
Original Article

Written in trees

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Abstract The medieval horticultural manual the *Godfridus super Palladium* directs its readers in the art of grafting and maintaining trees. The text was translated from Latin into Middle English in the fourteenth century by Nicholas Bollard, whose own treatise on planting and grafting is found alongside the *super Palladium* in a number of surviving manuscripts. These works seek, at least in part, to codify past practices and accumulated knowledge, rendering a future that is predictable and productive. Yet both the *super Palladium* and Bollard's *Craft of Grafting and Planting* are replete with micronarratives of nonhuman matter that connect them to a range of natural philosophical and literary traditions. Many of these directives are also scalable: initially specific to trees and plants, they also resonate with contemporary and modern philosophical debates on temporality, the potential transformations of matter, and the thresholds and limits of life.

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In the Middle English translation of the *Godfridus super Palladium*, a fourteenth-century treatise on horticulture, a remarkable passage directs the reader on how ‘To make that wrytynge or peynture shal ben sene in the [kernellis of a peche].’ This process requires a human hand to prize open the ‘skalys’ of the kernels and then ‘writ with cinopre, or peynte a word or a marke’ there. Easy enough, it would seem. Yet this is only the first stage of a process that combines human force and craft with natural growth and multiplication. ‘Diligently berie [the kernels] in the erthe azen & let hem abyde there tyl they





ben treis,' the reader is instructed. Once they have grown into trees, all the kernels in the resulting fruit will, we are told, bear this same 'synge' (127–37).¹

For all its implausibility, its lack of utility, this directive is in many ways characteristic of the *super Palladium*'s investment in the materials and temporalities of vegetal life. The inscribed kernels exemplify the workings of natural artifice that populate horticultural manuals, encapsulating, on a small scale, the complex imbrication of nature and culture that resonates in contemporary ecological theory.² We can also note the association the treatise makes here between the technologies of inscription and horticulture; surrounded by directives on the grafting of fruit trees, this passage seems to recur to the etymology of that term in Old French *grafe* ['stylus,' 'pen'] and Greek *graphein* ['to write'].

In its economy of expression, the instruction that the inscribed kernels simply be afforded the time and space to 'abyde' until they are fruit-bearing trees dramatically condenses the duration between human action and arboreal result. This short, seemingly self-contained narrative projects a future in which the kernels *will have grown* into trees. And yet, the commitment that is being asked of the reader – the work of horticulture and the work of waiting – cannot be so easily elided, not least because the attendant processes are detailed elsewhere in the treatise and the late medieval horticultural writing tradition. To make these 'marke[s]' appear, the reader must plant the seeds in the right kind of soil and at the right time of year, protect and insulate the fledgling shoots, and care for the young trees. We know as well that things might go wrong or turn out differently to how we intended: directions on how to guard against inclement weather, on how to bring dying trees back to life, or how to transport them from one location to another are also included in late medieval horticultural texts. These works purport to codify human control over vegetal life, yet they also cannot help but invite the reader to consider whether the relationship of cause and effect on which they are ostensibly founded can ever be entirely stable or predictable. Can arboreal matter be so easily inscribed both with and within human systems of knowing?

In an essay on the 'poetics of practicality,' Lisa H. Cooper argues that the copying and reading of medieval 'how-to texts' offered not only practical utility, but also aesthetic and imaginative enjoyment for readers interested in the representation of 'possible future[s]' (Cooper, 2007, 504). Horticultural manuals are especially invested in the capacious, though also potentially disorientating, realm of the 'possible future.' Imaginative and speculative engagement with its eventful stories of material transformation, and with the temporalities and lifespans of arboreal life, seem just as integral to the *super Palladium* as its potential instrumentality. Directives like that for making 'wrytynge or peynture' appear in peach pits are not simply moments at which the fanciful or even deceitful intrudes in the workings of an otherwise useful practical text, then. Instead, they provide a way of examining the intricacies of

1 Citations of the *Godfridus super Palladium* are by line number to David G. Cylkowski's edition (1994), from Oxford, Bodleian Library, MS e.Musaeo 116.

2 For a similar framing and account of early modern horticultural manuals, see Bushnell (2003).

late medieval horticultural writing, as well as its intimations of how humans often must ‘bend themselves toward matter’ (Mitchell, 2014, 133).

