

GREEK COLOUR-PERCEPTION.

No one who has read the classics with any attention can fail to have been struck by certain oddities in both the Greek and Latin usage of epithets denoting colour. How really strange their application often is may have escaped general notice for three reasons: partly, it may be, because custom has staled their surprising character—phrases such as ‘the wine-dark sea’ having become, so to say, ‘household words’; partly because a natural and on the whole commendable diffidence prevents our attributing, at least to the Greeks, anything that seems in the least derogatory from an artistic point of view; and partly because these instances of curious usage are scattered and so have no cumulative effect on our judgement.

To remedy this last defect I have examined all the Greek authors from Homer to Xenophon, and have collected and studied all the passages in their works where colour epithets are used. For the sake of clearness I have rearranged these under colour headings in order to try and arrive at some principle underlying the Greek use.

The obvious main division of the subject is into these two groups: (A) chromatic and (B) achromatic. The latter subdivides itself into (1) black, (2) white, (3) grey.

And so (B) (1) black:

There are three Greek words denoting black, *κελαινός*, *μέλας*, and *κατακορής* (*δρφνιος* I reserve for the ‘purple’ group). To take *κελαινός* first: Homer uses the word for blood (*Α* 303),¹ waves (*Ι* 6), storms (*λαϊλαψ*, *Δ* 747; cf. *κελαινεφής* of Zeus), the earth (*χθών*, *Π* 384), the hide of Hector’s shield (*Ζ* 117). Pindar calls the Colchians *κελαίνωψ* (*P.* 4. 212); Bacchylides does not use the word. Hesiod, like (and presumably in imitation of) Homer, applies the epithet to blood and earth (*S.* 172; *S.* 153), and Aeschylus to waves (*Eum.* 832). He also uses it of the Ethiopians (*φῶλον*, *P.V.* 808). Sophocles (who, like Aeschylus, uses the word frequently) applies it to sand (*Ant.* 590) and to weapons (*Trach.* 858; *Aj.* 231—so also Eur. *Bacch.* 628).

μέλας is the commonest of the three ‘black’ words. Homer uses it 175 times—it, that is, and its compounds, but excluding the verb *μελαίνω*.² He applies it to much the same objects as those to which *κελαινός* is applied, i.e. blood (*E* 354), land freshly ploughed (*Σ* 548), water (*δ* 359). Besides these, hips are *μελαιναι* (*θ* 34) and wine is *μέλας*. Pindar’s usage of the word calls for no special remark. Bacchylides attributes it to clouds (3. 55), an elder-

¹ Citations refer only to typical, not to all, instances.

² Gladstone, ‘Colour in the Homeric Age’ (*Homer and the Homeric Age*, vol. 3), p. 476.

tree (8. 33), an eye (16. 17), and (like Homer) to earth (12. 153). Hesiod uses it and its compounds (apart from *μελαίνω*) 14 times: of earth in the *Theogony* (69), and in the *Shield* of hair (186), of weapons (221), of a snake's throat (167), of grapes (300), and of blood (252). The issue here is a little confused, as one does not know how far Hesiod wishes to refer to the objects themselves and how far to the colour of the shield on which they are engraved. Theognis uses the word 8 times (of blood, clouds, earth, etc.), and once (*A.* 451) of iron rust (*ίός*). The second circle of fortifications at Ecbatana was, according to Herodotus (*I.* 98), *μέλας*—there were seven circles, all of different colours; the passage is one of the few in which colour is mentioned by a prose-writer at all.

The tragedians use the word commonly, and for the most part follow Homer, e.g. Eur. *Or.* 1148, 1472, of weapons. Sophocles and Aristophanes apply it to foliage (*Ar. Thes.* 997; *Soph. O.C.* 482 γῆ μελάμφυλλος).

Plato, in a remarkable passage in the *Timaeus* (68), to which reference will often be made, admits it as a colour admixture, and in later Greek it seems to have been the usual 'intensive' colour prefix, e.g. (of figs) *μελάμφαιος* (as opposed to *λευκόφαιος*) in Athen. (3. 13); so *μελαμπόρφυρος* of dark purple in Pollux (4. 119), etc.

