

Ἴππος γλωρός (Rev 6.8): a Methodology for the Study of Colour

Terms in the New Testament

Abstract:

The meaning of γλωρός in Rev 6.8 has been given a variety of interpretations (green, yellow, pale, vigorous...) due to its polysemic character; that is, it possesses a chromatic as well as achromatic meaning and, in addition, if it denotes colour, can express a wide spectrum of hues. From this arises the need for a methodology that does not merely offer a translation, but rather a 'meaning'. This methodology is based on: an analysis of the text; the use of the term; the concept of colour that existed in antiquity and the entity in which the colour was embodied; and the use of various lexicographical tools provided by the field of cognitive linguistics.

Keywords: book of Revelation; colour terms; meaning; definition; methodology; encyclopaedic knowledge.

1. Introduction

The book of Revelation is today still an enigmatic book, with unresolved questions that call for further research and discussion among exegetes. One of these open questions concerns semantics: what colour is the horse of the fourth horseman that appears in the vision of the opening of the fourth seal (Rev 6.8)? The author of the book of Revelation, John of

Patmos, describes it with the adjectival lexeme *χλωρός*, a term which since antiquity has elicited a variety of interpretations. Thus, in Tertullian's *De pudicitia* 2, 1022C, *χλωρός* is translated as *uiridis*¹, while the *Vetus Latina*² and the Vulgate opt for *pallidus*.

This lack of unanimity in the interpretation of *χλωρός* still exists in modern versions of the Bible. Some incline for the green tonality that we find in *De pudicitia*, with nuances chosen to express a lesser luminosity or saturation of the green proper to plants: 'pale green' (NRSV), 'verdâtre' (BJ; NEG79; SG21) or 'verdastro' (CEI). Others see *χλωρός* as reflecting the yellowish hue characteristic of plants that are dying, and so have chosen 'gialastro' (NR2006) or 'amarillento' (CEE).³ Still other versions, such as the *Vetus* and the Vulgate, emphasize the loss of colour by using 'pale' (ASV; NKJV) or 'macilento'⁴ (Navarra Bible).

This diversity of interpretations is in fact maintained among exegetes, with some authors proposing the colour green,⁵ and others inclining toward 'pale-coloured'⁶ or 'pale

¹ *Corpus Corporum*; available at:

www.mlat.uzh.ch/MLS/advsuchergebnis.php?suchbegriff=viridi%20equo&table=&level2_name=&from_year=&to_year=&mode=SPH_MATCH_EXTENDED2&lang=0&corpus=2&verses=&lemmatised=&suchenin=corpus; 18/11/19

² *Vetus Latina Institut*, and Brepols, *Vetus Latina Database* (Turnout: Brepols Publishers, 2002): Rev 6.8.

³ Conferencia Episcopal Española (CEE), *Sagrada Biblia* (Madrid: BAC, 2011).

⁴ Meaning 'gaunt and drained of colour' (DEL, s.v. macilento).

⁵ G. V. Allen, 'Zechariah's Horse Visions and Angelic Intermediaries: Translation, Allusion, and Transmission in Early Judaism', *CBQ* 79 (2, 2017) 222–239, at 232; U. Vanni, *Apocalisse di Giovanni* (Assisi: Citadella, 2020); A. Belano, *Apocalisse. Traduzione e analisi filologica* (Roma: ARACNE, 2013) 296; E. Lupieri, *L'Apocalisse di Giovanni* (Torino: Fondazione Lorenzo Valla – Mondadori, 2009⁵) 148; I. Boxall, *The Revelation of Saint John* (Peabody MA: London; New York: Hendrickson Publishers; Continuum, 2006) 111: 'sickly green'.

yellow'.⁷ There are even some who do not recognize *χλωρός* as having a chromatic connotation at all and, in light of Zech 6.2–6, propose one of its metaphorical meanings ('vigorous', 'ardent').⁸

The reason for this is none other than the rich polysemy of *χλωρός*, especially with regard to colour, as it is 'an adjective of color somewhat indeterminate in sense, but generally as part of the spectrum lying between blue and yellow, with shade more closely defined through context'.⁹ Indeed, this indetermination appears in almost all of the dictionaries, which propose a wide chromatic spectrum as meanings: a) 'yellow' when applied to honey (Hom., *Il.* XI.631, *Od.* 10.234), sand (S. *Ai.* 1064) or egg yolk (Zopyr. *ap. Orib.* XIV.61.1); b) 'yellowish green' or 'pale green' when describing certain plants (σίτου ἔτι χλωροῦ ὄντος, 'the grain still being green', Th. IV.6.1) or when referring to one of the colours of the rainbow (X. *Fr.* 28D); c) the 'green' of grass and plants (*χλωραὶ ῥόπες* *Od.* 16.47; *συκα*, 'the green fig', E. *Fr.* 907), although this is also applied to water (*AP* IX.669.3 [Marian.]); and d) 'greenish yellow', 'pale' or 'greenish gray', when applied to the skin colour of someone who is afraid

⁶ I. Paul, *Revelation. An Introduction and Commentary* (TNTC 20; London; Downers Grove IL: InterVarsity Press, 2018) 46; W. J. Harrington, *Revelation* (Colleville MN: Liturgical Press 2008) 8; S. S. Smalley, *The Revelation to John: A Commentary on the Greek Text of the Apocalypse* (Downers Grove IL: InterVarsity Press, 2005) 155; Aune, *Revelation 6–16*, 400; R. H. Mounce, *The Book of Revelation* (Grand Rapids MI: W.B. Eerdmans, 1977) 152 and 156.

