲ πέτρη / δεινὸν βεβρύχει, ὑπένερθε δὲ γαῖα φάνεσκε / ψάμμῳ κυανέῃ·

Charybdis is another place where swirling confusion (cf. the verb *κυκάω*, “mix”) reigns. At one time seawater falls down overhead, at another the earth at the bottom of the sea is exposed. The elements mix in a way they are not supposed to, thus enhancing the notion of disturbed directionality as up and down become indistinguishable. Polybius rationalizes this strange phenomenon by saying “that Aeolus, the man who taught (*προσημαίνοντα*) navigators how to steer a course in the regions of the Strait of Messina, whose waters are subject to a constant ebb and flow and are difficult to navigate on account of the reverse currents (*παλιρροίας*), has been called lord of the winds and regarded as their king” (Strabo 1.2.15, transl. Jones).⁷³¹ Here, the wind god Aeolus—whom we also encountered in the scene at the Planctae—has become a navigator, whose activity is described with the divinatory verb *προσημαίνω*. Strabo does not tell us how Aeolus managed to navigate the reverse currents (*παλιρροίας*) in the Strait (we may assume it has something to do with the winds), but the usefulness of his divinatory knowledge—Aeolus is compared to Danaus and Atreus, who are historicized as great “seers” (*μάντεις*) and “diviners” (*ἱεροσκοπουμένους*), as well as to the Chaldeans and the Magi—elevated him to the status of a god. The passage reveals the role of navigation as a semiotic practice closely allied to divination in navigating a passage made treacherous by a shift and unreliable reverse current. Indeed, the term *παλίρροια*, which is the key in linking the fantastical Charybdis with Polybius’ rationalizing interpretation, signals a

⁷³¹ τὸν γὰρ Αἰόλον τὸν προσημαίνοντα τοὺς ἑκπλοὺς ἐν τοῖς κατὰ τὸν πορθμὸν τόποις ἀμφιδρόμοις οὗσι καὶ δυσέκλοις διὰ τὰς παλιρροίας ταμίαν τε εἰρῆσθαι τῶν ἀνέμων καὶ βασιλέα νενομίσθαι φησί

strange zone of liminality, in which directions are not stable. This term, as we shall see, is also applied to the mobility of the floating island Delos.

“In the Grip of Perfect Calm”

When the Argonauts are blown off course toward the Libyan sea, they reach the infamous shallows along the coast from where “there is no return” (οὐκέτι νόστος, 4.1235). The shallows are represented as a strange zone of unusual liminality.⁷³² The flood-tide (πλημυρίς, 4.1241) is extreme, leaving the ship on the sand before retreating completely. This is reminiscent of the παλίρροια in the Strait of Messina and, on a mythological level, the extreme rising and falling of the sea-level at Charybdis. But unlike Charybdis, the ship is not violently sucked up in a whirlpool but quietly deposited in the middle of a desert. The result is an experience of vast emptiness—an absolute and disorienting lack of signs, as land and sky blend into one another in an endless vista of nothingness (4.1239-40, 1245-9, transl. Hunter):

As far as the eye can see stretches sand; there is no movement of animal or bird. ... They leapt from the ship, and grief seized them as they viewed the sky and the wide stretches of land like the sky, which disappeared into the distance without break. They could see no source of fresh water, no path, no herdmen’s yard far off in the distance; everything was in the grip (κατείχετο) of perfect calm.⁷³³

⁷³² Peter Green notes that, though exaggerated by Apollonius, the phenomenon really exists (Green 2007: 318)

⁷³³ ἡερίη δ’ ἄμαθος παρακέκλιται, οὐδέ τι εἴσι / ἔρπετον οὐδὲ ποτητὸν αἰίρεται ... / ... / οἱ δ’ ἀπὸ νηὸς ὄρουσαν, ἄχος δ’ ἔλεν εἰσορόωντας / ἡέρα καὶ μεγάλης νῶτα χθονὸς ἡέρι ἴσα /

τηλοῦ ὑπερτείνοντα διηγεκές· οὐδέ τιν’ ἄρδμόν, / οὐ πάτον, οὐκ ἀπάνευθε κατηυγάσσαντο βοτήρων / αὐλίον, εὐκίλῳ δὲ κατείχετο πάντα γαλήνῃ.

The perfect calm that envelops the stranded ship and its voyagers stands in stark contrast with the chaos at Charybdis or, for that matter, the wild storm raging around the SS Poseidon. And yet, both are semiotic disasters, with the Argo's suffering expressed by the nonrepresentation of disaster, the Poseidon's by the overrepresentation of disaster. Unlike "Hell, Upside Down," the Argonauts' disorientation stems from the indiscernibility of signs (their uncoding) rather than their illegibility (their recoding). The usual decoder of signs, the Argo's helmsman Ankaïos, realizes that *there are no signs to read* and thus no paths to forge, and he gives in to despair. Ankaïos' expertise falls short as the sea-line is receding, declaring "there is no way to escape disaster" (οὐδ' ὑπάλυξις / ἔστ' ἄτης, 4.1261-2). The world around them is as if suspended (κατείχετο), and so are the Argonauts. This disaster condition is marked by this sense of insecurity and entrapment, as the Argonauts themselves are suspended in a state between life and death, with no way out. Apollonius describes their *deferred death* explicitly in terms of disasters familiar from the disaster triad of plague-famine-war (4.1280-9, transl. Hunter):

As when men roam (εἰλίσσονται) through a city like lifeless ghosts, awaiting the destruction of war (πολέμοιο) or plague (λοιμοῖο) or a terrible storm (ὄμβρον) which swamps the vast lands where cattle work; without warning (αὐτόματα) the cult statues sweat with blood and phantom groans are heard in the shrines, or in the middle of the day the sun draws darkness over the heavens and through the sky shine the bright stars: like this did the heroes then wander (ἐρπύζοντες) in aimless distress along the stretches of the shore.⁷³⁴

⁷³⁴ οἷον δ' ἀψύχοισιν ἐοικότες εἰδώλοισιν / ἄνδρες εἰλίσσονται ἀνὰ πτόλιν, ἢ πολέμοιο / ἢ λοιμοῖο τέλος ποτιδέγμενοι ἢε τιν' ὄμβρον / ἄσπετον, ὅς τε βοῶν κατὰ μυρίος ἔκλυσεν ἔργα, / ὅππότε ἂν αὐτόματα ξόανα ῥέη ἰδρώοντα / αἵματι καὶ μυκαὶ σηκοῖς ἐνι φαντάζωνται, / ἢε καὶ ἡέλιος μέσῳ ἥματι νύκτ' ἐπάγησιν / οὐρανόθεν, τὰ δὲ λαμπρὰ δι' ἡέρος ἄστρα φαεῖνη— / ὧς τότε ἄριστῆες δολιχοῦ πρόπαρ αἰγιαλοῖο / ἤλυον ἐρπύζοντες

The Argonauts are compared to lifeless ghosts, ready to die at some disaster—war, plague, and storm, which swamps the fields of agricultural production (ἔργα) and may thus result in famine. The pending disaster is paired with typical ominous pre-disaster signs (sweating cult statues, phantom voices in the temples, the obscuration of the sun), but such signs (typical Hellenistic *terata*) are conspicuously lacking for Jason and his men.⁷³⁵ The men’s aimless wandering (εἰλίσσονται, ἐρπύζοντες) reflects the overwhelming out-of-placeness of their disaster experience. Without orientation points, there is nowhere to direct their step to. The verb ἐρπύζω (“creep, crawl”) expresses the movement of those who are extremely weighed down by distress. It may well echo Homer’s use of the verb in *Odyssey* 13, when Odysseus has just landed on his native Ithaca. Yet Odysseus experiences deep distress: he does not recognize anything and is thus unable to orient himself, because Athena has shed a magical mist over the land, scrambling the landscape’s code and making all signs illegible. Homer tells how “he [Odysseus] lamented his native land / wandering (ἐρπύζων) along the coast of the loud-resounding sea” (*Od.* 13.219-20).⁷³⁶ Just as the Argonauts, Odysseus is utterly dislocated because of a lack of visual markers: his homecoming is no homecoming at all (yet), and he even wonders where he should next wander off to (πῇ τε καὶ αὐτὸς / πλάζομαι; *Od.* 13.204-5).

⁷³⁵ The scholiast connects the sweating statues to the defeat of the Thebans in the battle of Chaeronea, see Green 2007: 319, with comments.

⁷³⁶ ὁ δ’ ὀδύρετο πατρίδα γαῖαν / ἐρπύζων παρὰ θῖνα πολυφλοίσβοιο θαλάσσης

Divining Disaster (I): Restoring Sights and Sounds

Odysseus' orientation and sense of security is restored when Athena scatters the mist and reveals the land (*Od.* 13.252), a definitive reorientation that is preceded by the goddess' important semiotic act of naming various sites, such as the harbor and the sacred grove. In the *Argonautica*, the semiotic reorientation of the Argonauts is also brought about with divine aid, but not before their disastered condition has worsened even more. As night falls, the men "covered (καλυψάμενοι) their heads with their cloaks and lay all night long and into the morning, with no nourishment at all, waiting for a most pitiful death" (*Arg.* 4.1294-6).⁷³⁷ They are not just out-of-place, they are now also out-of-time, ignoring the separation between night and day. This is all the more striking in the context of the narrative structure of the epic. The straightforward linearity of the voyaging is established by Apollonius' careful plotting of the day-by-day progress of the voyage.⁷³⁸ Richard Hunter argues that this marking of time is central to the poet's vision of the story: "The Argonauts' voyage is emblematic for all (past and future) sea-voyages, in which the careful and repetitive marking of time is crucially important, and the whole poem may analogously be conceived of as an *aition* for universal Greek culture."⁷³⁹ Their faces cloaked, they could not read the stars even if they wanted to. It is fitting that Jason's reorientation begins at high noon, when, with his head still covered, the sun's rays are beating down from the apex of the sky, creating what Stéphane Mallarmé in "L'Azur"

⁷³⁷ ἐν δὲ κάρη πέπλοισι καλυψάμενοι σφετέροισιν, / ἄκμηνοι καὶ ἄπαστοι ἐκείατο νύκτ' ἐπὶ πᾶσαν / καὶ φάος, οἰκτίστω θανάτῳ ἔπι.

⁷³⁸ Hunter 1993: xxiii.

⁷³⁹ Hunter 1993: xxiii.

illustrates as the *ciel désastre* of total disorientation, as discussed in Chapter Two. Jason's disastered state of ἀμηχανία (*Arg.* 4.1318) elicits pity among a group of local goddesses, and one of them gently lifts the veil off Jason's face (*Arg.* 4.1314), exposing him once again to the sun, just as Theseus had done to Heracles in his post-disaster recovery.⁷⁴⁰

The divine visitation functions as a sort of dream-like epiphany—the poet notes that the goddesses remained visible to Jason alone (*Arg.* 4.1316)—leaving Jason with a divinatory sign (a prophecy) that, when decoded properly, is the key to their way out.⁷⁴¹ The oneiric vision clears the way for his worldly vision to be restored. The prophecy is as follows: “As soon as Amphitrite releases the speeding chariot of Poseidon, then pay fair requital to your mother for all she has suffered in carrying you in her belly for so long” (*Arg.* 4.1325-8, transl. Hunter).⁷⁴² Jason has no idea what the prophecy means, or how to decipher it, but even so, their divinatory sign brings him back at the very moment the goddesses disappear. The text makes his semiotic reorientation apparent in two ways: Jason re-establishes the visual landscape with his eyes and the sonic soundscape with his voice. First, with his cloak no longer covering his head (his apocalyptization), he “looks all around” (παπτήνας, *Arg.* 4.1332), and declares that, while he does not understand the message, he will now gather his comrades so as to find some “sign” (τέκμωρ, 4.1335) of

⁷⁴⁰ The term ἀμηχανία is part of the semantic field of *metis*, and associated with the negative state of *aporia* (Detienne and Vernant 1991: 144), cf. Pindar's *Paean* 9 discussed in the introduction.

⁷⁴¹ Vian 1981: 191-2 offers a comparison of Jason's vision with Homeric dreams. The fact that the vision happens at mid-day is significant, since noon is considered especially propitious for epiphanic dreams. See also notes in Green 2007: 320, with bibliography.

⁷⁴² εὔτ' ἂν δέ τοι Ἀμφιτρίτη / ἄρμα Ποσειδάωνος εὐτροχὸν αὐτίκα λύσῃ, / δὴ ῥα τότε σφετέρῃ ἀπὸ μητέρι τίνετ' ἀμοιβήν / ὧν ἔκαμεν δηρὸν κατὰ νηδύος ὕμμε φέρουσα

how to return, relying on the “intelligence” (μητις, 4.1336) of the group. Second, he jumps up and shouts to his friends, and the poet compares him to a lion roaring to find its mate, as his voice echoes in the mountain glens and terrifies the cattle and herdsmen in the fields (*Arg.* 4.1337-42). If upon arrival in Libya they could find neither path nor herdmen’s yard, now Jason has found his voice again, by which he repositions himself in the soundscape.⁷⁴³ Thus, with his eyes and his voice, Jason dispels his semiotic blindness brought about by the vast expanse of the desert, and reorients himself in the landscape.

A brief excursion on the verb *παπταίνω*, by which Jason reorients himself in the visual landscape, is appropriate here, because it helps explain the role of *visual* orientation in divining disaster. The verb *παπταίνω* describes the kind of careful, searching look with which one scans an area or landscape in order to identify or fix a particular visual marker. An instructive example is found in the *Iliad*, when Menelaus, looking for Antilochus to inform him about Patroclus’ death, “scans [the battlefield] in all directions like an eagle” (πάντοσε παπταίνων ὥς τ’ αἰετός, *Il.* 17.674). The eagle can spot the hare even when it is hidden. A simile about the eagle’s keen eyesight follows, comparing the eagle to Menelaus, whose “shining eyes spun around in every direction” (ὄσσε φαεινὸν / πάντοσε δινείσθην, *Il.* 17.679-80) until he “recognized” (ἐνόησε, *Il.* 17.682) Antilochus on the left side of the battlefield. The verb *δινεύω* (“whirl”), which here complements the meaning of *παπταίνω*, emphasizes the multi-directionality of this expert form of visual perception. When employed by the keen eyesight of an eagle or

⁷⁴³ I thus disagree with Green, who concludes, with reference to the Homeric lion similes, that “Jason’s lionine summons are hopelessly out of context (Green 2007: 321).

Menelaus, this spinning motion contributes to a complete visual field. At the same time, this whirling motion can express disorientation when encountered in an unchecked state. For example, Aratus laments the unreliability of the motions of the planets, or wandering stars, which “whirl about” (δινεύονται), so that their paths cannot be reliably “plotted” (ἐπιτεκμήραιο, Arat. 455-6). Similarly, the noun δίνη refers to the confusing, circular motions of an eddy or whirlpool. The goal of παπταίνω is the mental recognition of a stable signified, a fixed marker; for Menelaus, this is Antilochus, for Aratus, the heavenly paths that mark out time and space. When Odysseus and his comrades are sailing past Scylla, he keeps his eyes fixed on where she may appear, “scanning (παπταίνοντι) everywhere in the direction of the misty rock” (*Od.* 12.233). Odysseus’ eyes are focused on locating an enemy, Menelaus’ eyes on locating a friend; once spotted and recognized, a path or trajectory can be plotted out to reach the visual marker. For Jason, the verb thus expresses the careful visual orientation by which he seeks out the *tekmar* that will aid him in constructing a passage out of his state of *aporia*.

Divining Disaster (II): Decoding the Sign

When Jason has submitted his remarkable dream-like vision to the *metis* of the group, “the most wondrous of signs occurred” (τὸ μήκιστον τεράων ... ἐτύχθη, *Arg.* 4.1364). The sign is a monstrous sign (*teras-pelor*), as “from the sea towards the land sprang a monstrous horse (πελώριος ... ἵππος), a giant creature, its neck covered with a golden mane and held aloft; it shook the dripping foam from its body and quickly

sprinted off, its legs flowing like the wind” (*Arg.* 4.1365-8, transl. Hunter).⁷⁴⁴ For Peleus, the occurrence of this equine τέρας triggers the decoding of the rest of the prophecy, just as the τέρας of the stunned ship unlocked the prophecy for the Phaeacian leader Alcinous in the *Odyssey*. Both *terata* share another important similarity: they upset common-sense experiences about the world (which is why they are identified as *terata* in the first place), in particular by disrupting the boundaries between different elements. Here, the horse’s ambiguous state is marked by its extreme mobility, as it bridges land and sea, as if some amphibious creature, before swiftly sprinting off into the distance. The Phaeacian ship’s ambiguous state, on the other hand, was marked by its sudden lack of mobility, as it becomes rooted like an island—not unlike the Argo in its present state. Peleus immediately recognizes that the τέρας of the monstrous horse stands for the chariot of Poseidon that is mentioned in the prophecy. Indeed, horses, ships, and chariots are all connected in Greek thought, as discussed in the previous chapter. This prompts the second, and most important interpretation of the sign contained in the prophecy, namely that “mother” stands for “ship,” i.e. the Argo. The belly of the mother corresponds to the belly of the ship.

Next, Peleus translates the prophecy into a concrete action by linking the direction in which the monstrous horse moved to the direction in which they need to carry the ship. Thus, both the τέρας of the horse (the sign encountered by all) and the symbol of the mother (as heard by Jason in his prophetic vision) stand for the ship. Just as the horse

⁷⁴⁴ ἐξ ἀλὸς ἡπειρόνδε πελώριος ἄνθορεν ἵππος / ἀμφιλαφῆς χρυσέησι μετήορος ἀνχένα χαίταις· / ῥίμφα δὲ σεισάμενος γυίων ἄπο νήχυντον ἄλμην / ὄρτο θέειν πνοιῇ ἵκελος πόδας.

travels across the desert, so the ship must also travel across the desert. Since the horse needs to return to the water, Peleus' reasoning goes, the horse's "tracks" (ἵχνια) will "indicate" (σημανέειν) some inland sea lagoon (*Arg.* 4.1377-9). Green and other incredulous commentators—including, it seems, Apollonius himself (cf. the poet's apostrophe in *Arg.* 4.1381-8)—find the twelve-day track across the desert carrying a fifty-oar ship hard to believe, but this is entirely besides the point, at least from the perspective of how *divining disaster* manifests itself in the epic. What matters is that the Argonauts need a way out of the desert, a *poros*, and at this point only divine guidance, here in the form of the tracks—the indexical sign par excellence—made by the τέρας-horse, provide the path toward salvation.

At this point, Apollonius' narrative meets that of Herodotus, as the Argonauts reach Lake Tritonis and put the ship down in the lake. But sailing out of the lake proved no easy task: "they tried to work out (ἀπετεκμαίροντο) where there might be channels (πόρους) which would enable them to leave Lake Tritonis" (*Arg.* 4.1538-9), but they had no "plan" (μῆτιν) and roamed aimlessly all day.⁷⁴⁵ The Argo is compared to a snake "turning its head this way and that way" (ἐνθα καὶ ἐνθα κάρη στρέφει, *Arg.* 4.1543) as it searches for a crack in the ground to escape the heat of the desert. The phrase ἐνθα καὶ ἐνθα, as we will see, is also indicative of the state of disorientation when all elements are in turmoil, and no *poros* can be found. Furthermore, the passage neatly bears out the relationship between τεκμαίρομαι and πόρος, and the role of μῆτις in plotting such a way

⁷⁴⁵ πόρους τ' ἀπετεκμαίροντο / λίμνης ἐκπρομολεῖν Τριτωνίδος, οὗ τινα μῆτιν / δὴν ἔχον, ἀφραδέως δὲ πανημέριοι φορέοντο.

out. In previous situations, goddesses associated with Metis such as Athena and Thetis provided divine aid, and in the desert the Libyan goddesses—daughters of Poseidon and associated with Athena Tritogeneia—had done so. This time, their guide is the sea-deity Triton, whose wondrous appearance is similarly marked as a τέρας (*Arg.* 4.1598, 1619). Triton plots a course out of the lake through a narrow channel, and on along the coastline toward Crete, promising the Argonauts a “safe voyage” (πλόος ἀπήμων, *Arg.* 4.1582).

The Black Emptiness of *Katoulas*

The resolve of the Argonauts, however, is tested one last time, in a scene that epitomizes the geographicalness of the disaster experience. The sense of safety and security promised by Triton (cf. ἀπήμων in both Herodotus and Apollonius, and also Pindar’s *Paean* 9) is undermined by the loss of all orientation during a sudden and complete darkness, known as *katoulas* (κατουλάς), as they sail past Crete (*Arg.* 4.1694-1701, transl. Hunter):

Suddenly, however, as they raced over the great expanse of the Cretan sea they were terrified by the darkness which men call *katoulas*; no stars penetrated the deadly darkness (νύκτ’ ὀλοήν), no beams of the moon; down from the heavens spread a black emptiness (μέλαν χάος), or it was some other gloom (σκοτίη) rising up from the furthest depths. They had no idea whether they were moving in Hades or over the waters. They handed over their hopes of return to the power of the sea, helpless (ἀμηχανέοντες) to control where it might lead them.⁷⁴⁶

⁷⁴⁶ αὐτίκα δὲ Κρηταῖον ὑπὲρ μέγα λαῖτμα θέοντας / νύξ ἐφόβει τήνπερ τε κατουλάδα
 κικλήσκουσιν / νύκτ’ ὀλοήν· οὐκ ἄστρα δίσχανεν, οὐκ ἄμαρυγαί / μήνης, οὐρανόθεν δὲ μέλαν
 χάος, ἥδ’ ἐτις ἄλλη / ὠρώρει σκοτίη μυχάτων ἀνιοῦσα βερέθρων· / αὐτοὶ δ’ εἴτ’ Αἴδη εἴθ’ ὕδασιν
 ἐμφορέοντο / ἠεῖδεν οὐδ’ ὅσσον, ἐπέτρεψαν δὲ θαλάσση / νόστον, ἀμηχανέοντες ὅπη φέροι.

