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DROWNING BY NUMBERS PYTHAGOREANISM AND POETRY IN HORACE ODES 1.28

By ARMAND D'ANGOUR

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at tu, nauta, vagae ne parce malignus harenae
ossibus et capiti inhumato
particulam dare: sic, quodcumque minabitur Euris 25
fluctibus Hesperii, Venusinae
plectantur silvae te sospite, multaue merces,
unde potest, tibi defluat aequo
ab Iove Neptunoque sacri custode Tarenti.
neglegis immeritis nocituram 30
postmodo te natis fraudem committere? fors et
debita iura vicesque superbae
te maneant ipsum. precibus non linquar inultis,
teque piacula nulla solvent.
quamquam festinas, non est mora longa; licebit 35
iniecto ter pulvere curras.

You were the man who measured sea and earth
 and sand beyond number, Archytas:
 now offerings of wispy dust confine you near the Matine
 shore, and you've gained nothing from assailing the
 domains of heaven and ranging with your mind the
 circumference of the sky, since you were destined to die. 5

Even Pelops' father [Tantalus] died, the gods' dining-
 companion, and Tithonus who was whisked away to the
 winds, and Minos, who was privy to the secrets of Jupiter;
 and Hell holds Panthoides [Pythagoras], who descended,
 twice, to Orcus – despite proving by the unhooked shield 10
 that he had lived in Trojan times and had yielded up to
 dusky Death nothing besides guts and flesh.

In your judgement, he was no mean exponent of nature
 and truth. But for all of us one night awaits, and the 15
 road of Oblivion must be trodden but once.

Some the Furies give up to grim Mars for entertainment.

The devouring sea spells destruction for sailors.

The queues of the dead are swollen, mixed with young
 and old together. From none does unforgiving Proserpina shrink. 20

I too was overwhelmed in the Illyrian waves by the driving
 South Wind which comes with the setting of Orion.

But you, sailor, do not unkindly begrudge granting
 my bones and unburied head a measure of loose sand. In
 return, whatever threat the East Wind makes against the 25
 Hesperian sea, may the Venusine woods be battered while
 you stay unscathed, and may great bounty from every
 quarter pour down on you, from fair-dealing Jupiter and
 from Neptune, protector of holy Tarentum.

Are you unconcerned about committing a crime that will 30
 bring harm to your innocent descendants? It may be that
 rights withheld and penalties for disdain await you

yourself. I won't be left with my prayers unanswered, and
 no atonement will ever absolve you. Though you're in a
 hurry, it won't take long. Toss in three handfuls of dust 35
 and you may speed on your way.

The musings of a drowned man might seem on the surface to be an unpromising theme for poetry. But I will suggest that some of the Ode's interpretative cruxes dissolve when we recognize how, with reference to popular Pythagorean tradition, Horace connects the notion of drowning to immortality, and immortality to numbers (hence the title of this paper).¹ In turn, the notion of numbers, *numeri*, connects to poetry itself, and thence to a familiar Horatian theme of 'poetic immortality'.

The Ode falls into two main sections. An extended apostrophe to Archytas of Tarentum, the famous fourth-century Greek mathematician, astronomer, and Pythagorean philosopher (1–22), is followed by an appeal to a passing sailor for burial (23–36). Only when we come to the final couplet of the first section (*me quoque . . .*) does the poem reveal itself to be a monologue uttered by the ghost of a drowned man. Horace has added few explicit indications of the background or narrative context, and the poem has raised questions to which scholars have laboured to find satisfactory answers. What is the imagined scene and setting, and why has the poet chosen them? What does the selection of mythical figures signify? Who is the speaker meant to be, and why does he address his opening reflections to Archytas? What is the poetic significance of the Ode's Pythagorean undercurrents?

While the apparent change of addressee at line 23 strikes an unexpected note, commentators have noted that the composition as a whole exhibits a high degree of formal coherence.² A handful of references establish a uniform topographical perspective: *litus Matinum* (3), the locus of Archytas in death as in life, is linked to the sailor's vicinity (29, *Tarenti*) and to Horace's own native region of Venusia (26–7, *Venusinae silvae*).³ In addition, a number of thematic correspondences bind the two main sections of the poem together. The opening verse rolls out (with appropriate alliteration of *r*) the impressive trio of sea, earth and numberless sand; by contrast, the required *munera*

¹ As the title is not intended to make any allusion to the Peter Greenaway film so named (UK, 1988), perhaps it may qualify as an example of a 'free-floating' intertext.

