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# Listening for *licia*: A Reconsideration of Latin *licia* as Heddle-Leashes

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A Reconsideration of Latin *licia*  
as Heddle-Leashes

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## Listening for *licia*: A Reconsideration of Latin *licia* as Heddle-Leashes

Magdalena Öhrman

The semantic field of Latin *licium* and its plural form *licia* is undoubtedly wide,<sup>1</sup> with the term applied to thread both generally and in specific legal, medical and magical usage as well as in relation to weaving,<sup>2</sup> and this paper does not aim to survey Latin usage of this term comprehensively. Rather, it focuses on one of the uses of *licia* in Latin literary sources, namely those where *licia* appears to denote heddle-leashes.<sup>3</sup> Two much-discussed passages occur in Augustan poetry where *licia* may be used in this sense: Vergil's *Georgics* 1.285 and Tibullus elegy 1.6.79. Both passages have been subject to considerable discussion in the past, and in both cases, ambiguity still remains. In the case of sources from late Antiquity, such as the fifth appendix to Claudian's *Carmina minora* and Isidorus' *Origines* 19.29.7,

there is wider agreement that *licia* is indeed used to describe heddle-leashes, but scholars have hesitated to allow such late evidence influence the interpretation of earlier, poetic passages.<sup>4</sup>

The readings proposed below credit Latin authors with greater technical understanding of weaving than has sometimes been assumed, suggesting that their tacit knowledge of textile production has influenced the artistic presentation of their descriptions of such work in ways hitherto little considered.<sup>5</sup> My readings are heavily influenced by observation of weaving experiments conducted at the Centre for Historical-Archaeological Research and Communication at Lejre by staff from the Centre for Textile Research in Copenhagen and at the Department of Aegean Archaeology in Warsaw, marrying results gained in

1. The work on this paper was made possible by support from the Welsh Strategic Insight Programme (SIP) and the Pasold Research Fund. I am grateful to colleagues at the University of Wales Trinity Saint David (Lampeter) and the Centre for Textile Research (Copenhagen), who have generously offered feedback on earlier drafts, and to colleagues who have enabled me to observe and make sound recordings during ongoing weaving experiments: my thanks especially to Eva Andersson Strand, Ida Demant, Marie-Louise Nosch, Anna Rosa Tricomi, and Agata Ulanowska. I am also much indebted to Gerassimos Bissas for the drawings illustrating technical details.

2. *OLD* s.v. *licium*; *ThLL* s.v. *licium*.

3. This has implicit connections with the interpretation of other passages, where *licium* or related words potentially refer to types of cloth woven with multiple heddle-rods, e.g., Luc. 10.26; Plin. *NH* 8.196. Cf. Walbank 1940, 101-104.

4. Walbank 1940, 97; Wild 1967, 151.

5. The notion of correlation between work processes of textile production, particularly weaving, and literary expression and form has received more attention in relation to Greek texts. Key investigations touching on sound-play, metre and weaving are Nosch 2014; Tuck 2006; Tuck 2009.

experimental archaeology to philological analysis. I will show that analysis of the rhythm and sound-play of the relevant passages suggests that even relatively short passages in literary sources carefully and knowledgeably reflect (parts of) historical working processes; this is, as I will indicate, true of early and late sources alike.

Tibullus' elegies make a particularly obvious starting point for exploring the usefulness of such a methodology, as Tibullus himself explicitly mentions the sounds created by weaving in Tib. 2.1.65-66. There, clay loom weights<sup>6</sup> are said to sing as they clink and clatter during weaving:

*hinc et femineus labor est, hinc pensa  
colusque,  
fusus et adposito pollice uersat opus:  
atque aliqua adsiduae textrix operata  
mineruae  
cantat, et a pulso tela sonat latere.*

"Hence [from the countryside] also comes the woman's work, hence the daily allotment of wool and the distaff, and hence the weaver singing as she busies herself with constant craft, and hence it is that the loom sings as the loom weights are struck [together]."

The assumption that Tibullus would seek to mimic such sounds in his own descriptions of weaving is readily made. If we also assume that there is a level of accuracy in such literary mimicking of sounds occurring while weaving, we gain another tool to assist us in determining the passage-specific meaning of a multi-purpose textile term such as *licium*. It is

the purpose of this paper to test the usefulness of this methodological approach. As we might expect literary and stylistic artifice of this type to occur more frequently and in a more pronounced way in poetic texts, my discussion focuses on three passages: the fifth appendix to Claudian's *Carmina Minora*, Vergil's *Georgics*, and Tibullus' elegy 1.6.

