

The Transport of Goods and the Relationships Between Humans and Animals in Cappadocia Between the Hellenistic and Late Antique Periods

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Abstract

From the Hellenistic age to Late Antiquity, Cappadocia, located in the centre of the Anatolian plateau, was criss-crossed by important roads travelled by transport animals, remembered in literary sources now for their extraordinary reproductive capacity now for their cost now for their great docility and usefulness in the service of man. The purpose of the present study is to verify the presence in ancient testimonies of beast of burden and to place this evidence within the broader economic, social and political framework of Cappadocia.

Keywords: Transport animals, Greek-Roman Cappadocia, roads, economics

Highlights:

- Cappadocia, located in the centre of the Anatolian plateau, has always been a crossroads for people and goods carried mainly by animals.
- The ancient sources testify the presence non only of horses, but also of mules, donkeys, hinnies, elephants (?) and camels.
- Cappadocia, through the use of beast of burden, export and import products on a large, medium and short-range commercial network, increasing wealth of the urban notables of late ancient Cappadocia, owners not only of extensive lands, but also of whole herds of these animals.

1. Introduction

Cappadocia, located in the centre of the Anatolian plateau, has always been a crossroads for people and goods carried mainly by animals. According to the geographer Strabo, a native of the Pontic Amaseia (today Amasya), Cappadocia occupied the central area of the Anatolian plateau in “width” from Pontus to the Taurus Mountains for 1,800 stadia (1 Attic stadium = 177.60 m = 319.68 km), in “length” from Lycaonia and Phrygia to the Euphrates and Armenia for 3,000 stadia (= 532.8 km). It was provincialized by Romans in 17 A.D., on the death of the last king Archelaus¹. As can

be seen, the size of this province was much larger than today’s “Cappadocia” – term by which now we mean only the area around the cities of Archelais (modern Aksaray), Nyssa (approximately 1 km north of Harmandalı) and Tyana (Kemerhisar), characterised by a peculiar geomorphological conformation with rocky and subterranean habitats – and reached as far as the Euphrates River, traditionally considered as the eastern *limes* of the Roman Empire. In the description of ancient sources, Cappadocia is presented as a hostile land both to human and animals: if Cicero considered it a desolate region, practically a “desert”², Strabo spoke of “volcanic plains full of fire pits for many stadia” around the capital Mazaka-Caesarea (today Kayseri, located 1,050 m above sea level) and mentioned the widespread presence of underground fires near the territory of Mount Argaios (Ἀργαῖος ὄρος, today Erciyes Dağı, 3,917 m), which rises 3,000 m above the depression around Caesarea; flames emanated from the marshy ground at night and cattle could run serious dangers by falling into hidden fire pits³. The traces of ancient volcanisms that occurred on the Argaios in geologically recent times are also evident in the peculiar consistency of the rock strata and in the presence of thermo-mineral waters and mephitic quarries⁴. Strabo concludes his description of Caesarea by stating that, although the land was basically unsuitable for human settlement, it was good land for fodder, which the kings of Cappadocia had great need of because they practised animal

¹ Strabo 12, 2, 10 C 539: μέγεθος δὲ τῆς χώρας κατὰ πλάτος μὲν τὸ ἀπὸ τοῦ Πόντου πρὸς τὸν Ταῦρον ὅσον χίλιοι καὶ ὀκτακόσιοι στάδιοι, μήκος δὲ ἀπὸ τῆς Λυκαονίας καὶ Φρυγίας μέχρι Εὐφράτου πρὸς τὴν ἕω καὶ τὴν Ἀρμενίαν περὶ τρισχίλιους. Cappadocia thus extended from Cilicia Tracheia almost to the Pontus Euxinus, while Trabzon, Pharnakeia and the hinterland tribes were under the rule of the queen Pythodoris of Pontus. After the death of her husband Polemon (8 BC), she married Archelaus, king of Cappadocia, and thus the two rulers ended up controlling all non-Roman Asia Minor west of the Euphrates: Strabo 12, 3, 29 C 555–556; 12, 3, 37 C 559–560; cf. 14, 1, 42 C 649; Cass. Dio 54, 9, 2. On Pythodoris cf. Konstan 2002: 19–21; Braund 2005: 253–270; Campanile 2010: 57–85; Roller 2018b: 99–120. In general, see Biffi 2012: 411–430. On the different semantic valence of the word “Cappadocia” in various places in Strabo’s work cf. Lamesa 2021: 209–225.

² Cic. *leg. agr.* 2, 21, 55: *venire nostras res proprias et in perpetuum a nobis abalienari in Paphlagoniae tenebris atque in Cappadociae solitudine licebit?* Cf.

Cic. *fam.* 15, 1, 6 (18 September 51 BC, letter written immediately after receiving worrying messages about the Parthians): *Cappadocia est inanis, reliqui reges tyrannique neque opibus satis firmi nec voluntate sunt.*

³ Strabo 12, 2, 7 C 538: μικρὸν δ’ ἔτι προϊοῦσι καὶ πυρίληπτα πεδία καὶ μεστὰ βόθρων πυρὸς ἐπὶ σταδίου πολλοῦς ... ἀξύλου γὰρ ὑπαρχούσης σχεδὸν τι τῆς συμπάσης Καππαδοκίας ὁ Ἀργαῖος ἔχει περικείμενον δρυμὸν ὥστε ἐγγύθεν ὁ ξυλισμὸς πάρεστιν, ἀλλ’ οἱ ὑποκείμενοι τῷ δρυμῷ τόποι καὶ αὐτοὶ πολλαχοῦ πυρὰ ἔχουσιν, ἅμα δὲ καὶ ὑφ’ αὐτοῦ εἰσι ψυχρὰ ὕδατι, οὔτε τοῦ πυρὸς οὔτε τοῦ ὕδατος εἰς τὴν ἐπιφάνειαν ἐκκύπτοντος, ὥστε καὶ ποάζειν τὴν πλειστήν· ἔστι δ’ ὅπου καὶ ἐλῶδες ἔστι τὸ ἔδαφος καὶ νύκτωρ ἐξάπτονται φλόγες ἀπ’ αὐτοῦ. Οἱ μὲν οὖν ἐμπειροὶ φυλαττόμενοι τὸν ξυλισμὸν ποιοῦνται, τοῖς δὲ πολλοῖς κινδύνος ἔστι, καὶ μάλιστα τοῖς κτήνεσιν ἐμπίπτουσιν εἰς ἀδύλους βόθρους πυρὸς; cf. Hirschfeld 1895, 684; Weiss 1985, 21–48.

⁴ Strabo 12, 2, 7 C 538; cf. 12, 2, 8 C 538 on the marshes around Caesarea covered with volcanic fires.

husbandry⁵. In general, the region has good crops and in particular produces wheat and pasture grasses of all kinds⁶.

most important road is the one that led from Archelais through Caesarea to Melitene (Eskimalatya), but in western Cappadocia, specifically in Tyanitis, Garsauritis, Morimene and Chamanene – ancient Cappadocian strategies which, from a geomorphological point of view corresponded approximately to the peculiar and well-known rock and underground habitat of the region –, it was necessary to own and use animals capable of crossing roads that were impervious both because of the climate and the only partial pavement.