κατακορής is scarcely a colour epithet at all. It is rather an intensive epithet used with such words as *μέλαν* (substantivally)—so in the *Timaeus* passage, where *κατακορὲς μέλαν* is a component of *κυανοῦν χρώμα*. Aristotle in the *de coloribus* (another amazing 'locus classicus' for colour) says (5. 5) that the green of young plants (*ποῶδες*) becomes, when the plants grow older, *κατακορὲς ἰσχυρῶς καὶ πρασοειδές*.

To sum up. Black is plainly regarded as a colour, not as an absence of colour. This is clearly implied by Aristotle, who says of *σκότος* (*de color.* 1. 7)—but not of *μέλας*, etc.—*οὐ χρώμα ἀλλὰ στέρησις φωτός*. It has an existence as a colour specific in itself and as an intensifier of other colours. There seems to be no distinction between *μέλας* and *κελαινός*, while *κατακορής* is a quantitative word. Surface quality of objects seems indifferent—i.e. both words are used of shiny and of non-shining things.

It would of course be ludicrous to say that in their attribution of black to such objects as have been mentioned above the Greeks were misusing their words, and in this particular case it is not easy to say that the Greek usage differs from the English (though the theory does), because if we translate the words by 'dark' rather than by 'black' all difficulties disappear. Besides this we must remember such English usages as 'black men,' 'black grapes,' etc. Also, in a great many cases (not cited above), these words are used in a metaphorical sense, cf. 'black care.'

(B) (2) white. Again there are three Greek words: *ἀργός*, *λειριόεις*, and *λευκός*.

Of these the first really means 'quick-moving,' cf. the Latin 'micare' and its uses, and it is very difficult to disentangle the 'bright' or 'white'

meaning from the 'rapid.' Does ἀργίπους = white-footed or swift-footed?¹ ἀργός is Homer's general epithet for dogs; in this case it probably means 'swift.' But what of its use with βόες (Ψ 30)—? sleek? The confusion or conjunction of meanings is seen in its attribution to lightning (Θ 133; Ar. Av. 1747).

The word λειριόεις (with its other form λείριος) introduces a fresh difficulty. Is it a colour or a sound epithet? Homer uses it of both—the cicada's voice (Γ 152; cf. Hes. Th. 41) and skin (N 850). Pindar applies it to coral (N. 7. 79) and Bacchylides to eyes (16. 95). With this last use we may compare Suidas' λειρόφθαλμος, which the lexicographer defines as ὁ προσηνεὺς ἔχων τοὺς ὀφθαλμούς. Apollonius (4. 903) uses it of the voice of the Sirens, ? = 'gentle.'

But λευκός is the main word. Homer uses it and its compounds (not counting λευκώλενος nor yet λευκαίνω) 60 times.² Besides ordinary usages (e.g. snow, K 437) he applies it to the calm sea (κ 94), tin (K 35), the skin (E 314; cf. λευκώλενος, *passim*), a veil 'white as the sun' (Ξ 185), barley (T 496), and water (Ψ 282). Herodotus says that the first circle of walls at Ecbatana is λευκός. Pindar applies the term to corpses (N. 9. 23) and (surely very oddly) to wreaths—which, by the way, never have a 'green' epithet—λευκωθεὶς κára μύρτοις (I. 4. 69). With this may be compared Aristophanes' λευκότροφα μύρτα (Av. 1100). It is common in Hesiod (14 times plus 2 λευκώλενος), and generally used normally of ivory, teeth, snow, etc.; he also applies it to water (W. 739) and further to grapes (S. 294) and honeycombs (Th. 597). The melic poets imitate Homer, e.g. Theognis (A. 448) μέλαν ὕδωρ and Simonides (frag. 21. 1) of γαλήνη.

The tragedians seem to use it mostly in the sense of shining (cf. ἀργός—a possible analogy): e.g. λεύκασπις λαός (Aesch. Sept. 88; Soph. Ant. 106); λ. ἡμαρ (ἡμέρα) (Aesch. Pers. 301, 386; Ag. 668; Soph. Aj. 673, 708 [φάος]). Aeschylus echoes Homer's λευκὸν ὕδωρ (Suppl. 24), and has a curious fragment (116, Cressae) where the epithet is applied to mulberries. The only abnormal usage in Euripides is (I.A. 1054) λευκοφαῖ ψάμαθον.