### *Heddling and its soundscape*

Interpretations of Verg. *Georg.* 1.285-286 and Tib. 1.6.79 have centred on two different elements of setting up a weave on a warp-weighted loom: affixing warp-threads to the loom frame and heddling, that is, organising already-suspended warp-threads in alternating sequences so that the weaver can change between a natural and at least one artificial shed.<sup>7</sup> A brief consideration of what these work elements involve, and their relative complexity, is necessary before investigating whether one or the other better corresponds to the context and sound-play present in the selected texts.

On the warp-weighted loom (such as explicitly mentioned in Tibullus but likely the type of loom referred to in all three passages under consideration),<sup>8</sup> warp-threads were affixed to the loom frame by means of being interwoven into a starting border (from which the warp-threads emerge), which is sewn onto the cloth-beam of the loom frame.<sup>9</sup> While the preparation of the starting border itself is a multi-step operation requiring both technical skill and experience in calculating how much warp will be required for the desired weave and what density of warp-threads is required,<sup>10</sup> the task of fastening the starting border to the cloth-beam is relatively uncomplicated.

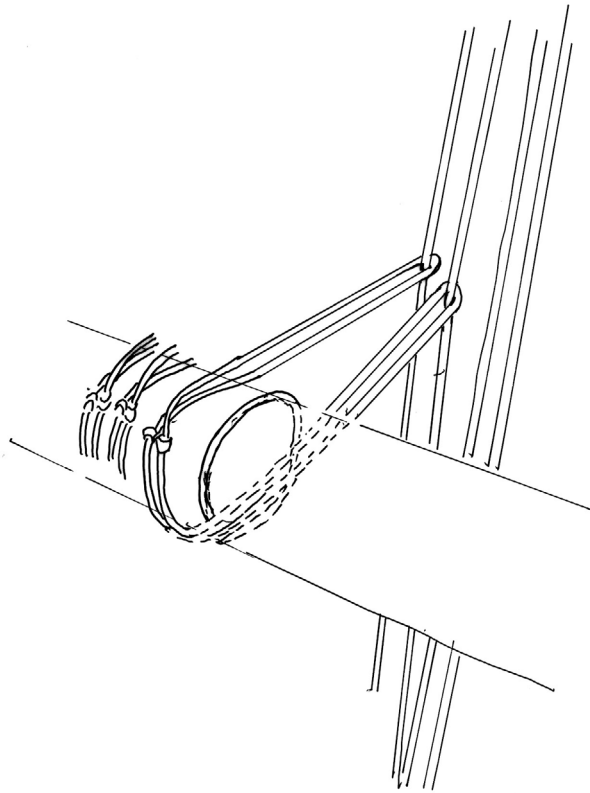
6. On the poetic use of the singular form for plural, cf. Maltby 1999, 246. Maltby also provides a discussion of the use of *later* for 'loom weight'.

7. Walbank 1940; Maltby 1999; Maltby 2002, 278-279.

8. While the use of the two-beam loom is often presumed to spread from the 1st century AD onwards (cf. Ciszuk and Hammarlund 2008, 125; Wild 2009, 471-472, there is archaeological evidence for the continued, parallel use of the warp-weighted loom. On specific locations, e.g., Trinkl 2007; Gostencnik 2014; Gostencnik 2012; Möller-Wiering and Subbert 2012, 168; more generally, cf. Wild 1987, 460-461; Wild 2002, 10-12. Wernsdorff 1785, 494 in effect argues for a two-beam loom in the case of Claud. *Carm. Min. App.* 5, but his description of the role of the *licia* as heddles is equally applicable to the warp-weighted loom, cf. Ciszuk and Hammarlund 2008, 124-125.