⁷ P. Prigent, *Commentary on the Apocalypse of St. John* (Tübingen: Mohr Siebeck, 2001) 271; R. H. Charles, *A Critical and Exegetical Commentary on the Revelation of St. John: with Introduction, Notes, and Indices, also the Greek Text and English Translation* (2 vols. Edinburgh: T. & T. Clark, 1920) I 168–9.

⁸ A. Volokhonskiĭ, 'Is the Color of that Horse Really Pale?', *The International Journal of Transpersonal Studies* 18 (2, 1999) 167–8.

⁹ BDAG, s.v. *χλωρός*.

(χλωρός ὑπαὶ δείους, ‘pale with fear’, Hom., *Il.* X.376, 15.4) or suffering from a serious illness (Hp., *Prog.* 2; Thu. 2. 49, 5; Maximus Tyr. 20, 5b).¹⁰ Along with this chromatic spectrum, χλωρός also possesses meanings that do not denote colour, such as ‘fresh’ or ‘young’, used to describe lexemes connected with the quality of moistness: tears, cheese, fish¹¹ or even the symptoms of love, as in the poetry of Sappho (Sapph. 2.14).¹²

Therefore, to arrive at a determination of the meaning of χλωρός in Rev 6.8, it is necessary to resolve the term’s polysemy.

2. Methodology

Once the different meanings of a given lexeme are identified, the next step in resolving its polysemy is to analyze the contexts in which it appears. The adjectival lexeme χλωρός belongs to the section referred to as ‘the opening of the seven seals’. The appearance of ἵππος χλωρός when the fourth seal is opened is preceded by descriptions of the other three horses, not through characteristics such as their speed, strength or youth, but by their colour; thus appear the three colour lexemes: λευκός, ‘white’ (Rev 6.2); πυρρός, ‘sorrel’ (Rev 6.4) and μέλας ‘black’ (Rev 6.5). These allow the horses to be identified at a glance¹³ and prevent

¹⁰ LSJ, s.v. χλωρός; BDAG, s.v. χλωρός; Bailly, 960, s.v. χλωρός; *Brill Dictionary*, 2364, s.v. χλωρός. A detailed study can be found in: E. Irwin, *Colour Terms in Greek Poetry* (Toronto: Hakkert, 1974) 31–77.

¹¹ LSJ, s.v. χλωρός; Bailly, s.v. χλωρός, 960.

¹² M. González González, ‘Otra lectura para Safo Fr. 31.14, χλωροτέρα . . . ποίας ἔμμι’, *Veleia* (Anejos, Series Minor 17) (2002) 39–46.

¹³ A characteristic technique of the author of the book of Revelation is to describe his vision through aspects and elements that can be discerned through the sense of sight: L. García Ureña, *Narrative and Drama in the Book of Revelation. A Literary Approach* (SNTSMS 175; Cambridge, UK; New York NY: Cambridge University Press, 2019).

any sort of confusion between them. Curiously, this chromatic context does not disappear after the vision of the horses. And so, as the fifth seal is opened, the colour white is used to describe the robes of the immolated souls (Rev 6.11), while black and the colour of blood are used to show the aspect of the sun and the moon after the earthquake that occurs with the opening of the sixth seal (Rev 6.12). Indeed, the narrator makes use of colour language throughout the entire episode, whether this is through direct designations (colour adjectives) or indirect ones (terms that denote colour, such as blood). This is a way of giving realism and dramaticity to the vision in such a way that the community listening to the narrative can to some extent ‘see’ the vision while they listen to it recited aloud. Given the chromatic context that precedes and follows the appearance of the fourth horse, it can be concluded that *χλωρός* in Rev 6.8 possesses, like the other colour adjectives that appear, a chromatic meaning that describes the colour of the horse and not its youth or vigour, as has been proposed.¹⁴