Once again, the Argonauts face a disaster that is marked by the uncertainty of nonrepresentation. The darkness is total, so that no starlight or moonbeam can penetrate it. All sense of directionality in time and space is therefore lost, which contrasts sharply with the temporal and geographic linearity of the Argo's journey in Apollonius' epic. Indeed, Hunter refers to this scene when he notes that "the steady security of the passage of the days makes even more terrifying those times ... when we do not have that security to which to cling."⁷⁴⁷ This frightening darkness is described as "black emptiness" (μέλαν χάος) and "gloom" (σκοτία), invoking the primordial abyss of Chaos and the darkness of Skotos, the third divine principle to come into being, after Poros and Tekmar, in Alcman's cosmology (Alc. Fr. 5). The darkness blurs the boundaries between the different realms (sky, sea, earth, underworld). A choral passage from Sophocles' *Antigone* likens the shaking of a house and the ruin that will follow to a storm at sea, with wind sweeping over the "darkness of the deep" (ἔρεβος ὕφαλον) that "rolls up" (κυλίνδει) black sand from the depths. Erebos is the terrifying place of impenetrable, misty darkness, which, like the depths of the sea, is a place devoid of any point of orientation. This is the semiotic hell of *katoulas*, which leaves its victims uncertain whether they are still at sea or moving in Hades.

The phenomenon of *katoulas* has puzzled scholars.⁷⁴⁸ The word κατουλάς may be translated as "shrouding," and seems to be especially associated with the darkness of

⁷⁴⁷ Hunter 1993: xxiii.

⁷⁴⁸ See the comments in Green 2007: 332.

night.⁷⁴⁹ The scholiast and the Etymologium Magnum gloss it as σκοτεινὴ νύξ (“gloomy night”) on account of its being “deadly” (ὀλοήν). Unlike the darkness at sea earlier in Book 2 (1102-5) or a similar scene in the *Odyssey* (14.301-4), *katoulas* is not the result of storm or bad weather. Green has pointed out that the Cretan Sea is one of the only parts of the Aegean where one is completely out of sight of land; something that did not appeal to such “habitual island-hoppers” as the Greeks.⁷⁵⁰ One could argue, however, that the Argonauts had just crossed an even larger expanse of the Mediterranean without any land in sight, when they sailed from Libya to Crete. Still, Green is certainly right to suggest that the absolute darkness of *katoulas* can be connected to the fear of sailors who experience a complete loss of *tekmar*. When sailing at night, this includes both the loss of the stars above and the loss of the twinkling lights coming from the many Aegean islands. In fact, when Jason now calls on divine aid, it is the god of divination himself, Apollo, who dispels the darkness by holding up his golden bow: “in all directions it shone with a gleaming brilliance (μαρμαρέην αἴγλην)” (*Arg.* 4.1710).⁷⁵¹ The light reveals a rock, a small island, which they call Anaphe (“Appearance”), because Apollo had caused it to appear. The island is the shining beacon that saves the Argo, functioning as a salvific point of orientation whose visual appearance breaks through the black abyss of *katoulas*, thus re-establishing semiotic order for the Argo and its crew.

⁷⁴⁹ A fragment of Sophocles has νυκτὶ τῇ κατουλάδι (S. *Fr.* 433, ed. Radt).

⁷⁵⁰ Green 2007: 332.

⁷⁵¹ μαρμαρέην δ’ ἀπέλαμψε βιὸς πέρι πάντοθεν αἴγλην

“The Land Was In Such Confusion”

The experience of *katoulas*, as described in Apollonius’ epic poem, suggests that the geographicalness of the disaster condition can be expressed by analogy with such primordial principles as Chaos and Skotos. What I am going to suggest—and I will develop this idea in Part III—is that the disaster experience, and the disaster narrative in particular, can be represented as *negative cosmology*, which signals the semiotic unraveling not on a local, individual level, but on a universal, cosmic level. First, however, I shall transition to Part III by way of another disaster experience, or at least the *representation* thereof, as captured by a different genre, that of history. We are thus concerned with a historical disaster once more, namely the eruption of Mt. Vesuvius in 79 CE. Since we are not concerned with recreating the disaster experience of actual individuals, and hence not with historicity per se, a later source such as Plutarch’s account of the Vesuvius eruption is valuable for its *representation* of the disaster experience—at least as imagined by a Greek intellectual of the 1st and 2nd century CE. I shall argue that the representation of disaster in both Plutarch’s and Dio Cassius’ account of the Vesuvius eruption must be understood as the unraveling of not just the spatial order but also of the cosmic order.

The passage in question, found in Plutarch’s dialogue *The Oracles at Delphi No Longer Given in Verse* (398E), opens with one of the characters offering a defense of divination by arguing that the “recent disasters” (νέα πάθη) in Campania had been announced—or rather, sung—not long before by the Sibyl. This is a direct claim of *divining disaster* in a very obvious, albeit retrospective, sense. Signification and causation are mixed up: Plutarch’s character remarks that “Time, as if in her debt,

rendered what was due” (ὁ χρόνος ὥσπερ ὀφείλων ἀποδέδωκεν). It is as if the Sibyl’s song *caused* rather than *signified* the disaster. The disaster is prefigured, created even, in the divinatory act of the prophetess. From a semiotic perspective, the clairvoyant *certainty* provided by the Sibyl’s prediction stands in stark contrast with the utter *uncertainty* symbolized by the disastered landscape itself. If the Sibyl’s song is a clear sign, the disaster geography it creates is marked by both a confusing excess and a disorienting lack of signs (overrepresentation and nonrepresentation). Plutarch’s character describes the disastered landscape as follows (Plut. 398E):

... eruptions of fire from the mountain, and boiling seas, and the tossing up of rocks and flames by the wind, and the destruction of such great cities that those who came there during the day experienced ignorance and uncertainty as to where they had been situated, since the land was in such confusion (συγκεχυμένης).⁷⁵²

The geography of disaster is made visible through a network of signs—or the lack thereof. In the disastered landscape, disfigured by the violent eruption of elemental forces, the former landmarks and orientation points have become unrecognizable. Everything is confused—literally, “mixed up” (συγκεχυμένης)—which makes it impossible to locate the cities that once stood there. The disoriented survivors are described as experiencing “ignorance” (ἄγνοιαν) and “uncertainty” (ἀσάφειαν). This represents the unravelling of the spatial order and the resulting feelings of uncertainty and *out-of-placeness* that characterize the “geographicalness” of the disaster experience.

⁷⁵² ἐκρήξεις πυρὸς ὀρείου καὶ ζέσεις θαλασσίας καὶ πετρῶν καὶ φλογμῶν ὑπὸ πνεύματος ἀναρρίψεις καὶ φθορὰς πόλεων ἅμα τοσούτων καὶ τηλικούτων, ὥς μεθ’ ἡμέραν ἐπελθοῦσιν ἄγνοιαν εἶναι καὶ ἀσάφειαν ὅπου κατόκηντο τῆς χώρας συγκεχυμένης

Cosmic Disaster in Cassius Dio

In Plutarch's account, the absence or distortion of visible signs marks the disaster geography. The Sibyl, moreover, contributes to the sign continuum by establishing the anterior end of that spectrum. Cassius Dio's account of the same volcanic eruption demonstrates yet another side to the "geographicalness" of the disaster experience, namely the sense of displacement not just among the people but among the very elements that give order to the universe. The mixed up elements described by Plutarch, too,—boiling seas, fiery mountains, rocks and flames thrown up by blasts of wind—are indicative of a cosmic turmoil that threatens to upset the order of the universe itself. But Cassius Dio goes beyond that in a passage that is worth producing in its entirety, and which I have divided up for reasons of clarity (66.22, transl. Cary, adapted; emphases mine):

- 1) Numbers of huge men quite surpassing any human stature—*such as* the Giants are pictured—appeared, now on the mountain, now in the surrounding country, and again in the cities, wandering over the earth day and night and also flitting through the air.
- 2) After this fearful droughts and sudden and violent earthquakes occurred, so that the whole plain round about seethed and the summits leaped into the air.
- 3) Frequent rumblings happened (συνέβαινον), some subterranean, that *resembled* thunder, and some on the surface, that sounded *like* bellows; the sea also joined in the roar (συνέβρεμε) and the sky re-echoed it (συνεπήχει).⁷⁵³

⁷⁵³ ἄνδρες πολλοὶ καὶ μεγάλοι, πᾶσαν τὴν ἀνθρωπίνην φύσιν ὑπερβεβληκότες, οἷοι οἱ γίγαντες γράφονται, τοῦτο μὲν ἐν τῷ ὄρει τοῦτο δ' ἐν τῇ περὶ αὐτὸ χώρα ταῖς τε πόλεσι μεθ' ἡμέραν καὶ νύκτωρ ἐν τῇ γῇ περινοστοῦντες καὶ ἐν τῷ ἀέρι διαφοιτῶντες ἐφαντάζοντο. καὶ μετὰ τοῦτ' αὐχμοὶ τε δεινοὶ καὶ σεισμοὶ ἐξαίφνης σφοδροὶ ἐγίνοντο, ὥστε καὶ τὸ πεδῖον ἐκεῖνο πᾶν ἀναβράττεσθαι καὶ τὰ ἄκρα ἀναπηδᾶν. ἤχαι τε αἱ μὲν ὑπόγειοι βρονταῖς ἐοικυῖαι αἱ δὲ καὶ ἐπίγειοι μυκηθμοῖς ὅμοιαι συνέβαινον, καὶ ἡ τε θάλασσα συνέβρεμε καὶ ὁ οὐρανὸς συνεπήχει.

This passage describes the signs that announce the arrival of the disaster. Section 1) contains visual signs that are best considered *terata*: huge men appear, who are so contrary to “human nature” (ἀνθρωπίνην φύσιν) that they are thought to resemble the Giants. Section 2) contains signs that indicate the kinetic disturbance of the land; droughts and earthquakes distort and disrupt the usual landscape by crossing boundaries that are not usually crossed: the earth is seething and mountains leap into the air. Finally, section 3) contains auditory signs that indicate the soundscape of disaster; rumblings encompass all domains: underground, above ground, in the sea, and in the air. The experience is such that it seems to defy description, that is to say, Dio resorts to analogy and metaphor to describe the extraordinary events. The huge men are *like* the Giants, the eerie soundscape *resembles* that of thunder and animal bellowing.

Such analogies also dominate the following sections, in which Dio describes the eruption itself (66.22-3, transl. Cary, adapted; emphases mine):

- 4) Then suddenly a portentous crash (κτύπος) was heard, *as if* the mountains were tumbling in ruins (συμπιπτόντων); and first huge stones were hurled aloft, rising as high as the very summits, then came a great quantity of fire and endless smoke, so that the whole atmosphere was obscured and the sun was entirely hidden (συγκρυφθῆναι), *as if* eclipsed. Thus day was turned into night and light into darkness (σκότος).
- 5) Some thought that the Giants were rising again in revolt (for at this time also many of their forms could be discerned in the smoke and, moreover, a sound as of trumpets was heard), while others believed that the entire cosmos was being consumed into chaos (χάος) or fire.
- 6) Therefore they fled, some from the houses into the streets, others from outside into the houses, now from the sea to the land and now from the land to the sea; for in their disorderly confusion (τεταραγμένοι) they regarded any place where they were not as safer (ἀσφαλέστερον) than where they were.⁷⁵⁴

⁷⁵⁴ καὶ τούτου κτύπος τε ἐξαίσιος ἐξαπινάϊως ὥς καὶ τῶν ὀρῶν συμπιπτόντων ἐξηκούσθη, καὶ ἀνέθορον πρῶτον μὲν λίθοι ὑπερμεγέθεις, ὥστε καὶ ἐς αὐτὰ τὰ ἄκρα ἐξικέσθαι, ἔπειτα πῦρ πολὺ καὶ καπνὸς ἅπλετος, ὥστε πάντα μὲν τὸν ἀέρα συσκιασθῆναι, πάντα δὲ τὸν ἥλιον συγκρυφθῆναι

The confusion of the landscape and the soundscape is emphasized by the repetition of the prefix συν- in sections 3) and 4), as well as Plutarch's use of the word συγκεχυμένης. Section 4) ends with the utter disorientation caused by the darkness of the sun's obscuration. In this apocalyptic context, the word σκότος evokes the primordial darkness associated with Erebus. The word once again evokes the divine principle of Skotos in Alcman's cosmology, which comes into being while all matter is still undifferentiated. The idea of primordial chaos is further evoked by Dio's report that people believed—based on both visual and auditory signs—that the Giants were rising up in revolt. Since the Gigantomachy had threatened to overthrow the order of a Zeus-ruled universe, the experience of disaster, based on the signs that make up the disastered landscape and soundscape alike, *resembles* that of the disintegration of the cosmos itself. Indeed, Dio concludes section 5) by reporting the belief among some that the cosmos itself was being returned to its primordial state, whether understood as the yawning abyss of Chaos (χάος) or a universal conflagration.

Dio's account describes the reaction of people, running from one place to the next in search for safety (inside/outside, land/sea). Their disorder and confusion is indicated with a participle of the verb ταρασσω. The loss of directionality is a semiotic predicament, as signs either no longer mean what they used to mean, or they cannot be

καθάπερ ἐκλελοιπότα. νύξ τε οὖν ἐξ ἡμέρας καὶ σκότος ἐκ φωτὸς ἐγένετο· καὶ ἐδόκουν οἱ μὲν τοὺς γίγαντας ἐπανίστασθαι (πολλὰ γὰρ καὶ τότε εἰδωλα αὐτῶν ἐν τῷ καπνῷ διεφαίνετο, καὶ προσέτι καὶ σαλπίγγων τις βοή ἠκούετο), οἱ δὲ καὶ ἐς χάος ἢ καὶ πῦρ τὸν κόσμον πάντα ἀναλίσκεσθαι. καὶ διὰ ταῦτ' ἔφυγον οἱ μὲν ἐκ τῶν οἰκιῶν ἐς τὰς ὁδοὺς οἱ δὲ ἔξωθεν εἴσω, ἕκ τε τῆς θαλάσσης ἐς τὴν γῆν καὶ ἐξ ἐκείνης ἐς τὴν θάλασσαν, οἷα τεταραγμένοι καὶ πᾶν τὸ ἀπὸ σφῶν ἀπὸν ἀσφαλέστερον τοῦ παρόντος ἡγούμενοι.

observed at all. The noun *ταραχή*, we recall, also indicates the pre-semiotic state of confusion (*ταραχή*) that Prometheus dispelled. Dio’s final phrase in section 6) (“they regarded any place where they were not as safer (*ἀσφαλέστερον*) than where they were”) highlights the Uncertainty Paradigm as a lens through which to understand disaster, and encapsulates the sense of *misplacement* associated with it. The Greek word for “safe” here is *ἀσφαλής*, which we have encountered before both as epithet of Poseidon (*Asphaleios*) and in relation to the verb *σφάλλω* (“[cause to] fall, trip up”), a significant word in the disaster lexicon. A safe place is a place that is steadfast and immovable, and will not make one fall down. I have already suggested that the notion of falling is central to the disaster experience, since it is the most basic form of disorientation. With the eruption of Vesuvius, this notion takes on universal and cosmic proportions.

The cosmic proportions that are evoked in the disaster experience can be seen toward the end of Dio’s account. He reports how an enormous quantity of ash covered sea, land, and air, and buried the cities of Herculaneum and Pompeii. Furthermore, all this “dust” (*κόνις*)—a harbinger of the plague, Dio notes—spread to Africa, Syria, Egypt, and Rome itself, where, as a result, the air was stifled and the sun was darkened. Fear and panic ensued, since “people neither knew nor were able to imagine (*εἰκάσαι*) what had happened” (Dio 66.23).⁷⁵⁵ Dio’s need for analogy has been extended to the disaster witnesses themselves, for whom the events have no conceivable likeness (*εἰκός*). No visual parallels are available. The lack of a direct resemblance suggests that the disaster

⁷⁵⁵ οὐτ’ εἰδόσι τοῖς ἀνθρώποις τὸ γεγονὸς οὐτ’ εἰκάσαι δυναμένοις

represents something extraordinary and of cosmic proportions, akin to the Gigantomachy or, indeed, the end of the world (66.23):

But those people, too, believed that the whole world was being turned upside down (ἄνω τε καὶ κάτω μεταστρέφεσθαι), that the sun was disappearing (ἀφανίζεσθαι) into the earth, and that the earth was being raised to the sky.⁷⁵⁶

The end of the world is expressed as a semiotic and geographic confusion of cosmic proportions. Everything is turned upside down in literal catastrophe (ἄνω τε καὶ κάτω μεταστρέφεσθαι—some manuscripts read καταστρέφεσθαι) and all sense of directionality is lost. The order of the universe unravels as earth and sky switch places, while the sun—the most visible sign of all—conspicuously disappears. Elements that should not mingle are now mixed. The representation of disaster—as imagined by Plutarch and Dio Cassius—relies on mythological imagery. Regardless of what Plutarch and Dio Cassius themselves thought—something that does not concern us directly here—it seems reasonable to infer, from a literary-historical perspective, that the models of myth continued to serve as reference points with which to make sense of extreme events such as volcanic eruptions.

⁷⁵⁶ ἀλλ' ἐνόμιζον καὶ ἐκεῖνοι πάντα ἄνω τε καὶ κάτω μεταστρέφεσθαι, καὶ τὸν μὲν ἥλιον ἐς τὴν γῆν ἀφανίζεσθαι, τὴν δὲ γῆν ἐς τὸν οὐρανὸν ἀνιέναι.

PART III

NEGATIVE COSMOLOGY

Hesiod's *Theogony* is a study in imagining, and managing, cosmic disaster.⁷⁵⁷ This is disaster as apocalypse in the first sense of the word, "the imagined End."⁷⁵⁸ But within the cosmological narrative offered by Hesiod, cosmic disaster only serves to represent and reinforce the structure of a Zeus-ordered universe. This is a semiotic structure with geographic implications: the different components of the universe acquire meaning because of separation, including in space. Sky is up, Earth is down; Zeus rules from Olympus, the Titans are hidden in Tartarus. The sovereignty of Zeus is challenged, threatened even, by various displays of cosmic strife, only to ultimately succumb to the overwhelming and catastrophic intervention of Zeus and the weapon of his supremacy, the thunderbolt. In the context of the Oedipus myth, Matthew Gumpert writes:

For the Greeks, catastrophe is always a semiotic crisis averted: an event which, while apparently representing a threat to the semiotic order of things (in Saussurian terms, the *langue* of the land), function in fact to reinforce that order.⁷⁵⁹

This insight applies to the *Theogony*, too. The semiotic order of things, on a cosmic level, is based on the separation of, and differentiation between, signs. The first primordial

⁷⁵⁷ I shall not discuss Hesiod's Five Races (or Ages) from the *Works and Days*; for the Hesiodic narrative of decline and disaster and its Near Eastern parallels, see Koenen 1994: 1-34.

⁷⁵⁸ See the discussion on Apocalypse in Chapter Two, section "Passivity, Apocalypse, and Disaster-as-Accident." But with the caveat that Archaic Greek thought does not seem to conceptualize the End as end.

⁷⁵⁹ Gumpert 2012: 50.

element in Hesiod's cosmos, Chaos (χάος, "chasm"), has been understood since Ovid as the confused and chaotic mass out of which all things were formed (*Met.* 1.1).⁷⁶⁰ This state suggests confusion, as the modern English word chaos does, because of an excess of signs. In the *Theogony*, however, Chaos is confusion because of the absence of signs. As the cosmos takes on its semiotic order, the Titanomachy and the Typhonomachy threaten to undo this order, and in the clashes of divine strife that follow, the world is thrown into a state of disaster. This is not the place to discuss the role of *Chaoskampf*, the primordial struggle against chaos, in Indo-European mythology and legend. But what I am arguing here is that universal or cosmic disaster is a form of what Huet has called *negative cosmology*, in which the narrative account itself is challenged by disastrous irruptions that threaten to undo the discursive activities of the cosmogonic narrative by returning to the original, primordial and pre-semiotic state of emptiness or χάος. The opposite of disaster, and of negative cosmology in particular, is overdetermination, categorization, and all those discursive strategies that subsume any and all accidents or perceived cases of randomness to a grand scheme of meaning. In the sections that follow, I consider the signs that make up the various landscapes and soundscapes that are constituted by, and are threatened to unravel in, the narrative of the *Theogony* and related works.

Soundscapes of Divine and Human Strife

⁷⁶⁰ On Chaos in Hesiod, see West on *Th.* 116. Cf. Most's comment in the Loeb edition of Hesiod, line 116: "Usually translated as 'Chaos'; but that suggests to us, misleadingly, a jumble of disordered matter, whereas Hesiod's term indicates instead a gap or opening."

