

EROTIC DATE-PALMS IN AMMIANUS MARCELLINUS (*RES GESTAE*, XXIV,3,12–13)

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(12) *In his regionibus agri sunt plures, consiti uineis uarioque pomorum genere, ubi oriri arbores adsuetae palmarum, per spatia ampla ad usque Mesenen et mare pertinent magnum, instar ingentium nemorum. Et quaqua inceserit quisquam, termites et spadica cernit adsidua, quorum ex fructu, mellis et uini conficitur abundantia, et maritari palmae ipsae dicuntur, facileque sexus posse discerni.* (13) *Additur etiam generare feminas seminibus inlitas marum, feruntque eas amore mutuo delectari, hocque inde clarere quod contra se uicissim nutantes, ne turgidis quidem flatibus auertuntur. Et si ex more femina maris non inlita fuerit semine, abortus uitio fetus amittit intempestiuos. Et siqua femina cuius arboris amore percussa sit ignoretur, unguento ipsius inficitur truncus, et arbor alia naturaliter odoris dulcedinem concipit, hisque indicibus uelut coeundi quaedam proditur fides.¹*

“In this region many fields are planted with vines and fruit-trees of different sorts. Immense palm groves also cover a wide expanse and extend as far as Mesene and the Great Sea (Persian Gulf). Wherever you go you see branches cut from palms, some with their fruit, from which honey and wine are made in great quantities. We are told that palms themselves mate, and that the sexes may easily be distinguished. It is said too that female trees conceive when they are smeared with the

¹ AMMIANUS MARCELLINUS, *Res Gestae*, XXIV,3,12–13. The Latin text quoted is that of AMMIEN MARCELLIN, *Histoire*, (éd.) JACQUES FONTAINE, Paris 1977, which is substantially the same as that of AMMIANUS MARCELLINUS, *Res Gestae*, (ed. and transl.) JOHN C. ROLFE, Cambridge (Mass.) – London 1964 (reprint).

seeds of the male, and that they lean towards each other and cannot be separated even by a strong wind. If the female is not smeared with the seed of the male in the usual way, she miscarries and loses her fruit before it is ripe. If it is not known with what male tree a female is in love her trunk is smeared with her own nectar, and nature arranges that another tree senses the sweet smell. This is the evidence on which belief in a kind of copulation is based.”²

In the summer of AD 363 the Roman emperor Julian invaded the territory of the Persian King Sapor II. The historian Ammianus Marcellinus, who accompanied the expedition, supplies an extensive narrative of events on this campaign, including descriptions of the “wonders of the East” to which his account of the date palms belongs.³ However, recent studies of Ammianus’ historical methods are sceptical about whether he gives a consistent eye-witness account of events that took place during Julian’s Persian campaign or not.⁴ These critics argue that Ammianus

² Translation by WALTER HAMILTON. Cf. AMMIANUS MARCELLINUS, *The Later Roman Empire Selected and Translated by Walter Hamilton with an Introduction and Notes by Andrew Wallace-Hadrill*, Harmondsworth – London 1986.

³ ROWLAND SMITH, *Telling Tales: Ammianus’ Narrative of the Persian Expedition of Julian*, in: *The Late Roman World and Its Historian: Interpreting Ammianus Marcellinus*, (eds.) JAN WILLEM DRIJVERS – DAVID HUNT, London – New York 1999, pp. 89–104, here p. 97 for the first person narrative point of view from which the marvels of Persia are described in Ammianus. Smith compares this perspective with that of the observation of marvels of the New World by the *conquistadores* in which “the experiencing of marvels is represented in ways that serve the aim of colonial appropriation”. In the case of the date palms, however, there is no “colonial appropriation” – instead local myths are celebrated in the manner of Herodotus as Smith notes. Other marvels witnessed include a race of men with single eyebrows (*Res Gestae*, XXIII,6,75) and a cleft in the earth that emits a deadly vapour (*Res Gestae*, XXIII,6,17). See also HANS TEITLER, *Visa vel lecta? Ammianus on Persia and the Persians*, in: *The Late Roman World and Its Historian: Interpreting Ammianus Marcellinus*, (eds.) JAN WILLEM DRIJVERS – DAVID HUNT, London – New York 1999, pp. 216–223.

⁴ Especially GAVIN KELLY, *Ammianus Marcellinus: The Allusive Historian*, Cambridge 2008; NENAD IVIC, *Neutralizing Contingency: Ammianus Marcellinus as a Participant in Julian’s Persian Campaign, 363 AD*, in: *Arcadia: International Journal for Literary Studies* 39/2, 2004, pp. 322–332, here p. 323: “even descriptions of the events witnessed in person (*uisa*) are verbal/textual fictions”. TIMOTHY DAVID BARNES, *Ammianus Marcellinus and the Representation of Historical Reality*, Ithaca – London 1998, p. 95, writes: “Ammianus also sometimes drew on his own recollection of what he had seen or heard. Hence the description *visa vel lecta* that he applies to the content of his account of the coasts of Thrace, the Hellespont, and the Black Sea (*Res*

often provides his readers with highly mediated information drawn from many diverse literary sources. These sources are rarely reported directly and are often modified fairly substantially, making their precise provenance difficult to determine. It has even been suggested that Ammianus challenges his readers to interpret his version of events, much as the readers of romantic fiction such as Apuleius' *Metamorphoses* or the *Aethiopica* of Ammianus' contemporary Heliodorus of Emesa were.⁵ This article argues that Ammianus's digression on the date palms that Julian's army encountered after crossing the Euphrates on pontoons and rafts (*Res Gestae*, XXIV,3,11) provides an interesting and unusual exception to this prevailing view of the sources used by the historian during this campaign.⁶