¹⁴ Volokhonskiĭ, ‘Is the Color of that Horse Really Pale?’, 168. It is true that John’s vision is related to the eighth vision of Zechariah (Zech 6:2–3), as claimed by Volokhonskiĭ, but also with the first (Zech. 1:8). John seems to reinterpret these two versions, which do not coincide either in the number of horses (three in the first and four in the eighth) or in their colour. This chromatic variation is present in the Hebrew text, which describes a group of horses with the term שרק (Zech 1:8) and others such as ברדים אמצים (Zech 6:3). The Septuagint unifies their colours and uses *ψαροί* (Zech 1:8) to translate both שרק (Zech 1:8) and ברדים (Zech 6.3), thus offering a chromatic interpretation of אמצים *’āmušîm*, which it translates as the adjective *ποικίλοι*. The Vulgate provides an interpretation along the same lines as the Septuagint: *uarius* (Zech 1:8) and *uarii fortes* (Zech 6:3). Affirming that *χλωρός* is the Johannine reading of אמצים *’āmušîm* would be to ignore not only the chromatic context of the Johannine pericope, but the semantic content of *χλωρός* (which expresses freshness and youth in contexts related to moistness, cf. body of the text) and to blindly accept the version used by John of Patmos when today we know that different textual sources were then in circulation (perhaps one in Hebrew and several in Greek –OG, 8HevXIIgr, [proto] Hexaplaric revisions: Allen, ‘Zechariah’s Horse Visions’, 223).

In addition, the context provides valuable information for determining the colour of the fourth horse: the colours of the first three horses described in John's vision are characteristic of real horses, which may indeed be white, black or sorrel.¹⁵ Taken in this sense, *χλωρός* should be a skin colour that exists in reality, at the same time that it acquires a symbolic meaning, as in the case of the other horses and considering the general use of colour language in the book of Revelation.¹⁶ Finally, in contrast to the first three seals, the seer identifies the horse's rider: Death (καὶ ὁ καθήμενος ἐπάνω αὐτοῦ ὄνομα αὐτοῦ [ὁ] θάνατος, καὶ ὁ ἄδης ἠκολούθει μετ' αὐτοῦ / and he who is mounted on it is called Death, and Hades followed him, Rev 6.8b). A close link between the horse and its rider thus emerges; in the light of this, a meaning of 'vigorous' would seem incongruous with such a grim personage.

While the context has allowed us to determine that (Rev 6.8) has a chromatic rather than achromatic meaning, it does not provide us with enough information to identify the hue expressed in Rev 6.8 from its possible denotations. Recent cognitive linguistic studies have insisted that to determine the meaning of words it is necessary to acquire the encyclopaedic knowledge of the native speaker; that is to say, 'the overall knowledge that typical members of the speech community have'.¹⁷ When we study ancient texts, such native speakers are not available to us, but we do have a number of tools that can help us to approximate this:

¹⁵ It is true, however, that these colours –μέλανες, 'black'; πυρροί, 'sorrel'; and λευκοί, 'white– appear in the apocalyptic visions of Zechariah that have already been mentioned (note 14).

¹⁶ L. García Ureña, 'The Book of Revelation: A Chromatic Story', *New Perspectives on the Book of Revelation* (ed. A. Yarbro Collins; Leuven; Paris; Bristol, CT: Peeters, 2017) 393–419; 'Colour Adjectives in the New Testament', *NTS* 61 (2, 2015) 219–38, at 232–7; U. Vanni, 'Il simbolismo nell'Apocalisse', *Greg* 61 (1980) 461–506.

¹⁷ R. W. Langacker, 'Context, Cognition and Semantics: A Unified Dynamic Approach', *Job 28: Cognition in Context* (Biblical Interpretation Series 64; ed. E. J. Van. Wolde; Leiden; Boston: Brill, 2003), 179–230, at 187.

- First of all, the information provided by specialized dictionaries shows us the use of a given lexeme in Greek literature prior and contemporary to the apocalyptic text. This point has already been presented in section 1; it should also be mentioned, however, that this is not the first time in Greek literature that *χλωρός* is embodied in a sinister figure. In *The Shield of Heracles*, falsely attributed to Hesiod,¹⁸ we find that *χλωρός* describes *Ἀχλύς*, the ‘Darkness of Death’ (Hes. *Sc.* 264–5).¹⁹
- Secondly, we are able to analyze the interpretations given in the ancient versions of the Bible. Their closeness to the original sources and to Greek as a living language at the time the apocalyptic text was translated can tell us much about how it was understood. In the case of *χλωρός* (Rev 6.8), it reveals the difficulty inherent in the term, as we find two possible translations: *pallidus* and *uiridis*.
- Thirdly, the study of colour terms should not be studied on the basis of our modern categories of colour, i.e. those rooted in Newtonian colour theory, but rather by adopting the concept of colour which the native speaker of the language had in antiquity. Although the Greeks did not have a systematic theory of colour, they did develop definitions; Plato defined colour as that which is perceived first visually (*Chrm.* 167c-d), as did Aristotle: τὸ γὰρ ὄρατὸν ἐστὶ χρῶμα, ‘what is visible is colour’

¹⁸ R. Janko, ‘The Shield of Heracles and The Legend of Cynus’, *The Classical Quarterly* 36 (1, 1986) 38–59, at 38–9. Exact dating is in question, but thought to be the mid- or late 6th c. BCE: J. Signes Cordoñer, *Escritura y literatura en la Grecia arcaica* (Tres Cantos: Akal, 2004) 213–4.