9. Ciszuk and Hammarlund 2008, 122; Wild 2009, 471.

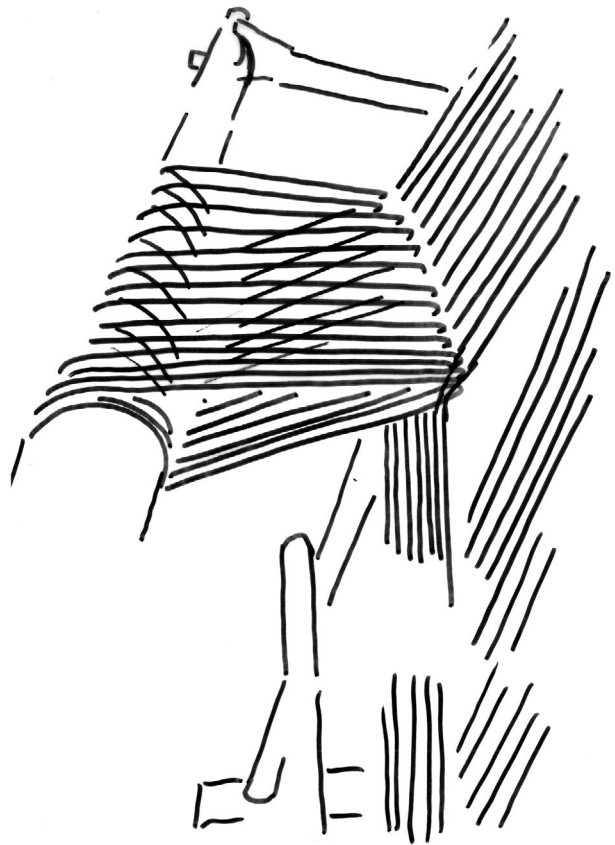
10. On the complexity of preparing the warp and the relation of this element to the selection of suitable loom weights, cf. Mårtensson, Nosch, and Strand 2009, 377-378.



**Figure 1.** Detail of the heddling process: Heddle leashes are looped around individual warp-threads and attached to the heddle-rod. Drawing by Gerassimos Bissas.

Loom weights would, in most cases, be attached to the warp-threads only in a subsequent step, once the starting border was fastened and the warp-threads hanging vertically.

Whether done on a warp-weighted loom or on a vertical two-beam loom, heddling is one of the most difficult elements of preparing a weave. On the warp-weighted loom, it is done with the warp suspended from the cloth-beam and loom weights attached to its bottom end. In a tabby, the warp is divided into two parts, hung either in front of or behind a low-set bar (shed-rod) crossing the loom frame. The opening thus created between front and back layer of warp-threads is the natural shed. A detachable and higher-set heddle-rod is used to create one or more artificial sheds as loops or leashes are made to connect the

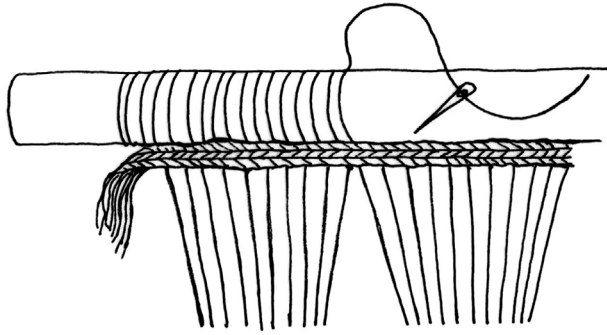


**Figure 2.** Detail of weaving on the warp-weighted loom in progress: Heddles attached to the heddle-rod pull warp-threads forward towards the weaver to create the artificial shed opening. Drawing by Gerassimos Bissas.

warp-threads suspended behind the shed-rod, so that these can be pulled forward through the front-most part of the warp, thus creating a new opening between the two parts of the warp. Interestingly, this is the element of preparing and setting up the warp that has the most influence on what type or pattern of weave will be created; more complex weaves, such as diamond twill, require detailed planning and considerable attention in order to achieve the correct sequencing of warp-threads. Even for a tabby weave, some care is needed when separating warp threads and selecting which ones need to be tied to the heddle-rod; any mistakes or imprecisions will be visible as irregularities in the woven cloth.<sup>11</sup>

11. Hoffmann 1964, 163. Cf. Wild 1970, 64. For the impact of the arrangement of heddles in relation to the width of the warp, cf. Mårtensson, Nosch, and Strand 2009, 386.





**Figure 3.** Above, detail of the starting border for a weave on the warp-weighted loom, showing the border sewn onto the cloth beam. Drawing by Annika Jepson. Copyright CTR.