This use of λευκός for yellow objects is illustrated by Plato's employment of the word as = yellow-haired (Rep. 474E), and may further be compared with Herodotus' (I. 50) λευκὸς χρυσός, alloyed gold (as opposed to χρ. ἄπεφθός = unalloyed). This in turn shows the 'modificatory' meaning of λευκός, as when that word is used as a prefix, e.g. λευκόχρυσος in Pliny (H.N. 37. 9), and λευκέρυθρος and λευκόπυρρος in Aristotle (*de color.* 6. 3; *Physion.* 2. 4) = light red, light yellow. In the *de coloribus* Aristotle calls it a 'simple' colour (1. 1), and attributes it to water and air: earth was originally λευκός but παρὰ τὴν βαφὴν πολύχρους φαίνεται.

In general we may say that there is only one Greek word for 'white'—λευκός. It is regarded as the opposite of black, and, like it, as a definite

¹ See Boisacq, *Dict. étymol.* under ἀργής and ἀργός.
² Gladstone, *op. cit.*, p. 470.

colour. Its loose use for the complexion can be paralleled by the English 'pale'—indeed, 'pale' and 'shining' between them cover its meaning better than 'white.' Its 'yellow' use, hair, sand, etc., has been noticed, while such usages as that with *γαλήνη* are probably more than half metaphorical. More significant is its attribution to such a definitely colourless substance as water.

(B) (3) grey. Again three Greek words, *γλαυκός*, *πολιός*, *φαιός*.

γλαυκός is a puzzling word. Like *λευκός*, etc., it seems to denote 'shininess' rather than colour, hence the Homeric *γλαυκῶπις* (A 206) and *γλαυκιδών* of the glaring lion (T 172; cf. Hes. S. 430). So, probably, of the sea (Π 34, the only place in Homer; cf. Hes. Th. 440 *γλαυκή*=the sea). Pindar's usage is similar, *ῥφίς γλαύκωψ* (P. 4. 249) and *Ἀθήνη γλαυκῶπις* (N. 7. 96). Bacchylides' attribution of it to the olive (7. 51; 10. 29), on the other hand, is probably to be taken as denoting colour, and so, for the most part, are the passages in the tragedians—e.g. Sophocles of grapes (Tr. 704), of the olive-tree (O.C. 701); Euripides of *χλοή* (Suppl. 258). But observe Soph. frag. 341 of water. Herodotus (IV. 108) calls the Budini an *ἔθνος γλαυκὸν . . . καὶ πυρρόν*, by which he presumably means that they had blue eyes and yellow hair (cf. Tac. *Germ.* 4 'caerulei oculi, rutilae comae'). Plato in the *Timaeus* passage gives its composition as of *κυανοῦν* and *λευκόν*.

In later Greek both 'bright' and 'colour' meanings lived on, e.g. *γλαυκῶπις μήνη* quoted in *Schol. Ap. Rhod.* 1. 1280, and Arist. *de gen. anim.* 5. 1. 20, where eyes are classified from light to dark coloured as *γλανκά*, *χαροπά*, *αἰγωπά*, *μελανά* (a list curious in itself). As a definite colour epithet it seems as much 'chromatic' as 'achromatic,' varying from grey proper to blue-grey, or blue-green, or to absolute blues and greens—e.g. used by Theophrastus for topaz, beryl, and emerald.

πολιός, again, combines the meaning of 'gleaming' with that of colour. Homer uses it of hair (X 77), foam and the sea (A 350, etc.), iron (φ 3, 81); so in Eur. *Her.* 758). Pindar uses it of bronze (P. 3. 48; 11. 20), Hesiod of 'adamant' (?=steel) (Th. 161). Hesiod also oddly applies the epithet to spring (W. 477, 492); we may compare with this Theocritus' (18. 27) *λευκὸν ἕαρ*. Homer's 'sea' use found many imitators (if one can call it imitation), e.g. Theognis (A. 10. 106), Archilochus (*Schol. Ap. Rhod.* 1. 824), Aristophanes (Av. 350), Sophocles (*Ant.* 334; *Phil.* 1123). Euripides uses the word of *αἰθήρ* (Or. 1376; cf. Ap. Rhod. 3. 275 of *ἀήρ*).

φαιός is a lateish word, first used by Plato, who, in the *Timaeus* passage, defines it as a mixture of black and white. He goes on to say that when mixed with *ξανθόν*, *πυρρόν* is the result.

The 'grey' group, then, offers the initial difficulty of a double usage, the reference being sometimes to the reflexion of light in the sense of 'brightness,' 'gleamingness,' and sometimes to colour. A further ambiguity is introduced by the confusion between chromatic and achromatic, though *γλαυκός* seems to incline to the former, *πολιός* to the latter, meaning.