The ‘privy werkyngis’ of arboreal matter

The author of the *super Palladium* has been identified as Gottfried von Franken, a Franconian who clearly had not only read widely on horticulture and agriculture, but also travelled widely around Europe (Braekman, 1985, 19). His work was translated from Latin into a number of European vernaculars, surviving in over 50 manuscripts. The Middle English translation was made around the middle of the fourteenth century, likely by Nicholas Bollard, a Benedictine monk of Westminster (Braekman, 1985, 19). Bollard’s own treatise, containing further information on the planting and grafting of trees and the alteration of the properties of fruit, is usually found alongside the *super Palladium* in the surviving manuscripts. The form of Bollard’s *Book of Planting and Grafting* invokes scholastic parallelism: it comprises three chapters, each subdivided into six further sections.

The limited scholarly attention that has been paid to the *super Palladium* and Bollard’s *Craft* has emphasized their indebtedness to Latin and Greek traditions of agricultural and horticultural writing, as well as to an oral tradition of ‘practical know-how’ passed down ‘from generation to generation’ (Braekman, 1985, 26). As its title makes clear, the *Godfridus super Palladium* was inspired by the fourth-century *Opus agriculturae* of the Roman writer Palladius, a work in 12 books specific to the months of the year, each with directions and tasks to be completed in the house, cellar, barn, orchard, and field. An additional thirteenth book focuses on the grafting of trees. The *Opus agriculturae* is perhaps best known to scholars of medieval English as the source text for ‘On Husbondrie,’ the translation of Palladius’s work made for Humphrey, duke of Gloucester, in around 1442. In its focus on the effective management of an *oikos* (Greek for ‘household,’ and the etymological root of ‘ecology’), ‘On Husbondrie’ aligns itself with the work of those political theorists who, since Aristotle, had framed agricultural and horticultural expertise as ‘the equivalent of expertise in statecraft’ (Wakelin, 2007, 45). The strict management of the aristocratic *oikos* finds its counterpart in the poem’s strict management of its own form and literary materials. Its intricate rhyme royal stanzas and extensive textual apparatus ostentatiously point up the importance of discerning control in this ‘exercise in classical scholarship’ characteristic of fifteenth-century humanism (Wakelin, 2007, 44).

The earlier prose *super Palladium* is a very different entity, though, and while its title helps the work lay claim to a form of textual authority, it belies the extent to which it fragments and reorganizes Palladius’s text and introduces a range of new material. The text consists of a short introduction followed by 67 sections: a list of desired outcomes and the accompanying directions on how



they are to be achieved. The *super Palladium* states in its opening lines that it will speak ‘pleynly inow’ regarding its subject matter (4). Specialized vocabulary is used occasionally, but the text is far from abstruse. As in other forms of practical and instructional writing, sequences of imperative verbs address the reader as a ‘potential actor’ (Orlemanski, 2011, 196).

The 67 sections of the text vary in length and detail, but the sheer range of information they present is striking. Many of these narratives (on the maintenance of plants and trees, or the storage and preservation of wine) seem relatively unremarkable and quotidian. Others, such as those on the grafting of fruit trees, are more eye-catching in their claims of what can be achieved. A handful are arrestingly non-utilitarian. One direction, for instance, records how ‘To make perlis or othere dyuers thyngis to growe withinne an applil.’ This amounts to the human force required to insert the pearl or ‘othere [...] thyngis’ in a fruit that has ‘somewhat growyn.’ Once this has been completed, ‘som notable signe’ as to where the fruit is on the branch is required, so that it can be found again once it has ripened (67–74).

As Cooper notes, to focus on those elements of medieval practical writing that seem ‘compelling’ or ‘quirky’ to modern readers risks a certain ‘ahistorical bias’ towards an idea of the literary that their medieval readers would not necessarily have shared. Nevertheless, the varied and occasionally ‘exuberant’ catalogues of directions and possible results that constitute many medieval instructional texts do have their own kind of formal appeal. Further, these works often appear to ‘relish’ their own frequent ‘verbal flourishes’ (Cooper, 2007, 498).