Two differences relevant to my discussion of individual text passages below emerge: firstly, I argue that heddling is by far the more complex operation and more likely to be experienced as a demanding work element with a risk of errors. Secondly, we may assume a distinct difference in the sound created by these processes: clattering of loom weights would be a regular feature of the heddling process, but only when the starting border is sewn onto the loom..

***Claud. Carm. Min. App. 5.45 (also known as Epithalamium Laurentii)***

The *Epithalamium Laurentii* contains an eight-line long description of the bride's female virtues illustrated through her knowledge of textile work: fibre preparation and spinning (5.41-43) and weaving (5.44-48).<sup>12</sup> The passage is complex both syntactically and through its use of specialised terminology. Much

more could be said about this passage and its use of textile terminology; I will limit myself to comments on 5.45.<sup>13</sup> There is reasonable scholarly consensus that *licium* is used to denote heddle-leashes.<sup>14</sup> Other sources from the same period provide good parallels for this usage.<sup>15</sup>

*compositas tenui suspendis stamine telas,  
quas cum multiplici frenarint licia gressu  
traxeris et digitis cum mollia fila gemellis  
serica Arachneo densentur pectine texta  
subtilisque seges radio stridente resultat.*

“You suspend with fine thread the prepared warp, and when, as the leashes hold it in multiple course, you have pulled the fine thread [through it] with twin fingers, then the silken weave is pressed together with a wool-comb like Arachne's and subtle fruit arises from the whistling rod.”

The use of *freno* (lit. ‘bridle’) to describe the function of the *licia* is highly appropriate given how heddle leashes are looped around individual warp-threads and direct them to move forward or fall back when the heddle-rod is moved. This is similar to how a rider may control the movement of a horse by means of bit, bridle, and reins. The equestrian metaphor is integral to the line: *multiplici gressu*, here describing alternations of the weaving shed and the shift between natural and artificial shed(s), is used elsewhere for types of gait, step or tread.<sup>16</sup> Once the new shed has been opened, the weaver pulls the weft-thread through the warp (*traxeris mollia fila*, 46). This passage,

12. The *Epithalamium Laurentii* is transmitted with Claudian's *Carmina minora* but in all likelihood written by a different author. Dating suggestions range from the 4th to the 6th century AD; the poem appears to have been known and cited in the 7th century AD. Cf. Horstmann 2004, 251-289 with extensive bibliography.

13. Previously, *suspendis compositas telas* has been taken as reference to the fixing of the warp to the cloth-beam (Walbank 1940, 98 n. 1, but cf. also Horstmann 2004, 266 with the rather peculiar translation of “hängst du die entworfenen Gewebe an den zarten Grundfäden (des Webstuhls) [i.e. *stamine tenui*] auf”). I suspect *suspendis compositas telas* could, perhaps, also be seen as referring to the fixing of the heddle leashes to the heddle-rod, as this involves a lifting movement and results in the warp-thread being suspended between their natural position and the heddle-rod, but there is no need to press this interpretation here. Similarly, the distinction between *pecten* and *radius* in 5.46-47 would merit further discussion.

14. Walbank 1940, 97.

15. Serv. *Andr.* 911; Isid. *Orig.* 19.29.7 5. In Ennod. *Carm.* 2.2.8, *licia* is used in a transferred sense which presupposes that the word can be used to describe heddle-leashes.

16. Verg. *Georg.* 3.117; Plin. *NH* 18.298.

therefore, differs from Verg. *Georg.* 1.285-286 and Tib. 1.6.79 (discussed in detail below) in that it does not only describe the setting up of the weave but also includes the weaving itself.

The sound-play of the line I am concerned with here corresponds well to sounds produced when changing the shed.<sup>17</sup> The lifting and replacing of the heddle-rod against the loom frame makes a distinct clattering noise. The movement of the warp generates a clattering of the loom weights, which may be repeated if the weaver needs to touch the warp-threads either by hand or by means of a tool in order to adjust the new opening of the shed. This is mirrored in 5.45 (describing this element of work) by a series of harsh, consonant sounds clustered in two groups, falling in either half of the line: *quās cūm mūltīplīcī frēnārīnt līcīā grēssū* (which, when the leashes hold it in multiple course...). The initial spondee (*quas cum*) illustrates the deliberate clunking noise of the heddle-rod being moved, whereas the dactylic *multiplic(i)* resembles the smaller, clattering sounds of individual loom-weights both in terms of rhythm and in terms of sound. The weaver's pause to test the shed by hand is mirrored in the two spondees taking up the middle of the line (*-īfrēnārīnt*). It is tempting to assume that the r-sounds clustered in this part of the line mimic minute sounds of warp-fibres being pulled apart, with the final dactyl and k-sound of *licia* mirroring the sounds made as the loom weights fall into their proper place.<sup>18</sup>