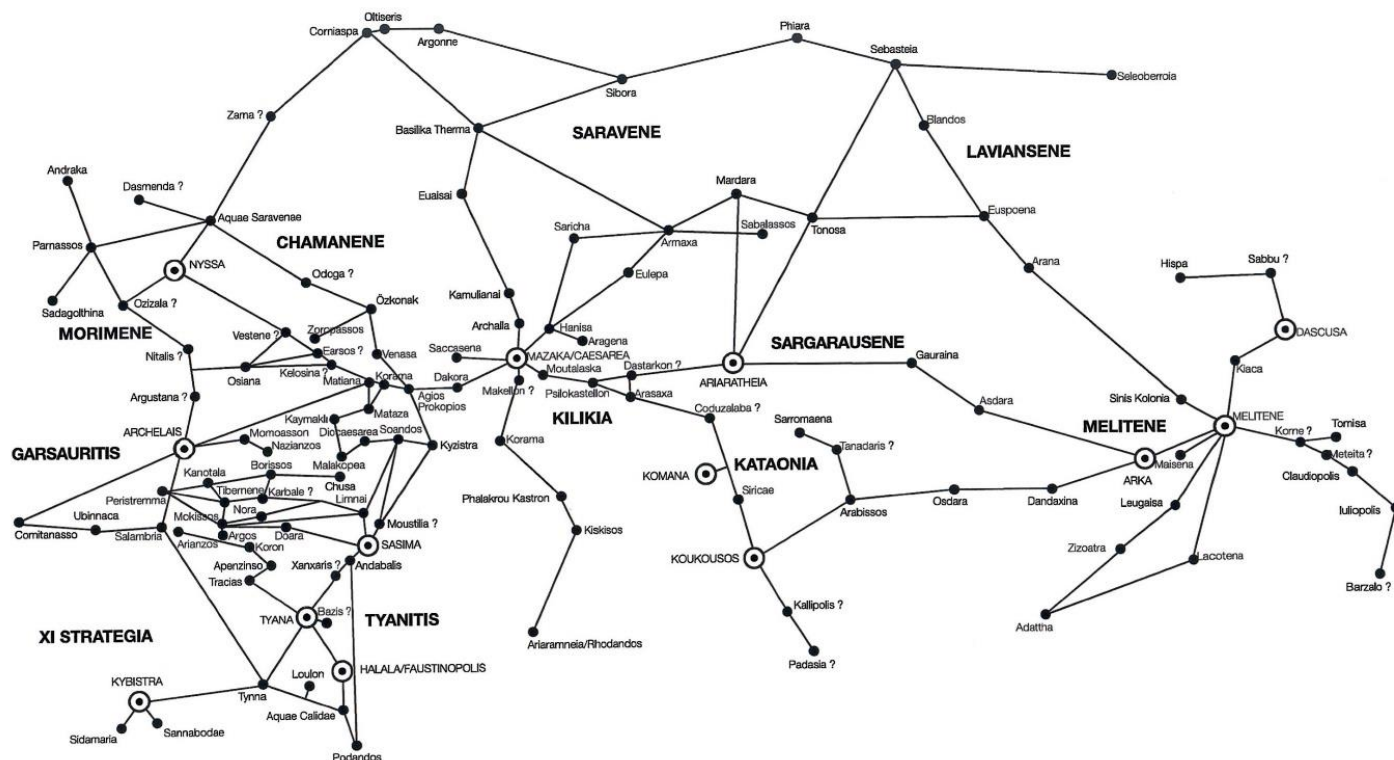


Figure 1 Urban systems and communication networks of Cappadocia (from Cassia 2004: 281, Graph 13).

2. Mules, donkeys, and hinnies

Breeding, especially of horses, but also of mules, donkeys, hinnies and camels, is often attested by ancient sources⁸. The prodigious fertility of the female mules of Cappadocia – generally considered sterile animals, as the hybrid fruit of the crossbreed between a donkey and a mare – was already known to the Pseudo-Aristotle⁹. Theophrastus, in a passage handed down by Pliny the Elder, confirms the singularity of this species of female mules:

equo et asina genitos mares hinnulos antiqui vocabant contraque mulos quos asini et equae generarent. Observatum ex duobus diversis generibus nata tertiū generis fieri et neutri parentium esse similia eaque ipsa, quae sunt ita nata, non gignere in omni animalium genere; idcirco mulas non parere. Est in annalibus nostris perperisse saepe, verum prodigij loco habuit. Theophrastus vulgo parere in Cappadocia tradit, sed esse id animal ibi sui generis¹⁰.

⁵ Strabo 12, 2, 9 C 539: ἀφ᾽ οὗς δ' οὖν κατὰ πολλὰ τὸ τῶν Μαζακηνῶν χωρίον ὄν πρὸς κατοικίαν μάλιστα οἱ βασιλεῖς ἐλᾶσθαι δοκοῦσιν, ὅτι τῆς χώρας ἀπάσης τόπος ἦν μεσαίτατος οὗτος τῶν ζύλα ἐχόντων ἅμα καὶ λίθιν πρὸς τὰς οἰκοδομίας καὶ γόρτον, οὗ πλεῖστον ἐδέοντο κτηνοτροφοῦντες.

⁶ Strabo 12, 2, 10 C 539: ἀγαθὴ δὲ καρποῖς, μάλιστα δὲ σίτῳ καὶ βοσκήμασι παντοδαποῖς.

⁷ French 1980: 707–711; French 1997: 181; French 2012; see also French 2016 on the *Itineraria*.

to the Macedonian, were traced back to Cappadocia: on this subject cf. Landucci 2024, 82–83.

⁹ Ps. Arist. *mir. auscult.* 69 (835b Bekker), p. 62 O. Apelt (Lipsiae: Teubner, 1888): ἐν Καρπαδοκίᾳ φασὶν ἡμιόνους εἶναι γονίμους. Cf. Panichi 2018: 51 and nt. 155.

As we learn from Strabo, the Cappadocian mules were already part of the annual tribute paid to the Persians:

τῆς γὰρ Καππαδοκίας παρεχούσης τοῖς Πέρσαις κατ' ἐνιαυτὸν πρὸς τῷ ἀργυρικῷ τέλει ἵππους χιλίους καὶ πεντακοσίους, ἡμίονους δὲ δισχιλίους, προβάτων δὲ πέντε μυριάδας, διπλάσια σχεδὸν τι τούτων ἐτέλουν οἱ Μῆδοι¹¹.

Strabo himself mentions that in Garsauritis and Morimene the land offered pastures to onagers or wild donkeys; the presence of these animals is also attested in an area that, although falling within the territorial limits of Cappadocia, does not seem to be a real στρατηγία, the Βαγαδανία/Βαγαδαονία, an arid plateau, desolate refuge of wild donkeys between Mount Argaios and the Taurus:

ἡ δὲ Βαγαδανία [= Βαγαδαονία] καίπερ πεδιάς οὔσα καὶ νοτιωτάτη πασῶν (ὑποπέπτωκε γὰρ τῷ Ταύρῳ) μόλις τῶν καρπίμων τι φέρει δένδρων, ὀναγροβότος δ' ἐστὶ καὶ αὕτη καὶ ἡ πολλὴ τῆς ἄλλης, καὶ μάλιστα ἡ περὶ Γαρσαύιρα καὶ Λυκαονίαν καὶ Μοριμνήν¹².