In his account of the date palm groves, Ammianus describes how, after the successful siege of Pirisabora (Peroz-Shapur), the Roman expedition encountered an area irrigated by a great deal of water (*locum ... arva aquis abundantibus fecundantem*) fourteen miles from this city (*Res Gestae*, XXIV,3,10–14). The Persians, who had prior knowledge of the route the Roman army would take, had broken the dykes of the canals (*sublati cataractibus*) and allowed the water to flood the land.

Gestae XXII,8,1)", but notes that the balance between oral and written might vary "from one excursus to another" and that Ammianus sometimes resorted to imaginative fiction of events such as the solar eclipse in 360 CE. Barnes does not discuss the expedition to the date palm groves in his work. Earlier historians such as EDWARD A. THOMPSON, *The Historical Work of Ammianus Marcellinus*, Cambridge 1947, pp. 20–41, esp. p. 39; GUY SABBABH, *La Méthode d'Ammien Marcellin*, Paris 1978, and JOHN MATTHEWS, *The Roman Empire of Ammianus*, London 1989, follow Gibbon's more sanguine estimation of Ammianus' autopsy of the events he describes. JOHN MATTHEWS, *The Roman Empire*, p. 13, writes: "[a]s he [Ammianus] explained in the preface to Book 15, he recorded as faithfully as possible what he was old enough to have witnessed himself and what he could learn by the close questioning of participants in events."

⁵ JOHN WEISWEILER, *Unreliable Witness: Failings of the Narrative in Ammianus Marcellinus*, in: *Literature and Society in the Fourth Century AD*, (eds.) LIEVE VAN HOOF – PETER VAN NUFFELEN, Leiden 2015, pp. 103–133, referring to J. J. Winkler's interpretation of Apuleius' *Metamorphoses* and Heliodorus at pp. 112–113.

⁶ For the Persian digressions in Ammianus Marcellinus, see HANS TEITLER, *Visa vel Lecta?*, pp. 216–223; WIEBKE VERGIN, *Das Imperium Romanum und seine Gegenwelten: Die geographisch-ethnographischen Exkurse in den "Res Gestae" des Ammianus Marcellinus*, Berlin – Boston 2013, pp. 92–126 (Persia as a "counter-world" to Rome).

Ammianus relates how Julian gave the army a day of rest and explored the area himself on improvised pontoons and boats (*ex utribus ... pontibus itidemque navibus confectis e palmarum trabibus*).⁷ This reconnaissance was probably undertaken in emulation of the scientific explorations of one of Julian's models, Alexander III of Macedon.⁸ In this region he encountered groves of palm trees extending over a wide area up to Apamia and the Caspian Sea. According to Ammianus' account, whoever ventures into any part of this region (*quaqua incesserit quisquam*) sees many palm branches (*termite*s) with fruit (*spadica*)⁹ from which a sweet liqueur is made from the fermented juice of the dates (*ex fructu mellis et vini conficitur abundantia*).¹⁰ He goes on to report that palm trees belong to male and female sexes,¹¹ which are easily distinguished, and that they "are married" (*maritari*).¹² The females conceive (*generare*) when smeared with the seeds of the males, and both take pleasure in the act of love (*feruntque eas amore mutuo delectari*) and can be seen from the fact that they lean towards one another and are difficult to separate even in a high wind. If not smeared with male seed the female aborts and loses the fruit prematurely. Female palms whose male partner cannot be identified are impregnated (*inficitur*) with their own perfume (*unguento ipsius*) and male trees are attracted by the scent.

⁷ HERODOTUS (*Historiae*, I,194) describes how the Babylonians made coracles from skins on a willow frame, but this is very different from Ammianus's account. LIBANIUS (*Oratio*, XVIII,223) comments on Julian's resourcefulness at this point in his expedition. Cf. JOHN MATTHEWS, *The Roman Empire*, pp. 153–154.

⁸ On Alexander as a model for Julian, see TIMOTHY DAVID BARNES, *Ammianus Marcellinus*, p. 147.

⁹ This word occurs only in Ammianus as a second declension neuter noun. AULUS GELLIUS (*Noctes Atticae*, II,26,10; III,9,9) refers to a branch of the palm with its fruit as a *spadix*.

¹⁰ *Philological and Historical Commentary on Ammianus Marcellinus XXIV*, (eds.) JAN DEN BOEFT – JAN WILLEM DRUIVERS – DANIEL DEN HENGST – HANS C. TEITLER, Leiden 2002, p. 94 note that *mel* here does not of course mean "honey" but rather a kind of sweet liqueur (*mellis et vini* is a case of *hendiadys*).