For all its opening claim of formal and lexical plainness, the *super Palladium* provides some good examples of the kind of textual ‘exuberance’ and ‘verbal flourishes’ that permeate late medieval practical writing: from the pearls or other ‘dyuers thyngis’ that can be made to appear in fruit, to the remarkable results to be achieved through grafting, to the direction in which a rudimentary form of humoral theory is incorporated into the text, suggesting a corporeal affinity or intimacy between the arboreal and human. ‘To make applis of a tre hole & sound zif they begynne to roten or rusty’ requires a cut to be made in the bark when ‘the humour therof is sumwhat out, let donge hym wel and stoppe azen dilygently his wounde with cley’ (110–15). Further, in its intimations of its author’s travels, its skepticism of the efficacy of certain practices, and its frequent imperatives that the reader ‘wete wel’ or ‘note wel’ what is being said (28, 83), the *super Palladium* does possess what we can think of as a distinctive narrative voice.

Taking up Cooper’s refusal to read late medieval practical texts solely in terms of their potential instrumentality, Julie Orlemanski has further examined the ‘pleasures of literary form and fantasy’ they offer (Orlemanski, 2011, 195). As Orlemanski writes, the ‘split’ between ‘textual and practical meaning’ that is often apparent in late medieval how-to texts is not simply the result of their failure as a piece of technology, but is rather the occasion for readers to ‘enjoy, value and “work through” the referential comportment of text to world’

(Orlemanski, 2011, 199). Orlemanski's focus is on late medieval physiognomy, but horticultural manuals offer a similar opportunity for their readers to enjoy their formal and narrative features, as well as to 'work through' a range of questions, particularly regarding the complexities of material transformation.

In fact, the opening lines of the *super Palladium* intimate as much, stating that the text will forego what is familiar or 'comune' ['commonly known'] regarding the 'settyng of treis,' in order to examine the 'privy werkyngis touchyng that same mater' (2–3). Middle English 'privy' could denote not only something physically concealed (an inscribed seed sprouting beneath the soil perhaps), but also the unforeseen or unpredictable (*MED*, 'privy,' 1.a, 3.b). Similarly, 'werkyng' encompassed a range of meanings in Middle English, from the more general senses of action and physical labor still current in Modern English, to more specialized meanings in terms of skilled work or craft and effectual force, as well as in natural philosophy and alchemy, and in the description of the motion of celestial bodies (*MED*, 'werking(e),' 4.a, 6, 7.a, 2.d).

The *super Palladium*'s statement of its 'mater' also directs us towards the intersection of late medieval practical writing, natural philosophy, and poetic accounts of the relationship between matter and form. As Kellie Robertson has demonstrated, Middle English *matere* could refer 'either to a physical substance (either prime matter or elemental matter) or to an "immaterial" activity.' However, *matere* also had 'more common and more specialized textual meanings' largely lost to Modern English. *Matere* 'regularly referred to [...] the literary subject matter of a work,' establishing a 'homologous relation between textual matter and physical matter' (Robertson, 2010, 112).

This 'homologous relation,' the sense that the subject matter of a work might possess its own weight and liveliness, and that this might be the occasion for thinking carefully about the relationship of matter and form, seems just as apt in the *super Palladium*. The synecdoche of Greek *hyle* and its Latin counterpart *materia* – prime matter, but also 'wood, woodland' or 'timber' – was at the heart of a long philosophical tradition, from Plato and Aristotle via Isidore of Seville and other medieval natural philosophers, in which wood was equated with prime matter and carpentered wood was a paradigmatic example of formed matter. However, by narrating some of the possible 'privy werkyngs' of that 'mater,' horticultural texts intimate some of its manifold capacities. The resistance, recalcitrance, and entropy of 'mater' – characteristics that are often at the forefront in horticultural texts – are reminders that it is never simply acquiescent to human designs. As J. Allan Mitchell, drawing on Vilém Flusser's *The Shape of Things* and Sara Ahmed's *Queer Phenomenology*, writes, the resistance of objects and their materials 'continually "provokes" us to take up an orientation towards things themselves, and, consequently, they are spurs to obsessive human industry' (Mitchell, 2014, 133).³

The directions on the grafting of trees in particular provide the opportunity to reflect on the properties and potentialities of arboreal matter, as well as on how

3 Accompanying the *super Palladium*'s reflexive framing of its 'mater' are a number of references to a natural philosophical tradition in which trees and plants are the subject of detailed discussion. The text refers to Isidore of Seville, Avicenna, and 'Bok of Plantys' (*De plantis*), a work attributed to Aristotle in the Middle Ages, though likely composed by Nicholaus of Damascus. In his *Craft*, Bollard emphasizes that the planting of trees is predicated on an understanding of Ptolemaic and Aristotelian theories of generation from decay (Braekman, 1985, 30).