In order to simplify the chromatic group I propose to subdivide it, rather arbitrarily, into four sub-groups: (1) a yellow-orange-brown, (2) a red, (3) a purple-blue, (4) a green group. I say 'arbitrarily' because, as will be seen, the divisions between these groups are shadowy, and it is often difficult to say into which of them some particular colour epithet should go.

So, then, (A) (1) the yellow-orange-brown group.

Here we have six words or types of word, *αἶθων*, *κροκωτός*, *ξανθός*, *ξουθός*, *πυρρός*, *σανδαράκινος*.

αἶθων: again a word of uncertain signification. Homer uses it of beasts and birds, of horses (B 839—in Θ 185 it is the name of one of Hector's horses, 'Sorrel'), of bulls (II 488), of eagles (O 690), of cattle (σ 372), of lions (K 23; cf. Tyrt. II. 1). But what in this connexion does it mean? Tawny, fierce, or fierce-eyed? Ameis (on σ 372) thinks 'fierce,' but certainly Bacchylides took it as tawny, for he uses it (5. 124) of a hide. It is also used of metals, where it clearly means 'flashing,' e.g. of iron (α 184; Hes. W. 743), of bronze (I 123; Bacchyl. 12. 50). Such phrases as Aeschylus' *αἶθων λῆμα* (*Septem* 448) are of course metaphorical, but *Αἰθίοπες* looks like the 'dusky' or 'smoky' men.

κροκωτός=yellow. Of all colour epithets this is the least ambiguous in meaning and usage. Besides Homer's obvious (and I do *not* mean therefore not beautiful) *κροκόπεπλος ἔως* (Θ 1), we have the word generally used of clothes—so twice in Hesiod and commonly in Aristophanes. Galen's *κρόκος ὠοῦ*=yolk, again, requires no comment. There is only one oddity: Aeschylus' (*Ag.* 1121) *κροκοβαφῆς σταγών* of blood. Sidgwick explains it as 'pale with fear.'

ξουθός and *ξανθός*, etymologically the same word (see Boisacq), may be taken together. Homer and Pindar only use the latter form (though *Hom. hym. Diosc.* 13 has *ξουθή πτέρυξ*), and then chiefly of hair, e.g. Achilles' (A 197), Menelaos' (ο 133). Bacchylides uses it thus (?=auburn hair) 6 times. Homer also uses it of horses (Λ 680). Later the sphere of its attribution is considerably extended. Bacchylides (13. 4) calls 'flame' *ξανθός* (cf. Arist. *de color.* where *πῦρ* is *ξανθόν*), and also has a *ξανθοδερκής* snake (8. 12). Simonides (57) uses it of honey, Aeschylus (*Pers.* 617) of *ἐλαία*, Sophocles (*frag.* 257) of wine. Of the colour theorists Plato (*loc. cit.*) defines it as a mixture of *ἐρυθρόν* and *λευκόν*, while Aristotle calls it the typical colour of the flowers of laurel and ivy (*de color.* 5. 25) and of apples (5. 26), and mentions it as one of the colours of the rainbow¹ (*Met.* 3. 2. 4, 5).

A comparison of the usages of *ξανθός* and *ξουθός* brings to light the curious fact that the latter seems to be confined to winged creatures, e.g.

¹ Gladstone (*Juv. Mund.*, p. 540) pointed out that in Homer there was only one reference to the rainbow, and then (Λ 27) it was rather to its

'stripiness' than to its colour. Iris, too, has no colour epithet; she is only 'golden-winged' (Θ 398).

Bacchyl. 5. 17 of eagles, Ar. *Av.* 214 and Aesch. *Ag.* 1142 of nightingales, Eur. *I.T.* 635 of bees.