¹¹ The date palm (*phoenix dactylifera*) is in fact dioecious as any scientific botanical description will state. The female tree is pollinated by inflorescences borne by the wind from male trees.

¹² The verb *maritare* is often used in the agricultural sense of "mated / matched with". Cf. *Philological and Historical Commentary on Ammianus Marcellinus*, p. 95, quoting *Thesaurus Linguae Latinae*, VIII,402,79.

Ammianus's account leaves his own involvement in the excursion to the date palm region extremely unclear, as the passage is obliquely related through the use of impersonal expressions, indefinite pronouns (*uentum est, quaquā incesserit quisquam*) and expressions that suggest that it is based on ostensibly oral reports (*dicuntur, additur, feruntque*). However, recent studies have argued that Ammianus was well versed in literature and makes frequent allusions to *written* sources when using such expressions.¹³ This article investigates whether written sources or oral, rhetorical myths influenced Ammianus's narrative here. The anthropomorphic eroticism of Ammianus' account suggests, at first sight, that some form of literary or rhetorical elaboration, either oral or written, is indeed at work in this passage.

The most obvious suspect as a possible hypotext to this account is Herodotus, who refers (at *Historiae*, I,193) to palm trees in Babylonia that produce "food, honey and wine".¹⁴ He notes that the locals tie the fruit of the male palms (τοὺς ἔρσενους) to the date-bearing palms (τῆσι βαλανηφόροις) to allow the gall-fly (ὁ ψήν) contained in them to enter the dates and "to prevent the fruit from falling off" (μὴ ἀπορρῆῃ ὁ καρπὸς τοῦ φοίνικος). His account provides a rather brief, practical explanation of the pollinating role of the gall-fly in the propagation of palms and how the trees are tended by farmers. The actual technique of artificial fertilization of palm trees is outlined rather obscurely by Herodotus, and is described in greater detail and more accurately by Theophrastus (*Enquiry into Plants*, II,8,1–3). Theophrastus gives a more scientific description of the caprification of the palm trees – a process in which the spathe is cut off the male tree when it is in flower and the bloom is shaken over the fruit of the female. If this is done the fruit is retained and not shed.

¹³ See above, note 4. GAVIN KELLY, *Ammianus Marcellinus*, does not discuss Ammianus's digression on the date palms specifically. The editors of *Philological and Historical Commentary on Ammianus Marcellinus*, p. 96, debate whether Ammianus was using *lecta* or "personal briefings by local experts" here. They argue that the latter is less likely because local experts must have known better than what is reported in this passage about date palms. This assumes that the information he would have received from the locals would have been technical agricultural data rather than mythological material as is argued below.

¹⁴ Accounts of the date palm in Graeco-Roman literature are noted in the commentary on this passage by *Philological and Historical Commentary on Ammianus Marcellinus*, p. 95.

Like Herodotus, Ammianus also includes his account of the palm tree as a digression from his main historical narrative,¹⁵ and the mention of the products of the palm (such as date liqueur and, of course, the dates themselves) by Ammianus may be a nod towards his historical predecessor. Both accounts also refer to how the dates are not shed from palms that have been successfully fertilised. However, Herodotus' note is very short and the common elements in the two narratives are not particularly striking since they give only well known, and indeed obvious information about the tree. Herodotus does not in fact refer to palm branches (*termites*) as Ammianus does and Ammianus makes no mention of the role of the gall-fly at all. Most importantly neither the earlier historian nor Theophrastus elaborates on how palms of different sexes are erotically attracted to one another.¹⁶ Their versions are different from subsequent accounts considered in this article in this respect.

In a slightly fuller version, Pliny the Elder (*Historia Naturalis*, XIII, 26,21–23) does indeed introduce the element of anthropomorphic eroticism into his account of the palm trees of Babylonia. He refers to the fact that female trees need males to produce fruit and that they appear to incline towards male trees, caressing them with their “hair” (*blandioribus comis* – i.e. with their fronds). The male trees respond by “growing erect in their hairy/prickly parts” (i.e. their spiny leaves) and “marry” or “mate with” (*maritare* again) the “others” (i.e. the females), disseminating pollen dust by their “exhalations and glances” which impregnates them (*illum erectis hispidum adflatu visuque ipso et pulvere etiam reliquas maritare*). He concludes by noting that the erotic attraction of palms to one another is well known to those who tend them and that these farmers sprinkle the pollen from the male tree onto the females in order to promote fertility. Pliny's account blends erotic innuendo with technical agricultural methods of propagating the palms.

It is possible that Ammianus was familiar with Pliny's account since both are playfully erotic in tone and both make use of the Latin word *maritare* to describe the relationship between the male and female trees.

¹⁵ On geographical digressions in Ammianus see GARY A. CRUMP, *Ammianus Marcellinus as a Military Historian*, Wiesbaden 1975, pp. 35–43.

¹⁶ HANS TEITLER, *Visa vel Lecta?*, pp. 216–223, notes that Ammianus' *Res Gestae* often differs from Herodotus' *Historiae* in his narrative of Persian affairs. He concludes (p. 220) that Ammianus combines what he had read (*lecta*) with what he had seen (*visa*) and often sought to outdo his predecessors.