Pliny also speaks in his *Naturalis Historia* of the *onagri*, which wouldn't cross *limitem qui Cappadociam a Cilicia dividit*¹³. The good quality of the Cappadocian donkey is praised by Apuleius, who in the *Metamorphoses* says that, when the auctioneer was asked about the origin of the animal – which in truth is the same protagonist, Lucius, transformed into a donkey –, *at ille Cappadocum me et satis forticulum denuntiat*¹⁴.

Numerous references can also be found in Gregory of Nyssa, who, beyond the edifying purpose of his writings, must certainly have had in mind geographic contexts and socio-economic dynamics attributable to his region of origin. In the ascetic homily *Adversus eos qui castigationes aegre ferunt*, the Cappadocian Father combines the image of the “slow” donkey with that of the “strong” mules and the “big” camels:

οὕτω ταύρους δαμάζομεν καὶ ὑπάγομεν τῷ ζυγῷ, καὶ γῆν ἀρότροις ἀνατέμνειν παρασκευάζομεν, καὶ ἵππον ταχὺν τοῖς ψαλίοις κατάχοντες ἔχομεν εὐπειθῆ, καὶ τὸν βραδὺν ὄνον τοῖς ῥοπάλοις ἐπείγοντες ποιοῦμεν ὀξύτερον, καὶ τὰς σκληρὰς ἡμίονους ὀχήματα ἔλκειν καὶ ἀχθοφορεῖν ἀναγκάζομεν· ἐλεφάντων δὲ τὴν

ἐκκεχυμένην πολυσαρκίαν, καὶ καμήλων τὸ μέγεθος εὐμηχάνως πρὸς τὸ δοκοῦν μεταχειριζόμεθα¹⁵.

A small stele from Kayseri, decorated with a bas-relief depicting a wagon and its driver, datable to III-IV or 230-270 A.D., records a Phrygian waggoner named Papylos¹⁶.

The different uses of animals by humans returns in the *Encomium in XL martyres* 2 (οὕτως ἵππος ταχύς, συριγμῷ πρὸ τῆς μαστιγος διεγειρόμενος πρὸς τὸν δρόμον· βραδὺς ὁ ὄνος, καὶ μόλις διὰ τῶν ῥοπάλων τὴν ὁδοιπορίαν ἀνύων)¹⁷, but also in the homily *In sanctum Pascha*, where Gregory of Nyssa lists a series of animals better than men, and includes camels and mules for strength, but also donkeys for their ability to point at the route: αὐτίκα δρόμῳ μὲν ἡμᾶς υπερβάλλονται ἵπποι καὶ κύνες καὶ ἄλλα πολλά, δυνάμει δὲ κάμηλοι καὶ ἡμίονοι, σημειώσει δὲ ὁδῶν οἱ ὄνοι¹⁸.

The Cappadocian Father also alludes to these blindfolded equines used to turn the wheel: οὐ καθ' ὁμοιότητα τῶν ἐν τῷ μυλῶνι ταλαιπωρούντων ζώων κεκαλυμμένοις τοῖς ὀφθαλμοῖς τὴν τοῦ βίου μύλην περιερχόμεθα αἰεὶ διὰ τῶν ὁμοίων περιχωροῦντες καὶ ἐπὶ τὰ αὐτὰ ἀναστρέφοντες¹⁹. As is evident, animals are only described in relation to what they can do for humans, i.e. their usefulness in transporting goods or their endurance in turning the millstone.

Beyond these “edifying” contents, the testimony of Basil himself appears even more adherent to the economic and social context, when he includes among the wealth of the great Cappadocian owners a multitude of mules divided by the colour of the fur and guided by the copious staff who precedes or follows the rich person:

ἡμίονων πλῆθος, κατὰ χροάν διηρημένων· ἡνίοχοι τούτων, ἀλλήλων διάδοχοι, οἱ προτρέχοντες, οἱ παρεπόμενοι²⁰.

All the “trousseau” of the notable is also listed in the homily *Quod rebus mundanis adhaerendum non sit* about the story of Job:

διὰ τί δὲ ἵππους μὲν, καὶ ἡμίονους, καὶ καμήλους, καὶ πρόβατα, καὶ γεώργια, καὶ πᾶσαν τὴν τῆς περιουσίας τρυφὴν ἐκ τοῦ διπλασίου ὑπεδέξατο, ὁ τῶν παιδῶν δὲ ἀριθμὸς ἴσος τοῖς ἀποθανοῦσιν ἐβλάστησεν; Ὅτι τὰ μὲν ἄλογα κτήνη, καὶ πᾶς ὁ πλοῦτος

¹¹ Strabo 11, 13, 8 C 525: “for Cappadocia paid the Persians yearly, in addition to the silver tax, fifteen hundred horses, two thousand mules, and fifty thousand sheep, whereas Media paid almost twice as much as this”, transl. Jones 1961: 313.

¹² Strabo 12, 2, 10 C 539: “Bagadania [= Bagadaonia], though level and farthest south of all (for it lies at the foot of the Taurus), produces hardly any fruit-bearing trees, although it is grazed by wild asses, both it and the greater part of the rest of the country, and particularly that round Garsauria and Lycaonia and Morimene”, transl. Jones 1961: 367. The geographer had already spoken about the freezing climate and the low productivity of this specific territory in 2, 1, 15 C 73: ἀλλ' ἡ μὲν Βαγαδανία [=Βαγαδαονία according to Casaubon, Corais e Ramsay], πεδῖον ἐξαίσιον μεταξὺ πίπτον τοῦ τε Ἀργαίου ὄρους καὶ τοῦ Ταύρου, σπάνιον εἶ ποῦ τι τῶν καρπίμων δένδρων φύοι, καίπερ νοτιώτερον τῆς Ποντικῆς θαλάττης σταδίοις τρισχιλίοις, “but Bagadaonia, an enormous plain which falls between the Argaeus Mountain and the Taurus Range, only scantily (if anywhere) produces fruit-trees, although it is three thousand stadia farther south than the Pontic Sea”, transl. Jones 1960: 275. This area is also remembered by Stephen of Byzance as the “southernmost part of Cappadocia”: 155, 6–7, s.v. Βαγαδαονία, μοῖρα Καππαδοκίας νοτιωτάτη. Τὸ ἐθνικὸν Βαγαδάονες. It is a plain about 50 km long, in the village of Yeşilhisar (53 km south-southwest of Kayseri), on the last slopes of the Taurus and on the southwestern slopes of Argaios. Today Gabadonia/Develi corresponds both to the name of a site and to a larger territory located about 40 km south of Caesarea: Lasserre 1981: 189; Hild and Restle 1981: 178–179; Roller 2018a: 66: «the plain of Bagadania lies surrounded by mountains at 1,400 m elevation, just southeast of modern Kayseri: it is no wonder that agriculture was sparse there, and that olives grew hundreds of kilometers to the north on the Black Sea coast»; cf. 692. See generally Ruge 1896: 2765; Cassia 2004: 46–47; 70; 75.

¹³ Plin. *nat.* 8, 83, 225.

¹⁴ Apul. *met.* 8, 24: “he claims that I’m from Cappadocia, and quite the dynamo”, transl. Relihan 2007: 170.