² R. Nisbet and M. Hubbard, *A Commentary on Horace Odes Book I* (Oxford, 1970), 319, state 'The two parts of the poem do not perfectly cohere'; but K. Quinn, *Horace, The Odes* (Bristol, 1980), 174–5, argues that 'the two halves of the ode are held together by the reversal of attitudes'.

³ Cf. D. West, *Horace Odes I: Carpe Diem* (Oxford, 1995), 134.

of sand are *parva* (3) as specified in final verse (36, *ter*). The *harena* subjected to measurement by Archytas (1) eludes the grasp of the unburied man (23, *vagae . . . harenae*). *Pulvis* now confines the geometer (3); *pulvis* is what the speaker demands and entreats for his ritual burial (36). And shortly after learning of the sea's deadly hunger for *nautae* (18), the merchant himself is addressed with the words *at tu, nauta* (23).

Further verbal and aural echoes abound. Archytas' mind is said to have scoured (6, *percurrisse*) the globe; the sailor will resume a humbler course (36, *curras*) through the waves. The mathematician, faced with an infinite quantity of sand, was calculating (3, *ensor*); the sailor must not spare (23, *ne parce*) a few grains. Archytas, *moriturus* (6), was not mindful of his mortal destiny; the sailor should take care not to perpetrate a criminal neglect that is *nocitura* (30). Death awaits all (15, *manet*); dire penalties await the neglectful (33, *maneant*). Tartarean realms contain (9, *habent*) Pythagoras; a few handfuls of dust confine (2, *cohibent*) his follower. The former conceded his material body *Morti atrae* (13); the Furies make others showpieces *torvo Marti* (17).

Further suggestive verbal links contribute to the cocoon of correlations. For instance, Orion's descent down the sky (21, *devexi*) seems to mirror the philosopher's descent to Orcus (11, *demissum*). There Minos, once accepted into the gods' counsels (9, *admissus*), now acts as judge in the Underworld; Proserpina too is a judge in Hades, passing harsh judgement on every *caput* (20) – a finality keenly sought by one still unburied (24, *capiti inhumato*). While the goddess earns the epithet *saeva* (20) by sparing none from capital sentence, the sailor is warned not to earn the epithet *malignus* (23) by sparing a few grains to ensure that the speaker can be finally dead and buried. The poet's choice and disposition of words create unspoken, ironic resonances. Notus is described as Orion's *rapidus comes* (21); but Proserpina too, like Orion, once descended below as Hades' *rapta comes*. We know that Minos traditionally sits there as *iudex*; but when *iudex* occurs here (14), it refers to Archytas' mistaken approval of his master's *auctoritas*.

The notion of threat and punishment is a recurrent theme. Archytas posed a threat to the gods' aerial haunts (5, *aërias temptasse domos*); the winds will threaten to punish the sailor (25, *quodcumque minabitur Eurus*); the speaker finally threatens the passer-by with his curse (33, *precibus non linquar inultis*). The gale whips up the Illyrian billows (22, *Illyricis . . . undis*); the sailor, fearful of the Hesperian swell (26, *fluctibus Hesperii*), will be thankful if the woods take the whipping (27, *plectantur silvae*).

The notion of gain or profit supplies a further counterpoint. Pythagoras opted for a kind of immortality (12–13); but is not mortality (15–16) a greater gain? The astronomer, assailing heavenly heights in pursuit of intellectual gain, did not profit (4, *nec quicquam tibi prodest*); by contrast, the merchant ploughing the waves may hope for a windfall from heaven as his reward for dutiful behaviour (27–28, *multaque merces / defluat*).

The utterances of a drowned speaker invite us to look beneath the surface. The intricate web of allusions and images adds a mysterious dimension to the poem's message and hints at a deeper significance. In probing the depths, we may be able to discover that the poem not only offers mysteries, but also reveals the solutions to the puzzles it presents.

The perils of immortality

The catalogue of exemplary 'immortals' illustrates how the implications underlying what is actually said should be allowed to guide our reading. In setting out to reveal the truth about immortality, the speaker takes issue with the commonly held, but in his view mistaken, suppositions of myth:

occidit et Pelopis genitor, conviva deorum,

Tithonusque remotus in auras (7–8)

Even Pelops' father [Tantalus] died, the gods' dining-companion,
and Tithonus who was whisked away to the winds.