However, as noted above (note 12) the word *maritare* is often used in a technical sense for plant propagation. The differences between Ammianus and Pliny are also clear: Pliny concentrates on the female palms seducing the males, whereas the attraction is mutual in Ammianus; Ammianus does not refer to the “erection” of the male palms at all; Ammianus talks of “smearing” rather than dusting the pollen on the female tree; and, finally, Ammianus alone refers to the use of the perfume of the female tree in attracting the attention of the males.

So much is already familiar material. Alongside these texts, however, another much more elaborate passage must be considered. This occurs in Achilles Tatius’ erotic novel *Leucippe and Clitophon* (I,17–18).¹⁷ Here Clitophon is attempting to tell the slave Satyros about sexual attraction in the natural world. He begins with stones, such as the stone of Magnesia that draws iron objects towards herself by the force of erotic attraction between them so that they kiss. Clitophon goes on to state that “philosophers” (παῖδες σοφῶν) also give an account of sexual attraction in plants that he would consider a myth were it not also well known to farmers (παῖδες ἔλεγον γεωργῶν). According to Clitophon’s unidentified source (λέγουσι) palm trees provide a good example of botanical sexual attraction since both male and female palm trees can be identified. He goes on to state that the male palm desires the female but if she is too far away he “droops” (ἀυαίνεται). Farmers observe this and survey the area to see in which direction the palm is pointed. When they identify the female tree that the male tree is leaning towards they graft a shoot of the female into the “heart” of the male (εἰς τὴν τοῦ ἄρρενος καρδίαν).¹⁸ The male tree revives and stands erect in the embrace of his lover. And so the male and female palm are married (τοῦτό ἐστι γάμος φυτῶν). Third, Clitophon refers to the marriage of a river in Elis with one in Sicily. The sea in between “parts herself” so that he can flow over her surface via a “crack in the sea”¹⁹ which leads into the river bed. In this way Alpheus is mated with Arethusa. Lastly, the land viper lusts for

¹⁷ Following the Budé text edited by JEAN-PHILIPPE GARNAUD (éd.), *Le Roman de Leucippé et Clitophon*, Paris 1991.

¹⁸ Achilles Tatius may be thinking here of the practice of inserting sprigs of the male efflorescence of the palm into the sheath of the female palm tree in order to fertilize it (except that he has reversed the sexes). See EDWARD B. TYLOR, *The Fertilization of Date-palm in Ancient Assyria*, in: *The Academy* 35, 1889, p. 386.

¹⁹ Translated by TIM WHITMARSH, *Leucippe and Clitophon*, Oxford 2001.

the eel and comes down to the sea to hiss a song for her. The eel recognizes the song and rises from the sea and waits for him to detoxify himself. The viper vomits up the poison before the two unite and kiss.

Achilles Tattius is the most outrageously erotic of all the sources considered in this article. His analogies, when taken together, constitute an metaphorical description of sexual coitus from erotic attraction to ejaculation.²⁰ Ammianus also makes the idea of sexual attraction clear, but in a far more restrained manner. Both Ammianus and Achilles emphasise the distinction between male and female palm trees, how the trees lean towards one another, how the male tree experiences an “erection”, and, finally, how the male is attracted to the female. However, Achilles is very different from Ammianus in that he focuses on the role of the male tree, and his is the only account of the date palm to mention “grafting” a shoot from the female into the male tree.

The combination of sensuous description and practical functionality is evident also in rhetorical *ekphraseis* such as the second-century sophist Philostratus’ word-picture of a *locus amoenus* including amorous palms in which bent over palms serve as bridges (*Imagines*, 9):²¹

ζεῦγμα φοινίκων ἐπιβέβληκε τῷ ποταμῷ καὶ μάλα ἤδὺν ἐπ’ αὐτῷ λόγον· εἰδὼς γὰρ τὸ περὶ τῶν φοινίκων λεγόμενον, ὅτι αὐτῶν ὁ μὲν ἄρσση τις, ἡ δὲ θήλεια, καὶ περὶ τοῦ γάμου σφῶν διακηκοώς, ὅτι ἄγονται τὰς θηλείας περιβάλλοντες αὐτὰς τοῖς κλάδοις καὶ ἐπιτείνοντες αὐτοὺς ἐπ’ αὐτάς, ἀφ’ ἑκατέρου τοῦ γένους ἓνα κατὰ μίαν ὄχθην γέγραφεν. εἶτα ὁ μὲν ἐρᾷ καὶ ἐπικλίνεται καὶ ὑπεράλλεται τοῦ ποταμοῦ, τῆς δὲ θηλείας ἔτι ἀφεστώσης οὐκ ἔχων ἐπιλαβέσθαι κεῖται καὶ δουλεύει ζεύξας τὸ ὕδωρ, καὶ ἔστι τοῖς διαβαίνουσιν ἀσφαλῆς ὑπὸ τῆς τοῦ φλοιοῦ τραχύτητος.

