

48. OF 750: Frost or Snow?

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πολλὰ δ' οὐρανόθεν καὶ ἐπαρτέες ἐκ νεφελῶν
τῆμος ἐπόρννται φηγοῖς καὶ δένδρεσιν ἄλλοις
οὔρεσι τε σκοπέλοις τε καὶ ἀνθρώποις ἐριθύμοις
πηγυλίδες, καὶ ἔσονται ἀμειδέες· αἶδε γὰρ ὄντως
τρώουσιν καὶ θήρας ἐν οὔρεσιν, οὐδέ τις ἀνδρῶν
προβλάσκειν μεγάρων δύναται κατὰ γυῖα δαμασθεῖς
ψυχῆι λευγαλέω· πάχνη δ' ὑπὸ γαῖα μέμκε.

5

The adjective ἐπαρτέες (line 1) was our starting point to analyze this fragment, an extract from the *Dodecaeterides*, when we prepared the entry for ἐπαρτής for the *Greek-Spanish Dictionary*. To determine what ἐπαρτέες means in this context (a matter we will discuss somewhere else), we must establish first what its distant referent πηγυλίδες (v. 4) means. Liddell-Scott-Jones (*LSJ*) translated it into English as ‘frosts’, a somewhat ambiguous term that may be translated either ‘escarchas’ or ‘hielos’ in Spanish. As we will see, this question is more complex than it could seem at first sight.

This fragment is transmitted by Tzetzes to prove that in a passage about winter from the *Erga* (*ad Hes. Op.* 504 ff.), Hesiod gets his inspiration from Orpheus’ verses. Therefore, it is convenient to recall first the beginning of this passage by Hesiod (*Op.* 504–512):

Μῆνα δὲ Ληναίωνα, κάκ' ἤματα, βουδόρα πάντα,
τοῦτον ἀλεύασθαι καὶ πηγάδας, αἶ τ' ἐπὶ γαῖαν
πνεύσαντος Βορέαο δυσηλεγέες τελέθουσιν,
ὅς τε διὰ Θρήκης ἵπποτρόφου εὐρέι πόντῳ
ἐμπνεύσας ὄρινε, μέμκε δὲ γαῖα καὶ ὕλη·
πολλὰς δὲ δρῦς ὑψικόμους ἐλάτας τε παχεῖας
οὔρεος ἐν βήσσης πιλνᾷ χθονὶ πουλυβοτείρῃ
ἐμπίπτων, καὶ πᾶσα βοᾷ τότε νήριτος ὕλη·
θήρες δὲ φρίσσουσ', οὔρας δ' ὑπὸ μέζε' ἔθεντο·

505

510

The month of Lenaion, evil days, ox-flayers all of them- avoid it, and the frosts that are deadly upon the earth when Boreas blows, which stirs up the broad sea through horse-raising Thrace when it blows upon it, and the earth and the forest bellow. It falls upon many lofty-leaved oaks and sturdy firs in the mountain's dales and bends them down to the bounteous earth, and the whole immense forest groans aloud. The wild animals shiver and stick their tails under their genitals (transl. by G. W. Most, Cambridge MA – London 1996, p. 129).

The similarity between both texts is evident, even if we may be quite certain that the process of influence was the other way around because the author of the *Dodecaeterides*, a work with astrological content attributed to Orpheus, is from a later¹ period. The influence of Hesiod's text over the Orphic passage is clear, although we may point out some changes in content and vocabulary. The main difference in content is that Hesiod focuses on the action of the North wind, the Boreas, and extends the description of its effects for many lines; in fact, until line 527. On the contrary, our fragment ascribes to the πηγυλίδες very similar effects. They fall in from the skies upon the trees, forests, rocks and men, and they are the ones who exhaust (if we accept τρύουσιν) the beasts, and they are also the reason why "no man can come out of his home, his limbs worn out by the deadly cold, because the whole Earth is covered by frost" (verses 5–7).