The effects of cosmic strife are on full display in the battle between Olympian gods and Titans. The Titanomachy is consistently framed as an instance of “strife” (ἔρις), and it is here that we first encounter disaster on a cosmic scale. Cosmic disaster involves any or all four elements of the world as imagined by mythical thought: the Sky, the Sea, the Earth, and the Underworld, or Tartarus.⁷⁶¹ The Olympians and Titans have been fighting for ten years, “with no solution for their harsh strife (ἔριδος)” (*Th.* 637), until the Hundred-Handers join the cause of Zeus. Then the battle lines are drawn yet again, to the detriment of the elements (*Hes. Th.* 677-86):

They displayed deeds of main force and strength together
on both sides, and the boundless sea resounded (περίαχε) terribly,
and the earth crashed (ἔσμαράγησεν) loudly, and the wide sky groaned (ἐπέστενε)
as it quivered (σειόμενος), and great Olympus was shaken (τινάσσετο) from its
foundation (πεδόθεν)
by the rush of the immortals, and the heavy quaking (ἔνοσις) from their feet
reached misty Tartarus, and the shrill cry (ἰωή)
of their unspeakable rout and mighty volleys.
So it was as they sent their groan-causing missiles against each other;
and shouts (φωνή) of both sides reached starry sky
as they called out, those who clashed with great battle-cry (οἱ δὲ ξύνισαν μεγάλῳ
ἀλαλητῷ).⁷⁶²

The phenomenality of this cosmic disaster operates on the levels of sound and motion.

These are the effects of divine strife, and are defined by upheaval of the natural elements, which, since the strife is of a cosmic scale, involves all domains: sea, earth, sky, even the

⁷⁶¹ The distinction between γαῖα and Γαῖα as referring either to the place or the deity is based on the modernizing assumption that these categories are somehow mutually exclusive; it is unlikely that an Archaic Greek person would have been similarly disturbed by this dual ontology.

⁷⁶² χειρῶν τε βίης θ' ἅμα ἔργον ἔφαινον / ἀμφοτέροι, δεινὸν δὲ περίαχε πόντος ἀπείρων, / γῇ δὲ μέγ' ἔσμαράγησεν, ἐπέστενε δ' οὐρανὸς εὐρύς / σειόμενος, πεδόθεν δὲ τινάσσετο μακρὸς Ὀλυμπος / ῥιπῇ ὕπ' ἀθανάτων, ἔνοσις δ' ἵκανε βαρεῖα / τάρταρον ἠερόεντα ποδῶν, αἰπεῖά τ' ἰωή / ἀσπέτου ἰωχοῖο βολάων τε κρατεράων. / ὥς ἄρ' ἐπ' ἀλλήλοισι ἔσαν βέλεα στονόεντα / φωνὴ δ' ἀμφοτέρων ἵκετ' οὐρανὸν ἀστερόεντα / κεκλομένων· οἱ δὲ ξύνισαν μεγάλῳ ἀλαλητῷ.

underworld.⁷⁶³ The scene is the true cosmic paradigm of strife, both on a divine level, as the passage from *Iliad* 20 discussed in Chapter Three, and on a human level, as for example during a battle scene in *Iliad* 14. In *Iliad* 20, the scene is dominated by Poseidon, who shudders the earth and mountains, shakes Mt. Ida, Troy and the Achaean ships, and is about to break open the Underworld and expose the dead—as in the *Theogony*, the verbs τινάσσω and σείω express the disruptive motion of this force, while ἔνοσις invokes Poseidon’s epithet Ἐνοσίχθων. Even though the focus in the *Iliad* is on Poseidon as the source of the upheaval in motion, that passage nonetheless concludes with a phrase that emphasizes the soundscape of divine strife: “Such was the crash that arose as the gods clashed together in strife” (τόσσοις ἄρα κτύπος ὦρτο θεῶν ἔριδι ξυνιόντων, *Il.* 20.66).

In the *Theogony*, this soundscape similarly results from the mixing together of opposing deities. The soundscape consists of the suffering of the elements, on the one hand, and the battle cries of the warring gods, on the other. While the Sea echoes (περίαχε), the Earth crashes (ἔσμαράγησεν) and the Sky groans (ἐπέστενε), the gods issue cries (ιοή) during their rout, shouts (φωνή) and battle-cries (ἀλαλητῶ). The φωνή reaching upward to the sky complements the ἔνοσις reaching downward to Tartarus: sound and movement penetrate the highs and lows of the cosmos, and are thus all-encompassing. Put simply, natural disaster and divine strife are one and the same on a cosmic scale. On a human scale, on the other hand, the natural or elemental component

⁷⁶³ So Martin West on this passage: “It is a typical feature of a theomachy that its effects are felt even in the underworld” (West 1966, 348). Elsewhere, West identifies this as a Near-Eastern motif (391).

exists primarily on the level of analogy. When the Achaeans and the Trojans are about to attack each other in *Iliad* 14 (it is explicitly a display of strife, cf. ἔριδα πτολέμοιο τάνυσσαν, *Il.* 14.389), the scene is dominated by its soundscape. The phrase οἱ δὲ ξύνισαν μεγάλῳ ἀλαλητῷ (*Il.* 14.393 = *Th.* 686) corresponds word for word to the one in the Titanomachy. This time, however, it sets up a Homeric simile, in which the soundscape of human strife is approximated, through an *a fortiori* comparison, with nature (*Il.* 14.394-401):

Not so loudly bellows the wave of the sea at the shore
 stirred up from the deep by a dreadful blast of Boreas,
 nor so loud is the roar of blazing fire in the mountain glades,
 when it rises up to burn the forest;
 nor does the wind shriek so loudly around the high tops of the oak trees,
 the wind that roars especially loudly when it's raging,
 as then was the cry (φωνή) of the Trojans and Achaeans
 shouting terribly, when they rush forward against each another.⁷⁶⁴

The sound of clashing warriors is compared to that of water, fire, and wind. Unlike in scenes of divine strife, the elements are not *actually* in turmoil; it is only one element, namely the soundscape of the battle cry, of which the extraordinary intensity is described by analogies of natural violence.

Violence done to the element of earth, which is left out of this simile, appears in other contexts. During the Titanomachy, the earth “was crashing” (ἐσμαράγησεν, *Th.* 679) and the verb used here, σμαραγέω, is of particular interest. It denotes not so much the act of crashing as the sonic quality of crashing in a resounding or rumbling fashion.

⁷⁶⁴ οὔτε θαλάσσης κῦμα τόσον βοάα ποτὶ χέρσον / ποντόθεν ὀρνύμενον πνοιῇ Βορέῳ ἀλεγεινῇ· / οὔτε πυρὸς τόσσός γε ποτὶ βρόμος αἰθομένοιο / οὔρεος ἐν βήσσης, ὅτε τ' ὤρετο καίεμεν ὕλην· / οὔτ' ἄνεμος τόσσόν γε περὶ δρυσὶν ὑψικόμοισι / ἠπύει, ὅς τε μάλιστα μέγα βρέμεται χαλεπαίνων, / ὅσση ἄρα Τρώων καὶ Ἀχαιῶν ἔπλετο φωνή / δεινὸν αὖσάντων, ὅτ' ἐπ' ἀλλήλοισιν ὄρουσαν

Again, this crashing, rumbling sound is applied to a variety of contexts and associated with different elements; for example, when the verb σμαραγέω is applied to the sea in a Homeric simile of bustling men, it refers to the seething of the crashing surf: “as when a wave of the loud-resounding sea roars / on a great beach, and the sea is crashing” (ὥς ὅτε κύμα πολυφλοίσβοιο θαλάσσης / αἰγιαλῷ μεγάλῳ βρέμεται, σμαραγεῖ δέ τε πόντος *Il.* 2.210-1). The verb fulfills a very similar purpose, again in a simile of bustling warriors, when applied to the meadow (λειμών), which takes the place of the word πόντος in the formulaic line ending (κλαγγηδὸν προκαθίζόντων σμαραγεῖ δέ τε λειμών, *Il.* 2.463). The simile compares the settling of geese, cranes and swans, whose “clanging noise” (κλαγγηδόν) makes the meadow “crash” (σμαραγεῖ), to the noise produced by the Achaean army pouring onto the plain: “the earth thundered terribly beneath their feet and the feet of their horses” (ὕπὸ χθῶν / σμερδαλέον κονάβιζε ποδῶν αὐτῶν τε καὶ ἵππων, *Il.* 2.456-6)—similar to the trembling effect (ἔνσους) of trampling feet on a cosmic scale that was on display in *Theogony* 681-2, reaching down to Tartarus.

In the Homeric simile, the soundscape of the scene follows upon, and is complementary to, a preceding simile that gives the visual picture of the scene. Here, the shining bronze armor is compared to an “obliterating fire” (πῦρ ἀΐδηλον) that lights up an “enormous forest” (ἄσπετον ὕλην), whose “all-dazzling gleam reached to heaven through the upper-air” (αἶγλη παμφανόωσα δι' αἰθέρος οὐρανὸν ἵκεν, *Il.* 2.458—compare ἵκετ' οὐρανόν in *Th.* 685). The scene is set by the visual image of the fire/bronze and the sonic image of the birds/men, and the simile consistently makes the natural world (the shrieking birds, the burning forest, the roaring sea) the tenor of the simile, while the world of warfare makes up the vehicle. Thus, in Homer's scenes of human strife, the sea

and the plain never actually “crash” (σμαραγέῃ), nor do enormous fires actually reach up to heaven. It is the Iliadic soundscape of war that invites the comparison with nature, whereas in the *Theogony* the soundscape of war *is* that of nature.

Crashing Gaia and Cosmic Conflagration

The verb σμαραγέω is used once more in Homer, this time to designate the sound-effect of Zeus’ thunderbolt—the cosmic weapon of sovereignty that can throw the world in chaos only to reaffirm Zeus’ superiority. In the conclusion to a speech addressing the now dead body of the hero Asteropaeus, Achilles asserts that “even he [Oceanus] fears the thunderbolt of great Zeus, and the terrible thunder, when it crashes from the sky” (καὶ ὃς δαίδοικε Διὸς μέγαλοιο κεραυνὸν / δεινὴν τε βροντὴν, ὅτ’ ἀπ’ οὐρανόθεν σμαραγήσῃ, *Il.* 21.198-9). In this speech, Achilles declares himself “better, stronger” (κρείσσων, *Il.* 21.190-1, 194) than Asteropaeus, because he derives his lineage from Zeus (via Peleus and Aeacus), while Asteropaeus traces his lineage to the river-god Axius. Asteropaeus had been spurred on by none other than the river Scamander, whose feud with Achilles is central to the scenes in Book 21 that will be discussed shortly. Water and fire are pitched against one another, and the domain of Oceanus is no match for that of Zeus, whose domain is defined by the power of the thunderbolt.⁷⁶⁵

⁷⁶⁵ The superiority of Achilles’ lineage is further emphasized, it seems, by the paradox that is Asteropaeus’ name, which means “Lightening-Thrower.” He is in fact the only ambidextrous hero in the *Iliad* (περιδέξιος, *Il.* 21.163), and throws two javelins simultaneously with both hands. Like Zeus, whose epithet is the “Lightener” (ἀστεροπητής, cf. *Il.* 1.580, 609, 12.275; *Th.* 390), Asteropaeus is an expert at striking with the shaft, and yet, he is undone by the very descendant of the Lightning-god himself. The god Hephaistos, who is closely associated with the production of the thunderbolt, is often seen as ambidextrous, although the epithet Ἀμφιγυῆις, which M. West translates “ambidexter,” is usually understood to mean “lame in both limbs” or “with both feet

In the *Theogony*, meanwhile, the earth “crashes” (the verb σμαράγίζω) once again when Zeus’ *aristeia* begins, in a scene that depicts the tremendous power of the lightning bolt. What interests us here are once again the effects that Zeus’ might has on the natural elements, in a show of force that is once again defined by the soundscape of divine strife (Hes. *Th.* 693-705):

All around life-bearing Earth crashed (ἐσμαράγισε)
kindled ablaze, and the enormous forest (ἄσπετος ὕλη) crackled loudly on all
sides.
All the land was boiling hot (ἔζεε δὲ χθὼν πᾶσα) and the streams of Oceanus
and the barren Sea. The hot blast (ἀντμή) enveloped (ἄμφεπε) them,
the chthonic Titans, and an indescribable (ἄσπετος) flame reached the divine
upper-air (αἰθέρα διὰν ἵκανεν),
and the sparkling flare of the thunderbolt and the lightning
dazzled their eyes despite their strength.
A divine conflagration (καῦμα θεσπέσιον) prevailed over Chaos: to see it directly
with the eyes and to hear the sound with the ears,
it was just as when Earth and broad Sky above
were coming together, for even such a great noise (δοῦπος) would arise
with her being crashed upon, and him crashing down from above.
So great was the noise (δοῦπος) when the gods clashed in strife (ἔριδι
ξυνιόντων).⁷⁶⁶

If Poseidon’s power is to break open, expose, and uproot, Zeus’ force is expressed in his control over fire. This is no ordinary fire but a “divine conflagration” (καῦμα θεσπέσιον): its effects are magnified and take on cosmic proportions, affecting Earth, Sea, Chaos (the regions below the earth), and reaching up into the Upper-Air (αἰθέρα διὰν ἵκανεν). The

crooked” (LSJ). For Hephaestus’ morphological peculiarities, see Detienne and Vernant 1991: 259-73.

⁷⁶⁶ ἀμφὶ δὲ γαῖα φερέσβιος ἐσμαράγισε / καιομένη, λάκε δ’ ἀμφὶ περὶ μεγάλ’ ἄσπετος ὕλη· ἔζεε δὲ χθὼν πᾶσα καὶ Ὑκεανοῖο ῥέεθρα / πόντός τ’ ἀτρύγετος· τοὺς δ’ ἄμφεπε θερμὸς ἀντμή / Τιτῆνας χθονίους, φλόξ δ’ αἰθέρα διὰν ἵκανεν / ἄσπετος, ὅσσε δ’ ἄμερδε καὶ ἰφθίμων περ ἐόντων / αὐγὴ μαρμαίρουσα κεραυνοῦ τε στεροπῆς τε· καῦμα δὲ θεσπέσιον κάτεχεν χάος· εἶσατο δ’ ἅντα / ὀφθαλμοῖσιν ἰδεῖν ἢ δ’ οὐασιν ὅσσαν ἀκοῦσαι / αὐτῶς, ὥς ὅτε γαῖα καὶ οὐρανὸς εὐρὺς ὑπερθε / πύλνατο· τοῖος γάρ κε μέγας ὑπὸ δοῦπος ὅρ --ὥρει, / τῆς μὲν ἐρειπομένης, τοῦ δ’ ὑψόθεν ἐξεριπόντος· / τόσσος δοῦπος ἔγεντο θεῶν ἔριδι ξυνιόντων.

image of the “enormous forest” (ἄσπετος ὕλη) set ablaze that was part of a Homeric simile becomes reality when Zeus’ lightning bolt is unleashed. Not only the oceans but also “all the land was boiling hot” (ἔζεε δὲ χθὼν πάσα), an image all the more striking because the verb ζέω, which is typically applied to water, treats the stable element of earth as a fluid. Detienne and Vernant have explained the power of the thunderbolt in terms of chaining up and binding, and this passage likewise reveals the blinding and paralyzing flash of Zeus’ weaponry as an immobilizing force.⁷⁶⁷ What is more, the semantics of fire bear out this idea of paralysis, and not just with respect to blindness and the Titans’ eventual punishment of being cut off from the light of the Sun, “put in the shadows” (ἐσκίασαν, *Th.* 716) of subterranean Tartarus. Zeus is said to “envelop” (ἄμφεπε) the Titans in fire, a verb used to describe how fire heats up boiling water used for bathing (*Il.* 8.348, *Od.* 8.347). The term αὐτμή (“breath, blast”) is derived from the verb ἄημι, “to blow” (cf. ἀέλλα, “whirlwind”), and is used for the hot blasts coming from the blacksmith’s bellows that are especially associated with Hephaestus. The blacksmith controls the hot winds to melt and mold the hardest and most precious metals, especially bronze. Paradoxically, while blasting and boiling suggest agitated motion, one dry and the other wet, the Titans are effectively trapped and immobilized by these forces.

This effect is typical of Zeus’ thunderbolt. In his battle with the monster Typhoeus, Zeus again unleashes a καῦμα, and again all the elements are ablaze (cf. the identical formula ἔζεε δὲ χθὼν πάσα, *Th.* 847) (*Th.* 844-52):

A conflagration (καῦμα) by both held back the dark sea,
from the thunder and lightning and the fire from the monster,

⁷⁶⁷ Detienne and Vernant 1991: 78-9.

of the tornado winds (πρηστήρων ανέμων) and the flashing lightning bolt.
 All the land and the sky and the sea were seething (ἔζεε δὲ χθὼν πᾶσα καὶ
 οὐρανὸς ἡδὲ θάλασσα);
 big waves raged round and about around the headlands
 by the rush of the immortals, and a ceaseless quaking arose.
 Hades, who lords over the dead below, and the Titans,
 who are down in Tartarus around Kronos,
 were afraid of the ceaseless clamor and the terrible battle-strife.⁷⁶⁸

Based on the cosmic disruption, the Typhonomachy in many respects resembles the
 Titanomachy.⁷⁶⁹ But now, the fire comes from two sources, Zeus' lightning bolt as well
 as Typhoeus himself.⁷⁷⁰ Zeus has fatally hit Typhoeus with a lightning bolt, and the fire
 that ensues starts to melt the earth (Hes. *Th.* 861-7):

And the monstrous earth was burned far and wide
 by a divine blast (αὐτμῇ θεσπεσίῃ), and just as when tin is melted,
 heated, through the skill (τέχνη) of craftsmen, in crucibles with bellow-holes,
 or iron, which indeed is the strongest,
 when it is subjected to blazing fire in mountain glens,
 melts in the divine ground by Hephaestus' hands;
 just so, then, the earth was melted by the blaze of burning fire.⁷⁷¹

⁷⁶⁸ καῦμα δ' ὑπ' ἀμφοτέρων κάτεχεν ἰοειδέα πόντον / βροντῆς τε στεροπῆς τε πυρός τ' ἀπὸ τοῦ
 πελώρου / πρηστήρων ανέμων τε κεραυνοῦ τε φλεγέθοντος· / ἔζεε δὲ χθὼν πᾶσα καὶ οὐρανὸς ἡδὲ
 θάλασσα· / θυῖε δ' ἄρ' ἀμφ' ἀκτὰς περὶ τ' ἀμφὶ τε κύματα μακρὰ / ῥιπῇ ὕπ' ἀθανάτων, ἔνοσις δ'
 ἄσβεστος ὀρώρει· / τρέε δ' Αἰδης ἐνέροισι καταφθιμένοισιν ἀνάσσω· / Τιτῆνές θ' ὑποταρτάριοι
 Κρόνον ἀμφὶς ἔόντες / ἄσβέστου κελάδοιο καὶ αἰνῆς δημοτῆτος.

⁷⁶⁹ This has been reason for some to consider the Typhonomachy scene, as a whole or in parts,
 spurious—or, at least, a latter addition by a poet after 'Hesiod'. For discussion, see West ad loc.
 The fraught question of authenticity does not concern us here.

⁷⁷⁰ There is some confusion whether the fire that issues from Typhoeus is because he is on fire as
 a result of Zeus' blasts, or because Typhoeus himself spews fire. West thinks it is the former.
 Other authors in Antiquity, either "misled by this passage" (West ad loc) or relying on a parallel
 tradition, have taken Typhoeus to be a fire-breathing monster, e.g. A. *PV.* 370-2, Pin. *Pyth.* 1.15-
 28, Apld. 1.6.3.

⁷⁷¹ ... πολλὴ δὲ πελώρη καίετο γαῖα / αὐτμῇ θεσπεσίῃ, καὶ ἐτήκετο κασσίτερος ὥς / τέχνη ὑπ'
 αἰζηῶν ἐν ἐντρήτοις χοάνοισι / θαλφθεῖς, ἡὲ σίδηρος, ὃ περ κρατερώτατός ἐστιν, / οὔρεος ἐν
 βήσσησι δαμαζόμενος πυρὶ κηλέω / τήκεται ἐν χθονὶ δίῃ ὕφ' Ἡφαίστου παλάμησιν· / ὥς ἄρα
 τήκετο γαῖα σέλαι πυρὸς αἰθομένοιο.

Trapped in Water, Trapped by Fire

Further evidence supports the idea that divine fire immobilizes its victims, cutting off their breath. In the *Iliad*, Hera commands Hephaestus to create a “divinely kindled fire” (θεσπιδαῆς πῦρ, *Il.* 21.342) with which to threaten the river Scamander. Hephaestus first parches the plain before turning to the river, burning the trees and plants that grow near its banks. Then he moves on from this barren wasteland to scorch the eels and the fish that live in the water, and the strength of the river is burning away as its waters are brought to a boil. Scamander’s stream is compared to a boiling cauldron, and finally the river “would no longer flow along, but was stopped, and the blast (ἄυτμή) of resourceful Hephaestus oppressed (τεῖρε) it with force” (*Il.* 21.366-7).⁷⁷² The image is striking: the flow of the river Scamander is brought to a complete stop by the oppressive heat of Hephaestus’ magical fire. The fire immobilizes the river by boiling and evaporating it. The river is no longer able to move along its familiar track, and the “fish, who in the eddies (κατὰ δίνας), in the lovely streams, tumble about (κυβίστων) this way and that way (ἔνθα καὶ ἔνθα), oppressed (τειρόμενοι) by the blast of resourceful Hephaestus” (*Il.* 21.353-5).⁷⁷³ The fish are disoriented and upside-down: the verb κυβίσταω means to tumble head first (a κυβιστητήρ is a tumbler or a diver); they swim hither and thither (ἔνθα καὶ ἔνθα), as their way out—their *poros*—is cut off by the blazing heat. The verb τείρω is

⁷⁷² οὐδ’ ἔθελε προρέειν, ἀλλ’ ἴσχετο· τεῖρε δ’ αὐτμή / Ἥφαιστοιο βίηφι πολύφρονος

⁷⁷³ ἰχθύες οἱ κατὰ δίνας, / οἱ κατὰ καλά ῥέεθρα κυβίστων ἔνθα καὶ ἔνθα / πνοιῇ τειρόμενοι πολυμήτιος Ἥφαιστοιο.

especially associated with being out of breath, deprived of a space to breathe. The hot blast takes away one's breathing space: the Homeric line τειρόμενοι ὀλίγη δέ τ' ἀνάπνευσις πολέμοιο ("being oppressed, there is little breathing space in the fighting," *Il.* 11.801 = 16.43 = 18.201) stresses this association.