Tantalus and Tithonus were both allegedly accorded immortality on account of their association with divinities. Here the speaker bluntly asserts that they are dead: *occidit* brooks no compromise.⁴ But one cannot and should not forget that these particular figures of myth were paradigmatic for the unhappy, cautionary consequences of their immortalization, rather than for the mere fact of being immortalized. Even the succinct phrases used to describe them, ironic in their brevity, hint at those consequences. Tantalus enjoyed the privilege of sharing his table with gods; but having served his son up for dinner (the locution *Pelopis genitor* highlights the grisly tale), he lost all credit for conviviality. The goddess of Dawn chose to elope with Tithonus to heaven; but he might have shrunk from her divine favours sooner than, *remotus in auras*, face

⁴ The brusque trisyllable at the start of the verse fills a single dactylic foot, with ictus and accent coinciding.

an eternity of growing older.⁵ In so far as the mere mention of these two figures inevitably calls to mind their miserable fates, they represent far from unambiguous exemplars of the boon of immortality which the speaker seeks to deny.

Rather than wondering at Horace's apparent inattention to detail, we should embrace the *implicit* significance of the speaker's roll-call.⁶ The horrifying consequences of their 'immortal' status – the endless torments of Tantalus, the everlasting aging of Tithonus – sound a warning that victory over Death, even were it to be available, would be bound to leave a bitter taste. The other 'immortals' in the list add weight to the message. Minos, rewarded for his sober chairmanship of the gods' councils, is hardly to be envied his royal tenure in Tartarus; we cannot fail to recall Achilles' opinion.⁷ Pythagoras, his soul incarnate in a succession of new bodies, must nonetheless tread the *via Leti*; only, in his case, he must do so time and again.⁸

Instances of the unhappy aftermath suffered by those allegedly granted immortality could be multiplied.⁹ To fates such as these, the finality of the grave with its promise of oblivion (*Letum* is Greek *Lethe*, forgetfulness) must surely be preferred. It seems hardly a coincidence that the circumstances of other figures mentioned here *en passant* resonate with the speaker's disavowal of immortality's privileges. Proserpina, Hades' divine consort, must spend part of her eternal portion in the joyless Underworld; reason, perhaps, to be *saeva*.¹⁰ Orion, once a great hunter on earth, now enjoys a less full-blooded *Nachleben* in heaven – a constellation whose waning bodes ill for sailors.¹¹ The speaker's fuller purpose comes into view: he means not

⁵ As well as recalling the goddess's name (Aurora), *remotus in auras* seems to hint at Tithonus' familiar fate of dwindling into a cicada, a creature small enough to be wafted by the breezes.

⁶ Commentators have missed this point. For instance, Nisbet and Hubbard (n. 2), 326: 'It is curious to find Tantalus in this list of privileged persons who died' and 'Tithonus: in this context even stranger than Tantalus . . . The crucial piece of evidence does not seem to have been deployed.'

⁷ Hom. *Od.* 11.489–91: 'I would rather be a serf in the house of a landless man on earth, than king over all the dead departed.'

⁸ *Iterum* strictly implies a second time, but may not preclude the possibility of further travel on the *iter Orco*.

⁹ Other notable victims of immortality include Sisyphus, Prometheus (cf. Hor. *Epode* 17.67–9), Tityos, and Ixion. Calypso thoughtfully proposes to make her lover Odysseus both immortal *and* ageless (Hom. *Od.* 5.136).

¹⁰ It might seem more natural for Horace to have written 'no *caput* escapes Proserpina' But the inversion reminds us that Proserpina herself once 'shrank from' the notoriously rapacious Hades (cf. n. 35 below): just as she did not succeed in fleeing him, now she will allow none to escape her judgement.

¹¹ In *Odes* 3.4, Horace speaks of Orion as the hunter who consorted with gods; like Tithonus, he was traditionally the beneficiary and victim of Aurora's favour (Hom. *Od.* 5.120–4).

just to deny claims to immortality, but to repudiate its false allure. His catalogue of would-be immortals serves to establish not a single, but a double-sided conclusion: explicitly, that immortality is a myth; and implicitly, that *immortality entails a fate worse than death*.

Playing with numbers

The introduction of Pythagoras as Panthoides (10) strikes a note of apparent discord with the assertion of death's finality. Pythagoras is the speaker's central and most extended *exemplum* of immortality unattained. Forerunner and inspirer of Archytas, he boasted that Death had taken his body but not his soul. He allegedly 'proved' that he had lived an earlier life as Trojan Euphorbus, son of Panthous, by recognizing the latter's shield hanging on the temple wall. The speaker claims to know better, allowing neither the possibility nor the desirability of transmigration. The spirit of the sage hovers over the Ode, even while the speaker explicitly abjures his teachings. Mortal measure is in the end insurmountable, albeit that some seek to transgress human limit by counting the uncountable. And in the end, as has been illustrated by the list of would-be immortals, death should be counted a positive and undeniable benefit.