¹⁹ Translation by E. -W. G. Hugh, *The Homeric Hymns and Homerica* (Loeb Classical Library 57; London; Cambridge, MA: W. Heinemann; Harvard University Press, rev edn, 1936).

(*De anima* 2.7, 4^{18a27}). The same concept is also found in *De coloribus*,²⁰ and in later Latin authors.²¹ In the light of these definitions and the use of colour terms in antiquity, specialists in this field have concluded that colour was considered to be ‘...“what covers” an object. Even in Greek the concept of color refers to the aspect of the surface, in particular as an indicator of an internal state, as in one’s complexion’.²²

The adoption of this concept of colour implies a new step in our methodology, as colour was not conceived of as something abstract, but as concrete and intrinsically united with the object in which it appeared. In many cases, it expressed a state and not merely a quality; for example, in antiquity the abstract concepts of ‘green’ (adjective) or ‘green’ (noun) did not exist, but rather ‘the green grass’, ‘the green tree’, etc. What is more, the use of ‘green’ in reference to grass also expresses its ‘internal state’, its freshness and lushness; in other words, that the grass is alive. Indeed, if it begins to wither, its aspect changes: its green colour becomes yellowish. On many occasions, colour was and still is an external sign of a particular state. In this sense, it is presented not only as something which covers, but as that which is embodied in a given entity.

²⁰ *De coloribus* is the first specific treatise on colour, dating from the late 4th century–early 3rd century BCE. Its authorship has long been attributed to Aristotle, although this is contested today, as its style and the manner of presenting its content are quite removed from the usual Aristotelian dialectical and speculative discourse (Aristotle, *I Colori E I Suoni* (ed. M. F. Ferrini; Milano: Bompiani, 2008) 41–2; 56; 67, note 3).

²¹ M. Bradley, *Colour and Meaning in Ancient Rome* (Cambridge, UK; New York, NY: Cambridge University Press, 2009) 74–86; 87–110.

²² S. Bussata, ‘The Perception of Color and The Meaning of Brilliance Among Archaic and Ancient Populations and Its Reflections on Language’, *Antrocom Online Journal of Anthropology* 10 (2, 2014) 300–47, at 312. In the same line: Maria Fernanda Ferrini in her introduction to *De coloribus*, in the section entitled *I colori e la riflessione antica sulla visione* (*I Colori E I Suoni*, 56–65).

As colour terms appear in ancient texts as ‘embodied’²³ terms, a semantic study of such terms demands that colour lexemes be analyzed together with the entities (animals, plants, objects, persons) in which they are embodied. Indeed, in antiquity colours were defined by mentioning the entity that possessed them. Thus, for example, Hippocrates describes ὑπόχλωρος as being like the yolk of an egg (οἶον ἐξ ὀβόν, ‘like the content of an egg’, *Mul.* 2.11), while the author of *De coloribus* affirms that all plants are initially the colour of grass (ἐν πᾶσι δὴ τοῖς φυτοῖς ἀρχὴ τὸ ποῶδές ἐστι τῶν χρωματῶν, 794b). Curiously, some modern scholars in the field of cognitive linguistics, upon analyzing colour terms and observing their polysemy, have concluded that this is due to a single colour adjective being applied to different cognitive domains. They maintain, for example, that the colour red possesses different meanings when it describes a person’s hair or a car, given that these belong to separate cognitive domains (hair and physical objects).²⁴

Finally, it should be considered that on occasion the study of such entities in ancient texts may necessarily turn to other disciplines (botany, mineralogy, medicine, etc.) in order to obtain the knowledge that was possessed of them at the time, or at least to more closely approximate this.

3. The Semantic Analysis of χλωρός in Rev 6.8

As we explained our methodology, we have been proceeding toward a semantic analysis of χλωρός. Our study of context has enabled us to establish that χλωρός has a chromatic meaning in Rev 6.8. Although it is not possible to determine this exactly, our research has provided much relevant information to consider. On the one hand, the author is

²³ Not from the perspective of cognitive linguistics, but in the sense that colour has a physical form.

²⁴ M. J. Cuenca and J. Hilferty, *Introducción a la lingüística cognitiva* (Barcelona: Planeta, 2018²), 72–3.

playing with the double meaning of these colours (both real and figurative), as, while the colours of the horses (white, black and sorrel) have their referents in reality, they acquire a symbolic meaning in the text: white/victory;²⁵ black/famine; red/war. The chromatic meaning of *χλωρός* must therefore conform to this premise. At the same time, the rider mounted on the fourth horse is Death and so there is a clear relationship between the two.