Finally, a scene earlier in Book 21—a scene that in fact sets up Hera's antagonism toward the river Scamander—offers another example of fire's ability to immobilize and trap. Book 21 opens with a mention of the "crossing place" (πόρον) across the river, where Achilles "cut in twain" (διατμήξας) the Trojan army, half of which is chased across the plain and half of which is now stuck in the river. Hera detains the first half on the plain by letting fall a deep mist, thus cutting off their passage. The other half, trapped in the river, anticipate the sorry state of the fish that Hephaestus would scorch shortly after, and to whom they are compared in a simile: "They tumbled into it with huge clamor, and the deep-running water resounded, and the banks echoed loudly (μεγάλ' ἴαχον) around them, as with loud shouting (ἀλαλητῶ) they tried to swim this way and that way (ἔνθα καὶ ἔνθα) being spun around in the eddies (ἐλίσσόμενοι περὶ δίνας, *Il.* 21.9-11)." ⁷⁷⁴ Next, Achilles leaps into the water and starts mowing his sword around in a circle, "turning this way and that way" (ἐπιστροφάδην), until the water is reddened with blood. Even though the turmoil and chaos caused by Achilles take place on a human level, the soundscape of the scene invokes the primordial chaos at a cosmic level.

⁷⁷⁴ ἐν δ' ἔπεσον μεγάλῳ πατάγῳ, βράχε δ' αἰπὰ ῥέεθρα, / ὄχθαι δ' ἀμφὶ περὶ μεγάλ' ἴαχον· οἱ δ' ἀλαλητῶ / ἔννεον ἔνθα καὶ ἔνθα ἐλίσσόμενοι περὶ δίνας.

Indeed, transposed to a divine if not cosmic level, the natural elements themselves would be in turmoil during such a prodigious hunt, as a passage from the *Hymn to Artemis* illustrates. Artemis delights in the hunt and lets her arrows fly (*HH*. 27.6-10): the mountain tops “tremble” (τρομέει), the woods “ring out terribly” (ιάχει ... δεινόν; cf. *μεγάλ’ ἰαχον* of the Trojans in the river), and the earth and deep sea “shudder” (φρίσσει). Just as Achilles slaughters his victims “turning this way and that way” (ἐπιστροφάδην), so too does Artemis “turn this way and that way” (ἐπιστρέφεται) in her hunt for prey. The hunter-goddess and human war-machine are similar insofar as *their violent agency has such an impact on the soundscape as to invite comparison with the ultimate disorder of cosmic disaster*. In the case of Achilles’ actions in Book 21, this idea is strengthened by the two separate but complementary similes that accompany the scene. First, Achilles is compared to the element of fire, whose blaze the locusts try to escape by swarming into the water; in the second, Achilles is compared to a “monstrously gaping” (μεγακίτεος) dolphin, who chases the fish to the corners of the harbor where he devours them all. The continuity of the two similes and their connection to the plight of the Trojans is strengthened by the key verbs πτώσσω (“to shrink from”) and φεύγω (“flee”): both the locusts and the fish “shrink from” (πτώσσουσιν, *Il*. 21.14; πῶσσαν, 21.26) the fire and the dolphin, by “fleeing” (φευγόμενοι, *Il*. 21.13; φεύγοντες, 21.23) into the river and the corners of the harbor, respectively. The water proves a refuge for neither, as it fails to be for the Trojans also. Their *poros* is cut off by the singular force of Achilles in a way that

is similar to how fire immobilizes its victims by detaining them and cutting off their breathing space, or how the most ferocious hunter of the sea corners its prey.⁷⁷⁵

These scenes suggest that water and fire do not, and should not, mix. In Tartarus, rivers of fire and water run alongside each other, according to Plato (*Phaed.* 113a-b).⁷⁷⁶ When they do mix, the results are disastrous and imply divine involvement. The messenger in Aeschylus' *Agamemnon* speaks of the dreadful storm that struck the Achaean fleet, "a grave disaster" (μακρὸν πῆμα, *Ag.* 629) that the chorus assumes must be a sign of divine anger (*Ag.* 635, 649): "For they conspired together, those who had formerly been bitter enemies, Fire and Sea, and the two of them gave proof of their pledges by destroying (φθείροντε) the disastrous Argive army" (*A. Ag.* 650-4).⁷⁷⁷ In the prologue of Euripides' *Trojan Women*, the two elements of Fire and Sea are associated with Athena, who declares that she has borrowed her father's thunderbolt, and Poseidon, god of the sea, as both conspire to wreak havoc on the Achaeans. The fact that, albeit in a simile, Achilles embodies both fire and water (by means of the dolphin) only goes to

⁷⁷⁵ The image of Achilles as Dolphin seems to be on Oppian's mind, when he describes the rage of the dolphin, chasing the fish and reddening the sea with their blood (*Hal.* 2.608-13). See also *Hal.* 5.429-41, where the fish are driven into a corner by the dolphin and the fisherman's fire, and "there is no path of escape for them, but they dance in the sea" (τοῖσι δ' ἄφυκτα κέλευθα διορχεῖνται δ' ἐνὶ πόντῳ, 440). It is hard to imagine that Oppian was not thinking of *Iliad* 21 when composing these lines.

⁷⁷⁶ Plutarch records a superstition according to which rivers of fire and the flow of the Styx intermingle (ποταμοὶ πυρὸς ὁμοῦ καὶ Στυγὸς ἀπορρῶγες ἀνακεράννυνται, *Plut. Mor.* 167a, *De Superst.*)

⁷⁷⁷ ξυνώμοσαν γάρ, ὄντες ἔχθιστοι τὸ πρίν, / πῦρ καὶ θάλασσα, καὶ τὰ πίστ' ἐδειξάτην / φθείροντε τὸν δύστηνον Ἀργείων στρατόν.

show that Achilles' fury has the ability to overturn the cosmic order—which, considering the prophecy that Thetis' son would imperil Zeus' rule, hardly comes as a surprise.

The clear distinction between earth, sky (fire), sea, and the netherworld is what organizes the cosmos. Divine strife threatens to overturn those boundaries; human strife threatens to do so by comparison only. The effect of Zeus' thunderbolt is understood not only as supernatural fire and cosmic conflagration; its effect also invokes the undoing of the separation between Earth and Sky: "It was just as when Earth and broad Sky above / were coming together, for even such a great noise (δοῦπος) would arise / with her being crashed upon, and him crashing down from above" (Hes. *Th.* 702-5).⁷⁷⁸ The *tertium comparationis* of Zeus' thunderbolt and the catastrophic disintegration of the cosmos are the visual and sonic qualities of these events. Visually, the light is dazzling and blinding; aurally, the sound is overbearing. Both suggest a complete loss of orientation that is associated with the unorganized primordial state of the cosmos.

Typhoeus and Athena

Hesiod's cosmic narrative is not over yet, however. With the Titans safely locked away in Tartarus, Zeus' freshly minted rule is faced with yet another threat: the monster Typhoeus, son of Earth and Tartarus. If in the *Theogony* Typhoeus' threat to the cosmic order is real, the *Iliad* presents the threat in the form of a simile.⁷⁷⁹ When the Achaean

⁷⁷⁸ On the unusual grammatical features of this simile, which make its degree of reality hard to pin down, see West ad loc.

⁷⁷⁹ This is the only reference to Typhoeus in the *Iliad* and the *Odyssey*.

army is advancing, it is “as if all the ground were devoured with fire, and the earth groaned underneath them (ὕπεστενάχιζε), as if Zeus who delights in thunder were angry when he lashes (ιμάσση) the earth around Typhoeus ... so the great earth groaned (στεναχίζετο) beneath their feet” (*Il.* 2.780-4).⁷⁸⁰ The *tertium comparationis* is the soundscape of nature: the earth “groans” (cf. ἐπέστενε, said of the Sky in Hes. *Th.* 679) under the marching feet of the Achaeans as it did when Zeus were “lashing” the earth to bury Typhoeus. These lashes refer to the striking of the thunderbolt, which explains the reference to fire. The soundscape of the advancing Achaeans invokes the primordial chaos of Zeus’ battle with Typhoeus, but by no measure is the cosmic order actually under threat.

The actual birth of Typhoeus, however, is in fact intended to upset the Zeus-ordered state of the cosmos. The circumstances of Typhoeus’ birth, which Hesiod does not dwell on, are elaborated in a tradition recorded in the *Hymn to Apollo*, according to which Typhoeus was begotten by Hera alone out of anger with Zeus and his birth of Athena. The monster is twice described with the formula “terrible and troublesome Typhoeus, a misery for mortals” (δαινόν τ’ ἀργαλέον τε Τυφάονα πῆμα βροτοῖσιν, *HH.* 3.306 = 353), a ring form that thus brackets off the digression on Typhoeus’ birth within the hymn.⁷⁸¹ In this digression, the poet lays out Hera’s motivation for bearing another child. The reason is not just her indignation at Zeus’ depriving her of her conjugal rights

⁷⁸⁰ ... ὥς εἴ τε πυρὶ χθὼν πᾶσα νέμοιτο: / γαῖα δ’ ὕπεστενάχιζε Διὶ ὥς τερπικεραύνῳ / χωομένῳ ὅτε τ’ ἀμφὶ Τυφῳεὶ γαῖαν ἰμάσση / ... / ὥς ἄρα τῶν ὑπὸ ποσσὶ μέγα στεναχίζετο γαῖα

⁷⁸¹ Cf. Miller 1986: 83. Typhoeus shares the ominous title πῆμα βροτοῖσιν with the sea-monster Scylla (*Od.* 12.125). The formula δαινόν τ’ ἀργαλέον τε = used for Typho (*Hymn to Apollo*), for Scylla, and here sea. Like Typhoeus, Scylla yaps like a puppy.

(ἀτιμάζειν, 312) by birthing Athena; more poignantly, she is embittered by the fact that her previous attempt at asexual generation did not turn out well: she is aggrieved that Hephaestus turned out a “weakling” (ἡπεδανός, 316) whom she had to cast from heaven, while Athena “is preeminent among all the blessed gods” (πᾶσιν μακάρεσσι μεταπρέπει ἰθιάντοισιν, 315). To rival the brilliance of Athena, Hera wishes for a child “preeminent among the immortal gods” (θεοῖσι μεταπρέποι ἰθιάντοισιν, 327) as well. The similar phrasing, which is pointed out by Miller, bears out this structural connection between Athena and Typhoeus as unusual offspring born from a single parent. Typhoeus forms a threat who will challenge Zeus’ rule, while Athena is the product of Zeus’ effort to neutralize a possible threat offered by Metis, whom Zeus has prudently swallowed earlier.

Moreover, the arrivals of both Athena and Typhoeus are accompanied by the kind of cosmic turmoil we have seen before. The *Hymn to Athena* describes how, upon issuing from Zeus’ head in full panoply, Athena’s arrival disrupts the cosmic order (*HH*. 28.9-14):

... Great Olympus was shaking (ἐλελίζετ’)
 terribly under the might of the grey-eyed one, and all around the Earth
 groaned (ιάχησεν) horribly, and the deep sea was moved (ἐκινήθη),
 stirred up by surging waves, and the salt water was suspended (ἔσχετο)
 suddenly, and the brilliant son of Hyperion stayed (στῆσεν)
 his swift-footed horses for a long time.⁷⁸²

⁷⁸² ... μέγας δ’ ἐλελίζετ’ Ὀλυμπος / δεινὸν ὑπὸ βρίμης γλαυκώπιδος, ἀμφὶ δὲ γαῖα / σμερδαλέον
 ἰάχησεν, ἐκινήθη δ’ ἄρα πόντος / κύμασι πορφυρέοισι κυκώμενος, ἔσχετο δ’ ἄλμη / ἐξαπίνης·
 στῆσεν δ’ Ὑπερίονος ἀγλαὸς υἱὸς / ἵππους ὠκύποδας δηρὸν χρόνον ...

The natural elements respond to Athena similarly to how they respond to divine strife: Olympus is shaking (ἐλελίζετ', cf. τινάσσετο, *Th.* 680); the Earth is groaning (ιάχησεν, cf. περίαχε and ἐπέστενε, *Th.* 678); and the sea is moved (ἐκινήθη). The experience is defined once again by motion as well as the soundscape. Although the text does not say this, we may speculate that what terrorizes the elements so much is the visual aspect of Athena's armor, the τέρας of the Gorgoneia in particular. In Pindar, however, it is Athena's loud war cry (ἀλάλαξεν ... βοῶ) that throws nature in turmoil, and "Sky and mother Earth shuddered (ἔφριξε) before her" (*P. Ol.* 7.37-8)—something Sky and Earth experienced also when Artemis was out hunting wild animals (cf. φρίσσει δέ τε γαῖα πόντος, *HH.* 27.8-9).⁷⁸³

What is most remarkable about Athena's effect on the landscape, however, is that the upheaval is followed by a sudden lack of motion, a magical standstill of the elements similar to Poseidon's power of immobilization. The surging swell of the ocean is kept in check, and the Sun stays his chariot's horses, which implies that the progression of time itself has come to a halt. The paths of the Sun and the Sea, markers of temporal and spatial movement, are temporarily out of commission, as if paralyzed by Zeus' lightning; order is restored when Athena takes off her armor. Her extraordinary birth thus combines two distinct ideas: the *disastered* condition of the cosmos is manifest in both the violent eruption of motion and the total suspension of motion, or, if we perceive these motions as signs of divine agency, an overabundance of signs or an absolute lack thereof.

⁷⁸³ For the birth of Athena in Hesiod, see *Th.* 886-900. The birth of Athena in full armor is first mentioned, according to the scholiast on *Ap. Arg.* 4.1310, by Stesichorus.

Typhoeus as Cosmic *Teras*

Athena's cosmic disruption is the effect of the extraordinary visual and sonic violence of her appearance. In this capacity, she mirrors Zeus himself, who causes similar cosmic disruption in his divine strife with Typhoeus. When Zeus advances against his final foe, his thunder and feet overwhelm the soundscape of the entire cosmos (Hes. *Th.* 839-43):

He thundered hard and mighty, and Earth all around (ἀμφὶ δὲ γαῖα)
resounded horribly (σμερδαλέον κονάβησε) and broad Sky above,
and the Sea and the streams of Oceanus and earth's Netherworld.
Under the immortal feet great Olympus quaked (πελεμίζετ'),
the feet of the lord as he approached, and Earth groaned beneath him
(ἐπεστονάχιζε).⁷⁸⁴

The cosmic effects of Zeus' appearance are similar to those of Athena's birth: the formula ἀμφὶ δὲ γαῖα / σμερδαλέον (κονάβησε or ἰάχησεν) underscores this similarity, as does the quaking of Olympus and the general turbulence of the other cosmic realms. Zeus' control over the universal soundscape appears to throw the cosmos in a temporary state of sonic confusion, but ultimately serves to reaffirm his sovereignty: "The sound maps the cosmos as terrain under Zeus' sovereignty."⁷⁸⁵ In this way, the solo-birth of Athena is another indication of Zeus' supremacy, as her arrival realigns the soundscape of the cosmos in accordance with Zeus' sovereignty.

⁷⁸⁴ σκληρὸν δ' ἐβρόντησε καὶ ὄβριμον, ἀμφὶ δὲ γαῖα / σμερδαλέον κονάβησε καὶ οὐρανὸς εὐρύς
ὑπερθε / πόντός τ' Ὠκεανοῦ τε ῥοαὶ καὶ τάρταρα γαίης. / ποσσὶ δ' ὕπ' ἀθανάτοισι μέγας
πελεμίζετ' Ὀλυμπος / ὀρνυμένοιο ἄνακτος· ἐπεστονάχιζε δὲ γαῖα.

⁷⁸⁵ Goslin 2010: 365.

But whereas the birth of Athena reaffirms Zeus' rule, the birth of Typhoeus—Athena's structural counterpart—threatens to overturn it. Whether born of Tartarus or Hera, Typhoeus appears as a τέρας of cosmic proportions. Typical human τέρατα do not resemble their parents, and hybridity is often a distinguishing feature. In the case of Typhoeus, he is said to “resemble neither gods nor humans” (οὔτε θεοῖς ἐναλίγκιον οὔτε βροτοῖσι, *HH*. 3.352). As the embodiment of cosmic τέρας (he is in fact so called by Pindar and Aeschylus), Typhoeus' appearance is defined by semiotic disruption. Hesiod's elaborate description focuses on the cacophony of auditory signs emitted by the monster (Hes. *Th*. 829-35):

And there were many voices in all of his dread heads,
emitting a manifold and boundless voice: for sometimes
they made sounds in such a way as for the gods to perceive,
at other times they made the sounds of a bellowing bull,
irresistible in his might, and haughty in his voice,
at other times the sound of a lion with a shameless heart,
at other times a sound like puppies, wondrous to hear,
at other times he hissed, and the lofty mountains echoed beneath.⁷⁸⁶

The sounds and voices that Typhoeus emits are unstable, always changing and impossible to pin down, as shown by the repetition of the phrase “sometimes ... at other times” (ἄλλοτε ... ἄλλοτε). Scholars have observed that Hesiod uses the entire range of sonic vocabulary in this passage, thus stressing the soundscape of the monster more than any

⁷⁸⁶ φωναὶ δ' ἐν πάσῃσιν ἔσαν δεινῆς κεφαλῇσι, / παντοίην ὅπ' ἰεῖσαι ἀθέσφατον· ἄλλοτε μὲν γὰρ / φθέγγονθ' ὥς τε θεοῖσι συνιέμεν, ἄλλοτε δ' αὖτε / ταύρου ἐριβρύχῳ μένος ἀσχέτου ὅσσαν ἀγᾶρου, /

ἄλλοτε δ' αὖτε λέοντος ἀναιδέα θυμὸν ἔχοντος, / ἄλλοτε δ' αὖ σκυλάκεσσιν εἰκότα, θαύματ' ἀκοῦσαι, / ἄλλοτε δ' αὖ ῥοίζεσχ', ὑπὸ δ' ἤχεεν οὔρεα μακρά.

other aspect.⁷⁸⁷ And yet, as Goslin has remarked, “although Typhon possesses more types of voice than any other single creature in the *Theogony*, he is unable to organize these into a form of communication.”⁷⁸⁸ He Dubbed by scholars an “*acosmia* incarnate” and “the sovereign of disorder,” Typhoeus’ confused soundscape threatens to establish a world order with a different ordering of sound that would radically alter communication between god and man: “Typhon’s sonic chaos ... is symptomatic of the disordered state of sound at this stage of the succession myth”—that is, before the song of the Muses.⁷⁸⁹ Within the cosmological narrative, however, Typhoeus’ sonic chaos serves to reaffirm Zeus’ power, even as it appears to throw the universe in disarray. Writes Gumpert: “The only proper response to catastrophe, semiotically speaking, is more catastrophe: that is, cacophony.”⁷⁹⁰ Such is Zeus’ strategy, too: his thundering stride overwhelms the soundscape of the entire cosmos (Hes. *Th.* 839-43). Typhoeus’ cacophony reinforces the semiotic order of Zeus, whose overwhelming thunder re-establishes control over the soundscape. The catastrophe brought about by Zeus’ ultimate weapon, which shakes up and reshuffles the structure of the universe, is thus a semiotic crisis averted.

The Disaster State of Tartarus

⁷⁸⁷ Ford 1992: 190; Leclerc 1993: 43-4; Goslin 2010: 358.

⁷⁸⁸ Goslin 2010: 358.

⁷⁸⁹ *acosmia* incarnate: Clay 2003: 26; sovereign of disorder: Detienne and Vernant 1991: 121; Goslin 2010: 354 n. 12.

⁷⁹⁰ Gumpert 2012: 46.

Typhoeus' victory would have returned the universe to a state of semiotic indeterminacy resembling the directionless, subterranean space of Tartarus. In fact, the *disastered* state is perfectly represented, spatially, by the conception of Tartarus, “an abyss of limitless wandering where there is no above or below and no right or left.”⁷⁹¹ Tartarus is a semiotic disaster *par excellence*, since there is no orientation possible. Hesiod's description of the place follows naturally after Zeus' defeat of the Titans, because it is in this dark, subterranean world that the Titans are hidden away in bondage, enclosed by the brazen walls that Poseidon has installed. In this place, as West and others have pointed out, the distinctions between earth, water, fiery sky and misty darkness gradually disappear. The “roots” (ρίζαι), “springs” (πηγαί), and “extremities” (πείρατα) of all four domains meet here (*Th.* 728, 736-8). Tartarus is not a pleasant place: “the gods shudder at it” (στυγέουσι θεοί περ, *Th.* 739, 810), a formula reserved for how the gods detest both old age (*HH.* 5.246) and, as we have seen in Chapter Three, the subterranean world of death that Poseidon threatens to expose (*Il.* 20.65)—all things that are antithetical to the divine. Hesiod describes it as a “vast chasm (χάσμα μέγα), whose floor a man would not reach in a whole year if once he got inside the gates, but storm wind upon terrible storm wind (πρὸ θύελλα θυέλλης) would carry him this way and that way (ἔνθα καὶ ἔνθα)” (*Hes. Th.* 740-3).⁷⁹² Although there is a way in, Tartarus is conceived such that there is no way out, much like a giant storage jar on which Poseidon has put a

⁷⁹¹ Detienne and Vernant 1991: 118.