It seems quite clear that the πηγυλίδες recall the πηγάδας, which according to Hesiod, must be avoided in winter. Apparently this helps to understand what the πηγυλίδες are. In fact, they are usually thought to be 'frosts' (Spanish 'heladas' or 'hielos') for two reasons: first, for two authors the singular form seems to bear that meaning, and second, these Hesiodic πηγάδας are usually translated as 'frosts'. Both terms would be poetic synonyms of πάχνη or πάγος. The question is that the term πηγάδας is practically a hapax,² and its meaning is not completely clear. In fact, ancient commentators and lexicographers offer three alternatives: 1) frosts; 2) frosty days; 3) snowflakes. Thus, Proclus shows his doubts in his commentary to the *Erga* (Procl. *ad Hes. Op.* 502, p. 308 G.): αἱ δὲ πηγάδες χαλεπαί εἰσι πνέοντος τοῦ Βορέου· ἢ τὰς παγερὰς ποιούσας ἡμέρας, ἢ τὰς πάχνας αὐτῆς τῆς χιόνος "either (they are) the days that produce frost, or snow's own πάχνας" (*v. infra*). Some lexicons express themselves in similar words, adding meaning 1), the most prevalent in modern times. For example Et. Gen. A 97.13 ff.: παγάδας (*sic*) δὲ τὰ πάγη, ἢ τὰς πακτοποιούς ἡμέρας, ἢ τὰς πάχνας αὐτάς. Ἡσίοδος, cf. Zonaras.³

The largest part of modern translations and commentaries to Hesiod repeat translation 1 'frosts'.⁴ Only Stephanus' *Thesaurus Linguae Graecae* (volume VII, col. 1032 accepts meaning 2 "a day with frost" and he extends

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- 1 The bibliography on this work is scarce (see critical apparatus by Bernabé), given the few fragments that remain. Martín Hernández (2007: 277 ff.) has written an excellent overview of what is known about it.
 - 2 Leaving aside the use of πηγάς as a kind of plot of land (Hero *Geom.* 23.68, *Lib. Geop.* 102, cf. Hsch.).
 - 3 Others only mention 'frosts': Sch. *Hes. Op.* 504–506, Tz. *ad Hes. Op.* 503 ff. (p. 310G), and Moschop. *ibid.*
 - 4 Only a small number of modern authors, for text-internal reasons, have understood otherwise: Wilamowitz (1928: 103) 'frosty puddles'; Vianello (1979: 17 and n. on p. cccxxxix) 'icicles'.

it to πηγυλῖς, inferring in both cases ἡμέρα, as is the case, as we will see later on in the *Iliad*, where a νύξ πηγυλῖς is mentioned), a meaning which only Verdenius (1980) thinks appropriate for Hesiod.

With respect to πηγυλῖς, it is a derivative of the root πήγνυμι, a verb which, together with other meanings, is used to name the process of solidification of liquids, among them water turning into ice (Alc. fr. 338 Voigt, etc.). Πηγυλῖς is not a very frequent term, which presents moreover interesting variations of use – and of meaning – in the few instances where it appears. *LSJ* differentiates its uses as an adjective (I. *frozen, icy-cold*, νύξ δ' ἄρ' ἐπῆλθε κακῆ Βορέαο πεσόντος π. *Od.* 14.476, ἀϋτμή A. R. 2.737) from its uses as substantive (II. as subst, *hoar-frost, rime*, AP 9.384.24, Alciph. 1.23; pl., *frosts*, OF 270.4). The fact that the first times πηγυλῖς appears is as an adjective makes us think of other feminine derivatives in -λῖς, which stem from verb-roots, which were originally adjectives, a type of verbal adjective. The two oldest and almost the only ones derive from thematic presents: μαινόλῖς 'maddened', 'which μαίνεται' (Archil. fr. 300.20 West, B. fr. 20a.43, A. *Supp.* 109), and φαινολῖς 'bright', that is to say, 'which φαίνεται', an epithet of the Dawn since *h.Cer.* 51 and Sapph. fr. 104 Voigt.

Thus, the νύξ ... πηγυλῖς which Odysseus describes in *Od.* 14.476 would not be a 'frosty', 'cold as ice' night, but a night 'which freezes', that is 'icy', 'glacial' with an active meaning:

ὑπὸ τεύχεσι πεπτηῶτες
κείμεθα, νύξ δ' ἄρ' ἐπῆλθε κακῆ Βορέαο πεσόντος, 475
πηγυλῖς· αὐτὰρ ὕπερθε χιῶν γένετ' ἤντε πάχνη,
ψυχρῆ, καὶ σακέεσσι περιτρέφετο κρύσταλλος.

We lay, crouching beneath our arms, and night came on, foul, when the North Wind had fallen, and frosty, and snow came down on us from above, covering us like frost, bitter cold, and ice formed upon our shields (transl. by A. T. Murray, Cambridge MA – London 1995², 71).