The next step, then, is to analyze the information provided by the principal lexicons and dictionaries, applying a specific methodology for studying colour lexemes (the analysis of the entities in which they are embodied), with the aim of acquiring the necessary encyclopaedic knowledge. It can thus be observed that:

1. *Χλωρός* generally denotes the colour green and with this a state of freshness and lushness when it is embodied in grass or trees; that is to say, in entities belonging to the cognitive domain²⁶ of plants. This meaning is already found in Homer (Od. 16.47)²⁷ and, particularly in the Hellenistic period, in the Septuagint, Philo and, later, the New Testament (*χόρτος χλωρός*, Gen 1.30; Legum 1.24; Mark 6.39; Rev 8.7; *χλωρά βοτάνη*, 2 Kings 19.26), as well as in early Christian literature (*βοτάναι χλωραί*, Sepherd. 101.1).

²⁵ The white horse has been interpreted in various ways. A good *status quaestionis* can be found in: D. E. Aune, *Revelation 6–16* (WBC 52B; Nashville, TN: T. Nelson, 1998) 393–4. On the meaning of the colour white in the book of Revelation, see García Ureña, ‘The Book of Revelation: A Chromatic Story’, 395–6 and 418–9; ‘Colour Adjectives in the New Testament’, 233–8.

²⁶ R. W. Langacker, *Foundations of Cognitive Grammar* (Stanford University Press, 1987) 488: ‘a coherent area of conceptualization relative to which semantic units may be characterized’. For a more detailed study: A. Cienki, ‘Frames, Idealised Cognitive Models, and Domains’, *The Oxford Handbook of Cognitive Linguistics* (eds. D. Geeraerts and H. Cuyckens; Oxford: Oxford University Press 2007) 170–87.

²⁷ Vid. *supra*, 2. A good synthesis can be found in BDAG, s.v. *χλωρός*.

2. *Χλωρός* denotes the colour yellow when it is embodied in entities whose natural colour is yellow, whether these are lexemes from the cognitive domain of foods (honey or egg yolk) or natural elements such as sand. This meaning is present in Homer (Hom., *Il.* XI.631, *Od.* 10.234), in Sophocles (*S. Ai.* 1064) and in Hellenistic medical literature. However, it does not appear in the Septuagint, in Philo or in the NT. Surprisingly, *χλωρός* is not used to describe grass or vegetation that has withered, as some scholars have proposed,²⁸ perhaps because the wilting of the plant is perceived as darkening its colour. This is at least how the author of *De coloribus* described the process, employing the verb *μελαίνω* to explain it (794b).

3. *Χλωρός* denotes a ‘pale’ or ‘greenish’ grey when it describes the aspect of a person who is terrified or sick. These meanings appear throughout the history of Greek literature and are found in Homer (Hom., *Il.* X.376, 15.4), Hippocrates (*Hp., Prog.* 2); Thucydides (*Thu.* 2. 49, 5); and Maximus of Tyre (*Maximus Tyr.* 20, 5b).²⁹

Once the diverse meanings of *χλωρός* in the lexicons and dictionaries and the ambivalence present in the Latin versions have been studied, it is time to return to Rev 6.8.

In contrast to the examples cited, *χλωρός* (Rev 6.8) is embodied in a new cognitive domain, that of animals. The ‘green’ tonalities found in plants and the colour ‘yellow’, proper to those entities that denote this colour, are excluded as they belong to other cognitive domains and because the colour of the horse, while it may have a symbolic value, lacks a referent in reality, as there are no green or yellow horses.³⁰ It remains, then, to consider the

²⁸ CEE, note 6.8.

²⁹ 2nd c. CE.

³⁰ Nor are these hues mentioned in the apocalyptic visions of Zechariah.

meaning of *χλωρός*, when embodied in a human being, as describing his or her aspect (i.e. complexion) as terrified or sickly. In this sense, a certain relationship is established because *χλωρός* is also used to describe the colour of the horse's hide.

The meaning related to fear is excluded because the pericope offers no evidence that the horse itself is frightened. What is more, the structure of the verse in which ἵππος *χλωρός* appears is exactly the same as those of the other three horses: the opening of the seal (Καὶ ὅτε ἤνοιξεν τὴν σφραγίδα, Rev 6.1a.3a.5a.7a), the call (ἔρχου, Rev 6.1b.3b.5b.7b) and the appearance of the horse (καὶ εἶδον, καὶ ἰδοὺ ἵππος... , Rev 6.2.5c.8).³¹

With regard to the meaning of *χλωρός* as indicating sickness, we will explore this in more detail, for the close link that exists between sickness and death. In this sense, *χλωρός* might serve to describe both Death's horse (Rev 6.8) and Ἀχλύς, the 'Darkness of Death' (Hes. *Sc.* 264–5). We will look more closely, then, at the *Corpus Hippocraticum*,³² given that the *Corpus* occasionally explains the semantic content of the colours we have just noted, and that it contains numerous examples of the use of *χλωρός*.