⁷⁹² χάσμα μέγ', οὐδέ κε πάντα τελεσφόρον εἰς ἐνιαυτὸν / οὐδ' ἴκοιτ', εἰ πρῶτα πυλέων ἔντοσθε γένοιτο, / ἀλλὰ κεν ἔνθα καὶ ἔνθα φέροι πρὸ θύελλα θυέλλης

bronze lid.⁷⁹³ The whirling confusion of the storm winds (θύελλα) upsets all sense of directionality; those caught in this directionless space are “twisting around in eddies” (ἐλίσσόμενοι περὶ δίνας) like fish being trapped, carried ἔνθα καὶ ἔνθα. “To this extent Tartarus represents, in spatial terms, what Chaos does in temporal ones: the primordial indeterminacy from which the world will later be organized into regions and differentiated cosmic elements.”⁷⁹⁴ A fragment from Pherecydes associates the storm winds with the entrance to Tartarus: “The daughters of Boreas, the Harpies and Thyella [i.e. Storm] guard it [i.e. Tartarus]; there Zeus casts out (ἐκβάλλει) whenever one of the gods commits an outrage.”⁷⁹⁵

The Titans have in fact been banished to this place, but occasionally other gods are threatened with a similar dismal fate. In the *Hymn to Hermes*, Apollo threatens to hurl the young Hermes into Tartarus, a place that Apollo describes as an “inescapable darkness” (ζόφον ... ἀμήχανον, *HH*. 4.257), from which he will not be “released” (ἀναλύσεται, 258) by either Zeus or his mother. Hermes would be doomed to “wander” (ἐρρήσεις, 259) under the earth for eternity. When the verb ἔρρω, which typically occurs in the imperative mood as a curse (“be lost! damn you!”), applies to actual movement, it indicates aimless or circular motions. This would be a serious downgrade for the swift-footed messenger god, putting him on par with the lame τέρας-god Hephaestus. The

⁷⁹³ For Tartarus as a storage jar, see West’s comments on the phrase περὶ δειρήν (“around its neck”), *Th*. 727.

⁷⁹⁴ Detienne and Vernant 1991: 118.

⁷⁹⁵ Pherecydes Fr. 5 Pherecydes: κείνης δὲ τῆς μοίρας ἐνερθέν ἐστιν ἡ ταρταρίη μοῖρα· φυλάσσουσι δ’ αὐτήν θυγατέρες Βορέου Ἄρπυιαι τε καὶ Θύελλα· ἔνθα Ζεὺς ἐκβάλλει θεῶν ὅταν τις ἐξυβρίσῃ·

limping gait of Hephaestus, described elsewhere in the *Iliad* with the verb κλυνδεύω (“to roll”), is also referred to with the verb ἔppω (*Il.* 18.421). In the *Odyssey*, the verb is applied to the stranded Menelaus, when he “is wandering” (*Od.* 4.367) apart from his friends and is met by the sea-deity Eidothea who observes that he cannot find a τέκμωρ, or “way out” (*Od.* 4.373). Being disoriented is like being caught in a net, or trapped in inescapable bonds. Apollo’s threat of Hermes in Tartarus thus joins the two notions of the *disastered* condition as both being immobilized and wandering.

What does all this have to do with *divining disaster*? The two are closely connected in mythical logic: if disaster is experienced as a state of disorientation and geographical out-of-placeness, then the road to recovery begins with re-fixing points of reference and establishing orientation markers, especially spatial ones. This is what divining disaster does: it reorients the disastered landscape through signs. With mythological and cosmological narratives, this is accomplished by the “text” itself, understood as a network of signs that creates meaning. Cosmology is itself a form of hermeneutic disaster management. Cosmic disorientation is expressed by the mixing of all realms and the violent sounds and blinding lights this produces. These cosmic disasters, effected by divine strife, are symbols of the potentially permanent yet necessarily temporary return to the ultimate disastered condition, which resembles the directionless geography of Tartarus where storm winds blow ἔνθα καὶ ἔνθα. On a human and animal scale, the much smaller reverberations of this phenomenon become visible, for example, in the disorientation experienced by the Trojans, trapped in the water, whose escape route is cut off by Achilles, or the fish that, oppressed by Hephaestus’ fire, are

out-of-place in their own river, racing ἔνθα καὶ ἔνθα to find a way out where there is none, ἄφυκτα κέλευθα.

PART IV

BOUND AND ADRIFT

Hesiod's μέγα πῆμα (I): Erratic Winds

In Hesiod's *Works and Days*, the disasters unleashed upon the evil city by Zeus are described as μέγα πῆμα, "great suffering." They include, as we have seen in Chapter Two, the disaster triad of plague, famine, and war. Literally, this third category involves armies and walls being destroyed, as well as ships at sea. Aeschines interpreted these as losses to the army and the navy, but, to be sure, the punishment at sea is strongly suggestive of storms and shipwreck as well. Hesiod's other uses of μέγα πῆμα make clear what forms this suffering can take.⁷⁹⁶ The other occurrences of μέγα πῆμα in the Hesiodic corpus (besides the one that refers to the disaster triad) are explicitly linked to the sufferers, regularly expressed with a dative of disadvantage: three instances refer to the experience of disaster for humans (Typhoeus' winds, and Prometheus/Pandora) and one refers to the experience of disaster for the gods (broken oaths sworn by the Styx).

⁷⁹⁶ 14 total attested occurrences of πῆμα in Hesiod, 6 of which take the adjective μέγα. Of these six, three refer to Prometheus/Pandora (*Th.* 592, *WD* 56, *WD* 82), one to evil winds (*Th.* 874), and one to the evil city (*WD* 242); these five refer to human suffering, while one occurrence of μέγα πῆμα refers to divine suffering (*Th.* 792, Styx). The sixth attestation is from a fragment, and its context is unknown (*Fr.* 159).

The first Hesiodic case of μέγα πῆμα refers to the storm winds, and is most instructive in outlining the Archaic conception of disaster and its relation to divination as a semiotic practice. As we have seen, Hesiod's description of Typhoeus' body emphasizes the chaotic and disorderly nature of his being, which is expressed both in the cacophony of sounds and the indeterminateness of shapes he produces (*Th.* 832-5). His monstrous overabundance of signs renders him a semiotic disaster that threatens to plunge the world into chaos. The defeat of Typhoeus neutralizes—at least for the time being—the threat to Zeus' rule, which is a threat to a state of order. Zeus casts him into Tartarus, but the poet emphasizes that Typhoeus still has a role to play (*Th.* 870-80):

From Typhoeus comes the force of the wet-blowing (ἀέντων) winds,
except that of Notos, Boreas, and clearing Zephyros:
these at least are from the gods by birth, a great boon for mortals.
But the other winds blow randomly (μάψ) at sea:
these, falling upon the misty open sea,
a great disaster (πῆμα μέγα) for mortals, seethe (θυίουσιν) with an evil whirlwind
(ἀέλλη).
They blow (ἄεισι) differently at different times and scatter ships
and ruin (φθείρουσι) sailors. There is no help against disaster (κακοῦ)
for men who encounter those on the open sea.
Some of them even on land, boundless with flowers,
ruin (φθείρουσι) the fair fields of earth-born humans,
filling them with dust (κόνιος) and troublesome turmoil (κολοσυρτοῦ).⁷⁹⁷

The μέγα πῆμα of these storm winds consists in their haphazard and random directionality. What makes these winds so destructive is that they are utterly

⁷⁹⁷ ἐκ δὲ Τυφώεος ἔστ' ἀνέμων μένος ὕγρον ἀέντων, / νόσφι Νότου Βορέω τε καὶ ἀργεστέω
Ζεφύροιο· / οἳ γε μὲν ἐκ θεόφιν γενεήν, θνητοῖς μέγ' ὄνειαρ. / αἱ δ' ἄλλαι μὰ ψ αὔραι ἐπιπνείουσι
θάλασσαν· / αἱ δὴ τοι πίπτουσαι ἐς ἡεροειδέα πόντον, / πῆμα μέγα θνητοῖσι, κακῇ θυίουσιν
ἀέλλη· / ἄλλοτε δ' ἄλλαι ἄεισι διασκιδνᾷσι τε νῆας / ναύτας τε φθείρουσι· κακοῦ δ' οὐ γίνεται
ἄλκη / ἀνδράσιν, οἳ κείνησι συνάντωνται κατὰ πόντον. / αἱ δ' αὖ καὶ κατὰ γαῖαν ἀπείριτον
ἀνθεμόεσσαν / ἔργ' ἐρατὰ φθείρουσι χαμαιγενέων ἀνθρώπων, / πιμπλεῖσαι κόνιός τε καὶ
ἀργαλέου κολοσυρτοῦ.

unpredictable, causing a whirling chaos in which any sense of direction is lost, and navigation becomes impossible. These storm winds must be understood in opposition to the regular and potentially helpful winds—Notos, Boreas and Zephyros—who are born from the gods. Earlier in the *Theogony*, these winds are identified as the offspring of the dawn-goddess Eos and the star deity Astraios (*Th.* 378-82). They are the luminous points of reference (*tekmar*) by which space and time are given orientation: Eos is the light of dawn as it breaks in the East, while Astraios is the nocturnal light of the twinkling stars, when the Sun has plunged into the Ocean in the far West.⁷⁹⁸ The winds are brothers of the Morning Star, who is also the Evening Star, and of all the luminous bodies (ἄστρα λαμπετόωντα, *Th.* 382). The familial relationship between the winds and the stars reflects the close association between *poros* and *tekmar*: the winds create pathways across the vast ocean, and the stars provide the reference points.⁷⁹⁹

These observations have significant implications for the “geographicalness” of disaster. As Detienne and Vernant point out, “the regular winds which always blow in the same direction and which mark out navigation routes on the vast ocean also give direction and order to the visible world by establishing boundaries and connections between its various regions.”⁸⁰⁰ If the boundaries and connections are upset and overturned, the disorder that ensues is antithetical to geography itself: any sense of directionality is lost. Even the *possibility* of geography becomes out of the question. This

⁷⁹⁸ See Detienne and Vernant 1991: 154. Aratus makes Astraios the “father of stars” (ἄστρον ... πατέρα, *Ar. Phaen.* 99).

⁷⁹⁹ See Detienne and Vernant 1991: 118-9, 153-5.

⁸⁰⁰ Detienne and Vernant 1991: 119.

is precisely what the gales born from Typhoeus represent. They blow “at random” (μάψ), a word that, as we have seen in Chapter One, is associated with the pre-semiotic state of confusion (ταραχή) dispelled by Prometheus. The poet further expresses the unreliability and confusion of the storm winds with the phrase ἄλλοτε δ’ ἄλλαι ἄεισι (“they blow different at different times”).⁸⁰¹ The winds are scattering ships and ruining (φθείρουσι) sailors (*Th.* 876-7). The disaster verb φθείρω refers to wandering sailors, lost at sea; as we have seen in Chapter Two, it is used to describe the plague’s destructive power as well. These winds are thus in part a semiotic disaster. But their consequences are not just felt at sea. The winds rage over the earth also, and “ruin (φθείρουσι) the lovely works of earth-born men, filling [their fields and houses] with dust and a horrible uproar” (*Th.* 880-1). The same verb φθείρω is used, now undoubtedly to refer to the destruction of crops, with a hint of λοιμός. And yet, Hesiod’s text gives no indication of agricultural damage per se. Rather, the destructive capacity of these winds consists in their ability to create a confusion that is marked by a tumult of auditory and visual signs, as the wind roars loudly and sweeps up dust.⁸⁰²

Hesiod’s μέγα πῆμα (II): Coma and Exile

Because death is not an option for the gods, the image of divine suffering is especially revealing. Hesiod’s μέγα πῆμα to the gods themselves comes in his description

⁸⁰¹ See West’s note ad loc. Cf. *Od.* 5.327-30.

⁸⁰² The word κολοσυρτός (*Th.* 880) is in fact glossed by the scholiast with ταραχή; dust is typically associated with the divine (cf. Zeus Konios, in *Paus.* 1.40.6; the sudden dust-storm in Sophocles’ *Antigone* 417-21).

of the oaths sworn by the river Styx (*Th.* 792).⁸⁰³ Immortals who break the oath sworn by her waters lie in bed for a year, “breathless and speechless” (ἀνάπνευστος καὶ ἄναυδος, 797; cf. νήϊυτος, 795) and unable to approach food or drink. Frazer’s characterization of this ordeal as “silence and fasting” seems an understatement.⁸⁰⁴ In fact, the oath-breaker goes into a magical sleep (κῶμα, 798) that is referred to as a “great disease” (νοῦσον μέγαν, 799).⁸⁰⁵ Afterwards they are expelled from the community of gods for another nine years. This means they do not participate in any of the communal activities, including the council and the feasts. Since the gods cannot die, this banishment is reminiscent of the “deferred death” of ritual expulsion.

The “geographicalness” of divine μέγα πῆμα as represented here in the *Theogony* combines two distinct ideas. On the one hand, the sufferer *cannot move*. This immobilization, as we have seen in Chapter Three, is closely associated with language of binding and being covered over. In fact, the three occurrences of κῶμα in Hesiod and Homer all take the verb καλύπτω, “cover,” although only in the *Theogony* does this deep, trance-like slumber refer to something evil (κακόν, *Th.* 798) rather than soft (μαλακόν, e.g. *Il.* 14.359). Still, as West points out, καλύπτω never refers to natural sleep, and the Archaic association between sleep and death is well-established (and, in fact, juxtaposed by Penelope herself in *Od.* 18.201-2).⁸⁰⁶ Two analogies help explain this disaster,

⁸⁰³ Cf. *WD* 804, where Horkos (“Oath”) is a πῆμα ἐπιόρκους.

⁸⁰⁴ Frazer 1920 *Apollodorus*, pp. 218-19

⁸⁰⁵ See West 1966: ad loc. On κῶμα as a deep, divinely caused slumber, see Montiglio 2015.

⁸⁰⁶ See West 1966: ad loc.

coma-like state as applied to the gods. First, the immobilization is like that of a shipwrecked man: the same formula “breathless and speechless” (ἀνάπνευστος καὶ ἄναυδος) is used to describe Odysseus, who has just washed ashore on Phaeacian Scheria. The second analogy is that of old age: we recall how Tithonos, who, like the shade of Agamemnon in Hades, has lost all “vigor” (κῆρυς), is confined to the four walls of his bedroom, unable to move his limbs and condemned not to speechlessness per se but to inane babble (cf. φωνὴ ῥεῖ ἄσπετος, *HH*. 5.237). Mobility and communication are thus severely impaired.

Another poignant case of old age is the seer Phineus, whose story is told in Apollonius’ *Argonautica* (2.178ff). Afflicted with πῆματα from Zeus for the improper use of his prophetic power (2.179), Phineus’ punishment is old age and the inability to eat, as the monstrous Harpies snatch away his food every time he is about to eat. When Jason and his crew appear, Phineus steps out of his home (*Arg*. 2.203-5, transl. Hunter):

A dark dizziness (κάρος) enveloped (ἀμφεκάλυπεν) him, the earth beneath seemed to him to revolve, and he sank into a helpless torpor (κῶματι), unable to speak (ἄναυδος).⁸⁰⁷

On a semantic level, καλύπτω, κῶμα, and ἄναυδος invite comparison with the disastered state of the divine sufferer; κάρος is glossed for κῶμα by Hesiod’s scholiast. What is more, Phineus exemplifies the inability to approach food and drink, another characteristic of the κῶμα in the *Theogony*. In the *Argonautica*, the κῶμα leaves Phineus unable to speak or move. The phenomenality of this experience is captured by the poet in the

⁸⁰⁷ κάρος δέ μιν ἀμφεκάλυπεν / πορφύρεος, γαῖαν δὲ περίξ ἐδόκησε φέρεσθαι / νειόθεν, ἀβληχρῶ δ’ ἐπὶ κῶματι κέκλιτ’ ἄναυδος.

phrase “the earth beneath seemed to him to revolve,” which points to the utter disorientation of his disastered condition. The ground below is no longer a stable element for Phineus. But while his reference points in his immediate space are impaired (he is blind as well), Phineus still has the gift of prophecy and the ability to construct paths in time and space that extend beyond his immediate and limited geography—a skill that he will employ much to the advantage of the Argonauts. What the analogies of shipwreck and old age demonstrate, then, is that the κῶμα of the *Theogony* is a disastered condition that limits one’s ability both to move and to communicate with the outside world—this is a state of isolation and immobilization.

Gods in Exile

The second part of divine μέγα πῆμα, namely the expulsion from the community of gods, signals a different form of isolation, namely displacement. Hesiod refers to this punishment as even “harsher” (χαλεπώτερος, *Th.* 800) than the first one, due in no small part, probably, to its greater duration (nine years as opposed to one). The wrongdoer is “deprived of” (ἀπαμείρεται, *Th.* 801) the company of the other gods, and can neither join in the Olympic council nor in the communal feasts. This is similarly a state of isolation, but one characterized by being shut out rather than closed in. The nine years of banishment are significant: when Hera “cast” (ἔμβαλον, *HH.* 3.318) her son Hephaestus from heaven into the sea, he spendt nine years of exile with Thetis (*Il.* 18.394ff). Another example is Apollo, whose punishment for killing the Cyclopes was to herd Cadmus’ flocks for nine years—for this reason, Aeschylus refers to Apollo as “a god exiled from heaven” (φυγάδ’ ἀπ’ οὐρανοῦ θεόν, *A. Suppl.* 214, cf. *Plut. On Exile* 607c). These two

forms of punishment seem typical for the kind of disaster that can befall the gods, and they need not operate together the way they do as μέγα πῆμα in the *Theogony*. Ares being locked up in a brazen pot for one year exemplifies divine immobilization by being *closed in* (expressed as being bound, see Chapter Three), while Apollo's punishment of nine years of servitude, herding Cadmus' flocks, represents divine isolation by being *shut out*. And yet, the two parts of Hesiodic punishment are really two sides of the same coin. This becomes clear in the figure of Prometheus, at least as represented in the play *Prometheus Bound*.

Prometheus is literally immobilized, fettered to a rock, unable to move his limbs. Although he does not exhibit the same symptoms as the aged Phineus or the shipwrecked Odysseus, Prometheus' condition is characterized with the word νόσος (cf. *Th.* 799)—in fact, νόσος, νόσημα, and νοσέω occur more by far in *Prometheus Bound* than in any other Aeschylean play.⁸⁰⁸ The chorus describes Prometheus, who is credited with the art of medicine, as a bad doctor who himself has fallen sick (*PV* 473). Io's condition, too, is repeatedly described as a divinely sent νόσος (*PV* 596, 606, 632). At the same time, there is no doubt that Prometheus, chained to the far-flung mountains at the edge of the inhabited world, has been exiled from the community of gods. It is true that Prometheus is bound for more than nine years: the play itself gives us the number of 10,000 years (μυριετῇ, *PV* 94, a number that should be considered proverbial for "a very long time"), and thirteen human generations (*PV* 774); the scholiast, followed by Hyginus, gives

⁸⁰⁸ Podlecki 2005: 193 speaks of a "sickness-theme."

30,000 years based on Aeschylus' lost play *Pyrphoros*.⁸⁰⁹ The number 30,000 has been linked to Empedocles' period of purification that the δαίμων must undergo as penalty (*Fr.* B115, ed. D-K).⁸¹⁰

The exile invoked by Empedocles must be connected both to Prometheus and to the divine sufferer from the *Theogony*. The similarities between Prometheus and the Empedoclean δαίμων have already been recognized: both are immortals punished for a crime by many thousands of years (30,000?) of harsh suffering before final release and redemption.⁸¹¹ This suffering is expressed as the out-of-placeness of an “exile” (φυγάς) and “wanderer” (ἀλήτης). Plutarch, in his Platonizing interpretation of Empedocles' poem, notes that the eternal soul is “in exile and wandering” (φεύγει καὶ πλανᾶται), feeling terribly out of place in this world, “bound within the body” (ἐνδεδεμένη τῷ σώματι), as if “on an island buffeted by the toss” (ἐν νήσῳ σάλον ἐχούσῃ πολύν). In this earthly exile, Plutarch continues, the soul “shifts a short distance from one place here to another,” and as such suffers from “being greatly vexed and feeling strange” (μικρὸν ἐνταῦθα τόπον ἐκ τόπου παραλλάξῃ ... δυσανασχετεῖ καὶ ξενοπαθεῖ, *Plut. On Exile*

⁸⁰⁹ The status of *Pyrphoros* (“Fire-Bearer”) is unclear. Long believed to be the first or third play in the Prometheus trilogy alongside *Prometheus Bound* and *Prometheus Unbound*, some, including Sommerstein, have identified *Pyrphoros* with the satyr drama *Pyrkaios* (“Fire-Kindler”), which was likely performed at the conclusion of the 472 BCE production that included *Persians*. For a brief overview of the discussion, see Sommerstein 2009: 52-4, 199-200. For the years of punishment, see Seaford 1986: 1-3, and also the commentary by Griffith 1983 ad loc. (*PV* 94). The references to Prometheus' duration of punishment according to Hyginus are in *Fab.* 54, *Fab.* 144, and *Astr.* 2.15. The reference to the scholiast is at *PV.* 94, or *A. Fr.* 208a (ed. Radt).