This conclusion exemplifies on the mortal plane a more abstract, universal truth: limit (*πέρας*) is good, unlimit (*ἄπειρον*) bad. This notion was famously propounded by the philosopher for whom life and calculus converged.¹² Pythagoras' presence is ubiquitous in the poem's engagement with measurement, calculation, and the play on numbers which fleshes out the formal antithesis of *πέρας* and *ἄπειρον*. The first line refers to sand without number; the last specifies the number of handfuls needed for burial. The imagination of genius leaps across endless space (*rotundum polum*, 6); but the path to oblivion may be trodden but once (*semel*, 16). The sand is beyond reckoning (*numeroque carentis*, 1) but a little parcel (*particula*, 25) is easily grasped by hand and mind. Death's simple numerations – one night (*una*, 15), three handfuls (*ter*, 36) – offer a blunt riposte to unutterable magnitudes.

Three, the traditional number of handfuls required for burial, is the Pythagorean cosmic number *par excellence*: 'For as the Pythagoreans too say, the Whole and everything in it is comprised by the number 3; for End

¹² *πέρας* and *ἄπειρον* head the Pythagorean 'table of opposites' (Arist. *Met.* 986a22): see W. Burkert, *Lore and Science in Ancient Pythagoreanism* (Cambridge MA, 1972), 51. The basic tenet of Pythagoreans was that 'all is number' (31).

and Middle and Beginning make up the number of the Whole, that of the triad.¹³ Human computation may be unreliable: Archytas miscalculates his advantage (*nec quicquam prodest*, 4) – and he was a μαθηματικός.¹⁴ Conversely the merchant, so long as he behaves correctly, may bank on a big haul (27): in the ethical balance-sheet, profit is conditional on good behaviour. Debts cannot be avoided by *fraus* (31), duties must be honoured (32), penalties for neglect await (33). In the final reckoning, defaulters will not be forgiven (34). Death is the bottom line, Q.E.D.

Archytas was mistaken in his evaluation of Pythagorean doctrines about the afterlife (*iudice te*, 14, suggests a reproving reprise of the opening *te*). But the scholar-statesman was more than a misguided Pythagorean devotee. The speaker's address is respectful, touching off associations to the range of Archytas' admirable and varied accomplishments. In the fields of astronomy, mechanics, mathematics, and music Archytas could indeed claim a lasting memorial; even if his soul did not outlive his body, as he had believed it would, at least the products of his mind did. As an astronomer, he emulated others who dared to engage with wind, sky, and stars; as an inventor, he could boast rivalry with Daedalus by his construction of a mechanical model bird which actually flew.¹⁵ He did not shrink from seeking to transcend πέρας and ἄπειρον by subjecting the infinite to measurement. And while sands may be numberless, both Pythagoras and his follower famously investigated *numeri* of more graspable kind, the measures and proportions of musical pitch.¹⁶ Ultimately, Archytas' *monumentum* may not actually be near the *litus Matinum*, but in *numeri* – such as this *carmen* in which Horace lauds his memory.

A genius that spanned the cosmos, now confined to a small plot of ground: the contrast has an obvious and pleasing irony, but the conceit alone is insufficient to explain the range and focus of the apostrophe to

¹³ Arist. *Cael.* 268a10ff.: καθάπερ γάρ φασι καὶ οἱ Πυθαγόρειοι, τὸ πᾶν καὶ τὰ πάντα τοῖς τρισὶν ὄρισται· τελευτὴ γὰρ καὶ μέσον καὶ ἀρχὴ τὸν ἀριθμὸν ἔχει τὸν τοῦ παντός, ταῦτα δὲ τὸν τῆς τριάδος. Cf. Burkert (n. 12), 265. It would not have been lost on Pythagoras, and perhaps not on Horace, that the number of the Archytas Ode, 28, is a 'perfect number', a number whose divisors add up exactly to the number itself (28 is the second perfect number after 6).

¹⁴ Pythagoreans were divided into *mathematici* and *acusmatici*; Archytas is identified among the former (Burkert (n. 12), 198).

¹⁵ Aulus Gellius 10.12.9f. But *percurrisse polum morituro* also raises images of fatal attempts to fly, e.g. the tales of Phaethon and Icarus.

¹⁶ According to Ptolemy (*Harmonics* 30.9), Archytas 'devoted most attention, among the Pythagoreans, to music': this would include the development of the mathematical theory of music (Burkert (n. 12), 384–6). *Illyricis*, an aural antonym of *lyricis*, seems to hint that waves (*undis*) too are beyond number: the sea is 'illyrical', while poetry (*numeri*) has music and measure (*modus*).