In the *Corpus Hippocraticum*, we find *χλωρός* embodied in two different cognitive domains: in plants; and in parts of the body. In the first case, *χλωρός* denotes the

³¹ Rev 6.4 omits the formula.

³² We have drawn upon data provided by the *Loeb Classical Library Database*: J. Loeb and J. Henderson, *Loeb Classical Library* (Harvard University Press, 2014); 28/8/19. As is well known, the dating of the books that comprise the corpus is in debate, but we offer the latest contributions in this regard: *Morb 2* and *Morb 3* are thought to be from the mid-5th c. BCE; *Loc. Hom.* from around 450 BC; *Prog.* from the late 5th c. BCE; *Dieb. Iudic.* a late work of uncertain date; *Epid. 2* around 410 BCE; and *Mul. 1* and *2* from the late 5th or early 4th c. BCE, E. M. Craik, *The 'Hippocratic' Corpus: Content and Context* (Milton Park, Abingdon, Oxon; New York NY: Routledge, 2015) 180, 184, 162, 237, 144, 90, 206.

characteristic colour of vegetation, ‘green’, for example, in: δάφνης φύλλα χλωρά, ‘green laurel leaves’ (*Superf.* 32); μυρσίνης κόψας φύλλα χλωρά, ‘pounded green leaves of myrtle’ (*Superf.* 32) and μίνθην χλωρήν, ‘green mint’ (*Morb.* 2.28). However, in the majority of cases χλωρός is used in the context of sickness and describes the symptoms of illnesses such as jaundice, pleurisy (*Morb.* 2.46) or high fever (*Morb.* 2.63). Χλωρός is thus embodied in various parts of the human body: χροῦ, ‘skin’ (*Morb.* 3.11; *Dieb. Iudic.* 9); ὀφθαλμοί, ‘eyes’ (*Morb.* 2.37, 39); γλῶσσα, ‘tongue’ (*Morb.* 2.37, 63); ὄνυχες, ‘nails’ (*Morb.* 2.77); χολή, ‘bile’ (*Morb.* 2.73); πύον, ‘pus’ (*Morb.* 2.57); and in the physical aspect of a woman (*Mul.* 1.25, 34, 39), etc.

Determining the tonality expressed by χλωρός in these texts is problematic, given the distance in time that makes it difficult to establish a correspondence between modern illnesses and those described in the *Corpus Hippocraticum*. It is nevertheless clear that, in the texts studied here, χλωρός does not denote the loss of colour. There are several reasons for this:

- a) Χλωρός is usually accompanied by other lexemes of colour, such as: μέλας (*Morb.* 2. 63), to describe the tongue; ἐρυθρός, to describe the physical aspect of children (*Prog.* 24); ὠχρός (*Dieb. Iudic.* 9),³³ to describe the skin, etc.
- b) In some writings we find the use of ὑπόχλωρος to describe the ‘livid disease’ (*Morb.* 2.68) and other illnesses (*Morb.* 2.74; *Mul.* 2.9, 11). Its hue is ‘greenish yellow’ or

³³ In the edition by Paul Potter: *Hippocrates, vol. IX*, (Loeb Classical Library 509; Cambridge MA: Harvard University, 1994) 308. However, É. Littré (*Oeuvres complètes d'Hippocrate* (vol. 9; Paris: Baillière, 1811; repr. Amsterdam: Hakkert, 1962) 298–306) proposes ὀχρός instead of ὠχρός, because the fragment appears in *Morb.* 3.11.1–3 with this reading. It is well known that in the *Corpus Hippocraticum* there are fragments which are repeated.

‘pale’,³⁴ as in *Epid.* 4.14 it is described with the term λεκιθώδης, ‘like egg yolk’ (ἄλλη υπόχλωρος λεκιθώδης) and in *Mul* 2.11 with the expression οἶον ἐξ ᾠόν, ‘like the content of an egg’.

- c) On occasion, χλωρός is even accompanied by terms that express what today we would call paleness, such as: ἄχρους, ‘colourless’³⁵ (2x) (*Loc. Hom.* 41);³⁶ πελιός, ‘discoloured by extravasated blood’, ‘livid’³⁷ (*Prog.* 24); or πελιδνός, ‘livid’ (*Morb* 2. 46, 47).³⁸

It would seem that the attribution of the meaning ‘pale’ to χλωρός is a later phenomenon, as Hesychius proposes ὠχρός as a synonym.³⁹ It may also be relevant that 16th-century translations of *On the Disease of Virgins* were instrumental to the incorporation of ‘pale’ into English medical vernacular, according to Helen King: ‘the green skin, adopted from green jaundice, was replaced by claims for the paleness of the sufferer’s complexion’.⁴⁰

In any case, *Morb.* 3.11.1–3 may shed some light on the meaning of χλωρός. This fragment contains an explanation of the symptoms and deadly nature of jaundice (a sufferer who does not recover from the disease dies within 14 days). The most notable symptom is the

³⁴ LSJ, s.v. υπόχλωρος.