⁸¹⁰ Griffith 1983 is dismissive of this link (cf. Seaford 1986: 1); West 1966 ad loc 801 notes that Empedocles magnifies the nine-year period of banishment to 30,000 seasons, or years, “perhaps on the model of Aeschylus' Prometheus trilogy.”

⁸¹¹ Seaford 1986: 2, with reference to Thomson 1946: 319 (“Aeschylus and Athens”).

607e). The verb ξενοπαθέω neatly points to the “geographicalness” of the disastered individual: it does not just mean feeling strange but *feeling like a stranger*. Plutarch’s Platonic conception of the soul combines the two ideas of μέγα πῆμα: simultaneously forced to wander, exiled and out-of-place (παρὰ τόπον), yet also bound and immobilized within a mortal body—feeling like a stranger.

But this is Plutarch’s reading of Empedocles. The fragment itself reveals a clear connection with cosmogony in general, and with the cosmogonic aspects of Hesiod’s *Theogony* in particular. The out-of-placeness of the Empedoclean δαίμων is of a conspicuously cosmic and elemental nature (Emp. *Fr.* B115, ed. D-K = D10, ed. Loeb, transl. Laks and Most):

For the force of the upper-air chases (διώκει) them toward the sea,
The sea spits them out (ἀπέπτυσσε) toward earth’s surface, the earth toward the
rays of the bright sun, and he hurls them into (ἔμβαλε) the eddies of the upper-air.
Each one receives them from another (ἄλλος δ’ ἐξ ἄλλου δέχεται), but all hate
them. Of them, I too am now one, an exile from the divine and a wanderer (φυγὰς
θεόθεν καὶ ἀλήτης),
I who relied on insane Strife (Νείκει μαινομένῳ).⁸¹²

Spurned by all the elements—upper air, sea, earth, sun—the exiled “wanderer” (ἀλήτης) cannot stay in one place, cast adrift from his assigned place under the stars. After this ordeal, which is both punishment and purification, the divinity is restored to his original status, and returns to “his natural location and rank” (τὴν κατὰ φύσιν χώραν καὶ τάξιν, ad. B115 ed. D-K = D11 ed. Loeb = Plut. *Is. et Os.* 361c). The fact that at the end of their purification these δαίμονες return to their status “in accordance with nature” (κατὰ φύσιν)

⁸¹² αἰθέριον μὲν γὰρ σφε μένος πόντονδε διώκει, / πόντος δ’ ἐς χθονὸς οὐδας ἀπέπτυσσε, γαῖα δ’ ἐς αὐγὰς / ἡελίου φαέθοντος, ὃ δ’ αἰθέρος ἔμβαλε δίναις· / ἄλλος δ’ ἐξ ἄλλου δέχεται, στυγέουσι δὲ πάντες. / τῶν καὶ ἐγὼ νῦν εἰμι, φυγὰς θεόθεν καὶ ἀλήτης, / Νείκει μαινομένῳ πίσυνος

suggests that their wandering in exile is something *παρὰ φύσιν*, thus bestowing upon them the quality of the *τέρας*, the out-of-placeness of the monstrous sign.

Indeed, this motif of being spurned by the elements is operative in other individuals with aspects of *τέρατα*, too. Disastered heroes such as Heracles and Oedipus, tainted with miasma and sent into exile, are said to be rejected by the elements (Eur. *Her.* 1295; S. *OT.* 1426-7). To be sure, the references to the four elements by Empedocles suggest Pythagorean rather than Hesiodic influence. And yet, the *principle* of exile of the Empedoclean *δαίμων* is similar to, if not directly modeled on, that of the divine sufferer of *μέγα πῆμα* in the *Theogony*. One piece of philological evidence in particular bears this connection out: the phrase “each one receives them from another” (*ἄλλος δ’ ἐξ ἄλλου δέχεται*) echoes exactly the Hesiodic phrase in *Theogony* 800 (*ἄλλος δ’ ἐξ ἄλλου δέχεται χαλεπότερος ἄθλος*).⁸¹³ It is used differently, but the context is the same: the phrase refers to the continuation of punishment and suffering for divine wrongdoers. More importantly, the recurring phrase establishes a direct link between Empedocles’ exile and Hesiodic *μέγα πῆμα*, and thus an indirect link between Hesiodic *μέγα πῆμα* and the suffering of Prometheus.

Prometheus Bound, Io Adrift

It comes as no surprise, then, that Hesiod’s third case of *μέγα πῆμα* refers, in fact, to Prometheus himself. In *Works and Days*, Prometheus is called a *μέγα πῆμα* for future

⁸¹³ Cf. West 1966 ad loc, who notes the recurrence of the phrase, but does not interpret or explain it. For a context of human suffering, cf. the similar phrase uttered by Briseis in *Iliad* 19.290.

generations by no other than Zeus himself (*WD*. 56). Moreover, his crime of stealing fire and gifting it to mortals results in the κακόν that is Pandora (*WD*. 57), who herself is also referred to as a πῆμα (*WD*. 82) and, in the *Theogony*, as a πῆμα μέγα for mortals (*Th*. 592). As a result, “the earth is full of evils, and so is the sea” and “diseases visit humans daily and nightly at all time, of their own accord, bringing evils to mortals” (*WD*. 100-4).⁸¹⁴ The punishment inflicted upon Prometheus is the subject of *Prometheus Bound*, a tragedy traditionally attributed to Aeschylus but the authenticity of which is no longer considered certain.⁸¹⁵ His exile to the farthest regions of the earth is stressed in the opening lines of the play: the place is “remote” (τῆλουργον), “uninhabited” (ἄβροτον), and “a desert” (ἐρημίαν, *PV*. 1-2). The stage is set for a disaster state not unlike that of the Argonauts in Libya. Unlike Jason and his crew, however, Prometheus is, as Zeus’ helper Kratos (“Power”) puts it, “clever at finding a way out (πόρον), even from a helpless situation (ἀμηχάνων)” (*PV*. 59). Prometheus would not be released until the next play, most likely, but the one thing he can do is talk. His power of speech is what keeps him alive, during this ordeal of symbolic death that anthropologist Louis Gernet has identified as the capital punishment of *apotumpanismos*.⁸¹⁶ For it is his prophetic knowledge of the

⁸¹⁴ ἄλλα δὲ μυρία λυγρὰ κατ’ ἀνθρώπους ἀλάληται / πλείη μὲν γὰρ γαῖα κακῶν, πλείη δὲ θάλασσα· / νοῦσοι δ’ ἀνθρώποισιν ἐφ’ ἡμέρη, αἱ δ’ ἐπὶ νυκτὶ / αὐτόματοι φοιτῶσι κακὰ θνητοῖσι φέρουσαι / σιγῇ, ἐπεὶ φωνὴν ἐξείλετο μητίετα Ζεύς.

⁸¹⁵ Arguments for Aeschylus’ authorship are found in Podlecki 2005 and Lloyd-Jones 2003; arguments against authenticity by Griffith 1977 and West 1990, who suggests the play was written by Euphorion, the son of Aeschylus. I personally sympathize with Podlecki’s honest comment, “I don’t know and don’t care” (Podlecki 2005 (vii)).

⁸¹⁶ Gernet 1981.

threat to Zeus' rule—namely the birth of his usurper should Zeus beget a son with Thetis—that gives him the leverage he needs to find his way out of this situation.

Prometheus' state of being bound is complemented by Io's state of being cast adrift, or wandering (πλάνη). Her disastered state is expertly captured by Podlecki's translation of the word δυσπλανῶ, which is how Io describes herself in line 609, as “ill-starred in her wanderings.” Her state of disorientation is emphasized from the moment she first arrives on stage (*PV.* 562-5, transl. Podlecki):

What land? What people? Whom should I say I see,
This storm-tossed individual, bridled in stone? ...
Indicate (σήμηνον) where on earth I have come, a wanderer (πεπλάνημαι) in
pain.⁸¹⁷

She needs Prometheus' help in re-orienting herself. She asks him to “indicate” (σήμηνον)—that is to say, relay a sign—about her geographic location. After all, Io has been wandering (πεπλάνημαι) for a long time, chased by a gadfly (οἷστρος, *PV.* 567) set upon her by Hera, as well as the spirit of the monstrous herdsman Argos. The semantics of her wandering bear out her suffering and sense of displacement, both characteristic of the disastered state. She describes her plight as “wandering far, driven far” (τηλέπλαγκτοι πλάναι, *PV.* 577), collocating two forms derived from the verb πλάζω, “to wander” (root *plāk-*, see table in Chapter Two), as she does again in line 585 (πολύπλανοι πλάναι). The repetition suggests a sense of overrepresentation typical, perhaps, of the distraught sufferer of disaster.

⁸¹⁷ τίς γῆ; τί γένος; τίνα φῶ λεύσσειν / τόνδε χαλινοῖς ἐν πετρίνοισιν / χειμαζόμενον; / ... /
σήμηνον ὅποι γῆς ἢ μογερά πεπλάνημαι.

When she realizes that Prometheus has access to special knowledge, Io demands to know the “end of my wandering” (τέρμα τῆς ἐμῆς πλάνης, *PV.* 622). She requests that he “give some clear sign” (τέκμηρον), which Prometheus gives in great detail as he plots her path through time and space (see Chapter One). Io’s disastered state is remedied by divinatory knowledge: Prometheus gives her wanderings meaning by disclosing not the divine agency that causes it (she already knows Hera is behind this) but by plotting out the entire course of events, thus revealing what still lies ahead of her. If Prometheus is reluctant to do so, fearing knowledge will only increase her suffering, Io firmly states that “the sick take comfort in knowing fully and clearly what suffering remains” (*PV.* 698-9).⁸¹⁸ In this context, *divining disaster* is the remedy of reorienting Io based on the paths in time and space she must still wander. Prometheus’ role as a diviner is essentially that of a geographer, mapping out places that cannot be seen to restore meaning for the battered Io. In this regard, his activity, though of course devoid of ritual context, resembles that of Epimenides, who reoriented the cultic geography of plague-ridden Athens. Prometheus, as he is known to do, brings order and chaos by taming the apparent randomness of life. To Io, her wandering appears random indeed, but Prometheus’ divinatory and geographic knowledge reveals a purpose to it by anchoring her path in time and space, thus relieving its meaninglessness. When the “gadfly’s fiery barb stings” her again (οἷστρον δ’ ἄρδις / χρίει μ’ ἄπυρο, *PV.* 879-80), the last lines she utters before rushing off-stage are (*PV.* 883-6, transl. Podlecki):

I am blown off course by a raging
Wind of frenzy (λύσσης). My tongue is out of control.

⁸¹⁸ τοῖς νοσοῦσί τοι γλυκὺ / τὸ λοιπὸν ἄλγος προὔξεται τοῖς.

My words churn and strike at random (εἰκῆι)
Against waves of foul disaster (ἄτης).⁸¹⁹

As the madness strikes again (and the word λύσσα invokes comparison with the raging Hercules in Euripides' play, discussed in Chapter Two), she loses control over her speech, the one thing that still keeps Prometheus sane. Io's words now strike "at random" (εἰκῆι), thus plunging her again in a pre-semiotic state of confusion, her state of disaster resumed.

"Tangled in Disaster's Endless Net"

The word ἄτη, which is a familiar member of the disaster lexicon, is a marked term here. It is the last word spoken by Io in the play, and will occur twice more in the play, in both cases used by Hermes to describe Prometheus' pending state of utter ruin (*PV*. 1072, 1078). Hermes' visit (starting in line 944) is laced with threats directed at Prometheus, in order to force him to give up his secret prophecy about Zeus. Prometheus stands firm, and declares that he will not disclose anything until he is released first. He readily accepts any consequences (*PV*. 992-4, transl. Podlecki):

So let the bolts of blazing fire be hurled,
Let him churn and throw everything into confusion (ταρασσέτω)
With a white-winged snowstorm and rumblings from the earth.⁸²⁰

Prometheus here anticipates the violence of Zeus, which is imagined as cosmic disaster. Indeed, Zeus' hurling of the thunderbolt typically disturbs the cosmos as it reshuffles and

⁸¹⁹ ἔξω δὲ δρόμου φέρομαι λύσσης / πνεύματι μάργωι γλώσσης ἀκρατής, / θολεροὶ δὲ λόγοι
παίους' εἰκῆι / στυγνῆς πρὸς κύμασιν ἄτης.

⁸²⁰ πρὸς ταῦτα ῥιπτέσθω μὲν αἰθαλοῦσσα φλόξ, / λευκοπτέρωι δὲ νιφάδι καὶ βροντήμασι /
χθονίοις κυκάτω πάντα καὶ ταρασσέτω.

reorients his own supremacy. The ensuing cosmic confusion (cf. *ταραχή*) would be similar to the state of randomness that Io endured upon her exit off the stage. Hermes reiterates his threats (*PV.* 1014-35), conjuring up an image of storms and tidal waves from which Prometheus cannot escape (*ἄφυκτος*), as Zeus will dash the mountain to pieces and bury him under the rocks. And again, Prometheus calls upon cosmic disaster to strike him (*PV.* 1043-52, transl. Podlecki):

So let fire's sharp tendril be hurled
At me. Let thunder agitate
The heavens, and spasms (*σφακέλοι*)
Of wild winds. Let blasts shake
The earth to the base of its very roots.
Let the sea's wave, surging fiercely,
Send into turmoil (*συγχώσειεν*) the paths
Of the stars in heaven. He can lift up
And hurl my body to Tartaros
In Necessity's harsh vortex (*στερραῖς δίναις*).⁸²¹

The image of cosmic confusion becomes gradually more elaborate and all-encompassing. Now, all the elements are represented (fire, aether, winds, earth, sea, heaven, Tartarus) and all are in violent turmoil. The semiotic consequences are significant: the verb *συγχώσειεν* literally expresses the action of heaping something with earth, covering it over with a mound. It suggests that the paths of the stars—the most reliable *τέκμαρ* for humankind—are going to be invisible, buried, as it were, under the surging swell of the sea. The cosmic conditions are similar to those experienced by Io on a personal level: the

⁸²¹ πρὸς ταῦτ' ἐπ' ἐμοὶ ῥιπτέσθω μὲν / πυρὸς ἀμφήκης βόστρυχος, αἰθήρ δ' / ἐρεθιζέσθω βροντῇ
σφακέλοι τ' / ἀγρίων ἀνέμων, χθόνα δ' ἐκ πυθμένων / αὐταῖς ῥίζαις πνεῦμα κραδαίνοι, / κῦμα δὲ
πόντου τραχεῖ ῥοθίω / συγχώσειεν τῶν οὐρανίων / ἄστρον διόδους ἔς τε κελαινὸν / Τάρταρον
ἄρδην ῥίγνιε δέμας / τοῦμὸν ἀνάγκης στερραῖς δίναις·

word σφακέλωι, a rare medical term, was also applied to Io's spasmodic motions incited by Hera's gadfly (*PV.* 878).

In his final rebuke, then, Hermes angrily predicts that Disaster (Ate) will hunt Prometheus down (ἄτης θηραθεῖσαι), and when it does, he has no-one to blame but himself: “For with full knowledge, not suddenly or in secret, you will have got yourself tangled in disaster's endless net (ἀπέραντον δίκτυον ἄτης ἐμπλεχθήσεσθ') through stupidity (ἄνοιας)” (*PV.* 1076-9).⁸²² This remarkable phrase—“tangled in disaster's endless net”—continues the hunting metaphor Hermes had used earlier.⁸²³ Prometheus is going to get caught in the net because of his own foolishness, according to Hermes. The master of πόρος can no longer escape. The adjective describing the net as “endless” (ἀπέραντον, from περάω, “to cross”) belongs to the same semantic field as πόρος.⁸²⁴ There will be no way out of this net. Prometheus was already bound in an inescapable net of sorts made by Hephaestus (ἀμφίβληστρον *PV.* 81), but now the net is cast by Zeus himself, and thus has even greater cosmic implications. Indeed, in the final lines of the play, Prometheus is subjected to the negative cosmology induced by Zeus (*PV.* 1080-93): the earth is shaking, thunder rumbles, flames are flashing, whirlwinds are spinning. The winds “leap” (σκιρτᾷ), once again the same verb as used for Io's spasmodic jumping (*PV.* 599-600, 675), thus further strengthening the idea that the cosmic confusion is paralleled

⁸²² εἰδυῖαι γὰρ / κοῦκ ἐξαίφνης οὐδὲ λαθραίως / εἰς ἀπέραντον δίκτυον ἄτης / ἐμπλεχθήσεσθ' ὑπ' ἄνοιας.

⁸²³ Cf. *S. Ant.* 1095, where Cleon, whose mind is “disturbed” (ταράσσομαι), fears that he may run into “the fowler's net of disaster” (ἄτης ... λίνω).

⁸²⁴ Detienne and Vernant 1991: 288-96.

in Io's state of individualized disaster. The cosmic disaster that has been anticipated for so long by both Prometheus and Hermes now becomes reality, as "Sky and sea are mixed in confusion" (ξυντετάρακται δ' αἰθὴρ πόντῳ, *PV*. 1088). The representation of cosmic disaster at the close of *Prometheus Bound* is dominated by an overabundance of visual and auditory signs.

The Floating Island

We shall now turn from the *πλαναί* of Io to another case of endless wandering, namely that of the floating island of Delos, the importance of which for disaster discourse has already surfaced in Chapters One and Three. Delos occupies a special place in the cultural and environmental history of the Ancient Mediterranean. Most famous as the birth place of Apollo, the Panhellenic cult center of Delian Apollo and the financial center of the Delian League, the island has also been known throughout Antiquity for its mobility, or lack thereof. On the one hand, Delos is known as a wandering island, "floating on the sea" (ἐπιπλώουσα θαλάσση, *Cal. hDel.* 213) and "wandering (πλαζομένη) in the deep, she swims on the tide (παλιρροίη) ... where (ἔνθα) the south wind, then (ἔνθ') the east wind, wherever the sea may carry her" (*hDel.* 192, 194).⁸²⁵ On the other hand, it is represented as "unmoved" or "unmoving" (ἀκίνητος, *P. Fr.* 33c; *Hdt.* 6.98.3). In this section, I argue that the kinetic issues of Delos mark the island as a *disastered* place, whose (im)mobility is bound up to its status as a landmark for sailors

⁸²⁵ πλαζομένη πελάγεσσι· πόδες δέ οἱ οὐχ ἐνὶ χώρῳ, / ἀλλὰ παλιρροίη ἐπινήχεται ἀνθρώπος ὥς, / ἔνθα νότος, ἔνθ' εὖρος, ὅπη φορέησι θάλασσα.

and a point of orientation for the gods. While Delos may seem to lack many of the characteristics that would typically be associated with disaster, the significance of her wandering (πλαζομένη), like that of Io, is that it represents displacement and misplacement. Delos is related to the primordial chaos of negative cosmology, because, like anything that in some respect brings together or confuses elements that should remain separate, floating islands, “through not being rooted, sometimes loom up like land and sometimes disappear into the sea.”⁸²⁶ Her directionality is ἐνθα καὶ ἐνθα like the storm winds, and her drifting on the countercurrents (παλιρροΐαι) invites comparison with the unnavigable Strait of Messina (Strabo 1.2.15). Aeolus himself inhabits a floating island, too. As far as the geographicalness of disaster is concerned, the unreliability of a geographic marker that ought to be fixed and reliable, especially for the seafaring Greeks with their anxieties about open waters, renders the moving island exceptionally dangerous.

The earliest evidence for Delos as a floating island comes not from the Homeric Hymn to Apollo, but from Pindar. The Pindaric fragment, preserved by Strabo, records the tradition that Delos only became rooted when Leto gave birth to Apollo and Artemis (P. Fr. 33d = Strabo 10.5.2; transl. Race):

For previously it was carried on the waves by the blasts of winds of all sorts (παντοδαπῶν ἀνέμων ῥιπαῖσιν). But when Coeus’ daughter [i.e. Leto], frantic with the pains of approaching birth, set foot on it, then did four upright columns with bases of adamant rise (ἀπόρουσαν) from their foundations in the earth and

⁸²⁶ Detienne and Vernant 1991: 169.

on their capitals support the rock. There, after giving birth, she beheld her blessed offspring.⁸²⁷

The wandering island appears as a ship cast adrift by various winds, blown this way and that way on the vast expanse of the ocean. The island becomes rooted from the bottom up: four pillars spring up from the roots of the earth up to support the “rock” (πέτραν) that is Delos. The architectural metaphor is that of a temple rising up out of the sea, with the island resting on the capitals of the pillars as the entablature. The rooting of the island and the construction of the temple both result in distinctive landmarks, which establishes a divine or sacred geography that links specific places to specific deities. The island of Delos *is* Apollo’s temple.