“The painter has thrown a bridge of date palms across the river, and there is a very pretty reason for this; for knowing that palms are said to be male and female, and having heard about their marriage, that the male trees take their brides by bending over toward the female trees and embracing them with their branches, he has painted a palm of one sex on one bank and one of the other sex on the other bank. Thereupon the male tree falls in love and bends over and stretches out over the river;

²⁰ For the general context of this passage in *Leucippe et Clitophon*, see HELEN L. MORALES, *The Taming of the View: Natural Curiosities in Leucippe and Kleitophon*, in: *Groningen Colloquia on the Novel*, VI, (ed.) HEINZ HOFMANN, Groningen 1995, pp. 39–50.

²¹ PHILOSTRATUS, *Imagines*, (transl.) ARTHUR FAIRBANKS, Cambridge (Mass.) 1960.

and since it is unable to reach the female tree, which is still at a distance, it lies prone and renders mental service by bridging the water, and it is a safe bridge for men to cross on because of the roughness of its bark.”

Philostratus’ version of the sexual attraction between male and female date palms provides yet another rhetorical variation on the theme. Literary variations of such diversity as have been seen above in the accounts of Pliny, Achilles Tatius, Menander Rhetor, Philostratus, and Ammianus, strongly resemble literary variants. All of these passages elaborate on the theme of sexual attraction between palms of different sexes to a greater or lesser extent. All describe the fertilization of the female palm as “marriage” or “mating”, all refer to the way palm trees lean towards one another, all refer to the fertilizing intercourse between the two sexes. On the other hand, each author’s account is unique: Ammianus alone refers to the smearing of the male seed, the use of the perfume of the female tree to attract the male, and to the fact that even in high wind the palms cannot be separated; Pliny refers to the “exhalations and glances” (*adflatu visuque*) given off by the male palm. As noted above, Achilles Tatius is the only source to introduce the notion of grafting. Philostratus alone refers to date-palms acting as bridges to enable people to cross rivers. In sum, the idea that these literary accounts depend on one another directly is not at all convincing and another explanation for the common use of the anthropomorphic sexual metaphor for the fertilization of the fruit of the date palm is needed.

The answer to this conundrum may well lie in Achilles Tatius’ observation that the story of the erotic palms as told by philosophers could be a myth were it not known also to farmers (καὶ μῦθον ἔλεγον [sc. παῖδες σοφῶν] <ἀν> τὸν λόγον εἶναι, εἰ μὴ καὶ παῖδες ἔλεγον γεωργῶν). It is significant that Achilles Tatius, or rather his narrator, Clitophon, specifically identifies his sources for the story of the palms since he does not identify any sources for his other analogies, which were probably elaborations on rhetorical commonplaces. This strongly suggests that he was aware of other versions of what was originally a mythological theme. This is in fact clear from a passage in Menander Rhetor (402)²² in which Menander advises orators to include in their epithalamia stories of rivers that are attracted to one another, specifi-

²² *Menander Rhetor*, (edd.) D. A. RUSSELL – N. G. WILSON, Oxford 1981.

cally the myth of the rivers Alpheus and Arethusa, which Achilles Tatius includes in his list. Menander goes on to add that trees too play their part in marriage: *περὶ δὲ δένδρων ἐρεῖς, ὅτι καὶ κείνα οὐκ ἄμοιρα γάμων οἱ γὰρ ἐπὶ ταῖς κόμαις σύνδεσμοι φιλοτεχνήματα γαμούντων δένδρων εἰσὶ* (“As to trees, you should point out that they too are not without their part in marriage, for the tendrils on leaves are devices of trees for mating.”). The use of the same mythological exempla in Menander’s discussion as those used by Achilles is suggestive.²³ Furthermore, the fact that Clitophon says that both philosophers and farmers knew of the story can be explained by the fact that the story was in origin an aetiological myth for a common agricultural practice rooted in fertility cults. The same combination of eroticism and technical botanical information can be seen in the treatment of them in the *Hexameron* of Ammianus’s Christian contemporary Basil (V,7).²⁴

As it happens there is very good evidence to suggest that these accounts of the “marriage” of date palms is based on an Assyrian fertility myth. Mythical accounts of the fertilization of the date palm were advanced by the Assyrians in the 8th century BCE as was first explained by

²³ The commonplace of mating palm trees is employed in the late fourth-century Latin poet Claudian’s epithalamium to Honorius (line 66) – also in a strongly mythological context (the myths of Proteus, Mulciber, and Zephyr precede the reference to the “behaviour” of palms).