I argue that in this passage, sound-play, metre, and metaphors contribute to the artistic-literary representation of weaving, adding a perhaps surprising level of accuracy. If one accepts that the author of the epithalamium incorporates the soundscape of weaving into his poetic description, one must also assume that

he had some familiarity with weaving, having seen and heard weavers at work in some setting, whether domestic or commercial. This makes his use of a technical term such as *licium* for 'heddle-leash' all the more plausible.

### *Vergil Georg. 1.285-286*

At the centre of the discussion on whether *licium* denotes heddle leashes in earlier Latin stands Vergil's mention of the setting up of a loom in the first book of the *Georgics* (Verg. *Georg.* 1.285). Just like Hesiod, Vergil mentions the start of a weaving project in the context of a list of days favourable for different activities:

*septima post decimam felix et ponere uitem  
et prensos domitare boues et licia telae  
addere. [...]*

"The seventeenth day is lucky both for setting a vine,  
roping and breaking steers, and for fixing  
the heddle-leashes on a loom."

The three activities mentioned here (planting a vine, breaking in steers, and – as I hope to show – heddlng) all represent the start of long-term tasks important to the agricultural economy. Interestingly, the line, which first mentions *licia*, involves an increased emphasis on the challenges associated with the very start of such work: the oxen need to be reined in (*prensos*) before they can be broken in (*domitare*) and subsequently trained to perform their task. It is worth noting that *prensos* derives from *prenso*, the *intensivum* of the more commonly used *prehendo* (seize, take hold of).<sup>19</sup> The choice of an *intensivum* stresses the

17. Though a late and difficult to date text, the use of quantitative verse and high degree of syntactic complexity indicates that the *Epithalamium* has a generally conservative linguistic preference, which may well extend to pronunciation. I therefore tentatively assume a pronunciation of *licium* without palatalization, i.e., with a k- rather than a ts-sound for "ci", although the latter is otherwise frequently attested in (often non-literary) contexts from the 5th century AD onwards, Clackson and Horrocks 2007, 274. Cf. Adams 2011, 273-274 and Clackson and Horrocks 2007, 294-295 on texts continuing to aspire to standardised Latin when writing highly literary texts.

18. Even assuming a pronunciation where palatalization has taken place, the harsher, clunking sounds of *quas* and *cum* remain in the first half of the line, mirrored in the second half by the g- of *gressu*, and correspond to the sound of the movement of heddle-rod and loom-weights subsequently falling back into place. The potential ts-sounds in *multiplici* and *licia* may then be taken, like *frēnārīnt*, to mimic the minute sounds arising when the weaver adjusts warp-threads by hand.

19. *ThLL* s.v. *prenso*.

difficulty of even this initial element. I will explore below whether the phrase *licia telae* / *addere* may be thought to increase this emphasis, thus creating a climactic tricolon.

In a widely influential article, Walbank argues that Vergil is using *licia* as meaning ‘warp’ in this passage.<sup>20</sup> Walbank’s argument is based on a perceived need to understand *tela* as ‘warp’ in order to accommodate the specific meaning of *licia* as ‘heddle leashes.’ Finding only few parallels for such a use of *tela*, Walbank instead prefers to take *telae* in *Georg.* 1.285 as referring to the loom itself and *licia* as warp-threads.<sup>21</sup> He proposes the following translation of the phrase *licia telae* / *addere*: “to attach the warp-threads to the loom”.<sup>22</sup>

While I agree that *tela* may refer to the loom rather than the warp, I find Walbank’s reading of *licia* as ‘warp-threads’ problematic for two reasons: first, because there is no absolute need to understand *tela* as warp in order to be able to translate *licia* with ‘heddle-leashes’ here.<sup>23</sup> The well-paralleled use of *tela* as ‘loom’ fits equally well. As I have indicated above, heddle-leashes are looped around the warp-threads but fixed to the heddle-rod before weaving begins. To the weaver, the heddle-rod is an integral – if detachable – part of the loom, without which mechanised weaving is not possible.<sup>24</sup> Furthermore, the heddle-rod may be perceived as an integral part of the loom also because it does not need to be changed or altered as a different weave is mounted, whereas the heddle leashes are tied specifically for each, individual set-up.<sup>25</sup>