Archytas. Moreover, in the context of the *mise-en-scène* gradually revealed by the poem, the speaker's urgings about death's finality seem less than watertight. His own soul and consciousness have evidently survived, in some form, his bodily death; and this experience alone does not entitle him to refute the possibility of transmigration, let alone immortality.¹⁷ Indeed, he begs the requisite *munera* so as not to remain *forever* in his accursed limbo: drowned at sea and deprived of the chance of due burial, his unburied spirit seems condemned to wander indefinitely, thus making him a victim of the undesirable kind of eternity he predicates of other 'immortals'.¹⁸ How can this be squared with his categorical repudiation of immortality and his derisive refutation of the Pythagorean doctrine of the soul's survival after death? The solution to this mystery seems to lurk within the Ode's centrifugal nexus of allusions to number, death at sea, limit, and the limitless.

Mortal secrets

The Ode addresses first Archytas, then the *nauta*: the unifying voice is that of the mysterious third man, the speaker himself. What he says and how he speaks seem to lead us, directly or indirectly, towards a Pythagorean point of departure. First, while Horace offers no grounds for us to assume a precise identity for the speaker, the accent is unmistakably Greek. The epodic metre used here derives from Archilochus, a poet whose thoughts often dwelt on shipwreck.¹⁹ The address to Archytas, with spondaizing vocative, takes us into the genre of Greek sepulchral epigram: *τόν ποτε μετρήσαντα . . .* ('He who once measured . . .').²⁰ Along with the traditional commonplaces, Grecizing

¹⁷ Cf. B. Frischer, 'Horace and the Monuments: A New Interpretation of the Archytas Ode (C.1.28)', *HSCP* 88 (1984), 102: 'Why does Horace fall into the blatant contradiction of putting a sermon on the finality of death into the mouth of a dead man?'

¹⁸ The impression conveyed by the Ode is that Horace's drowned spirit is addressing the passing sailor from the watery depths: the final *curras* (36) imparts a sense that the *nauta* is in mid-course on the high seas (Peta Fowler and Alex Hardie independently suggested this to me). While it is usually assumed that the speaker's unburied body is washed up on shore, the Ode gives no clear warrant for this assumption, which derives from the *topos* of Greek epitaphic tradition and the assumption that an act of ritual burial would require an actual corpse (though in fact an empty tomb could be dedicated to a drowned person whose body was irrecoverable, as was related about Hippasus of Metapontum). We may perhaps credit Horace with imaginative originality in relation to the standard tradition.

¹⁹ E.g. Archilochus 8,13,105 West.

²⁰ Nisbet and Hubbard (n. 2), 318. The 'First Archilochian metre' (dactylic hexameter followed by tetrameter as used in Odes 1.7) has been interpreted as a technique 'whereby epic material is self-consciously assimilated into lyric discourse'; see Llewelyn Morgan, 'Metre matters: some

elements accumulate insistently: words and names (*aërias, polum, Minos, Panthoides, Tartara, Notus, Eurus, Hesperiiis*), epic-style usages and epithets (*Pelopis genitor, atra Mors, torvus Mars, saeva Proserpina, sacri Tarenti*), metrical devices including hiatus and spondaic verse-end (*capiti inhumato, Orionis*).

Secondly, Tarentum was an early hub of Greek commerce and an enduring locus of Pythagoreanism.²¹ The speaker wishes the merchant success, the epithet *sacri Tarenti* suggesting a warmth appropriate to a native of the city.²² But soon his tone changes. *Precibus non linquar inultis* (33), he warns: his vengeful curses will pose no less a risk to the sailor's safety than the threats of Eurus. The menacing tone takes up notions, present in *Pelopis genitor* (7) and crystallized by *fraudem immeritis nocituram* (30), of crimes committed against the innocent, and of lingering punishment (even *silvae*, 27, may take the rap) for an act of betrayal or a dereliction of *debita iura* (32). We may recall that Tantalus, in one version of the myth, incurred divine wrath because of his illicit revelation of divine *arcana*, a fatal indiscretion and in contrast to the wiser counsels of Minos *Iovis arcanis admissus* (9). *Arcana* here, raising an echo of the ironic Horatian phrase *Pythagorae . . . arcana renati*, 'the mysteries of Pythagoras the twice-born' (*Epod.* 15.21), completes a circle of allusive associations, centred on Pythagoras, to secrets entrusted and betrayed, threats and curses, revenge, and punishment.