²⁴ Οὐ γὰρ μόνον ἐν τοῖς ἐτερογενέσιν αἱ διαφοραὶ τῶν καρπῶν, ἀλλ’ ἦδη καὶ ἐν αὐτῷ τῷ εἶδει τοῦ δένδρου πολὺ τὸ διάφορον· ὅπουγε καὶ ἄλλος μὲν χαρακτῆρ τοῦ καρποῦ τῶν ἄρρένων, ἄλλος δὲ τῶν θηλειῶν, παρὰ τῶν φυτουργῶν διακρίεται, οἱ γε καὶ τοὺς φοίνικας εἰς ἄρρενας καὶ θηλείας διστώσι. Καὶ ἴδοις ἄν ποτε τὴν παρ’ αὐτῶν ὀνομαζομένην θήλειαν, καθιείσαν τοὺς κλάδους, οἷον ὀργώσαν, καὶ τῆς συμπλοκῆς ἐφιεμένην τοῦ ἄρρενος, τοὺς δὲ θεραπευτὰς τῶν φυτῶν ἐμβάλλοντας τοῖς κλάδοις, οἷον τινα σπέρματα τῶν ἄρρένων, τοὺς λεγομένους ψήνας, καὶ οὕτως οἷον ἐν συναισθήσει τῆς ἀπολαύσεως γίνεσθαι καὶ ἀνορθοῦσθαι πάλιν τοὺς κλάδους, καὶ πρὸς τὸ οἰκεῖον σχῆμα τοῦ φυτοῦ τὴν κόμην ἀποκαθίστασθαι. “Now there is such a variety of fruits in fruit trees that it is beyond all expression; a variety not only in the fruits of trees of different families, but even in those of the same species, if it be true, as gardeners say, that the sex of a tree influences the character of its fruits. They distinguish male from female in palms; sometimes we see those which they call female lower their branches, as though with passionate desire, and invite the embraces of the male. Then, those who take care of these plants shake over these palms the fertilizing dust from the male palm-tree, the *psen* as they call it: the tree appears to share the pleasures of enjoyment; then it raises its branches, and its foliage resumes its usual form.” See also AMBROSE, *Hexameron*, III,55.

E. B. Tylor in 1889–1890.²⁵ Since then the historian of science George Sarton has added botanical substance to Tylor’s original insight.²⁶ Tylor was the first to argue that the Assyrian monuments, such as the bas relief from the royal palace of Ashurbanipal discovered by Layard at Nimrud in 1845 and now in the British Museum,²⁷ depict figures identified by Tylor on the basis of Ezekiel as Cherubim artificially fertilizing female date palms. Tylor’s theory and other interpretations of the Assyrian “sacred tree” have now been given a full book-length critical treatment by Giovino, who provides an analysis of how this interpretation of the Assyrian relief sculptures came to dominate the field in the twentieth century.²⁸

The Assyrian relief sculpture discussed by Tylor depicts a vulture-headed creature with four wings and a human body, who approaches a vegetative structure holding an object resembling a cone in its raised right hand and a small bucket in the left hand. According to Tylor the cone-like structure is actually the efflorescence of the male date-palm and the mythical creatures are engaged in manually pollinating the female date-palms with it, as described by Theophrastus above. The vegetation on the relief contains clusters of fruit resembling bunches of dates. The artwork attributes to divine beings the discovery of the technique of artificial pollination of the date palm that greatly increased the natural fertility of the trees, thus providing to humans a plentiful source of sweet fruit. Dates were clearly used as an important source of food as the account of Ammianus Marcellinus (*Res Gestae*, XXIV,3,14) makes clear. He states that the Roman army “sated” itself on the dates from the trees that in his day covered an “wide expanse” of land (*Res Gestae*, XXIV,3,13).

²⁵ EDWARD B. TYLOR, *Fertilization*, p. 396; IDEM, *The Winged Figures of the Assyrian and Other Ancient Monuments*, in: *Proceedings of the Society of Biblical Archaeology* 12, 1890, pp. 383–393. See also CHARLES S. DOLLEY, *The Thyrsos of Dionysos and the Palm Inflorescence of the Winged Figures of Assyrian Monuments*, in: *Proceedings of the American Philosophical Society* 31, 1893, pp. 109–116.

²⁶ GEORGE SARTON, *The Artificial Fertilization of Date-palms in the Time of Ashur-Nasir-Pal B.C. 885-860*, in: *Isis* 21/1, 1934, pp. 8–13.

²⁷ Illustrated in ERNEST A. WALLIS BUDGE, *Assyrian Sculptures in the British Museum*, London 1914, on plates XI and XLIV.

²⁸ MARIANA GIOVINO, *The Assyrian Sacred Tree: A History of Interpretations*, Göttingen 2007, esp. pp. 61–76. See also DENISE COCQUERILLAT, *Aperçus sur la phé-*

This Assyrian myth was known to second century Greco-Roman writers. According to Plutarch's fourth topic for discussion in his *Table-talk* (*Moralia*, 724e) the interlocutor Caphisias states that "the Babylonians sing hymns and poems [songs] to the [palm] tree as serving them in three hundred and sixty ways" (Βαβυλώνιοι μὲν γὰρ ὕμνουσι καὶ ᾄδουσιν ὡς ἐξήκοντα καὶ τριακόσια χρεῖων γένη παρέχον αὐτοῖς τὸ δένδρον). This brief allusion indicates that the lore of the date palm would have been included in Assyrian hymns and poetry (whether oral or written) in praise of the various uses to which the date palm was put.²⁹ He goes on to state that Greeks on the other hand find little use for the palm tree, which they regard as sterile and often significant only for the property of palm wood to resist pressure applied to it. Plutarch's account suggests that these Babylonian hymns were widely known by ordinary people. The memorization and singing of hymns was a common practice in the fourth-century, as is evident from the emperor Julian's statement in his famous *Letter to a Priest* (89B), referring to "hymns ancient and modern" as well as those actually sung in the temples of the Roman Empire:

Ἐκμανθάνειν χρῆ τούς ὕμνους τῶν θεῶν· εἰσὶ δὲ οὗτοι πολλοὶ μὲν καὶ καλοὶ πεποιημένοι παλαιοῖς καὶ νέοις· οὐ μὴν ἄλλ' ἐκείνους πειρατέον ἐπίστασθαι τοὺς ἐν τοῖς ἱεροῖς ᾄδομένους· οἱ πλείστοι γὰρ ὑπ' αὐτῶν τῶν θεῶν ἱκετευθέντων ἐδόθησαν, ὀλίγοι δὲ τινες ἐποιήθησαν καὶ παρὰ ἀνθρώπων, ὑπὸ πνεύματος ἐνθέου καὶ ψυχῆς ἀβάτου τοῖς κακοῖς ἐπὶ τῇ τῶν θεῶν τιμῇ συγκείμενοι.

"We ought to learn by heart the hymns in honour of the gods and many and beautiful they are, composed by men of old and of our own time though indeed we ought to try to know also those which are being sung in the temples. For the greater number were bestowed on us by the gods themselves, in answer to prayer, though some few also were written by men, and were composed in honour of the gods by the aid of divine inspiration and a soul inaccessible to things evil."

(Transl. W. C. Wright)

niculture en Babylonie à l'époque de la première dynastie babylonienne, in: *Journal of Economic and Social History of the Orient* 10, 1967, pp. 161–223; BENNO LANDSBERGER, *The Date-palm and Its By-products according to the Cuneiform Sources*, Graz 1967.

²⁹ For references to the worship of trees in Assyrian mythology, see DONALD A. MACKENZIE, *Myths of Babylonia and Assyria*, London 1915, pp. 339–342.

Recent studies have shown that Assyrian mythology and literature, such as the myth of the sun's eye, the myth of the flood, the myth of Gilgamesh, and the story of Metiochus and Parthenope, had a strong influence on Greek literature, especially the Greek romances.³⁰ If the argument of this article is accepted then the myth surrounding the fertilization of the date palm provides another example of this interaction that evidently continued until late in the fourth century. The information reported by Ammianus may have originated from direct or indirect contact with local informants (ἑξήγηται). Language would not have provided a barrier to communication. Although he never mentions the language, Ammianus appears to have known Syriac, which was the lingua franca of the ordinary people of the region, and his name may be Semitic in origin. Besides, the Roman army was not short of interpreters, as it depended on information provided by the local population for its military strategy in the war, and Ammianus knew about the interrogation of Persian spies.³¹

There is also good evidence that even extensive prose narratives were frequently transmitted across cultures orally, before they were ultimately recorded in writing.³² This process, which may have continued

³⁰ *The Epic of Gilgamesh*, (transl.) N. K. SANDARS, Harmondsworth 1960; STEPHANIE DALLEY, *The Greek Novel Ninus and Semiramis: Its Background in Assyrian and Seleucid History and Monuments*, in: *The Romance between Greece and the East*, (eds.) TIM WHITMARSH – STUART THOMSON, Cambridge 2013, pp. 117–126; *Myths from Mesopotamia*, (transl.) STEPHANIE DALLEY, Oxford 1989; STEPHANIE WEST, *Divine Anger Management: The Greek Version of the Myth of the Sun's Eye (P.Lond.Lit. 192)*, in: *The Romance between Greece and the East*, (eds.) TIM WHITMARSH – STUART THOMSON, Cambridge 2013, pp. 79–90; JOSEF WIESEHÖFER, *Ctesias, the Achaemenid Court, and the History of the Greek Novel*, in: *The Romance between Greece and the East*, (eds.) TIM WHITMARSH – STUART THOMSON, Cambridge 2013, pp. 127–141.

³¹ JOHN MATTHEWS, *The Roman Empire*, pp. 69–71; JAMES N. ADAMS, *Bilingualism and the Latin Language*, Cambridge 2003, p. 688 and notes 3–4; TIMOTHY DAVID BARNES, *Ammianus Marcellinus*, pp. 60–61; GAVIN KELLY, *Ammianus Marcellinus*, p. 117. For example, Ammianus knows the etymology of the place name Meiacarire “place of cool waters” (*Res Gestae*, XVIII,6,16). This passage also provides evidence that Ammianus knew of the interrogation and execution of a Roman deserter who had been sent by the Persians to spy on the Roman army. For intelligence-gathering by the Romans see PAT SOUTHERN, *The Roman Army: A Social and Institutional History*, Oxford 2007, pp. 225–228, esp. p. 228 for the centralization of this function in the eastern states of the Roman Empire under Constantine.