¹⁵ Gr. Nyss. *castig.* pp. 323–324 D. Teske, *GNO* X, 2 (E.J. Brill, Leiden-New York-Köln, 1996): “so we domesticate the bulls and yoke them, and we are preparing to trace a furrow in the earth with the ploughs, and with the whips we make obedient the fast horse, and with the rods we push the slow donkey and force the strong mules to tow the waggons and to bear the weights; ingeniously we drive even the elephant with the big body that overflows like water and big camels towards what seems best to us”.

¹⁶ French 2024: 67–68, nr. 44: Παπύλος ἀμαξάρχης | Φρὺξ ὥρα Καππαδο-ἰκῶν δύσμορος | ἐνθάδε κεῖται· | ὃς ἂν κακῶς πηῇσι | τῷ τάφῳ ἔσται αὐτῷ | πὸς τὸν Θεόν, “Papylos, a waggoner, a Phrygian, in the boundaries of Cappadocia, unlucky lies here; whoever does harm to the tomb, he shall be accountable to God”.

¹⁷ Greg. Nyss. *quadr. mart.* 2, p. 162 O. Lendle, *GNO*, X, 1 (E.J. Brill, Leiden-New York-København-Köln, 1990): “for example, at the sound of a whip, a horse immediately begins to run, whereas a donkey is slow and hardly moves except when urged by a club”.

¹⁸ Gr. Nyss. *sanct. Pasc.* p. 256 E. Gebhardt, *GNO*, IX, 1 (E.J. Brill, Leiden, 1967): “in running, horses and dogs and many other things excel us. In strength, camels and mules. In indicating routes, donkeys”, transl. Hall 1981: 12–13.

¹⁹ Greg. Nyss. *Flacill.* p. 485 A. Spira, *GNO*, IX, 1 (E.J. Brill, Leiden, 1967): “is there anything more miserable like ourselves who are beasts destined for toil with hidden eyes, who always walk in circles and return to the same place?”.

²⁰ Bas. *hom. in div.* 7, 2, pp. 45–47 Courtonne 1935: “a multitude of mules, separated by color; their drivers, succeeding one another, they run before, they parade alongside”, transl. Boyd 2014: 74–75.

διαφθειρόμενος, εἰς τελείαν ἦλθεν ἀπώλειαν· οἱ παῖδες δὲ, καὶ τεθνεώτες, ἔζων τῷ καλλίστῳ μέρει τῆς φύσεως²¹.

Basil, in a letter addressed to the governor of the province, Elias, in 372, asked both him and the emperor for authorisation to self-administer the churches and their wealth, in order not only to erect a sumptuous house of prayer for God, but also to build hostels for foreigners and places of care for sick travellers, to whom the bishop doesn't consider improper providing comfort, thanks to doctors, transport animals and stretcher-bearers. In this passage, in fact, the bishop accurately describes the different components of the new structure of reception called "Basiliās" and considers the pack animals (τὰ νωτοφόρα) necessary, useful for transporting the patients to the newly built multifunctional structure, "new" attractive pole in relation to the nearby city of Caesarea:

τίνα δὲ ἀδικοῦμεν καταγῶγια τοῖς ξένοις οἰκοδομοῦντες, οἷς ἂν κατὰ πάροδον ἐπιφοιτῶσι καὶ τοῖς θεραπείας τινὸς διὰ τὴν ἀσθένειαν δεομένοις, καὶ τὴν ἀναγκαίαν τούτοις παραμυθίαν ἐγκαθιστῶντες, τοὺς νοσοκομοῦντας, τοὺς ἰατρεῦντας, τὰ νωτοφόρα, τοὺς παραπέμποντας; Τούτοις ἀνάγκη καὶ τέχνας ἔπessθαι, τὰς τε πρὸς τὸ ζῆν ἀναγκαίας καὶ ὅσαι πρὸς εὐσχήμονα βίου διαγωγὴν ἐφευρέθησαν, οἴκους πάλιν ἑτέρους ταῖς ἐργασίαις ἐπιτηδεύουσιν, ἅπερ πάντα τῷ μὲν τόπῳ κόσμος, τῷ δὲ ἄρχοντι ἡμῶν σεμνολόγημα, ἐπ' αὐτὸν τῆς εὐφροσύνης ἐπανιούσης²².

As passages from the Basilian homilies show, agriculture and animal husbandry were two of the most important activities of the local elites, even if the rich, although he possessed many acres of arable and planted land, was never satisfied²³. The purchase of houses, land and animals was the most widespread form of capital investment by the notables²⁴.

The Basilian epistles also testify to the existence of an excellent and secure system of communication through the roads of Cappadocia that were still maintained by Romans throughout the IV century. Indeed, in spite of the enormous distances, travel was on the whole fairly smooth since Basil twice speaks of the speed with which slanderous letters had spread within Cappadocia itself and outside it, to Pontus, Galatia or Constantinople²⁵.

Specifically, the mules, frequently used as pack animals in the rough stretches of the roads, constituted an important vehicle of transporting the iron extracted from the rich mines of the Taurus. After the division of Cappadocia in 372 by emperor Valens, Anthimos, bishop of Tyana, capital of *Cappadocia Secunda*, eager to escape the jurisdiction of Basil, metropolitan of Caesarea, capital of

Cappadocia Prima, claimed the assets of the Caesarean church located in the strategy of Tyanitis: this area included the monastery and the church of Saint Orestes, recipients of the substantial income from the Taurus, which, with great disappointment of Anthimos, were the responsibility of Basil. The bishop of Tyana was so interested in perceiving the fruits of Saint Orestes, that on one occasion he sent a band of brigands to attack the convoy of Basil's mules, which was going to Caesarea:

ὁ δὲ πλεῖον αὐτὸν ἐξέμνηεν, αἱ Ταυρικαὶ πρόσδοι καὶ παρόδοι, αὐτῷ μὲν ὁρώμεναι, ἐκείνῳ δὲ προσγενόμεναι, καὶ τὸν ἅγιον Ὅρεστην ἐκκαρποῦσθαι μέγα ἐτίθετο· ὥς καὶ τῶν ἡμιόνων λαβέσθαι ποτὲ τοῦ ἀνδρὸς ἰδίαν ὁδὸν ὁδεύοντος, εἴργων τοῦ πρῶσω μετὰ ληστικῶ συντάγματος²⁶.

Basil himself then sends a letter to a widow to apologize for having used a loan of female mules for too long:

στοχαζόμενός σου τῆς περὶ ἡμᾶς διαθέσεως καὶ ἣν ἔχεις περὶ τὸ ἔργον τοῦ Κυρίου σπουδὴν ἐπιγινώσκοντες κατεθαρρήσαμεν ὥς θυγατρὸς πρῶην καὶ ταῖς ἡμιόνοις ἐπὶ πλεῖον ἐχρησάμεθα πεφεισμένως μὲν ὥς ἡμετέραις χρώμενοι, παρετείναμεν δ' οὐν ὅμως αὐτῶν τὴν ὑπηρεσίαν²⁷.

This information is of particular interest because it confirms the existence of women owners of beast of burden.