³⁵ *Ibidem*, s.v. ἄχρους.

³⁶ This describes a person’s physical aspect.

³⁷ LSJ, s.v. πελιός.

³⁸ *Ibidem*, s.v. πελιδνός.

³⁹ Γλώσσα; available at:

<https://el.wikisource.org/wiki/%CE%93%CE%BB%CF%8E%CF%83%CF%83%CE%B1%CE%B9/%CE%A7;>
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⁴⁰ H. King, *The Disease of Virgins: Green Sickness, Chlorosis, and the Problems of Puberty* (London; New York NY: Routledge, 2004) 42.

colour that the skin (χροῖή) acquires, and this is therefore described in minute detail:

Ἰκτερος δὲ ἐστὶν ὀξύς τε καὶ ταχέως ἀποκτείνων· ἡ χροῖή δὲ ὅλη σιδιοειδῆς σφόδρα ἐστὶ,
χλωροτέρη ἢ οἱ σαῦροι οἱ χλωρότεροι· παρόμοιος δὲ καὶ ὁ χρώς·

Jaundice is both acute and rapidly fatal. The whole skin is very much the colour of pomegranate-peel, greener than quite green lizards, and the body the same.⁴¹

Morb. 3.11.1–3 employs an adjectival lexeme which in turn refers to an entity –σι διοειδῆς, ‘like pomegranate-peel’ – and, were this not clear enough, specifies its colour with the colour term χλωρός, which is likened to the colour of lizards. We do not know with certainty what colour this might have been, as lizards today are usually green, but may be a yellowish colour as well. If we consider that in *Hdt.* 4.192 lizards are compared to crocodiles and that Pliny uses the adjective *uiridis* to describe lizards (*Pli. NH* 29.130), we can deduce that χλωρός denotes a greenish hue which in contact with a person’s skin is logically modified and perceived as greenish or yellowish green; i.e. a green of low saturation.

Curiously, *Dieb. Iudic.* 9, a later text, reproduces the fragment of *Morb.* 3.11.1–3, although modifying its ending, according to Potter’s edition. Thus, instead of παρόμοιος δὲ καὶ ὁ χρώς, we find παρόμοιος δὲ καὶ ὠχρός ‘and similarly yellowish too’.⁴² It is not known whether this is a copyist error or a reinterpretation of the text. In any case, it shows that χλωρός and ὠχρός were considered to be different colours.

It can be concluded, then, that when χλωρός is embodied in a sick person it does not denote paleness or loss of colour, but rather a hue that is ‘greener than quite green lizards’,

⁴¹ Text and translation by Paul Potter: *Hippocrates*, vol. IX, 309. Cf. note 32.

⁴² Vid. *supra*, note 32.

proper to the skin of a sick person who is about to die. This hue may well be related to the colour of the horse ridden by Death in Rev 6.8, since, when humans or animals are in the throes of death, their skin colour changes due to lack of blood supply. This meaning could also be applied to the personification of death, Ἀχλύς (Hes. *Sc.* 264-5), as we know today that this is one of the colours acquired by a dead body.⁴³

4. A Further Step in the Methodology: the Definition.

The study of χλωρός (Rev 6.8) does not conclude with its semantic analysis. Up to now, the lexicons and dictionaries have provided meanings for colour terms that are similar to those in modern languages.⁴⁴ This is true of even *Greek-English Lexicon of the New Testament Based on Semantic Domains*⁴⁵ or the *Diccionario Griego-Español del Nuevo Testamento* (DGENT). However, these taxonomies are, as we have seen, insufficient. It is therefore necessary to elaborate definitions for such terms that will bring the scholar of today closer to the concept of colour reflected in the ancient texts, so that he or she, having understood this concept, can determine the translation that seems most appropriate.⁴⁶ In this sense, the words of Anna Wierzbicka are especially meaningful:

⁴³ S. E. Presnell *et al.*, 'Postmortem Changes. Overview, Definitions, Scene Findings', in <https://emedicine.medscape.com/article/1680032-overview>; 13/10/2015: 'Putrefaction involves the action of bacteria on the tissues of the body. This process, prevalent in moist climates, is associated with green discoloration of the body'. We are grateful to Prof. Bandrés Moya, Director of the *Cátedra Extraordinaria de Diagnóstico e Innovación*, UCM, for the biographical information provided.

⁴⁴ Vid, *supra*, 2.

⁴⁵ Louw and Nida tends to provide definitions of terms rather than translations. This is not the case, however, of colour terms (79.26 – 38).