Where can this be leading us? To a source, I suggest, lying beyond the confines of the Ode's own words, which provides a curiously apt point of departure for meditations on Archytas, death, number, and eternity, and aligns all these elements with the speaker's stern perspective on the folly of mortality seeking to transcend its limits. In invoking Pythagorean doctrine, emphasizing the misery of immortal existence, and laying a conditional curse on the sailor, the speaker generates images which recall a particular aspect of Pythagorean tradition. While the narrative of early mathematical and geometrical discoveries is notoriously sketchy and uncertain, reaching back as it does to Pythagorean mystical doctrines subsequently overlaid by Euclid's authoritative third-century system-

higher-level metrical play in Latin poetry', *PCPS* 46 (2000), 99–120, n. 55. Here Horace, in welding different kinds of sepulchral epigrams into a single Ode, is doing something similar with elegiac material.

²¹ George Thomson, *The First Philosophers* (2nd ed., London, 1961), 249 ff. develops the theme of Pythagoras' connections with the 'merchant class'; Burkert (n. 12), 439–40 suggests that some Pythagorean number terms (e.g. fractions) were drawn from their use in a commercial context.

²² As David West (n. 3), 135 argues, 'the passing sailor is a merchant sailing out of Tarentum (line 30), else why should the guardian god of Tarentum be asked to ensure his prosperity?'

atization, a memorable legend relates to the early discovery of certain mathematical mysteries, the attempt to suppress them, and the fatal consequences of disclosure.²³ The discovery and revelation of the existence of irrational, i.e. ‘unlimited’, numbers held out the grave danger of undermining the Pythagorean dictum that ‘everything is number’ i.e. the world could be represented by whole numbers.²⁴ It was related that, as a punishment for betraying the ‘secret’, the μαθηματικός Hippiasus of Metapontum was expelled from the Pythagorean Brotherhood – and subsequently died in a shipwreck.²⁵ A scholiast on Euclid preserves a brief account of the tradition, offering a plausible explanation for why the story of Hippias’ watery end might have been conflated with the disclosure of ‘the irrational’:

τῶν γὰρ Πυθαγορείων λόγος τὸν πρῶτον τὴν περὶ τούτου θεωρίαν εἰς τοῦμφανὲς ἐξαγαγόντα ναυαγίῳ περιπεσεῖν, καὶ ὥσως ἡνίττοντο, ὅτι πᾶν τὸ ἄλογον ἐν τῷ παντὶ καὶ ἄπορον καὶ ἀνείδεον κρύπτεσθαι φιλεῖ· καὶ εἴ τις ἂν ψυχὴ ἐπιδραμοῦσα τῷ τοιούτῳ εἶδει τῆς ζωῆς πρόχειρον καὶ φανερόν τοῦτο ποιήσεται, εἰς τὸν τῆς γενέσεως ὑποφέρεται πόντον καὶ τοῖς ἀστάτοις ταύτης κλύζεται ῥεύμασιν.²⁶

The Pythagoreans say that the man who first revealed the theory of irrational numbers perished in a shipwreck. Perhaps they were playing on the idea that anything irrational in the universe, anything unfathomable or inconceivable, is supposed to remain hidden; and so if one were to come across an entity of this kind and were to make it readily available and public, one’s spirit would be tossed evermore on the sea of Nature and be buffeted by its restless currents.

The Ode’s points of contact with this account – its engagement with Pythagorean tradition, the notion of numerical limitlessness, the curse on the betrayer, the fate of death at sea and the ψυχὴ condemned to the eternal waves – seem remarkably close. Horace’s speaker is not Hippiasus, nor meant to be;²⁷ but it is clear how the poet’s acquaintance

²³ The popular furore recently generated by the solution of Fermat’s theorem (see Simon Singh, *Fermat’s Last Theorem* (London, 1997), suggests that, then as now, knowledge of the mathematical processes involved in such discoveries may be distinct from the wider and technically uninformed responses to the accomplishment.

²⁴ Cf. n. 12 above.

²⁵ Hippias’ indiscretion was associated with another notorious Pythagorean ‘secret’, the construction of the dodecahedron, a Pythagorean cult object (Burkert (n. 12), 460). He also appears to have been involved in early Pythagorean studies of the numerical ratios of musical sound (ibid., 377–8). Burkert (ibid., 194, 206–7) argues that he was a μαθηματικός. If so, his interest in music may have caused him to be popularly associated with Archytas, perhaps to the extent of being thought a contemporary; in fact, Hippiasus is dated two or three generations earlier.

²⁶ Schol. Eucl. 417.12 ff., as emended by Burkert (n. 12), 458 n. 57.