πυρρός (*πυρσός*) is not found in Homer. Herodotus, as we have seen, calls the Budini *πυρσοί*=yellow (? red) haired, with which we may compare Hippocrates' remark, π. τὸ γένος τὸ Σκυθικὸν διὰ τὸ ψύχος (*de aer.* 20). Its most general use is as a colour epithet for hair, e.g. Solon's *πυρρότριξ* and *Πυρρίας*, a (?) red-haired Thracian slave as opposed to the darker (? auburn) haired *Ξανθίας* (Ar. *Ran.* 730). Aeschylus (frag. 110) applies it to a lion; Hippocrates and Galen to the yolk of an egg; Moschus (2. 70) to a rose. The word *πυρριᾶν* is used by Heliodorus (*Aeth.* 3. 5) for 'to blush,' and so possibly in Ar. *Ranae* 308, though in this passage the reference is more likely to 'ordure,' for which *πυρρός* was the usual colour epithet (e.g. Ar. *Eccl.* 329, *Equit.* 900). Plato says it is a mixture of *ξανθόν* and *φαιόν*, and Aristotle (*de color.* 4. 2) says that the sea stains things *πυρρά*.

σανδαράκινος (=red sulphide of arsenic) is used by Herodotus (*loc. cit.*) as the colour of the fifth circle of Ecbatana's walls.

Taking the group as a whole, we cannot fail to observe a very loose usage of all the terms except the second and the (rare) fourth. Depth of colour seems to be distinguished rather than quality of colour, *αἶθων* and *πυρρός* seeming to come as a mean between the lighter *κροκωτός* and the darker *ξανθός* and *ξουθός*.

(A) (2) The red group comprises seven words: *δαφυνός*, *ἐρυθρός*, *μίλτος*, *πορφύρεος*, *ρόδοις*, *φαινικός*, *οἶνωψ*.

δαφυνός, which is, of course, only another form of *φαινικός* (*δα-* being the intensive prefix), is another dubiously-colour epithet. Its Homeric substantives are *δέρμα λεόντος* (I 23; cf. Eur. *Alc.* 581), *δράκων* (B 308), and *ὠῶες* =? jackals (A 474). Hesiod (S. 159) applies the term to blood; Aeschylus and Pindar to eagles (*P.V.* 102 and *N.* 3. 142); the hymn to Pan (l. 23) to a lynx skin. Its general meaning seems to be 'bloody,' and not (blood) red at all.

φαιν- (i.e. *φαινής*, *φαινικός*, *φάινιος*, etc.—there are many forms and many compounds) is used by Homer always either as=bloody or dyed blood-red (e.g. Ψ 717 of weals; K 133 of a cloak; Δ 141, where the dye is compared to a blood stain) except once, where it is the colour epithet of a horse (Ψ 454). Remarkable usages in Pindar are *φαινικοσπερόπας* *Ζεύς* (*Ol.* 9. 6; cf. Horace's 'rubente dextra'), *φαινικόπεξα* of Demeter (*Ol.* 6. 94; so of Hecate, *Paeon* 2. 77, in this case probably metaphorically), of bulls (*P.* 4. 205), of roses (*I.* 4. 18). Commonly of flowers in general, dyes, flame (*P.* 1. 24), etc. Bacchylides uses it of oxen (10. 105), flame (17. 56; cf. Eur. *Troad.* 815), and, of course, blood (12. 164). Aeschylus (frag. 192) uses it (and *ἐρυθρός*) of the floor of the Red Sea; Euripides of blushing (*Phoen.* 1487). Aristophanes applies the epithet to the flamingo (*Av.* 272) and to the red-dyed Spartan cloaks. Aristotle in the *de color.* (2. 2) uses it of smoky flame and of red-hot coals.

There can be no doubt that these words, as opposed to *δαφυνός*, did develop a purely colour meaning.

έρυθρός is used by Homer of blood (K 484), of bronze (I 365; here so only, elsewhere *χαλκός* is *αἶθον*, etc., not *έρυθρός*), and of wine (ι 208; cf., by analogy, of nectar, ε 93). Gladstone (p. 472) notes that though Homer mentions wine 140 times, and then usually with some epithet, that epithet is only 10 times a colour one—*έρυθρός*, *μέλας*, *αἶθον*. Archilochus, like Homer, calls wine *έρυθρός* (4. 3), while Aeschylus applies the epithet to blood (*Eum.* 265). *ὑπερυθριάν* seems to be the normal word for 'to blush' (e.g. *Ar. Plut.* 702). Aristotle, in an interesting passage in the *Rhetoric* (3. 2. 13), criticizes *έρυθροδάκτυλος* as unpoetical.

μίλτος (like *σανδαράκη*) is a chemical which has given birth to some colour adjectives. Homer's ships are some of them *μυλτοπάρης* (B 637), others are *φουινικοπάρης* (λ 124), while some mentioned by Herodotus (III. 57) are *έρυθρός*. It is really impossible to say whether a real colour distinction is being made by the use of these three words or not. Another compound is Aeschylus' *μυλτόπρεπτος*, of mulberries in the fragment from the *Cressae* (116) quoted above.