⁴⁶ A. Wierzbicka, *Lexicography and Conceptual Analysis* (Ann Arbor: Karoma, 1985) 5.

When it comes to concepts encoded in words of a foreign language, especially a culturally distant one, the intuitive link between a word and a concept is missing, and a full definition is the only way of ensuring true understanding of the cultural universe encoded in the language's lexicon.

What is more, the fact that today's chromatic lexicon is wide and varied,⁴⁷ enriched constantly by the precision of digital media and globalization, and rooted in the culture and society in which they emerge, so that 'the meanings of colour terms are cultural artefacts',⁴⁸ makes the elaboration of definitions that allow meaning to be determined all the more necessary.

Thus, in the light of this study, the definition will be elaborated from the concept of colour that existed in antiquity, and with the methodology adopted for the semantic study of *χλωρός*. As a result, the object or entity must always be kept present in the definition; as colour is 'what covers an object', and it is this object that will enable us to approximate the colour. We might say that the entity constitutes a 'cognitive anchor'⁴⁹ between the native speaker and the modern reader, by which the precise meaning of a colour may be obtained. Therefore, adjectives of colour cannot include another colour adjective in the definition, as in that case we would be offering a mere translation adapted to our own categories of colour and not a true definition. Rather, the definition must refer to the entity or entities in which the

⁴⁷ A significant example of this is fact that the *Diccionario Akal del color* includes more than 100 types of green, from lime green to sumac green: J. C. Sanz and R. Gallego, *Diccionario Akal del color* (Madrid: Akal, 2001) 931–51.

⁴⁸ A. Wierzbicka, 'The Meaning of Color Terms: Semantics, Culture, and Cognition', *Cognitive Linguistics (includes Cognitive Linguistic Bibliography)* 1 (1, 2009) 99–150, at 142.

⁴⁹ *Ibidem*, 141.

colour is embodied, as well as provide whatever information the modern reader needs to identify that entity as it was understood by the native speaker. Finally, as colour terms may also have symbolic connotations, these also form part of their meaning and should be included in the definition as well.

The definition of an *adjectival colour lexeme* must ultimately describe its category (colour, understood most of the time in Greek as a state), the entity or entities in which it is embodied and its symbolic connotations. According to our study, then, *χλωρός* in Rev 6.8 is defined as ‘the colour of the skin of an animal when death is near; associated with death’.

Finally, we want to provide our own translation. With the aim of avoiding the adaptation of *χλωρός* to our own categories of colour, which would modify the chromatism of the text, as a gloss we propose ‘death-green’. This denomination appears in the Middle Ages in the motto on the shield of René d’Anjou⁵⁰ and, curiously, in his work *Horae ad usum Parisiensem*, in which Death is depicted as having a colour similar to *χλωρός*.⁵¹

5. Conclusion

The various interpretations given to the enigmatic *χλωρός* (Rev 6.8), not only now but since the 2nd century AD, underscore the difficulty involved in translating adjectives of colour from one language to another, as the chromatic lexicon is inherently linked to the way colour is conceived in the culture where these adjectives emerge and to the richness of its lexicon. It is therefore necessary to adopt a methodology that does not simply provide translations, but

⁵⁰ L. Hablot, ‘L’orange et le vert au Moyen Âge’, *Vert et orange: deux couleurs à travers l’histoire* (ed. J. Grevy; Limoges 2013) 21–42, at 42.

⁵¹ *Horae ad usum Parisiensem. Morte*; available at: <https://www.pinterest.es/pin/60376451238544261/?lp=true>; 29/8/19.

rather meanings (concepts) of these colour terms. Only by determining their meanings can we propose possible translations that correspond to these terms, and which do not bring to mind the Italian adage ‘*traduttore, traditore*’.

A in-depth study of the context and the recent contributions of cognitive linguistics, together with an exploration of the concept of colour in antiquity has enabled us to elaborate a specific methodology for the study of colour terms which we hope will be fruitful, not only for New Testament Greek, but also for the Septuagint and for other ancient languages. With this methodology we have identified the various chromatic meanings of *χλωρός* and resolved the polysemy that we find in Rev 6.8. It is a methodology that arrives at the meanings of lexemes by allowing the texts themselves to speak. It is these texts which have ultimately illuminated the chromatic nuances contained in the problematic *χλωρός*.

John of Patmos reveals that he possesses a knowledge of the chromatic lexicon proper to a man of his time, for the diversity of colour terms he uses in the book of Revelation and the use he makes of colour language in his work. He seems also to be familiar with the chromatic spectrum of *χλωρός*. Indeed, he uses the polysemic *χλωρός* to describe two realities: one visible (grass, vegetation, in Rev 8.7 and 9.4); the other invisible (death, in Rev 6.8). John chooses the colour of the dead and the dying, which was well known to the Johannine community, to describe Death’s horse. In this way, he is able to make visible to the listener/reader the reality of the invisible, in this case the sombre presence of death.