Another famous example of a moving island is Rhodes. In one of his *Olympian Odes*, Pindar tells how, at the time when Zeus was apportioning the lands to all the gods, “Rhodes had not yet appeared (φανεράν) in the expanse of the sea, and the island lay hidden (κεκρύφθαι) in the salty depths” (P. *Ol.* 7.57-8).⁸²⁸ But the sun-god Helios, who sees all, had spotted the island already and claimed it for himself. While Rhodes and Delos are often mentioned alongside each other as evidence of the same phenomenon, their movement is, at least in Pindar, not strictly identical. Rhodes moves vertically, at first “hidden” (κεκρύφθαι) in the darkness below the sea as if fettered in Erebus, before it becomes “visible” (φανεράν) on the surface of the sea. Delos, on the other hand, moves

⁸²⁷ ἦν γὰρ τὸ πάροιθε φορητὰ κυμάτεσσιν παντοδαπῶν ἀνέμων ῥιπαῖσιν· ἀλλ’ ἃ Κοιογενῆς ὁπότε ὠδίνεσσι θυίοις ἀγχιτόκοις ἐπέβα νιν, δὴ τότε τέσσαρες ὀρθαί πρέμνων ἀπώρουσαν χθονίων, ἅν δ’ ἐπικράνοις σχέθον πέτραν ἀδαμαντοπέδιλοι κίονες, ἔνθα τεκοῖς εὐδαίμον’ ἐπόψατο γένναν.

⁸²⁸ φανεράν ἐν πελάγει Ῥόδον ἔμμεν ποντίῳ, / ἄλμυροῖς δ’ ἐν βένθεσιν νᾶσον κεκρύφθαι.

horizontally, blown across the surface of the sea by various winds. And yet, the vertical movement is prefigured in the adamantine columns that rise up to anchor the island securely into the ocean floor. The wandering island provides no fixed point of orientation, but the rooted island does. The semiotic importance of islands as geographic markers cannot be overstated. The reliability of the island as a point of orientation in the vast expanse of the sea resembles that of the stars in the vast expanse of the sky. Islands, like stars, are often described as shining. When the gods look down from Olympus, Delos appears as the “far-shining star of the dark-blue earth” (τηλέφαντον κυανέας χθονὸς ἄστρον, *Pi. Fr.* 33c). When Delos becomes “fixed,” the verb used by Callimachus is στήριζω (ἐνεστήρικται, *H.Del.* 13), which is also used for the “heavenly signs” (σήματ’ ἐν οὐρανῷ) that are the fixed stars (*Arat. Phaen.* 10, cf. 230, 274). The island of Aegina, too, is said to be the “shining star” (φαεννὸν ἄστρον) of Zeus Hellanius (*Pi. Pae.* 6.126). From the perspective of the gods, then, the islands are what the stars are for mortals, fulfilling the same function of luminous, geographic point of orientation in an expanse that is otherwise vast, dark, and devoid of *tekmar*.⁸²⁹

The Polysemy of Delos

The name Delos itself (Δῆλος), meaning “clear, conspicuous,” may have contributed to the focus on the lore of the island’s (in)visibility and status as a wandering

⁸²⁹ Pindar (see below) refers to Delos as ἀκίνητον τέρας; the adjective ἀκίνητον also applies to the fixed stars (ἄστρον ἀκίνητον, *Poll.* 4.156).

island. Aristotle, for one, explained Delos' name this way.⁸³⁰ The overabundance of alternative names, in fact, could be interpreted as a case of *overdetermination*, which, as Huet has suggested, is the exact opposite of disaster, and works to undo the negative cosmology presiding over it. The name Anaphe (Ἀνάφη, "Appearance"), which according to Posidonius and Philo is another name for Delos, was typically given to a small island near Thera.⁸³¹ It was thought to have emerged in a geological manner similar to Delos, and was also sacred to Apollo.⁸³² The etymological connection between Delos and Anaphe is clear, insofar as both islands used to be "inconspicuous (*adeloumene*) and invisible (*aphanes*)" (ἀδηλουμένη καὶ ἀφανής, Phil. De Aet. 121) before they either stopped moving around or rose to the surface. The Argonauts give the name Anaphe to the visible rock that emerges in the light shone by Apollo to break the frightening, total darkness of *katoulas*. Apollo the Gleamer (Αἰγλήτης) "caused it to appear" (ἀνέφηνεν, A.R. 4.1718), which thus explains the name of this island. Its sudden and salvific appearance is precisely the *tekmar* that relieves the disastered condition of the Argonauts. This corresponds to Apollo's role as a divinatory god. Similarly, Vergil says Apollo fixed Delos in place, making it "unmoved ... scorning the winds" (*immotam ... contemnere ventos*, Ver. *Aen.* 3.77). This is not so much Poseidon's brute force of rooting things magically to the spot, which establishes a *teras*, but rather represents Apollo's ability as a divine seer to create a *tekmar*, as he does for the Argonauts with Anaphe.

⁸³⁰ Plin. Maj. 4.66

⁸³¹ Phil. *De Aet.* 211. Modern Anafi.

⁸³² Am. Marc. 17.13; Pliny 2.202

The island of Ortygia, meanwhile, is identified with Delos by Apollonius. Strabo comments that Ortygia is an old name for Delos. In the *Homeric Hymn* Ortygia is a separate island on which Leto lands first to give birth to Artemis, after which she lands on Delos to give birth to Apollo.⁸³³ Callimachus' *Hymn to Delos*, which makes no mention of Ortygia, identifies Delos with Asteria, the sister of Leto whose name means "The Starry One," and whose flight from heaven down to the sea was like that of a falling star (Cal. *HDel.* 37-8). The story, of which traces are found already in Pindar, goes that Asteria was pursued by Zeus (and, according to Nonnus, by Poseidon also). Zeus chased her across the sky, and she transformed herself into a quail (ὄρνυξ) and plunged into the ocean—hence the name Ortygia, "Quail Island."⁸³⁴ According to Pindar, Asteria, "thrown into the sea, appeared as a conspicuous rock; sailors have long called her Ortygia. She was often carried over the Aegean, until the most powerful one desired to lie with her [i.e. Leto] and produce bow-bearing offspring" (Pi. *Pae.* 7b.46-52).⁸³⁵ The parallel fate of the two sisters is clear: Asteria and Leto are both forced to wander, the former pursued by Zeus and the latter hounded by Hera. The wandering comes to an end when they are united geographically, and the island becomes fixed.

The names Asteria and Ortygia underscore the association with Delos as an astral point of reference in the vast expanse of the dark sea; Anaphe, too, suggests the sudden

⁸³³ *HH.* 3.16; *A.R.* 4.1705; *Strab.* 14.1.20.

⁸³⁴ On Asteria, see *Apollod.* 1.21.

⁸³⁵ δέ μιν ἐν πέλ[α]γ[ο]ς / ῥιφθεῖσαν εὐαγέα πέτραν φανῆναι / καλέοντί μιν Ὀρτυγίαν ναῦται
πάλαι. / πεφόρητο δ' ἐπ' Αἰγαῖον θαμά / τᾷς ὁ κρᾶτιστος / ἐράσσατο μιχθεῖς / τοξοφόρον
τελέσαι γόνον

appearance of the island as a salvific *tekmar*. But the polysemy of Delos does not end here. Pliny the Elder offers an even longer list of alternative names for Delos (4.66, transl. Rackham):

According to the story, Delos for a long time floated adrift (*fluctuata*); also it was the only island that down to the time of Marcus Varro had never felt an earthquake shock; Mucianus however states that it has suffered twice from earthquake. Aristotle has recorded that it owes its name to its having suddenly appeared emerging from the water; Aglaosthenes, however, calls it the Isle of Cynthus, and others Quail Island (*Ortygia*), Star Island (*Asteria*), Hare Island, Cloak Island, Dog Island, and Fiery Island because fire was first discovered there.⁸³⁶

The variety of names can be explained, in part, by the various roles and epithets of its two most famous scions, Apollo and Artemis. At the same time, it is tempting to speculate that the variability of names is connected to the variability of the island's geography as suggested by its movability. The underdetermined and disastered status of its location is countered by its overdetermined name. Impossible to pin down geographically, the island is pinned down semiotically by a multitude of names.

The Mobility of Delos: ἀκίνητον τέρας

Pliny brings up another defining feature about Delos, namely its status as an aseismic island, a subject we have previously discussed in Chapter Two. Pliny records two different views, one that Delos was not shaken by an earthquake until the time of Varro, and one that it had in fact been shaken twice. While Jeffrey Rusten is keen on

⁸³⁶ ... *Delos, quae diu fluctuata, ut proditur, sola motum terrae non sensit ad M. Varronis aetatem: Mucianus prodidit bis concussam. hanc Aristoteles ita appellatam tradidit quoniam repente apparuerit enata, Aglaosthenes Cynthiam, alii Ortygiam, Asteriam, Lagiam, Chlamydiam, Cynethum, Pyrpilen igne ibi primum reperto.*

separating out Delos' free-floating status from its aseismic reputation, noting that Pliny has correctly distinguished the island's immovability from its unshakability, I suggest that the two ought to be considered together, and must be interpreted as part of the overall moveability of Delos, the one representing horizontal, the other vertical movement. It is true that the symbolic earthquakes associated with Delos may be part of a rationalizing attempt meant to supplant the notion of a wandering island; and yet, seismic activity is simply another way to understand vertical mobility and the phenomenon of an island being anchored in the depths of the sea.

The vertical movement of Delos, rather than its horizontal wandering, becomes the island's most defining feature in later, proto-scientific discussions. Delos and Rhodes on the one hand, and Atlantis and Helice on the other, have one important geological feature in common, at least in the scientific imagination starting with Theophrastus. The movements of these islands—the *upward* surfacing of Delos and Rhodes, the *downward* sinking of Atlantis and Helice—are associated with earthquakes. The Roman historian Ammianus Marcellinus, who took a special interest in earthquakes and tsunamis, classifies four types of earthquakes, the first of which is called *brasmatiae*, or upheavings. Motions deep under the ground lift up the earth from within, much like a giant tide. This is how Delos and Rhodes came to the surface. Another type, the *chasmatae* or gapings, suddenly open abysses and swallow up parts of the earth. This is what happened to Atlantis and Helice. As the name suggests, this disaster invokes the *chasma* of Tartarus itself, and indeed, Ammianus concludes by saying that these places

sank “into the deep abysses of Erebus, and lie hidden in eternal darkness” (17.7.13).⁸³⁷

For Theophrastus, Philo and others, the relation between Delos’ rising and Helice’s sinking is important as a compensatory geological feature. This balance between the rising and sinking of islands forms the counterargument against those who say that the finitude of the universe is proven by the fact that the sea is receding. The answer, according to Theophrastus and Philo, is that the oceans are in fact *not* diminishing, because the emergence of some islands is compensated by the submersion of others, especially such large ones as Atlantis (Phil. *De Aet.* 138-42).

While the emphasis in the Archaic period may lie on Delos as a wandering rather than a seismic island, the mobility of Delos has been associated with earthquakes as early as Herodotus. As we have seen in Chapter One, Herodotus refers to an oracle in which Apollo declares that he “will move Delos, unmoved though it is” (κινήσω καὶ Δῆλον ἀκίνητόν περ ἑοῦσαν, Hdt. 6.98.3). Herodotus—and with him, Thucydides—interpreted this *kinesis* as the shaking of an earthquake. For Herodotus, the earthquake constituted a *τέρας* by virtue of its divinatory signification. But the tradition of Delian mobility suggests that there is more to its movement than seismic activity. The question whether the earthquake is imagined (as it certainly seems to be, based on the archaeogeological research that has found a notable lack of seismic activity on Delos), while relevant, is less interesting than the question what this movement *signifies*. The earthquake turns Delos into a sign.

⁸³⁷ *ad Erebi profundos hiatus abactae, aeternis tenebris occultantur*

Herodotus considers the island's seismic *kinesis* an ominous sign for evil yet to come; in Pindar, it is precisely the sudden halt in the island's kinetic ability that is recognized as a sign.⁸³⁸ This Pindaric fragment, which we have referenced before, addresses the island of Delos/Asteria as an ἀκίνητον τέρας (Pi. Fr. 33c ed. Snell):

Hail, O god-built one, offshoot (ἔρνος) most desirable
to the children of Leto with the shiny locks,
daughter of the sea, immobile *teras* (ἀκίνητον τέρας)
of the broad earth (χθονὸς εὐρείας), whom mortals
call Delos, but the blessed ones on Olympus
call the far-shining star of the dark-blue earth (τηλέφαντον κυανέας χθονὸς
ἄστρον).⁸³⁹

Pindar's use of the word ἔρνος, the term for a young sprout that shoots up out of the ground, might suggest the vertical movement of the island being rooted. Still, the *kinesis* in question here need not be narrowly defined as either the vertical movement of the island rising out of the sea, and her roots being fastened, or as the horizontal movement of her wandering. Her sudden lack of mobility, rather than an excess of it as in Herodotus, is perceived as a sign, a τέρας. She is the daughter of the sea and an immobile τέρας of the earth, straddling two contrasting elements, one shift and one stable.

But the phrase χθονὸς εὐρείας ἀκίνητον τέρας sets up another contrast. This contrast involves different vantage points, namely that of βροτοί, mortals, and that of μάκαρες, the blessed gods. For mortals, Delos' immobility is a τέρας—a strange, counter-

⁸³⁸ Rusten thinks *kinesis* never refers to the shocks of earthquakes, but see Hesychius, the scholiast on Callimachus, and Pindar himself, as Rusten acknowledges. It is also not so relevant, because from a semiotic perspective, any movement (whether an earthquake or something else) can become a sign.

⁸³⁹ χαῖρ', ὦ θεοδ' μάτα, λιπαροπ' λοκάμου / παίδεσσι Λατοῦς ἱμεροέστατον ἔρνος, / πόντου
θύγατερ, χθονὸς εὐρεί- / ας ἀκίνητον τέρας, ἅν τε βροτοί / Δᾶλον κυκλήσκοισιν, μάκαρες δ' ἐν
Ὀλύμπῳ / τηλέφαντον κυανέας χθονὸς ἄστρον.

intuitive sign whose occurrence suggests divine agency. The island's sudden stability is explained by Apollo's anchoring the island in the ocean, thus uniting the daughter of the sea with her mother. From the vantage point of the heavenly gods, Delos is an ἀκίνητον τέρας in a different way.⁸⁴⁰ The gods view Delos as a “far-shining star of the dark-blue earth” (τηλέφαντον κυανέας χθονὸς ἄστρον), no longer a wandering star but a fixed star, an ἄστρον ἀκίνητον (Poll. 4.156)—and the story of Asteria's plunge from heaven is undoubtedly at work here too. The two uses of χθονός set up a contrast between Delos as the “immobile sign of the broad earth,” as viewed horizontally by humans, and the “far-shining star of the dark-blue earth,” as viewed vertically by the gods. For the gods, Delos appears not as a marvelous τέρας but as a stable τέκμαρ. Even though the word τέκμαρ itself is not mentioned, the parallels between ἀκίνητον τέρας and τηλέφαντον ἄστρον suggest the difference in perception of Delos-as-sign as that between τέρας and τέκμαρ. The rare adjective τηλέφαντος / τηλεφανής (“far-shining”) provides a clue. The word only occurs once in Homer, in a passage about the funeral pyre of Patroclus and Achilles, which was briefly discussed in the previous chapter in the context of the immobilized horses of Achilles. The tomb is situated on a projecting headland near the Hellespont, “that it may be far-shining (τηλεφανής) from over the sea both to those that now are and those who will exist hereafter” (*Od.* 24.83-4).⁸⁴¹ The tomb, by virtue of its far-shining ability, becomes a lighthouse, a beacon of salvation for sailors battered at sea, similar to

⁸⁴⁰ Another meaning of ἀκίνητος may be operative, too. When applied to graves or sacred things, it can mean inviolate, as in “that which should not be moved” (e.g. *Hdt.* 1.187, 6.134). The juxtaposition with τέρας strengthens the connection with divine agency.

⁸⁴¹ ὥς κεν τηλεφανής ἐκ ποντόφιν ἀνδράσιν εἶη / τοῖς οἷ νῦν γεγάασι καὶ οἷ μετόπισθεν ἔσονται.

the ναυτίλοις τέκμαρ of Hecuba's tomb. The far-shining quality of Delos-as-τέκμαρ serves the same navigational and orienting function as the tomb, but now, at least in the Pindaric fragment, from the perspective of the gods. The disasterized condition of Delos—symbolized by her vertical and horizontal *kinesis*, and the unreliability of her appearing and disappearing in and out of sight at random—is lifted by her immobilization, which allows her to function as a far-shining fixed sign (a τέκμαρ).

Octopuses, Seals, and Delos *Atropos*

In mythical thought, the movement of Delos—whether vertical or horizontal, or both—serves to underscore her ambiguous status as an in-between space that is not bound to one realm, one element, or one location. It is this ambivalence that gives Delos the quality of a τέρας as something contrary to nature (παρὰ φύσιν). Although the horizontal movements of Delos (her wanderings) are conspicuously lacking in the *Homeric Hymn* dedicated to Delian Apollo, the island herself expresses the fear of being submerged. She wishes to extract guarantees from Leto that Apollo will in fact honor her after he is born on Delos, because her soil is so hard and rocky (*HH*. 3.72-5, 77-78):

And having overturned (καταστρέψας) me with his feet, he would push me in the waters of the salty sea (άλος ἐν πελάγεσσιν),
where great waves (μέγα κῦμα) will forever plentiful wash over my head.

...

Octopuses (πουλύποδες) will build their chambers in me, and black seals (φῶκαί) will build their homes, free from worry, because I lack people.⁸⁴²

⁸⁴² ποσσὶ καταστρέψας ὥσῃ ἅλως ἐν πελάγεσσιν. / ἔνθ' ἐμὲ μὲν μέγα κῦμα κατὰ κρατὸς ἅλις αἰεὶ / κλύσσει, ... / ... / ... / πουλύποδες δ' ἐν ἐμοὶ θαλάμας φῶκαί τε μέλαιναι / οἰκία ποιήσονται ἀκηδέα χήτεϊ λαῶν·

Delos uses the language of shipwreck: the formulaic unit μέγα κύμα κατά occurs, besides this instance, thrice more, all in the description of Odysseus' main shipwreck, where "a great wave drove down on him from on high" (ἔλασεν μέγα κύμα κατ' ἄκρης, *Od.* 5.313; cf. 5.327, 5.461). Apollo may have the ability to anchor Delos, as he does in the later tradition, but in this hymn it is above all his power to submerge her by *turning her upside down* (καταστρέψας) that frightens the island. In this catastrophic vision, waves would wash over her as they do over Odysseus' spinning raft that is driven ἔνθα καὶ ἔνθα (*Od.* 5.327), and she would disappear entirely into the sea, pushed down "in the waters of the salty sea" (ἄλὸς ἐν πελάγεσσιν). It is no coincidence that the formula ἄλὸς ἐν πελάγεσσιν is reserved, once again, for Odysseus' shipwreck scene, where it refers to the underwater realm of Odysseus' savior, the sea-deity Leucothea. The second occurrence is also in a salvific context for storms at sea. The *Hymn to the Dioscuri* describes the "good signs" (σήματα καλά) for sailors in a storm, when the Dioscuri halt the winds and stop the waves ἄλὸς ἐν πελάγεσσιν (*HH.* 33.14-6).

The disasterized state of the shipwreck imagery also helps to explain Delos' puzzling comment that "octopuses" (πουλύποδες) and "seals" (φῶκαι) will make their homes in her. Part of the point is that she becomes a habitat for animals rather than for human beings, something which, due to her rocky and infertile soil, may already be the case. The two animals that are named are highly significant, as they connect both to the shipwreck theme and the notion of spatial ambivalence that characterizes the disasterized condition. Seals, to start with, are the liminal animal par excellence. They live both on land and on sea, crossing the boundaries between these realms. In Homer they are referred to as κήτεα, "sea-monsters," who dwell in the depth of the sea but come on land

to sleep on the sandy shores (*Od.* 4.446, 452). The reference is to the island of Pharos, where a shipwrecked Menelaus and his crew hide under the foul-smelling skins of seals to ambush the prophetic sea-deity Proteus, in order to extract a *tekmar* and a *poros* from him.

From their first appearance in Homer to the descriptions of Aristotle and Aelian, the seal is consistently thought of as a mediator between the dry and the wet, inhabiting the liminal spaces between land and sea along the coast. In the *Hymn to Delos*, Callimachus nods to the *Homeric Hymn* when Hera describes the island where Leto will give birth as a place “where seals of the deep breed on the deserted rocks” (σπιλάδεσσιν, *Cal. HDel.* 242-3). The Homeric word σπιλάς refers to a rock over which the sea dashes, the liminal space between land and sea that is inhabited by seals, octopuses, and that characterizes the disaster state of Delos (cf. also said of the Planctae, *Ap. Arg.* 4.788, 932). All amphibious creatures—which include cuttlefish, molluscs, and so forth—join elements that Zeus’ cosmology has demarcated as separate. Through these animals, the elements “exchange reciprocal pledges” (*Opp. Hal.* 1.412) just as they did when they joined forces for the storm that destroyed the Achaean fleet returning from Troy. These animals, as Detienne and Vernant point out, “are, in a way, analogous to those ‘roots’, ‘sources’, ‘extremities’ mentioned by Hesiod, which merge into each other and become confused together in the depths of Tartarus.”⁸⁴³ The analogy between the seal and the floating island is now beginning to take shape. Half connected to the rigidity of land, and half connected to the fluidity of water, Delos sometimes moves horizontally buffeted by

⁸⁴³ Detienne and Vernant 1991: 173 n. 134.

the winds, and sometimes vertically, rising up or being submerged into the intractable sea by Apollo, or, as the later tradition would have it, earthquakes.