³² LAWRENCE KIM, *Orality, Folktales and Cross-cultural Transmission*, in: *The Romance between Greece and the East*, (eds.) TIM WHITMARSH – STUART THOMSON, Cambridge 2013, pp. 300–321.

after the text was written down, is evident, for example, in the transmission of Milesian tales, the *Alexander Romance*, the *Life of Aesop*, and possibly Xenophon of Ephesus' *Ephesian Story*.³³ Such narratives often cross language and cultural boundaries by being retold by travellers.³⁴ If complex narratives and stories were communicated in this way, as seems plausible, it is even more likely that myths, especially those encoded in verse hymns in order to aid memory, travelled across the Empire even more readily.³⁵

Given that myths surrounding the fertilization of the date palm originated in Assyria – the region in which Julian and Ammianus conducted their expedition, it is probable that they heard stories or hymns about the date palm directly from the local inhabitants, especially as the Assyrian fertility myth was an example of local pagan religion and both writers had an interest in such beliefs.³⁶ Furthermore, Christian writers refer to Christ or the cross of Christ as the Tree of Life and pagan writers such as Ammianus and Julian had an interest in counteracting such symbolism.³⁷ So in this case it is probable that Ammianus is not necessarily relying particularly on any preceding literary account, but rather giving a rhetorical variation of a well-known local Assyrian myth explaining the origins of the practice of artificial fertilizing the date-palm.

³³ JAMES N. O'SULLIVAN, *Xenophon of Ephesus: His Compositional Technique and the Birth of the Novel*, Berlin 1995.

³⁴ LAWRENCE KIM, *Orality*, p. 316.

³⁵ For the intercultural transmission of myths, even in Archaic Greece, see MARTIN L. WEST, *The East Face of Helicon: West Asiatic Elements in Greek Poetry and Myth*, Oxford 1997, pp. 606–630. On the close relationship between myth and fictional narratives in antiquity, see ANTON BIERL, *Myth and the Novel: Introductory Remarks and Comments on the Roundtable Discussion*, in: *Intende, lector: Echoes of Myth, Religion and Ritual in the Ancient Novel*, (eds.) MARÍLIA FUTRE PINHEIRO – ANTON BIERL – ROGER BECK, Berlin 2013, pp. 7–16.

³⁶ For anti-Christian polemic in Ammianus and his relationship to Julian in this regard, see TIMOTHY DAVID BARNES, *Ammianus Marcellinus*, pp. 79–94, esp. p. 79 (the term “Hellene” often had the sense of “pagan”). For Ammianus's interest in comparative religion and paganism generally, see R. L. RIKE, *Apex Omnium: Religion in the Res Gestae of Ammianus*, Berkeley 1987, pp. 87–111, who notes especially (pp. 93–95) Ammianus' interest in Persian religion and its decline under Arsaces.

³⁷ STEPHEN JEROME RENO, *The Sacred Tree as an Early Christian Literary Symbol: A Phenomenological Study*, Saarbrücken 1978, pp. 98, 99, 106, 116, 145. The Tree of Life need not necessarily be identified with the date palm, however. On the Tree of Life, see MRS. JOSEPH HENRY PHILPOT, *The Sacred Tree or The Tree in Religion and Myth*, London 1897.

Appendix

The elements in the major sources for date palms can be tabulated as follows in chronological order:

Herodotus (5th century BCE)	Pliny the Elder (1st century CE)	Achilles Tatius (2nd century CE)	Ammianus (4th century CE)
Palm trees produce food, honey and wine.			Palm trees produce honey and wine.
		Philosophers give accounts of this myth, but it is not just a myth since farmers know about it.	They say that ...
Palms are cultivated like figs.			
They tie the fruit of the male trees to the date-bearing trees.			
The gall-fly enters the dates.			
The gall-fly is found also in the male palms.			
	Female palms lean towards male palms.	The male palm points towards the female he loves.	Palm trees lean towards one another and cannot be separated even in high wind.
	The male marries / mates with (<i>maritare</i>) the “others” (<i>reliquas</i>).	This is the marriage of plants.	Palm trees marry / mate with each other (<i>maritare</i>).
		There are male and female palm trees.	The sex of palm trees is easily determined.

	The spiny leaves of male palms grow erect.	Male trees droop then grow erect.	Both trees take pleasure in the act of love.
	The male trees disperse seed by exhalations and glances.		
		Farmers observe in which direction the male tree is pointing.	
Fruit does not fall off when gall-fly enters dates.			Female trees conceive when smeared with the seed of males.
	If male trees are cut down the females are widowed and become barren.		Female trees abort the fruit when not smeared with male seed.
	Farmers sprinkle pollen on the female palms to promote fertility.	Farmers graft a shoot of the female palm into the heart of the drooping male trees.	Female palms without a partner are impregnated with their own perfume to which the males are attracted.

Summary

Herodotus, Theophrastus, Pliny the Elder, Achilles Tatius, Philostratus, and other writers in antiquity provide similar descriptions of the fertilization of date palms in Mesopotamia. However, although all these narratives bear a general resemblance to one another, none can be proven to be the direct source of Ammianus Marcellinus's version (*Res Gestae*, XXIV,3,12–13). Instead this article argues that his account was influenced by contemporary oral retellings of an Assyrian fertility myth.

Keywords: Ammianus Marcellinus; sources; date-palms; mythology; cross-cultural transmission

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