The immediate consequence of the fact that the night, borrowing this feature from the Boreas, is πηγυλῖς, is that snow starts falling. And this snow is "in form of πάχνη", that is, with the consistence typical of πάχνη, another derivative from the same root that usually designates frost. Already the scholiasts and Eusthatus observed that Homer establishes a gradation in the density of frozen elements: Sch. *Od.* 14.476: ἡ γὰρ χιῶν λεπτή, ἡ πάχνη παχύτερα, ἡ κρύσταλλος παχυτάτη, cf. Eusth. *ad Od.* 14.476, p. 1770.21 ff. Without a doubt, Apollonius of Rhodes (2.735 ff.) is inspired by the *Odyssey* when he describes the entry to the Acheron; although here the Boreas is transformed into a αὐτμή / πηγυλῖς which blows from inside a cave, and which "continuously feeds a gleaming frost" (συνεχῆς ἀργινόεσσαν ἀεὶ περιτρέφε πάχνην).

In the next two passages – of a much posterior date – where we find the term, the singular ἡ πηγυλῖς is usually understood as 'frost', without being

completely clear if it is a process or a result, that is to say, as *nomen actionis* or as a concrete substantive (= ‘ice’). In a letter by Alciphron (3.40.3), a parasite narrates the hardships he suffered during a winter storm, and how he took refuge in some baths where ἐθερόμην ἄχρις οὗ τὸν νιφετὸν ἢ πηγυλὶς διεδέξατο, καὶ ὑπὸ τοῦ κρύου τοῦ μεταξὺ διεροῦ παγέντος πρὸς ἀλλήλους ἐδέδεντο οἱ λίθοι “and (I) proceeded to warm myself until the snow was followed by a frost and the stones were frozen together by the moisture congealed in their interstices” (transl. by A. R. Benner & F. H. Fobes, London 1962, 245). Finally, we have a later anonymous epigram about the works which correspond to each month of the Roman calendar (*AP* 9.384), whose author must have been inspired partly in Hesiod. For the month of December (lines 23–24) the advice is: παύσασθαι νειοῦ κέλομαι· γλαγώντι γὰρ ἦδη / σπέρματι ῥιγεδανὴ πηγυλὶς ἀντιάσει “I bid thee cease from ploughing the fallow land, for the frosts will injure the milky seeds” (transl. by W. R. Paton, London 1948, 213), “cesse les travaux des champs, je t’y engage, car à la semence déjà en lait le gel qui donne les frisson ferait tort” (trans. by G. Soury, Paris 1974, 18).

In our fragment, it is difficult to understand how some ‘frosts’ can swoop down (ἐπόρννυται) from the sky (οὐρανόθεν) and apparently from the clouds (ἐκ νεφελῶν), on trees, mountains and men. The verb and its determinants imply a violent vertical movement from above which does not match the process of the freezing humidity on the earth’s surface. For that reason, we think we must look back to the Hesiodic model, and take into account the fact that almost certainly the meaning of Hes. πηγᾶδας was not unequivocal for an author of the late imperial period. And we also have reasons to suspect that, independently from its original meaning, the author of the *Dodecaeterides* took for valid meaning 3: τὰς πάχνας αὐτῆς τῆς χιόνος, and substituted it for πηγυλίδες.

It is precisely in the use of the plural where the biggest difference lies between this quote and the other two texts in which πηγυλὶς is a substantive. We think that this plural has a concrete meaning, a meaning supported both by the interpretation of the suffix -υλιδ- as a diminutive (cf. ἀκανθυλὶς, ἀτρακτυλὶς, etc.) and for the existence of diminutives in -υλιδ- of derivatives in -υλη/-υλος, of the type γογγυλὶς). And if we have to think of something concrete, small and abundant (πολλαί), which is frosted and which descends upon trees, mountains, rocks and men, we can only think of two things: snow or hail. Hail seems an attractive choice because it can be a violent phenomenon, able to produce great damages, but sounds inadequate because, as scientific texts repeat since Aristotle, hail is not common in the coldest period of winter, which is what the text refers to, but usually falls in other seasons (Arist. *Mete.* 347b 37 ff., etc.).