The octopus lays bare another element of Delos' ambivalent status as an island. The octopus is mentioned once in Homer, where it is part of a simile describing Odysseus' shipwreck. As Detienne and Vernant have shown, the elusive octopus exemplifies *metis* (cunning-intelligence).⁸⁴⁴ The octopus is a πολύπλοκος being, an interlacing network of countless, tangled arms that also belong to the confusing multiplicity of such semiotic monsters as Typhoeus, who is similarly described as πολύπλοκος (Pl. *Phaedr.* 230a). This quality also applies to humans. Odysseus, whom Eustathius calls an octopus, is the human embodiment of *metis* par excellence.⁸⁴⁵ Theognis urges his listeners to be like the octopus as he recommends presenting different aspects of oneself to each of one's friends: "Take up the disposition of the octopus with its many coils (πολυπλόκου), which takes on the appearance of the rock to which it clings. One day follow this way, another day, take on a different color. Cleverness (σοφίη) is better than inflexibility (ἀτροπίης)" (Thgn. 214-7).⁸⁴⁶ The suggested ideal is that of the *polutropos* man, the one who, like the octopus, excels in twisting and turning, revealing new faces on every occasion. The epithet is applied to Odysseus (*Od.* 1.1) as well as to Hermes (*HH.* 4.13). This contrasts with the rigidity and inflexibility (*atropia*) of those devoid of such wily cleverness.

⁸⁴⁴ Detienne and Vernant 1991: 27-54.

⁸⁴⁵ Eust. p. 1318, 36ff. See also Detienne and Vernant 1991: 52 n. 91.

⁸⁴⁶ πολύπου ὀργὴν ἴσχε πολυπλόκου, ὃς ποτιπέτρη, τῇ προσομιλήσῃ, τοῖος ἰδεῖν ἐφάνη. νῦν μὲν τῇ δ' ἐφέπου, τότε δ' ἄλλοῖος χροῖα γίνου. κρέσσων τοι σοφίη γίνεται ἀτροπίης.

The state of *atropia*—an immovable condition in which turning is impossible—may provide another clue to understanding Delian (im)mobility. The word has decidedly negative connotations: Hesychius glosses it as μεσονύκτιον (midnight) and ἁωρία (wrong time, unseasonableness). The adjective ἄτροπος (“not to be turned, inflexible”) is applied to Hades, and is also the name of one of the Fates, or Moirai. As the children of Themis, goddess of stability, fixity and good order, the Moirai represent the inflexibility of fate, which cannot be turned. In the *Hymn to Delos*, Delos herself is referred to as ἄτροπος, in the line “That one—windswept and ἄτροπος and wave-beaten as she is, rather more a course for the sea gull than for horses—is fixed (ἐνεστήρικται) in the sea” (*HDel.* 11-3).⁸⁴⁷ The epithet has long puzzled commentators. Several emendations have been proposed on the grounds that ἄτροπος has a positive meaning (“unturned,” i.e. not shaken by earthquakes) and seems at odds with the other, negative adjectives. Scholiasts have glossed it as ἀκίνητος and ἄσειστος, associating unmovability and unshakability; the scholiast refers in fact to Thucydides’ comments on Delos’ seismic status. Another scholiast has glossed it as ἀγεώργητος (“uncultivated”). This explanation, which refers once again to Delos’ rocky soil that cannot be turned by the plough and hence is uncultivated, suits the reference to the unsuitability for horses. This use of ἄτροπος, in the meaning “unturned” by the plough, would be unique. While this would provide the negative meaning that fits the other adjectives, and fits the tradition of Delos’ poor soil, there is another solution, in which it must be assumed that the meaning “unmoved” is, in

⁸⁴⁷ κείνη δ’ ἠγεμόεσσα καὶ ἄτροπος †οἶά θ’† ἀλιπλήξ / αἰθυίης καὶ μᾶλλον ἐπίδρομος ἤεπερ ἵπποις / πόντῳ ἐνεστήρικται.

fact, negative—at least on some level. As a wandering island, Delos may have eluded and confused sailors, but her movability represented the ability to be *polutropos*, twisting and turning like an octopus, which allowed Asteria to avoid the embrace of Zeus, similar to how Thetis avoided the embrace of Peleus through the twists and turns of metamorphosis. Apollo’s intervention consists in halting the horizontal and vertical movements; it is this divine intervention, resulting in a sudden lack of mobility, that makes Delos a τέρας ἀκίνητος.

To be sure, this is a salvific moment for Delos. Her newfound *atropia* at the hands of Apollo removes this kinetic ability to either be overturned and hence submerged (as she had initially feared) or to roam the seas, drifting on the wind, blown ἔνθα καὶ ἔνθα in a state of whirling confusion. Instead of being παρὰ τόπον, she is now the center of things, and “the islands have formed a circle around and about you, and surround you as a chorus” (*HDel.* 300-1). The geography is reshaped as the other islands encircle Delos—hence the name Cyclades, according to some ancient commentators. The emphasis on choral performances, with music “resounding on all sides” (ἀμφιβόητον) deep into the night (the arrival of Hesperus usually signals silence), links the new Delos to the Muses, whose song sanctions the rule and order of Zeus.

“An Island By Mortals Unnamed”

One comparative piece of evidence can be offered to support the argument that, in the Greek imagination, the mobility of islands is associated with disaster, and with the mentality of divining disaster directly as well. A historical example recorded in Plutarch’s dialogue *The Oracles at Delphi No Longer Given in Verse* tells how an island

rose out of the depths of the sea right around the time when Rome's hegemony was being established across the Mediterranean to the detriment of other nations. What is more, Plutarch cites a set of oracular verses that prophesies and explicitly links the sign (the τέρας of the disaster island) and the event (the ascendancy of Rome) (Plut. *Mor.* 399 C-D, transl. Babbitt):

And then again these lines about the island which the sea cast up in front of Thera and Therasia, and also about the war of Philip and the Romans:

‘But when the offspring of Trojans shall come to be in ascendant
Over Phoenicians in conflict, events shall be then beyond credence;
Ocean shall blaze (λάμψει) with an infinite (ἄσπετον) fire, and with rattling of
thunder
Scorching blasts through the turbulent waters shall upward be driven;
With them a rock, and the rock shall remain firm fixed (στηρίζεται) in the ocean,
Making an island by mortals unnamed; and men who are weaker
Shall by the might of their arms be able to vanquish the stronger.’

The fact is that these events, all occurring within a short space of time—the Romans' prevailing over the Carthaginians by overcoming Hannibal in war, Philip's coming into conflict with the Aetolians and being overpowered by the Romans in battle, and finally an island's rising out of the deep accompanied by much fire and boiling surge—no one could say that they all met together at the same time and coincided by chance in an accidental way (κατὰ τύχην καὶ αὐτομάτως); no, their order makes manifest their prognostication (ἀλλ' ἡ τάξις ἐμφαίνει τὴν πρόγνωσιν).⁸⁴⁸

This event may well describe the result of actual volcanic activity in the region around Thera (Santorini). The oracular lines clearly associate the island's rising out of the sea with negative cosmology: the visual seascape is dominated by the ocean set ablaze (the

⁸⁴⁸ καὶ τὰ περὶ τῆς νήσου πάλιν, ἣν ἀνῆκεν ἢ πρὸ Θήρας καὶ Θηρασίας θάλαττα, καὶ περὶ τοῦ Φιλίππου καὶ Ῥωμαίων πολέμου· « ἀλλ' ὅποτε Τρώων γενεὰ καθύπερθε γένηται / Φοινίκων ἐν ἀγῶνι, τότε ἔσσειται ἔργα ἄπιστα· / πόντος μὲν λάμψει πῦρ ἄσπετον, ἐκ δὲ κεραυνῶν / πρηστήρες μὲν ἄνω διὰ κύματος αἰξουσιν / ἄμμιγα σὺν πέτρᾳ, ἢ δὲ στηρίζεται αὐτοῦ / οὐ φατὸς ἀνθρώποις νῆσος· καὶ χείρονες ἄνδρες / χερσὶ βηισάμενοι τὸν κρείσσονα νικήσουσι. » τὸ γὰρ ἐν ὀλίγῳ χρόνῳ Ῥωμαίους τε Καρχηδονίων Δπεριγενέσθαι καταπολεμήσαντας Ἀννίβαν, καὶ Φίλιππον Αἰτωλοῖς συμβαλόντα καὶ Ῥωμαίοις μάχῃ κρατηθῆναι, καὶ τέλος ἐκ βυθοῦ νῆσον ἀναδύναι μετὰ πυρὸς πολλοῦ καὶ κλύδωνος ἐπιζέσαντος, οὐκ ἂν εἶποι τις ὥς ἀπῆντησεν ἅμα πάντα καὶ συνέπεσε κατὰ τύχην καὶ αὐτομάτως, ἀλλ' ἡ τάξις ἐμφαίνει τὴν πρόγνωσιν·

epic term ἄσπετον describes the fire); the soundscape is dominated by thunder; and the spatial disorientation is represented by the raging waters that are up instead of down. This is a scene of disorientation that evokes primordial chaos; the island's vertical mobility (the rock that is being driven upward) upsets the usual boundaries and separations between the different elements, as the island, like Delos, becomes "fixed" (στηρίζεται, cf. ἐνεστήρικται, Cal. *H.Del.* 13) in the ocean.

In this case, the island's emergence is already part of a semiotic context, namely that provided by the oracle. Whether created *post eventum* or not, it is presented as a genuine oracle in Plutarch's narrative. The island's dramatic appearance need not be explained; rather, it helps explain what is going on in terms of the political events that are at play. It serves as an orienting marker (τέκμαρ) in the signifying system of the oracle. Contextually, the island's significance is that it coincides with the other events, and thus suggests intentionality rather than mere chance (τύχη). Whether Plutarch envisions a symbolic reading, too, in which the island's unexpected ascendancy represents Rome's unlikely rise, is not clear, but certainly possible. What is beyond doubt, however, is the idea that the unexpected mobility of islands is readily interpreted as a sign, and incorporated in a semiotic and divinatory framework accordingly. In its wondrous appearance, the island suggests divine agency, thus functioning as a τέρας, and in turn becomes a fixed sign, thus functioning as a τέκμαρ, both physically in the seascape of the Mediterranean and semiotically in the interplay between prophecy and event, between sign and referent.

Conclusion

Then a strange blight crept over the area and everything began to change. Some evil spell had settled on the community: mysterious maladies swept the flocks of chickens; the cattle and sheep sickened and died. Everywhere was a shadow of death.⁸⁴⁹

The general consensus is that Rachel Carson's prophetic imagery in *Silent Spring* (1962) launched the modern environmentalist movement.⁸⁵⁰ The book opens with a picturesque view of rural America, where all life is in harmony, punctuated by a soundscape of birdsong, "the dawn chorus of robins, catbirds, doves, jays, wrens"⁸⁵¹ But the soundscape is transformed by an apocalyptic lack of such aural signs: the term *silent spring* refers both to the loss of birdsong, and, more generally, to the "strange stillness" that has contaminated this once idyllic scene. The eco-catastrophe that Carson describes, which is fueled by the indiscriminate use of pesticides and chemicals, includes a normative component: one road, she tells her readers, is "deceptively easy" and leads to "disaster;" the other is "our only chance to reach a destination that assures the

⁸⁴⁹ Carson 2002 [1962]: 2.

⁸⁵⁰ Garrard 2012: 1

⁸⁵¹ Carson 2002 [1962]: 2.

preservation of our earth.”⁸⁵² This sense of moral and political activism still motivates eco-critical scholarship today. Richard Kerridge, for example, defines ecocriticism as “[seeking] to evaluate texts and ideas in terms of their coherence and usefulness as responses to environmental crisis.”⁸⁵³ The concept of “environmental crisis” is problematic, as it is presented as a monolithic and universal principle. The challenge for ecocritics is to recognize both that ‘nature’ is always in some way culturally constructed, and at the same time that nature really exists, ‘out there.’⁸⁵⁴ But the normative claim of ecocriticism—its cultural rather than scientific provenance—is all too relevant at the conclusion of the present study. Indeed, as Greg Garrard put it, “ecocriticism cannot contribute much to debates about problems in ecology, but it can help to define, explore and even resolve ecological problems in a wider sense.”⁸⁵⁵ This research hopes to have contributed to precisely such problems. The environmental objects of this study—from the ominous eclipse in Pindar’s *Paean* to the petrified Phaeacian ship in Homer’s *Odyssey*, and from the tidal wave washing over Helice to the strange seismic and semiotic behavior of Delos—have all aided in the exploration of what can be described as an overarching ecological problem: how to make sense of disaster.

⁸⁵² Carson 2002 [1962]: 277.

⁸⁵³ Kerridge 1998: 5.

⁸⁵⁴ Lawrence Buell has called this “a myth of mutual constructionism” (Buell 2001: 6). See also Garrard 2012: 10-11.

⁸⁵⁵ Garrard 2012: 6. The distinction between “problems in ecology” and “ecological problems” is made by John Passmore, who describes the former as properly scientific issues, and the latter as “features of our society, arising out of our dealings with nature, from which we should like to free ourselves, and which we do not regard as inevitable consequences of what is good in that society” (Passmore 1974: 44).

Unlike Carson's *Silent Spring*, none of the ancient texts we have surveyed and discussed call for social and political action to change human behavior regarding the natural environment; but like Carson's monumental work, they can be analyzed as part of *disaster discourse*, that is, as the production and transformation of metaphors, analogies, narrative, images, and other instruments and effects of meaning-making. It has been my hypothesis that a key expression of this process of meaning-making is found in Herodotus' remark that "there are usually signs beforehand, whenever great disasters occur" (6.27). As I have argued in Chapter One, this remark, which Pausanias would echo several centuries later in his discussion of the Helice disaster, characterizes, and is informed by, the mentality that has been at the heart of this study: *divining disaster*, the hermeneutic process of making sense of disaster by embedding it in a system of signs. Disaster, as Chapter Two has shown, tends to disrupt meaning itself by dislocating signs; hence, disaster (whether 'natural' or not) also emerges as an ecological problem insofar as it represents the implicit normative claim that, put simply, something has gone *wrong* in the environment. This can be expressed with the phrase *παρὰ φύσιν*, through the disaster triad of plague-famine-war, or through such geographical experiences as feeling out-of-place. Indeed, *what* exactly is imagined to have gone wrong, and *how* this is expressed in the language and imagery produced by the textual evidence of Ancient Greek culture, has been an important part of this study, a part that is best described as the ancient Greek phenomenology of disaster.

Starting with Chapter One, this research has sought to demonstrate that the tendency to associate signs with disaster, and to associate intentionality and agency with such phenomena as earthquakes and plagues—in other words, to see disasters *as signs*—

can be understood as a cognitive attribute that may well be universal to humankind. At the same time, I have explored the semiotic apparatus that is culturally specific to the Greeks and their language. In mapping the role of signs in various semiotic practices in archaic and classical Greek literature, and their relationships to each other, I have identified the terms τέρας and τέκμαρ / τεκμήριον as key concepts with which to understand *divining disaster* as a semiotic practice. In particular, I have argued for the importance of the logical operation known as *abduction* in understanding the workings of *divining disaster* on a cognitive level, for which the ideas of C.S. Peirce, whose semiotics is currently enjoying a revival across the humanities, have been instrumental. The recognition of the sign as something out-of-place or contrary-to-nature (τέρας) starts the process of inference to understand the event at hand. What makes the ancient Greek context stand out is the possibility that prophecy, or any true oracular sign, can take the place of the *rule* in the inference, thus redering the knowledge obtained via the abductive process a certainty rather than mere guesswork. This process—and the mentality that it supports—is operative across genres, including, for example, in Homer’s *Odyssey*, Herodotus’ *Histories*, and Aeschines’ *Third Oration*. This research thus continues the trend of taking divination, and the logical principles on which it is based, seriously as a form of cognition. What is more, it contributes to the study of ancient divination insofar as divination is more broadly understood as a semiotic practice not just concerned with *heuristics* (seeking knowledge) but also *hermeneutics* (constructing meaning).

The process of meaning-making is intimately connected to the concept of *disaster* itself, as I have argued in Chapter Two. The notion of *defining disaster* touches upon the indeterminateness of the sign “disaster,” something which is on display the very moment

the word enters the English language in Shakespeare's *Hamlet*. Thus Chapter Two, which is concerned with the concept of disaster, its etymology, and its historical development, reveals the philosophical imperative to turn the disaster-as-event (unexpected, unannounced, unanticipated) to the equivalent of a sign. Besides contributing to the conceptual history of disaster by tracing the term to the works of classical reception in French humanism, my research presents a comprehensive disaster lexicon based on etymology as well as translation, with the assumption that such important roots as **kel* (strike) and **kad* (fall) give insight into the phenomenology of disaster, the meaning of which oscillates between that of a random accident and a purposeful misfortune. This abstract sense of disaster is complemented by an examination of the concrete instances of disaster in Greek literature (e.g. Thucydides' disaster list), which leads to the conclusion that the triad plague-famine-war serves as the main reference point in the ancient Greek imagination of disaster, furnishing many of its symbols, metaphors, and analogies.

In Chapters Three and Four, I have demonstrated the applicability of these concepts to historical contexts (e.g. the Helice disaster) as well as literary contexts (e.g. the Argonauts), with a particular view to the *representation* of disaster in text. Making sense of disaster happens *within* as well as *through* narrative. What is so fascinating about the so-called religious response to Helice is that by positing a divine agency (Poseidon) rather than a random natural principle, the meaning of the disaster rests invariably with those who are to blame. Responsibility cannot be deflected onto a faceless Nature, who, however much she may be personified and anthropomorphized when disaster strikes (as shown in Chapter Three), is often blamed in what Michel Serres has called the modern constitution of post-Enlightenment logic and science. All disaster

then becomes not just socially constructed, but genuinely anthropogenic. Carson's section on the idyllic American landscape and soundscape at the opening of *Silent Spring* concludes: "No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves."⁸⁵⁶ This sentiment of self-inflicted disaster, which is so characteristic of the apocalyptic voices in the Anthropocene, signals a secular return to the ideas found from the Iliadic plague, to Heracles' suffering, and Diodorus' interpretation of Helice, namely that *the people had done it themselves* as well as *to themselves*. The divine agency of Poseidon does not operate randomly, but in a targeted and purposeful manner, an experience that, in a secular sense, is still present in such modern metaphors of hurricanes as monsters, picking off its victims one by one.

The Helice narratives also reveal the importance of the visibility vs. invisibility of signs, and I have demonstrated the particular role that Poseidon's disaster agency plays in covering things up, on the one hand, and exposing things, on the other. But the significance of this theme goes further, as Chapter Four has shown: the lack of signs and overabundance of signs are part of the problem of disaster representation, which, on the one hand, can take the form of the so-called spectacle of absence (nonrepresentation) or the banality associated with overrepresentation. In joining anthropological and sociological disaster research with classical texts, I hope to have shown that *divining disaster* has an important geographic component. The loss of orienting markers and the utter absence of signs constitute, phenomenologically speaking, the disaster state. In this state, which is captured by the tagline from the movie *The Poseidon Adventure*, "Hell

⁸⁵⁶ Carson 2002 [1962]: 3.

Upside Down,” meaning must be restored by orienting oneself on fixed markers, which correspond to the concept of τέκμαρ, associated with the indexical sign. They may come in the form of footprints in the vast expanse of the desert, as the seemingly random spots in which a sacred sheep chooses to lie down, or the sudden gleam of an island, shining like a star to light up the paths across the expanse of the ocean. The instability of such transitory and unreliable environmental phenomena as clashing rocks, moving islands, and monsters such as Typhoeus threaten to disturb the semiotic order of the landscapes and soundscapes in which they occur. Their significance in the ancient Greek imagination, I have argued, can be illuminated in the context of the mentality of *divining disaster*: they are disorienting elements whose overabundance of signs or utter lack thereof (Carson’s “strange stillness”) disrupt the process of meaning-making, particularly in such geographic and environmental contexts as navigation at sea and wandering on land, on the one hand, and being fettered and bound, on the other.

In sum, “Divining Disaster: Signs of Catastrophe in Ancient Greek Culture” has taken a semiotic perspective to show how signs—divinatory signs in particular—are employed in a hermeneutic form of disaster management. Modern scholarship has long viewed ancient disasters either as an empirical reality, overlaid with modern categories and assumptions about what constitutes a disaster, or as a demonstration of the primitive and superstitious fear of divine punishment. This research, by contrast, has focused on the cognitive modes involved in making sense of disaster, and argues that disaster partakes of a coded system of signs between the human, the natural, and the divine. One framework for semiotic expressions in Ancient Greek culture is divination, and while divination is increasingly taken seriously as a form of cognition, this study has aimed to fill the

demand for a more comprehensive overview of the semantics, typologies, and logic of semiotic strategies in ancient Greek thought by drawing on the work of C.S. Peirce, Carlo Ginzburg and others. This dissertation has thus brought together the cognitive study of divination and the comparative historical study of disaster experiences, ultimately revealing that the logic that connects signs with disaster still permeates modern disaster discourse today. If there is anything to “learn from disaster,” as some would have it, my research suggests that disasters reflect the cultural imperative for a hermeneutic management of uncertainty. And here lies, I think, the ecocritical value of this study: at a time when our environment is perceived as increasingly perilous, the transhistorical study of disaster, and in particular of the phenomenology of disaster as found in ancient Greek literature, may serve us in situating our own experience of disaster within the *longue durée* of disaster discourse.

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