The mules, therefore, were also used for the transport of people and were yoked to the wagons, as Gregory of Nyssa also recalls, when he returns, after a long absence, to his city transported by female mules along a very rough road from Vestene to Nyssa, perhaps in the middle of 378. After the rainstorm, his mule-drawn cart moved faster on the moist mud:

καὶ ἤδη ὑπὲρ κεφαλῆς ἡμῶν βραχεῖα νεφέλη πνεύματι βιαίῳ ὑποληφθεῖσα τὸν ὑετὸν ὥδινε, καὶ ἡμεῖς κατὰ τὸ Ἰσραηλιτικὸν θαῦμα, μέσοι πανταχόθεν τῶν ὑδάτων διειλημμένοι, ἄβροχοι τὴν μέχρις Οὐεστηνῆς ὁδὸν ἐπεράσαμεν· ἐν ἣ καταχθέντων ἡμῶν ἤδη καὶ τὰς ἡμιόνους ἀναπαυσάντων, τότε παρὰ τοῦ θεοῦ ἐδόθη τῷ ἄερί τοῦ ὄμβρου τὸ σύνθημα. τριῶν δὲ ὥρων ἢ καὶ τεσσάρων ἐκέῖσε διαγαγόντων ἡμῶν, ὥς ἱκανῶς εἶχομεν τῆς ἀναπαύσεως, πάλιν διέσχεν ὁ θεὸς τὸν ὄμβρον, καὶ τὸ ὄχημα εὐδρομώτερον ἑαυτοῦ [ἢ πρόσθεν] ἦν, ἐν ὑγρῷ τε καὶ ἐπιτολαίῳ τῷ πηλῷ τοῦ τροχοῦ δι' εὐκολίας ἐνολισθαίνοντος... Ὡς δὲ ἤδη τῆς στοᾶς ἐντὸς ἐγενόμεθα, ἐπειδὴ διὰ ξηροῦ τοῦ ἐδάφους κατεκτύπει τὸ ὄχημα, οὐκ οἶδα ὅθεν ἦ ὅπως, ὥς ἐκ μηχανῆς τινος ἀθρόον ἀνεφάνη δῆμος κύκλῳ περὶ

²¹ Bas. *hom.* 21, *mund.* 12, PG 31, 564A: "but why, around horses, mules, camels, flocks, fields and all the luxurious display of abundance, he received double, while the number of children sprouted up equal to that of the dead? This happened because the irrational cattle and all the lost wealth completely perished; the children, however, even if they died, in the most excellent part of nature continued to live".

²² Bas. *ep.* 94, vol. I, p. 206 Courtonne 1957: "whom will we wrong if we build rest houses for the foreigners, occasional travellers as well as persons in ill health who need to be taken care of, and of establishing whatever is necessary for their relief, medics, physicians, pack animals, and convoy personnel? It would be also necessary to add arts and crafts, those that are needed for life, and those that have been invented in order to ensure a gracious living; and again, other houses suitable for working, all things which are an adornment to the place and would be an object of pride to our *archon*, for the praise returns to him", transl. Barrios 1986: 98. Cf. Cassia 2009: 45–47.

²³ Bas. *hom.* 7, in *div.* 6: ἔχεις γῆς ἀροσίμης πλῆθρα τόσα καὶ τόσα, γῆς πεφυτευμένης τοσαῦτα ἔτερα, ὄρη, πεδία, νάσας, ποταμούς, λιβάδας, "you possess as many acres of arable land, as many acres of planted land, mountains, plains, forests, rivers, fountains".

²⁴ Bas. *hom.* in *illud: Attende tibi ipsi* p. 31 S.Y. Rudberg, Stockholm 1962: οἴκους κτῶνται καλοὺς καὶ μεγάλους· πληρώσαντες τούτους παντοδαπῶν κειμηλίων,

γῆν περιβάλλονται, ὅσων ἂν αὐτοῖς ἡ ματαιότης τῶν λογισμῶν τῆς ὀλῆς κτίσεως ἀποτέμῃται; *hom.* 21, *mund.* 3, PG 31, 545D–548A: οὔτε εἰ ἐπὶ γῆς πλῆθρα κτήσαιτό τις μυρία, καὶ μεγαλοπρεπεῖς οἰκίας, καὶ ζώων ἀγέλας παντοδαπῶν, καὶ τὴν ἐν ἀνθρώποις ἅπασαν περιβάλοιτο δυναστείαν, ἀπολαύει δι' αἰῶνος αὐτῶν.

²⁵ Bas. *ep.* 223, 7, vol. III, p. 17; 224, 1–2, vol. III, pp. 17–19 Courtonne 1966. On the subject in general cf. Gain 1985: 1–39; Teja 1974: 141–144.

²⁶ Greg. Naz. *or.* 43, 58, p. 250 Bernardi 1992: "what made Anthimos most furious was the circulation of the profits of the Taurus, which he saw, but which were paid to the other; he also considered the incomes the Saint Orestes so much that once took possession of the mules of Basil, who travelled for personal reasons, and, with the help of a band of bandits, prevented him from going on". On the use of mules in the rough paths of Cappadocia cf. Courtonne 1973: 19–20; Gain 1985: 16; Cassia 2004: 75.

²⁷ Bas. *ep.* 296, vol. III, p. 171 Courtonne 1966: "conjecturing you own disposition towards us, and recognizing the zeal which you have for the Lord's work, we have made bold with you lately as with a daughter, and have made further use of your female mules, using them sparingly indeed, as through our own, but we did for all that prolong the service they rendered me", transl. Deferrari 1970: 211.

ἡμᾶς πεπυκνωμένοι, ὡς μηδὲ κατελθεῖν τοῦ ὀχήματος εὐπορον εἶναι· οὐ γὰρ ἦν εὐρεῖν τόπον κενὸν ἀνθρώπων. Μόγισ δὲ πείσαντες ἡμῖν τε δοῦναι καιρὸν πρὸς τὴν κάθοδον καὶ ταῖς ἡμιόνους ἐπιτρέψαι τὴν πάροδον, ἤμεν παρὰ τῶν περιρρεόντων ἡμᾶς κατὰ πᾶν μέρος συνθλιβόμενοι, ὥστε τὴν ὑπερβάλλουσαν αὐτῶν φιλοφροσύνην μικροῦ δεῖν καὶ λειποθυμίας γενέσθαι αἰτίαν²⁸.

Gregory of Nazianzus, when describing the route to Andaemona, recounts that he was forced, due to the slope, to get out of the cart and travel part of the way on foot, part on horseback, even though it was a Roman road, as can be seen from the mention of πεντεκαίδεκα σημεία²⁹.