The second reason for rejecting the reading suggested by Walbank is that it does not fully take into account the importance of heddlings as an initial,

complex element of setting up a weave. Instead, Walbank’s reading places an unwarranted emphasis of the relatively straight-forward procedure of fastening the warp-threads to the cloth-beam.<sup>26</sup> Here, Walbank appears to overlook that an ancient weaver would use a starting-border to organise the warp on the cloth-beam.<sup>27</sup> This becomes clear as he states that the technical term “*exordiri* (or *ordiri*) signifies to fasten the warp-threads to the loom, that is to attach to the beam at the top of the loom *the separate threads* of the warp [...]” [My italics].<sup>28</sup> Admittedly, handling individual warp-threads in this manner would make the fixing of warp to the loom a more painstaking task (and more suitable to be singled out in literary representation), but it does not correlate with what we do know of ancient weaving practice as far as the warp-weighted loom is concerned.

Such a reading also overlooks the fact that mistakes in the heddling will have effects throughout the weave. This impact of heddling on the appearance of the finished piece of cloth makes it all the more likely that one would consider undertaking this task on a beneficial day of the month, in the way that Vergil recommends.

If one accepts that *licia telae* / *addere* in Verg. *Georg.* 1.285-286 does indeed refer to the preparation of heddle-leashes, it remains to be seen whether sound-play or metre can be used to support such an interpretation in a way similar to what I have argued for in the case of the *Epithalamium Laurentii* (Claud. *Carm. Min. App.* 5.45). Vergil’s reference to weaving is admittedly considerably shorter than the other passages I discuss in this paper and thus leaves less room for such poetic artistry to come to the fore. However,

20. Wild 1967; Mynors 1969; Maltby 1999; Maltby 2002 all build on Walbank’s interpretations.

21. Walbank 1940, 95-96.

22. Walbank 1940, 101.

23. Thomson 1988, 117 does suggest the translation “to put loops on the warp”.

24. The use of the general ‘loom’ (*telae*) would be easily understood as a synecdoche, referring to the whole of the loom instead of specifically to the heddle-rod.

25. Cf. Ciszuk and Hammarlund 2008, 122.

26. Maltby 1999, 243 on Tib. 1.6.79 also appears to overlook the element of heddling in preparing a weave, stating that “[attaching the warp-threads to the cloth-beam] was the first task of the weaver before beginning the actual weaving process by passing the horizontal weft-threads through them by means of the shuttle.”

27. Cf. e.g., Wild 2009, 471-472.

28. For *exorior* and *exordium* as referring to a starting-border, cf. *ThLL* s.v. *exordium* IA1 and (e.g.) Paul. Fest. p. 185 and Non. p. 30.32.



two points merit attention: first, this passage, too, is rich in consonant sounds: c, t, and d. Secondly, the description of heddling is divided into two parts, taking up the two final, metrical feet of 1.285 and the initial foot of 1.286. *Enjambment*, i.e. the division of a syntactical unit over two or more verses, is by no means uncommon in Vergil, but here, it matches and vocalises the content of the lines concerned in an interesting way. The k-sound of *licia* and the initial t of *tela* in 1.285 might resemble the tinkling of loom weights as the leashes are fastened. As the hexameter line ends, a pause ensues. Then follows the dull thunk created through the d- and r-sounds in *ad-dere*, stressed through the word's initial position. It is tempting to consider this as an auditory representation of the weaver's first shed-change as weaving begins.

### **Tib. 1.6.79**

The final passage to consider is Tib. 1.6.79 and its snap-shot portrait of an elderly, female textile worker. The interpretation of this passage has been significantly influenced by Walbank's analysis of Verg. *Georg.* 1.285f and by his comments on Tibullus' use of *licium* in the sense of warp' in the same article.<sup>29</sup> Having previously rejected the use of *tela* for 'warp',<sup>30</sup> Walbank argues that Tibullus, too, uses it in reference to the loom itself.<sup>31</sup> As in the case of Vergil's passage, however, this does not preclude the use of *licia* for 'heddle-leashes' as these are in fact tied to the loom, albeit to the heddle-rod, one of the loom's detachable parts. I will propose a simpler reading, where *licia* is taken as 'heddle-leashes'.<sup>32</sup> Once more, I draw on analysis of metre and sound-play in the text to support this reading.