πορφύρεος is very puzzling. Besides using it very commonly of dyed objects, Homer applies the term to clouds (P 551), to the rainbow (P 547), and to blood (P 361); but his main attribution of the epithet is to the sea or to water in general (e.g. Φ 326), apparently when in motion (cf. Lat. 'purpurasco'). This use is so common that instances need not be cited, nor is it only to be found in Homer. Bacchylides (8. 39) calls the Asopus *πορφυροδίνας*; Simonides, Aeschylus (*Suppl.* 529), and Euripides (often, e.g. *Hipp.* 744) apply the term to the sea; Aristotle (*de color.* 2. 4) says that the sea is *πορφύρεος* *ὅταν τὰ κύματα μετεωριζόμενα κατὰ τὴν ἑγκλισιν σκιασθῇ*. Like *ἀργός* and other words, *πορφύρεος* seems to have half a colour and half a motional signification. Hence *πορφύρω*¹ to surge, of waves (Ξ 16), and the metaphorical *κραδίη πόρφυρε* of δ 427, with which use may be compared that of the tragic *καλχαίνω*.

ρόδοεις is used by Homer as an epithet of *ἐλαιον* (Ψ 186), but the meaning here is probably 'fragrant,' not 'rosy' in the sense of 'rose-coloured.' *ρόδοδάκτυλος* needs no comment.

οἶνοψ. It is difficult to see how this word can mean anything but 'wine-coloured.' Its usage in Homer is confined to (1) the sea (ε 132, etc.) and (2) cattle (N 703, etc.). Sophocles uses the form *οἰνώψ*—or *οἰνωπός*, the text is uncertain—of ivy (*O.C.* 674); and Euripides applies *οἰνωπός* to a snake (*I.T.* 1245) and to the cheeks (*Bacch.* 439; 'no blanching of the wine-red cheek,' Professor Murray translates). According to Aristotle (*de color.* 2. 8) the colour implied by the epithet is a combination of *ἡεροειδεὺς ἀνγαί* with unmixed, shiny black. He cites grapes as an instance.

¹ Boisacq doubts the connexion of *πορφύρα* (for which he suggests a Semitic origin) and *πορφύρω*.

(A) (3) The purple-blue group: *άλουργός*, *ιο-*, *κυαν-*, *ὄρφνινος*.

άλουργός must mean originally 'sea-coloured.' Aeschylus is the first Greek writer to use it—*Ag.* 946, *άλουργός*=royal (sea) purple garment. The theorists are interesting on this colour: Plato (in the *Timaeus* passage) says it is a mixture of *ἐρυθρόν* with *μέλαν* and *λευκόν*, and Aristotle (*de color.* 2. 3) calls it *φοινίκειον* plus black. Grapes, he says (2. 8), ripen from *οἰνωπόν* to *άλουργόν*. In a passage of the *Meteorologica* (3. 2. 4) Aristotle gives us the four colours of the rainbow, *φοινικούν*, *ξανθόν*, *πράσινον*, and *άλουργόν*, where, just as *ξανθόν* covers the orange and yellow, so *άλουργόν* must cover blue and indigo.

ιο-. In Homer three objects are *ιοειδής* and the like: the sea (*Λ* 298), iron (*Ψ* 850; ? a confusion with *ῥός*, and means 'rusty'), and the wool of the Cyclops' sheep (*ι* 426). Pindar is fond of *ιο-* compounds as epithets for hair—e.g. *ιόπλοκος* (*Ol.* 6. 30; *P.* 1. 1), *ιοβόστρυχος* (*Ol.* 6. 50; *I.* 7. 33); so also Bacchylides (8. 71, etc.). It would be beside the point to inquire what Pindar and his imitators meant by the famous *ιοστέφανος* as an epithet for Athens, but that it may mean 'girt by the "violet-coloured" sea' is made clear, not only by *Λ* 298, but also by Hesiod's *ιοειδέα πόντον* (*Th.* 833). Both Hesiod (*Th.* 3) and Theocritus (16. 62) use the epithet for fresh water also. That *ιο-* compounds can qualify the eye we see from Hesychius' *ιόγληνος* and Bacchylides' *ιοβλέφαρος* (18. 5, etc.).