Of great interest is also a passage of Oration 8 for the deceased Gorgonia³⁰, daughter of Gregory the Elder and Nonna, bride of Alypius³¹, and sister not only of Gregory of Nazianzus but also of the physician Caesarius³². Here Gregory remembers a terrible accident that occurred precisely to his sister, when the vehicle on which she was travelling overturned because of the mad mules. Gorgonia would have suffered many serious fractures which, however, would have been completely healed thanks to divine intervention:

ἵστε τὰς μανείσας ἡμιόνους, καὶ τὴν συναρπαγὴν τοῦ ὀχήματος, καὶ τὴν ἀπευκτὴν ἐκείνην περιτροπὴν, καὶ τὴν ἄτοπον ἔλξιν, καὶ τὰ πονηρὰ συντρίμματα, καὶ τὸ γενόμενον ἐντεῦθεν σκάνδαλον τοῖς ἀπίστοις, εἰ οὕτω δίκαιοι παραδίδονται, καὶ τὴν ταχεῖαν τῆς ἀπιστίας διόρθωσιν· ὅτι πάντα συντριβεῖσα καὶ συγκοπεῖσα καὶ ὅστ' αὐ καὶ μέλη, καὶ ἀφανῆ καὶ φαινόμενα, καὶ οὕτε ἰατρὸν ἄλλον πλὴν τοῦ παραδόντος ἠνέσχετο· ὁμοῦ μὲν καὶ ὄψιν ἀνδρῶν αἰδουμένη καὶ χεῖρας (τὸ γὰρ κόσμιον κἂν τοῖς πάθεσι διεσώατο)· ὁμοῦ δὲ καὶ τὴν ἀπολογίαν ζητοῦσα παρὰ τοῦ ταῦτα παθεῖν συγχωρήσαντος, οὕτε παρ' ἄλλου τινὸς ἢ ἐκείνου τῆς σωτηρίας ἔτυχεν· ὡς μὴ μᾶλλον ἐπὶ τῷ πάθει πληγῆναι τινος, ἢ ἐπὶ τῷ παραδόξῳ τῆς ὑγείας καταπλαγῆναι, καὶ διὰ τοῦτο δόξαι συμβῆναι τὴν τραγῳδίαν, ἢν' ἐνδοξασθῇ τοῖς πάθεσι³³.

²⁸ Greg. Nyss. *ep.* 6, 3–4, vol. I, p. 166; 6, 8–9, vol. I, p. 168 Maraval 1990: “and over our heads was a small cloud, caught by a strong wind, already swollen with rain. Yet we, as in the Israelite wonder, passed through the midst of the waters on every side of us (cf. Ex 14.22), and completed the journey to Vestene without being drenched. Once we had found shelter there and our mules were given rest, the signal was given by God to the sky for the downpour. When we had spent some three or four hours there and had rested sufficiently, again God ended the downpour, and our carriage moved along more briskly than before, as the wheels sped easily through the mud which was just moist and on the surface... But as soon as we entered the portico the carriage struck against the dry pavement. At that, as if by some signalling device, the people suddenly appeared I know not from where or how. They thronged around us so closely that it was not easy to disembark from the carriage, for we could not find a spare space among them. But after we had with difficulty persuaded them to allow us a chance to descend and to let our female mules pass through, we were pressed on every side by the crowd all around us, so much so that their excessive affection all but made us faint”, transl. Silvas 2007: 141–142. On Vestene, site located on the Halys east of Nyssa, cf. Cassia 2004: 218; Silvas 2007: 141, nt. 151. See *ep.* 1, 6, vol. I, pp. 86–88 Maraval 1990 on some roads so impervious that they can only be travelled on horseback and without a vehicle: καταλίων ἐν τῷ τόπῳ τὸ ὄχημα, ἐν ᾧ παρὰ τῆς τοιαύτης κατελήφθη φήμη, ἵππῳ τὸ μεταξὺ διήλθον διάστημα, κρημνῶδες καὶ ὀλίγου ὁπρεπτον ταῖς τραχυτάταις ἀνόδοις. Cf. Teja 1974: 31. For the location of Tyana on the important trade routes testified to by the *Itineraria* see Cassia 2004: 58.

²⁹ Greg. Naz. *ep.* 249, 7, p. 178 Gallay 1969 (= Greg. Nyss. *ep.* 1, 7, vol. I, p. 88 Maraval 1990): ἦν δὲ πεντεκαίδεκα σημεία, ὡς παρὰ τῶν ἐγγωρίων ἠκούσαμεν, οἷς τὸ ἐν τῷ μέσῳ διαμετρεῖτο διάστημα. Τούτων τὰ μὲν ἐκ ποδός, τὰ δὲ διὰ τοῦ ἵππου μόλις διελθόν, ὄρθριος, μέρει τινὶ καὶ τῆς νυκτὸς συγχρησάμενος, κατὰ τὴν πρώτῃν τῆς ἡμέρας ὥραν ἐφίσταμαι τοῖς Ἀνδαμονοῖς· οὕτω γὰρ ὀνομάζεται τὸ χωρίον ἐν ᾧ ἦν ἐκκλησιάζων ἐκεῖνος μετὰ ἄλλων ἐπισκόπων δύο, “fifteen miles measured the intervening distance, as we heard from the local people. Barely making headway, now on foot, now on horseback, in the early morning – for I had even employed part of the night – I arrived in the first hour of the day at Andaemona, for that was the name of the place where he was holding church with

Still in Cappadocia, must have been hinnies, hybrid specimens born from the crossbreed of the excellent Cappadocian horses with the female donkeys and used for the transport of people, as we learn from a letter by John Chrysostom addressed to the Olympias the Deaconess at the end of 404 A.D. The βόρδων (= *burdo*, “hinny”), which was pulling the litter, in fact, had fallen to its knees due to the narrow, steep and stony road in the territory of Caesarea:

εἷτα ὁ βόρδων ὁ φέρων ἡμῶν τὸ λεκτικίον – τραχεῖα γὰρ ἦν σφόδρα ἡ ὁδὸς καὶ ἀνάντης καὶ λιθώδης – κατενεχθεὶς ἐπὶ γόνυ κατήνεγκέ με ἔνδον ὄντα καὶ μικροῦ ἔμελλον ἀπόλλυσθαι· εἷτα ἐκπηδήσας, συρόμενος περιεπάτου ὑπὸ Εὐθήιου τοῦ πρεσβυτέρου – κατεπήδησε γὰρ καὶ αὐτὸς τοῦ ὑποζυγίου – καὶ οὕτως χειραγωγούμενος ἐβάδιζον, μᾶλλον δὲ ἐλκόμενος· οὕτε γὰρ βαδίζειν ἦν εἰς τοσαύτην δυσχωρίαν καὶ ὀρη χαλεπὰ ἐν νυκτὶ μέση³⁴.

The woman who was able to accommodate John Chrysostom in Koukousos – a very important *statio* located by the *Itinerarium Antonini* on the road from Melitene to Tarsus in Cilicia – when he was forced to leave Constantinople must have been very rich. In fact, Olympias was able to ensure that basic necessities arrived from everywhere in Koukousos. John Chrysostom describes in detail the adverse weather conditions that can obstruct a mountain pass road such as the one that rans through the Taurus from Caesarea to Koukousos, severely affecting his already compromised health, but also constitute a “useful” obstacle to dangerous Isauric incursions³⁵.

3. Elephants (?)

After the partition of Triparadisus in 321 BC, Eumenes was forced to face Antigonus alone, withdrew to Cappadocia in 320 BC and faced his enemy at Orkynia. As Diodorus Siculus says, Antigonus had only 10,000 infantry, 2,000 cavalry and thirty elephants against Eumenes, who had some 20,000 infantry and 5,000 cavalries³⁶. After the defeat, Eumenes had to take refuge in a fortress called

two other bishops”, transl. Silvas 2007: 109. On the attribution of this letter to Gregory of Nazianzus or to the Nyssen cf. Maraval 1990: 54–55; Silvas 2007: 105–107; Conte 2017: 314, nt. 1325.

³⁰ The bibliography on Gorgonia is quite extensive: cf. Hauser-Meury 1960: 87, s.v. *Gorgonia II*; *PLRE*, I: 398, s.v. *Gorgonia 2*; Conde Guerri 1994: 381–392; Burrus 2006: 153–170; Fatti 2011: 279–304; Børtnes 2013: 97–115.