In order to deter the narrator's beloved from infidelity, Tib 1.6.77-80 describes the hard work to which a – now penniless and elderly – faithless woman must recourse to support herself. Commentators have viewed the passage as reflecting three steps of cloth production: first, spinning (78), second, weaving (79), and finally, scouring of wool (80).<sup>33</sup>

*at quae fida fuit nulli, post uicta senecta  
ducit inops tremula stamina torta manu  
firmaque conductis adnectit licia telis  
tractaque de niueo uellere ducta putat.*

"But she who was faithful to none, once overcome with age and destitute, draws out the twisted threads with trembling hand, and ties firm leashes to a rented loom, and she scours the teased wool pulled from snow-white fleeces."

In the final line of the warning *exemplum* of the destitute old woman and her weaving, Tibullus keeps two different readings in play. One possible interpretation takes the reader – and the internal addressee, the narrator's beloved – back to viewing the old woman as a warning against infidelity. This reading draws on the non-technological meaning of *puto*, i.e. the far more mainstream 'believe'. By this reading, the line leaves the weaver's expertise behind and focusses on how she believes (*putat*) that the wool that she is working with is drawn and spun from white fleece (*de uellere niueo*). Given that the earlier emphasis on the weaver's old age, the implication is that the old woman's eyesight is failing to such a degree that she can no longer distinguish the colour of the wool she prepares,

29. Walbank 1940, 97-98 and 101. Walbank's reasoning has been followed by Maltby both in his recent commentary on Tibullus (cf. Maltby 2002, 278) and in an earlier article dealing specifically with technical language in Tibullus, Maltby 1999. The *ThLL* also follows Walbank's classification of Verg. *Georg.* 1.285f and Tib. 1.6.79.

30. Walbank 1940, 101 rejects the use of *tela* for warp and *licia* for heddle-leashes in Tib. 1.6.79 specifically.

31. Walbank 1940, 97-98 furthermore understands the participle construction *conductis telis* (Tib. 1.6.79) as a reference to the loom having been assembled and thus ready for the warp to be attached to the cloth-beam. To my mind, it is preferable to understand the phrase as referring to a rented loom (cf. Flower Smith 1964, 322; Maltby 2002, 278, thus connecting to the motif of poverty-stricken old age).

32. This parallels the translation given by Postgate in the 1912 Loeb edition, Cornish, Postgate, and Mackail 1912. Cf. also Thomson 1988, 117.

33. Maltby 2002, 243-244; Flower Smith 1964, 322; Murgatroyd 1980.

thinking it far whiter than it is.<sup>34</sup> At the same time, the text holds out another possible understanding of the final line, drawing on Tibullus' specific use of technical terminology in the previous part of this warning example, which I will now examine in detail.

Throughout, the sound-play of the passage enhances the depiction of craft processes. We are invited to dwell on the trembling grip (*tremula manu*) of the old woman on the spindle by the placement of the ablative *tremulā* just before the *diairesis* in the pentameter line (78). The pause created by the *diairesis* furthermore corresponds to the careful pulling-out of wool from globule or distaff prior to the twisting of the spindle mentioned in the second half of the line. Despite the mention of her hands trembling, the organisation of the second half of the line nonetheless betrays the woman's skill at her work with a pair of quick dactyls (*stāminā tōrtā mānu*). Thus, Tibullus successfully marries the typical design of the pentameter line, which, like here, normally has a dactyl in the penultimate foot, with the working rhythm of the spinner described in this line.<sup>35</sup>

Similarly, it is the skill of the old woman as a weaver that comes to the fore in the following line. On her rented loom, she fastens *licia firma*, i.e., heddle-leashes that are consistent and strong, and will therefore allow her to produce an even weave. Syntactically, *firma* most likely describes the *licia* used, but its initial placement, in parallel to the two previous lines, both opening with their focus on the old woman as the sentence's subject, also allows its connotations to be attached to the woman herself.