κυαν-. This is, perhaps, the most puzzling of all, and the uncertainty that shrouds the nature of the Homeric *κύανος* makes it no easier. The following are among the objects called *κύανος* by Homer: hair, very frequently, human and divine, on the face (e.g. *π* 176) or on the head; sand (*μ* 243); eyes (*μ* 60—for presumably *κυανῶψ*, of Amphitrite, means blue-eyed; cf. *Hom. hymn. Dionys.* 15); clouds (*Τ* 418, etc.); painted ships (*Ο* 693). Besides this we have *κ.* as the colour of mourning (*Ω* 94), *κ.* of a bull (*Hom. hymn. Herm.* 194), and the mysterious *κύανειαι φάλαγγες* of *Δ* 282, which is presumably metaphorical (cf. *Π* 66, *κ. νέφος* of the Trojan host). Most of these Homeric usages can be paralleled: hair from Bacchylides (5. 33, etc.) and Euripides (*Phoen.* 308); eyes from Hesiod (*S.* 7) and from Aeschylus (*κυανούν δέργμα δράκοντος*, *Pers.* 81); clouds from Hesiod (*Th.* 745) and Bacchylides (12. 64). The following, again, are surprising attributions: a thicket, in Pindar's famous *λόχμας ὑπὸ κυανέας* of *Ol.* 6. 40; the earth (Pindar, frag. 87, l. 5). In this last passage the gods in Olympus are said to call Delos *τηλέφατον κυανέας χθονὸς ἄστρον*. I cannot refrain from quoting the words of Professor Wilamowitz (*Sappho und Simonides*, p. 131), cited by Dr. Sandys in his Loeb edition of Pindar (p. 561): 'Wie grossartig ist die Vorstellung, dass die Erde für den Blick der Götter eine blaue Fläche ist, wie ihr Himmel für uns, auf dem ihnen dann Delos, so klein sie ist, als ein heller Stern lieblich aufleuchtet.' But the argument that the earth looked *κύανος* to the gods because the heaven looked *κύανος* to the Greeks is vitiated by the fact—and it is a very odd and significant fact—that the Greeks did not consider the sky as *κύανος*, or at least they never called it so. If it is strange that, with the single

exception¹ of Bacchylides 12. 124, no writer before Euripides calls the sea *κυάνεος*, it is still stranger that Synesius seems to supply the earliest instance of this epithet's being definitely applied to the sky. It is true that Aristotle (*de color.* 3. 16) says of *ἀήρ* that *ἐν βάθει θεωρούμενος* it is *κυανοειδής*.

For the rest, Simonides' use of *κ.* for a swallow (frag. 57) is as happy as Hesiod's for the (?) Ethiopians (*W.*) is not.

Still more confusing are the philosophers: Plato says *λαμπρῶ . . . λευκὸν ξυνελθὸν καὶ ἐς μέλαν κατακορὲς ἐμπεσὸν κυανοῦν χρῶμα ἀποτελεῖται*. Democritus, quoted by Theophrastus, says *κυανοῦν* comes *ἐξ ἰσάτιδος* (woad) *καὶ πυρώδους* (? a shiny blue). Aristotle (*de color.* 5. 16) says that grapes pass from *φοινικοί* to *οἰνώποϊ*, and finally become *κυανοειδείς*; so, too, poppy juice and olive lees are at first *λευκός*, then *φοινικοῦς*, and lastly, by the addition of *μέλαν*, *κυανοειδής* (5. 22). Still stranger is his *ποῶδες ἔδαφος* (? the lichen-covered floor of a cave), which turns *φοινικοῦν* and then *μέλαν καὶ κυανοειδές*.

ὄρφνις. A comparatively rare word occupying the borderland between the purple and black. Xenophon, in one of the only passages in which he mentions colour at all (*Cyr.* 8. 3. 3), uses it of dyed cloth, classing the shade as between *πορφυρίς* and *φοινικίς*. Athenaeus (12. 50) uses it of the midnight sky. Plato and Aristotle are very obscure on the subject. According to the former—in the *Τίμαιος*—*ἐρυθρόν* when mixed with black and white becomes *άλουργόν*, but when the colours are burned as well as mixed, and the black is more thoroughly admixed, the result is *ὄρφνινον* (Jowett translates it 'umber'). Aristotle (*de color.* 2. 4, 5) defines *άλουργόν* as *μέλαν* and *σκιερὸν φωτὶ μιννύμενον*, and says that when *άλουργόν* has less *φῶς* the result is *ζοφερόν*, *ὃν καλοῦσιν ὄρφνινον*.