Because of its tiny size, the use of the plural πηγυλίδες was adequate to designate snowflakes, in a context that suggests a snowstorm or a blizzard,

where the wind (Hesiod's Boreas) blows violently making snow 'fall' or 'come in' with force, as the use of ἐπόρνευμαι indicates. We could also think, based on Homer's gradation χιών / πάχνη / κρύσταλλος, that this snow that falls with force is more compact than usual, exactly Homer's χιών ἢ ὕτε πάχνη. A proof is that πάχνη also clearly names one type of precipitation in some contexts, both in singular (Thphr. *CP* 5.13.6, Nonn. *D.* 2.528) and in plural (Arist. *Mu.* 392b 8 ff., Alex. Eph. 21.23, Posidon. in D. L. 7.153 and the aforementioned passage by Procl. *ad Hes.* 502).⁵

Beyond this fact, the clearest proof is the fact that the plural πηγυλίδες is used, we think with the same meaning, by two Byzantine authors from centuries AD XII–XIII, which helps to confirm that these Orphic *Dodecaeterides* are very late. Nicetas Choniates (2.37, ed. J. Van Dieten, Berlin 1975) tells how at the end of 1141 Emperor John comes back to Byzantium with his army before winter arrives τῷ ψυχρινῷ τοῦ καιροῦ ὑπενδύς ὡσεὶ καὶ χερμάδια τὰς νιφάδας καὶ δοράτια τὰς πηγυλίδας προβαλλομένῳ, "giving in to the cold weather that threw snowflakes like stones and πηγυλίδας like darts". The use of προβαλλομένῳ and δοράτια indicates that the πηγυλίδες is something that falls from the sky down onto the ground, exactly like the νιφάδας, something which falls with more force and is more damaging. Finally, George Acropolites in *Funeral Oration on John Ducas* 2.9 ff.,⁶ crying over the emperor's death, says: "A high and wide-topped tree, where everything found consolation and felt protected, without being burned by the sun's heat nor being cooled by the πηγυλίδες of the snow" (οὐδὲ ταῖς ἐκ χιόνων πηγυλίσιν ἀποψυχόμενα). The meaning is also clear here: snow does not reach those who find shelter under a large and dense tree during the snowstorm, the same way the sun does not burn those who take refuge under its shade.

Finally, and once we have seen the cases in which the plural πηγυλίδες designates hard snowflakes typical from snowstorms, we could look back on the examples we have seen in the singular πηγυλὶς as substantive, in Alciphron and the *Anthology*. The same way the plural αἱ χιόνες designates individual elements 'snowflakes' from what, as a whole, is named by the singular ἡ χιών 'snow', 'snowfall', we could consider that the same relation exists between αἱ πηγυλίδες and ἡ πηγυλὶς. That is, the singular refers to strong or violent 'snow' or 'snowfall', with hard snowflakes, which follows a regular snowfall, which is normally slower and with lighter flakes (τὸν νιφετόν), after a snowstorm such as the one that Alciphron's parasite is caught in.

5 Although it is more commonly translated as 'frosts'. This meaning 'hard snow' could easily extend to other prose texts in which the πάχνη go together with the χιόνες or the χάλαζαι, even if the contexts are less unequivocal: Pl. *Smp.* 188a–b, X. *Oec.* 5.18, Ph. 2.643 (*Prou.* fr. 2.43), LXX, *Od.* 8.70, etc., D. S. 26.3, Artem. 2.8, Ephr. Syr. 1.99A, etc.

6 A. Heisenberg's edition (Leipzig 1903), p. 12 pertinently corrects the text of the mss. πηγυλλίσιν.

The case of πηγυλίδες and πάχναι helps us confirm once more how different languages make different interpretations of reality, which is not surprising because meteorological vocabulary is a specially clear example of this phenomenon.⁷ Our modern languages usually distinguish snow from hail and rain, and occasionally also between the intermediate state between water and snow (for ex. ‘sleet’, Spanish ‘aguanieve’), but do not possess specific terms to describe the various degrees of hardness of snow. Both our Orphic fragment and other latter authors with πηγυλίδες (perhaps also with the sg. πηγυλίς) as other authors with πάχνη / πάχναι, perhaps even Hesiod with πηγάδες, are describing a type of hard snow capable of doing harm when it falls, because it usually falls with strong wind during a snowstorm. A snow which, once it has fallen, and with the help of cold temperatures, can form a frosty layer over the ground, and which harms animals and harvests. This is what Homer calls χιών ἢ ὕτε πάχνη. We cannot affirm that “frost is falling” from heaven, because we reserve this substantive for the layer of ice that forms over ice, but the Greek could use the term πάχνη for both concepts, because the notion that seems to predominate is the consistency of the ice that forms it.

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⁷ See Casevitz (2003: 33).