The clattering of the loom weights, occurring as the warp-threads distending them are pulled back and forth to be bound by leashes to the heddle-rod, is represented series of k- and kt-sounds spread across the

whole line: *firmaque conductis adnectit licia telis*. The metrical pattern of the line, too, mirrors the working rhythm of someone heddling: a quick reach into the warp for the correct thread is represented by an initial dactyl (*firmaque*), the slower work element of looping the thread used to create leashes around the heddle-rod and the selected warp-thread is described in three spondees filling the middle section of the line (*conductis adnectit*). When the leash is finished and the warp-thread, now held in sequence by the leash, is allowed to fall back and rest in its place, this is illustrated by a dactyl (*licia*) followed by a final spondee (*telis*) at the end of the line.

*fīrmāque conductis | adnectit licīā telis*

As highlighted above, the most specific element of the process, the tying of the leash, is emphasised due to its position immediately following the penultimate *caesura*.

In a return to the initial stages of preparing wool for spinning and weaving, the following line deals with scouring wool. Maltby explains this by suggesting that the woman is involved only with preparatory tasks, rather than with completing the weave, in order to show clearly her status as hired help rather than a mistress of her own house.<sup>36</sup> Here, the distribution of content across the line is perhaps more illustrative of working processes than the sound-play used. A key element of cleaning wool would be to pull it gently apart in order to attempt to shake out dirt and plant matter stuck in the fleece, either by hand or by combing.<sup>37</sup> The light-handedness necessary for this procedure may have an expression in the fast pace of the line, which contains the maximum number of dactyls permissible in the pentameter. The text hints at such

34. For the old woman as able to "exert control only over the loom", cf. Lee-Stecum 1998, 202. Throughout the passage, Tibullus taps into elegiac descriptions of old women as hags or witches, horror images of what the elegiac mistress herself might become in old age, when she can no longer rely on her beauty to support her desired lifestyle. The implied loss of eyesight affecting the old weaver is particularly relevant as the elegists frequently connect the *puella*'s ability to attract and manipulate her lover(s) with her eyes and gaze. The importance of eyesight and the gaze as a means of communication between lovers in elegy – or indeed a means for the elegiac beloved to exert control – is programmatically stated in Propertius' first poem: *Cynthia prima suis miserum me cepit ocellis* (Prop. 1.1.1), e.g. Fredrick 2014. Cf. on old women in elegy, James 2003, 53-65, also Richlin 2014, 73-74.

35. The placement of the reference to the twisting of the spindle and thread in the second and fastest half of the pentameter line is paralleled in Tib. 2.1.64. Cf. Maltby 1999, 243.

36. Maltby 1999, 244.

37. Varro *Rust.* 2.2.18 distinguishes between washing of the wool (*lavare*) and cleaning it by hand (*putare*). Cf. also Col. 12.3.6.

a pulling motion by placing the word used for wool (*tracta*) at the opening of the line and the participle agreeing with it in the penultimate position (*ducta*). Through this hyperbaton, the wool is literally pulled apart over the length of the line. Finally, *putat* (she scours) stands at the end of the line, illustrating the completion of the work element.

## Conclusion

Based on the textual interpretations presented above, I argue for taking *licium* in Verg. *Georg.* 1.285 and Tib. 1.6.79 as referring to heddle-leashes used on the warp-weighted loom. I hope to have shown that an understanding of the reconstruction of ancient textile production processes, such as heddling, may contribute to an improved interpretation of Latin textile terminology used as well as a more firmly contextualised appreciation of the passages themselves.

Drawing on results from experimental archaeology, I also argue that the use of sound-play and rhythm may be fully integrated in the stylistic expression of poetic descriptions of textile work.<sup>38</sup> Examination of such features is of course subject to some limitations: our appreciation of the niceties of quantitative poetry is likely to be less finely honed than that of the ancient audience, and, as noted in the discussion of the *Epithalamium Laurentii* above, Latin pronunciation changes substantially over time, at a pace and in a fashion not always easy to pinpoint conclusively.

Given the tendency of Latin towards multi-purpose technical terms, however, I would suggest that such readings may prove fruitful. It appears that, at least in some cases, analysis of such sound-play, in combination with more traditional philological methodologies, can help determine specific usages of multi-purpose textile terms such as *licium*.

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38. Interestingly, such artistic integration of sound-mimicking of textile work processes in poetry suggests a surprising tacit understanding of at least some aspects of textile production on the part of Latin poets, something which in turn may contribute to our understanding of the spread and localisation of textile production in Roman society.

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