(A) (4) Green group: *πράσινος*, *χλωρός*, *ὠχρός*.

πράσινον, leek green (*πράσον* = a leek), is in general a late word, though Plato (*Τίμαιος* 68) uses it, and, very oddly, explains it as a mixture of *πυρρόν* and *μέλαν*. Still stranger is Democritus (in Theophrastus), who says of it *ἐκ πορφυροῦ καὶ ἰσάτιδος, ἥ ἐκ χλωροῦ καὶ πορφυροειδοῦς*. Aristotle, on the other hand, is more in accord with modern ideas on the subject. In the *Μετεωρολογικά*, as we have seen, he gives it as a part (green) of the rainbow, and in the *de coloribus* (5. 5) he applies it to foliage that has passed the *ποῶδες* (i.e. light spring green) stage.

χλωρός is a confusing word, for, over and above its colour signification, it often means no more than 'fresh'—so *αἶμα* (Eur. *Hec.* 124)—and often, again, simply 'pale'; so metaphorically of, e.g., *δέος* (H 479, etc.). Homer's use of *χλωρός* for the Cyclops' club is about on the line between the metaphorical and the 'colour' meanings. Definitely 'colour' is its use with *ῥῶπες*, shrubs (π 47), that with *μέλι* (κ 234; Λ 631) might be either. In the *Batrachomyomachia* it is applied to leeks (54) and beans (124), and in the hymn to

¹ Simonides uses it once of water (frag. 23).

Apollo (45) to a mountain. Whether Homer's *χλωρῆς* of the nightingale¹ (cf. Simonides, frag. 73) means 'green' or 'living in green foliage' it is impossible to say. Besides instances in which it clearly means 'fresh,' Pindar uses it of the pine-tree (frag. 166b). Bacchylides applies (5. 172) the strange epithet *χλωραύχην* to Deianeira. The only other two attributions worthy of notice are those by Hesiod (S. 231) and Sophocles (*Aj.* 1064) respectively to *ἀδάμας* and *ψάμαθος*.

ὥχρός, again, has a 'non-colour' meaning, viz. 'pale'—e.g. *ὥχρος*, pallor (Γ 35), *ὥχρᾶν* (λ 529; cf. the common Aristophanic verb *ὥχρειᾶν*). But it is used of some green colour, as, for instance, in the *Batrachomyomachia* (81), where it is applied to the body of a frog. The *Timaeus* passage says it is a mixture of *λευκόν* and *ξανθόν*. This, joined to Aristotle's (*Hist. an.* 6. 2. 1) τὸ ὥχρὸν τοῦ ὠοῦ for the yolk, looks as though it sometimes meant yellow as well as green.

From all this the following considerations seem to me to emerge :

(1) That many objects which do not, as we should think, vary much in colour in their different manifestations receive many different colour epithets—e.g. blood is *κελαινός*, *μελάς*, *φοινικοῦς*, *ἐρυθρός*, and *πορφυροῦς*; sand is *κελαινός*, *λευκός*, *κυάνεος*, and *χλωρός*; an egg-yolk is *κροκωτός*, *πυρρός*, and *ὥχρός*.

(2) That many colour epithets are not purely colour epithets at all, but have another meaning, and that meaning often not even visual.

(3) That what seems to have caught the eye and arrested the attention of the Greeks is not so much the qualitative as the quantitative difference between colours. Black and white are 'colours,' and colours are accounted as shades between these extremes. It follows from this that no real distinction is made between chromatic and achromatic; for it is lustre or superficial effect that struck the Greeks and not what we call colour or tint. This is more or less natural in a country where the light is brilliant.

The conclusion seems to me to be irresistible, and it is that the Greeks' colour terminology is frankly defective as compared with that of the moderns. This may come from one of two causes: either that the Greeks were definitely colour blind, or at least that colours made a much less vivid impression upon their senses (which might account for their painting of statues); or, as I think is more likely, that they felt little interest in the qualitative differences of decomposed and partially absorbed light.

MAURICE PLATNAUER.

¹ See Jebb's appendix (p. 473) in his edition of Bacchylides. He concludes that the word = fresh and young.