³¹ Greg. Naz., *epitaph.* 24 = *AP* 8, 103, 1–4: κτήσιν ἐν σάρκασι τε καὶ ὅστέα πάντ' ἀναθεῖσα / Γοργόνιον Χριστῷ μόνον ἀφῆκε πόσιν' / οὐ μὴν οὐδὲ πόσιν δὴρὸν χρόνον, ἀλλ' ἄρα καὶ τὸν / ἤρπασεν ἐξαπίνης κύδιμον Ἀλύπιον. On Alypius cf. Hauser-Meury 1960: 28, s.v. Alypius V; *PLRE*, I: 147, s.v. Alypius 5.

³² Cf. Cassia 2023: 339.

³³ Greg. Naz. *or.* 8, 15, pp. 278–280 Calvet-Sebasti 1995: “you know how her maddened mules ran away with her carriage, and unfortunately overturned it, how horribly she was dragged along, and seriously injured, to the scandal of unbelievers at the permission of such accidents to the righteous, and how quickly their unbelief was corrected: for, all crushed and bruised as she was, in bones and limbs, alike in those exposed and in those out of sight, she would have none of any physician, except Him Who had permitted it; both because she shrank from the inspection and the hands of men, preserving, even in suffering, her modesty, and also awaiting her justification from Him Who allowed this to happen, so that she owed her preservation to none other than to Him: with the result that men were no less struck by her unhopd-for recovery than by her misfortune, and concluded that the tragedy had happened for her glorification through sufferings”. On Gorgonia cf. Cassia in press.

³⁴ Ioh. Crys. *ep. Olymp.* 9, 3d, p. 228 Malingrey 1968: “then the hinny that carried our stretcher (since the road was very narrow and steep and stony), dropped to its knees, hurled me down while I was inside and lacked very little to die; then, jumped outside, I walked dragged by the presbyter Evetius (he also jumped down from the pack animal), and so I proceeded driven by his hand, or rather pushed: since it wasn't possible to proceed for such a rough land and inaccessible mountains in the middle of the night”.

³⁵ Ioh. Crys. *ep. Olymp.* 9, 4c, p. 232; 12, 1a, p. 316; 15, 1d, p. 358; cf. 17, 1a, p. 368 Malingrey 1968. For testimonies on the site cf. Cassia 2004: 144–146.

³⁶ Diod. 18, 40, 7. Cf. Scullard 1974: 82.

Nora³⁷. In this case, the main use of elephants is for warfare, but nothing prevents us from thinking that they were also used to transport army supplies, also because the development of subsequent events occurs rather quickly. Indeed, Antigonos met with Eumenes and tried to persuade him to take joint action. But the Cardian demanded the return of the previously granted satrapies and absolution from all charges. Antigonos sent a report to Antipater and, having left a sufficient garrison, moved through a forced march to attack the enemy generals, Alcetas, brother of Perdikkas, and Attalus, commander of the entire fleet³⁸.

The physician Aretaeus of Cappadocia in the 2nd century A.D., in order to explain the symptoms of elephantiasis (disease that has been identified with leprosy)³⁹, still speaks of elephants in such detail as to suggest direct knowledge of the animal, although we know almost nothing about his training as a doctor or the places where he practised his profession⁴⁰. In any case, «Aretaeus has provided an interesting side-line on how a skilled physician regarded elephants»⁴¹.

4. Camels

In addition to the passages of the Cappadocian Fathers already mentioned regarding size and strength of the camels (in *Adversus eos qui castigationes aegre ferunt* and *In sanctum Pascha* of Gregory of Nyssa), as well as their presence in the “supply” of the great owner (in Basil’s *Quod rebus mundanis adhaerendum non sit*), the bishop of Caesarea speaks of real herds of these animals that some wealthy owners now used yoked to transport goods, now bred in the wild for the production of meat and milk (ἀγέλαι καμήλων, τῶν μὲν ἀχθοφόρων, τῶν δὲ νομάδων)⁴².

A further destination for the use of these animals is evident from Basil himself, who recommended in 373 A.D. to Antiochus, nephew of Eusebius, τὸν δὲ ἀδελφὸν τὸν ἐπὶ τὰς καμήλους, “the brother who is in charge of the camels”. According to Ramon Teja, this indication would be an evident reference to «alguna posta estatal surtida por camellos»⁴³.

Gregory of Nazianzus also describes the camel herds as status symbol of the rich: θέλεις λίθους διαυγεῖς, / πλάτῃ τε γῆς λιπώσης, / καὶ ποιμνίων ἀριθμοῦς, / βοῶν τε καὶ καμήλων;⁴⁴.

As J. Eric Cooper and Michael J. Dekker wrote, «as elsewhere in the Empire, camel caravans had specialist drivers and camel-masters who moved the merchandise of pedlars and wealthy owners around the plateau»⁴⁵. The camels, in fact, certainly had to be used in the transport of Cappadocia salt⁴⁶, particularly widespread at the mouth of the Halys river (today Kızılırmak) and especially in inland lakes such as Tatta (Tuz Gölü). This basin was already considered by Strabo a real natural saline and still in the Ottoman period the precious mineral was transported on camel and mule back across

Anatolia, up to Constantinople⁴⁷.

In the mid-16th century, the camel was present throughout central Anatolia, as evidenced by an epistle of Augier Ghislain de Busbecq, Flemish writer, herbalist and diplomat: *quibus rebus magno numero cameli onerantur. Talem numerosæ multitudinis comitatum ‘carravanam’ vocant*⁴⁸. In the first half of the XVIII century, the British diplomat, numismatist and antiquarian William Martin Leake (1777-1860) recalled that from this lake basin radiated throughout Anatolia the largest amount of salt, indispensable for preserving raw meat: entire villages were engaged in collecting and transporting the ore, carried out with the aid of camels, mules or wagons, and directed everywhere in Asia Minor, especially westwards as far as Constantinople⁴⁹. Still in the mid-nineteenth century William Francis Ainsworth, English surgeon, traveller, geographer and geologist, reported that there were few pastures for large herds of camels around Nevşehir⁵⁰.

5. Conclusions

All these animals had to play a fundamental role in transport, especially in an orographically complex environment such as the Mediterranean, where the cobbled streets remained however a rarity compared to the countless beaten paths. In fact, unlike what happened with the use of means of transportation on wheels and pulled by oxen, these animals, burdened with saddlebags or packsaddles, undoubtedly proved to be more suitable for rough paths and decisively more competitive to support loads. If on the one hand individual animals could be used for limited transport in an economic circuit where the spread of small property allowed the production of reduced surpluses for the market, on the other hand long convoys, consisting of numerous pack animals, could face displacements medium and/or long distance with loads of significantly more important goods: this is the case of camel caravans which, for example, crossed the Anatolian peninsula for the transport of salt taken from Tatta Lake, as well as of dromedaries, that moved through the Arabian Peninsula up to Nabatean region and the Syro-Palestinian coast or even the Egyptian desert from the ports of the Red Sea to reach the river boarding areas on the Nile in Coptos⁵¹.