²⁷ L.A. MacKay, ‘Horatiana. Odes 1.9 and 1.28’, *CPh* 72 (1977), 318 suggests that Hippiasus is the speaker of the Ode. But if Horace meant us to identify a specific individual, he would hardly leave the matter so obscure. As in all the Odes, the speaker is above all Horace’s own poetic persona: Frischer (n. 17), 100.

with this tradition could have provided the starting-point for his complex fantasy about a drowned spirit. The topic of numerical boundlessness may suggest a more remote poetic and historical connection, since the true demonstration of irrational numbers was authoritatively ascribed to the mathematician Theodorus of Cyrene.²⁸ Cyrene was a city known to poets for its numberless sand.²⁹

Poetic closure

Iniecto ter pulvere curras: the Ode closes by bidding the merchant do his brief duty and continue on his way. The poet, keenly conscious of the horrors of death at sea, includes a characteristic ethical message: reverent action, in this case the performance of a ritual act of closure, will deflect such punishment, while neglect of duty will invite it. It is an appropriate message to give to a merchant whose mind is filled with thoughts of material gain. The pursuit of wealth may obscure the proper acknowledgement of mortality: he whose gaze is set on *multa merces* should take time to linger – *non est mora longa* – to perform his bounden duty to those who will be dead for eternity. Money, like sand, is beyond counting, and boundless wealth may seem to act as a foil or consolation for the shortness of life. But while desire for money is endless, it must be bounded by ethical behaviour.³⁰ The ocean which entices the merchant shares these dangerous properties of endlessness and inexhaustibility,³¹ a recurrent motif for Horace in the Odes, the sea symbolizes violence, irregularity, and excess, set against the poet's own oft-expressed preferences for *rura*, *otium*, and *modus*.³²

A poem set close by Tarentum, revolving around themes of number and

²⁸ Pl. *Thi.* 147d. Theodorus was a contemporary of Archytas; his visit to Athens, where he made the demonstration, is dated to 417 B.C.

²⁹ Cf. Catullus 7. 3–4, *quam magnus numerus Libyssae harenae/lasarpiciferis iacet Cyrenis* ('as great a number as that of the Libyan sand that covers silphium-rich Cyrene'), occurring in a poem that makes play with calculation (*da mi quot mihi basiationes* . . .). Cyrene was also, of course, the birthplace of the Hellenistic master of epigram and *doctrina*, Callimachus.

³⁰ Among the formal properties of money is that it is, in a sense, 'endless', an idea nicely articulated in Aristophanes' *Wealth*, 189–93, and cf. Solon 13.71–3; Richard Seaford (work currently in progress – for a foretaste, see *Arion* 9.3, (2002)), argues for a deep connection between the historical event of the invention of money and the evolution of notions in Presocratic metaphysics such as Anaximander's *apeiron*.

³¹ Cf. Aesch. *Ag.* 958: *ἔστιν θάλασσα, τίς δέ νιν κατασβέσει*; ('There is the sea, and who can dry it up?')

³² The first seven poems of Odes I, and numerous other Odes throughout, all make some reference or suggest some connection to the sea – an element that, unlike poetry, lacks tranquillity, order, and closure.

measure, was bound to invoke the memory of Archytas. But in the end the territory is, like the *silvae* of Venusium, unmistakably that of the poet.³³ Through the mouth of the drowned man, Horace reveals a deeper truth about himself and us. When the speaker asserts that death, in contrast to the infinite sand, is final, it is Horace the Epicurean who would have us acknowledge life's closure: *mors ultima linea rerum est*.³⁴ Yet Horace the *vates* also knows that beyond the 'finish-line of things' something may live on. While the literal survival of the personality as a spectral presence – the plight of the drowned man – is demonstrably a miserable alternative to finality, for the poet there is another option: the prospect that that his spirit will survive through his songs.³⁵ Whereas Pythagoras claimed to have conceded to Death nothing but his material residue, the remains of ink on paper preserve the texts that perpetuate the divine skill of poets and the memory of men such as Archytas. *Saeva Proserpina* does not sit in judgement over the manifestations of the poet's spirit; clothed in *numeri* they live on, inviting only their readers or hearers to judge.

If we sense the spirit of Horace at work in this poem, it is partly because familiar voices from elsewhere can be heard emerging from the depths, responding ironically to the Pythagoreans' misguided ambitions. Horace has no need to scale the *rotundum polum*: he tells us at the end of Book 2 that as the Muses' favourite he takes wing, *albus ales*, and soars. He has no need to aspire to the dubious immortality of myth or of mysticism: he boasts at the close of Book 3 that his *carmina* are a *monumentum aere perennius*, 'a memorial more enduring than bronze'.³⁶ We have known all along that if he is but counted among the constellation of *lyrici vates*, his head will reach the stars.³⁷ This is how Horace aspires to heaven and to immortality.