A donkey could bear loads between 70 and 90 kg, a mule between 90 and 136 kg; the mules, in particular, were the most profitable as they were very resistant, provided with an exceptional balance, especially in the impervious mountain stretches; moreover, they not only imposed low maintenance costs, but also had a special resistance to fatigue, which allowed them to travel, even if not quickly, up to 80 km per day⁵². Even camels, like mules, had an extraordinary resistance to fatigue, as well as to thirst, and were able to carry really heavy loads⁵³. In the transport receipts saved by

³⁷ Cf. Cassia 2013: 333–366.

³⁸ Diod. 18, 41.

³⁹ Gourevitch 2001: 160–164.

⁴⁰ Aret. 4, 13, 1–4, 13, 8, pp. 85–87 K. Hude, *CMG*, II (Berlin: 1958²).

⁴¹ Scullard 1974: 222.

⁴² *Bas. hom. in div. 7*, 2, p. 47 Courtonne 1935: “herds of camels, some bearing burdens, others bearing nomads”, transl. Boyd 2014: 76–77; for the connection with Bible and luxury products see 76, nt. 177. On the possible dating of the oration and the use of wealth according to Basil cf. Cassia 2024: 20–23.

⁴³ *Bas. ep.* 158, vol. II, p. 392 Deferrari 1988, trans. Deferrari 1988: 393. Cf. Teja 1974: 141.

⁴⁴ Gr. Naz. *carm. de se ipso (carm. hist. 2*, 1, 88), vv. 18–21, *PG* 37, 1436: “do you demand shining gems, and vast expanses of fertile earth, and quantities of sheep, oxen and camels?”; cf. Teja 1974: 32.

⁴⁵ Cooper and Dekker 2012: 101; cf. Teja 1974: 141.

⁴⁶ Pliny attests the existence of a particular variety of rock salt with a characteristic yellow color (*nat.* 31, 39, 73: *horum extremitates* [of the lakes] *tantum inarescunt, sicut in Phrygia, Cappadocia, Aspendi, ubi largius coquitur et usque ad medium*; 31, 39, 77: *effoditur et e terra, ut palam est umore densato, in Cappadocia. Ibi*

quidem caeditur specularium lapidum modo; pondus magnum glaebis, quas micas vulgus appellat; 31, 39, 82: *et in Cappadocia e puteis ac fonte aquam in salinas ingerunt*; 31, 41, 84: *e Cappadocia qui in laterculis adfertur, cutis nitorem dicitur facere*; 31, 41, 86: *in Cappadocia crocinus effoditur, tralucidus et odoratissimus*); cf. Colum. 6, 17, 7; Galen. *succ.* 1, A, 724, XIX C.G. Kühn (Lipsiae: Car. Cnoblochii 1830); Veget. *mulom.* 1, 20, 1; Aet. 2, 43; 6, 48; 3, 81; 16, 124; 133; Paul. Med. 7, 25.

⁴⁷ Strabo 12, 5, 4 C 568. Even today 60% of Türkiye’s salt requirement comes from the Tüz Gölü, whose salinity is 375‰: Kasperek and Kasperek 1993: 93.

⁴⁸ *Ep.* 4, p. 327, de Busbecq 1771.

⁴⁹ Leake 1824: 70. On Tatta cf. Cassia 2022: 357–371.

⁵⁰ Ainsworth 1842: 188. Today the camel spreading area has shrunk and is substantially limited to the south-eastern corner of Türkiye: Grzimek (ed.) 1990: 313–321.

⁵¹ Bagnall 1985: 1–6.

⁵² Cf. White 1986; Hanson and Sijpestein 1991: 268–274 for the breeding of mules in Egypt; Bagnall 1979–1982: 117.

⁵³ Daniel and Sijpestein 1986: 111–115; Nachtergaele 1989: 287–336, on terracottas depicting types of saddles, packsaddles and loads; 314, nt. 5 on an

an Egyptian papyrus of the 4th century A.D. the terms “donkey” and “camel” are even used as a unit of size: the donkey normally carried three artabas (about 90 kg), while the camel twice⁵⁴.

The geographical location of the testimonies is concentrated in that peculiar area of the ancient historical region of Cappadocia, not surprisingly mainly characterized – as we mentioned – by a rocky and underground habitat. In general, the majority of studies on this area have on one hand covered the architectural and decorative aspects – iconographic programs, fresco cycles of the rock churches – and on the other hand focused on the monastic (hermitages, cenobes, laura) or housing use destination of these structures. Now, even if these are considerable aspects, here it is instead necessary to focus more, even if not exclusively, on the “economic” – rather than religious – function of these settlements dug in the rock or obtained in the bowels of the earth, on the relationship between these sites and viability, according to a less “frequented” perspective of the study of “living in cliffs or caves”, but more attentive to the persistence and changes of the agricultural landscape and productive activities in the long term. Thus, we find ourselves in front of an extra-urban, rural, lively, pulsating landscape, punctuated, sometimes even thickly, by *castella*, *stationes*, κῶμαι. The territory including the underground cities of Derinkuyu, Kaymaklı and Özkönak, the important centre of Avanos and the Peristremma valley, dense with cave settlements – roughly corresponding to today’s Nevşehir province – shows a truly impressive settlement continuity: in fact, the rocky cavities were inhabited until the last century (sometimes even to this day) and the fields are still fertilized with guano collected in the dovecotes dug into the soft tuff of the houses⁵⁵. In this area, where wine has been produced since the Hittite age, horses, donkeys and mules are regularly used in agricultural work and in small and medium-range transport⁵⁶.

In conclusion, the centrality of the Cappadocian plateau – crossed by many roads belonging both to the crossroads of Caesarea, in a central position, and to that of Melitene, located east, near the Euphrates – constituted the connecting factor and the territory of the passage of traffic between Anatolia, Syria, Mesopotamia, India and China and carried the export and import of products on a large, medium and short-range commercial network. The trades consisted of both everyday objects or basic commodities, and luxury products, transported by long convoys of donkeys, mules, hinnies, but also camels, a real “supply” of wealth of the urban notables of late ancient Cappadocia, owners not only of extensive lands, but also of whole herds of these animals. However, they were not only used as pack animals, but were also destined for other purposes, such as agricultural work, the production of milk, meat and textiles, the transport of passengers and the patients, and the imperial mail service (*cursus publicus*).

Résumé - Le transport des marchandises et les relations entre humains et animaux en Cappadoce entre les périodes hellénistique et antique tardive : De l'époque hellénistique à l'Antiquité tardive, la Cappadoce, située au centre du plateau anatolien, était sillonnée par d'importantes routes empruntées par les animaux de transport, dont les sources littéraires se souviennent aujourd'hui pour leur capacité reproductive extraordinaire tantôt pour leur coût tantôt pour leur grande docilité et utilité au service des hommes. Le but de la présente étude est de vérifier la présence dans les témoignages anciens de bête de somme et de placer ces preuves dans le cadre économique, social et politique plus large de la Cappadoce.

Mots-clés : *Animaux de transport, Cappadoce gréco-romaine, routes, économie.*

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Egyptian law that would have prohibited loads of more than 319 kg for camels, while a more reliable estimate would indicate loads of 150–200 kg.

⁵⁴ *P.Wisc.* II 47. Cf. Gara 1994: 81–82.

⁵⁵ Cf. in general Germanidou 2015: 43–47.

⁵⁶ Cf. Ayliffe and Dubin and Gawthrop 19973: 518; Cassia 2004: 65.

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