Ultimately, to ensure this kind of survival, the *vates* requires the boon of closure. He craves and demands boundaries of time and space.³⁸ Limit imposes order, freeing the tormented spirit from the shackles of

³³ For metaphorical and metapoetic uses of *silva*, cf. S. Hinds, *Allusion and Intertext: dynamics of appropriation in Roman poetry* (Cambridge, 1998), 12–14.

³⁴ Hor. *Epistles* 1.16.79. Commentators who relate this image solely to the chalk line used as the terminus of a running track miss Horace's literary wit (it is, of course, the last line of the epistle as well).

³⁵ Cf. Callimachus, *Epigram* 2, lines 5–6: αἱ δὲ τεαὶ ζῶουσιν ἀηδόνες, ἥσιν ὁ πάντων / ἀρπακτὴς Ἀΐδης οὐκ ἐπὶ χεῖρα βαλεῖ. ('Your nightingales live on; Hades, who seizes all, will not take them.')

³⁶ Odes 3.30.1.

³⁷ Odes 1.1.35–6.

³⁸ This formulation recalls its contrasting incidence in Virgil: *his ego nec metas rerum nec tempora pono: imperium sine fine dedi* (*Aen.* 1. 278–9): 'on them I impose no bounds, neither geographical nor temporal: I have given them an empire without end'. Horace displays a consistent poetic logic. By virtue of its boundlessness, *imperium* is at the opposite pole to the preferred lot of mortals – which restrains the lyric poet from tackling 'grand themes' on his *imbellis lyra* (Odes 1.6.10–12).

eternity.³⁹ Blunt spondees in the Ode's second line put the brakes on the rolling dactyls of the first; three dozen taut lines, with expansive hexameters pulled back by curtly responding tetrameters, confine Archytas, the sailor, and their addressee; Archytas is *ensor*, but *homo mensura* ('man is the measure') – that is, human life is measured by mortality. By means of *modus*, man both measures and is measured. *Modus* alone will allow the poet's voice to resound for posterity.⁴⁰

Recognizing death as the end, it follows that we can and must live life to the full. *Omnes una manet nox*:⁴¹ therefore, comes the unspoken rejoinder, *carpe diem*.⁴² We should, after all, be content that our days are numbered:⁴³ we will all tread the *via Leti* – just once. But for Horace, as he bids us go our way (*curras*), that is not quite the end of the story. *Non omnis moriar* ('not all of me will die'), the poet may be pleased to suppose:⁴⁴ part of him, a part that ensures his greatness, will avoid the final reckoning, and will live on to speak to future generations. In this compact and tightly-constructed Ode, a playful meditation on boundlessness and measure, death and immortality, crime and punishment, body and spirit, number and limit, he draws attention to his own (im)mortal achievement. Immersed in a sea of numbers, the poet is waving, not drowning.⁴⁵

³⁹ Cf. the Sibyl in Petronius, *Cena* 48: '*cum illi pueri dicerent Σίβυλλα, τί θέλεις respondebat illa ἀποθανεῖν θέλω*'. ('When the boys asked her "Sibyl, what do you want?" she replied "I want to die".')

⁴⁰ The form of the Ode also teases us about our expectations of closure through its unexpected combination of otherwise familiar sepulchral forms (Nisbet and Hubbard, loc.cit. n. 20), and with its final 'run-on' word, *curras*.

⁴¹ The echo of Catullus 5.6 (*nox est perpetua una dormienda*, 'there is one endless night to be slept through') challenges us to consider the two poets' divergent stances on the matter. Again (cf. n. 38) the poetic logic seems perfectly consistent: for Horace, life's finiteness dictates that we should live for the moment, while the impassioned Catullus, by resisting finality (8.2, *quod vides perisse perditum ducas*, 'accept that what you see is over is over!'), risks condemning himself to a life of eternal torment poised between love and hate (85.1–2, *odi et amo . . . sentio et excrucior*, 'I love and I hate . . . I feel it and I'm in torment').

⁴² Odes 1.11.8.

⁴³ Hence we should reject the 'numeri' of astrologers (*mathematici*): *Tu ne quaesieris, scire nefas, quem mihi, quem tibi / finem di dederint, Leuconoe, nec Babylonios / temptaris numeros* (Odes 1.11.1–3): 'Leuconoe, don't seek to know – it's forbidden – what end the gods have in store for me or for you, and don't engage in Babylonian calculations'.

⁴⁴ Odes 3.30.6.

⁴⁵ Versions of this paper were read at the Classics Subfaculty Seminar series on 'The Sea' in St. Anne's College, Oxford and to the Trinity Group at Guildford Grammar School in February 2002, and at the Classical Association Conference in Edinburgh in April 2002. Special thanks to Alex Hardie, Elizabeth Jones, and Chris Kraus for their suggestions on earlier drafts.