agency is distributed across diverse bodies in late medieval practical writing. Further, readers of the *super Palladium* and Bollard's *Craft* may well have been familiar with a natural philosophical tradition running parallel to the familiar synecdoche of *hyle* and *materia*: in the work of Adelard of Bath, Guillaume of Conches, and a number of other medieval thinkers, the grafted tree provides a thought-provoking test case for questions regarding the elemental substance of trees and plants, and of how distinct bodies can be joined in new arrangements that not only survive, but flourish. Though they would not have expressed it in quite the same terms, many medieval writers seem alive to the fact that grafting 'foregrounds the plasticity and receptivity of vegetal life[,...] its openness to the other at the expense of fixed identity' (Marder, 2016, 15).

With these connections and the *super Palladium*'s reflexive framing of its 'mater' in mind, we can think further about the extent to which horticultural manuals provide an occasion for 'working through' a range of natural philosophical questions regarding the properties, affordances, and even creativity of trees and plants. And while I am wary of repeating a familiar move in the history of Western metaphysics by too quickly abstracting away from the specificities of vegetal life on its own terms, the scalability of these narratives of material transformation to broader discussions of the 'nature of matter' seems key to the wide and enduring appeal of late medieval horticultural writing (Robertson, 2010, 106).

Compiling practicality, recounting wonder

The Middle English *super Palladium* survives in at least 13 manuscripts dating from the fourteenth and fifteenth centuries. The range of texts alongside which it was copied and bound – from other works on planting and grafting, to astrological tables and calendars, to Thomas Hoccleve's *Regiment for Princes* – is instructive. By turning to the compilation of these texts, it is possible to consider the 'literariness' of practical writing not just as a property of its 'verbal flourishes' and formal and textual 'exuberance,' but also as an emergent property of its interaction with surrounding texts in a manuscript (Cooper, 2007, 498). One manuscript in particular provides the opportunity to consider how the 'codicological interactions' of texts can produce their own forms of literary effect and theoretical provocation (Bahr, 2015, 188). In Oxford, Bodleian Library, MS e.Musaeo 116, a fifteenth-century anthology, the *super Palladium* follows copies of Geoffrey Chaucer's *Treatise on the Astrolabe* and *The Book of John Mandeville*. For all their differences, these works are similarly invested in the narration of 'possible future[s],' and convey an abiding concern with the role of practical or instructional information, the acquisition of knowledge, and the observable and calculable world.

Chaucer frames his treatise on the astrolabe, and justifies its plain style, by writing that it was composed for his young son, Lewis (Chaucer, 2008, 1–5). Nevertheless, its popularity in the fourteenth and fifteenth centuries is testament to the increasing demand for practical and scientific writing in the vernacular. Notwithstanding *The Canterbury Tales*, the *Treatise* survives in more manuscripts than any other of Chaucer's works. The form of Chaucer's treatise has much in common with the *super Palladium*: after the description of the astrolabe in the first section of the text, the second section comprises a list of desired outcomes, followed by explanations as to how they are to be calculated.

As J. Allan Mitchell writes, the astrolabe initially seems a distinctly 'human-centric' instrument, one that makes 'the whole world pivot on a lone individual.' Yet by assembling text, object, subject, stars, and cosmos, Chaucer's instructional manual narrates a more complex sense of distributed agency than any simple story of human mastery can convey, reminding its readers as it does so that 'Calculating and coordinating are functions not of human cognition alone but of the collective agency of diverse bodies' (Mitchell, 2014, 56). The similarities between the *super Palladium* and Chaucer's *Treatise* are not only formal; while both texts can be read in terms of their 'apparent instrumentality,' they are also indicative of the 'intimacies,' cosmic and terrestrial, that are central to late medieval practical writing and its representation of various forms of 'collective agency' (Mitchell, 2014, 56).

The fourteenth-century travel narrative *The Book of John Mandeville* differs markedly from the *super Palladium* and Chaucer's *Treatise* in its form and narrative scope.⁴ However, it does share an interest with the *super Palladium* in the properties, affordances, and 'privy werkyngs' of vegetal life. In his account of his travels across Latin Christendom to Jerusalem and beyond, and the various cultural practices and natural and supernatural phenomena he encounters, Sir John describes a wide array of trees, plants, and carpentered objects. He notes that the inhabitants of the island of 'Calamassus' 'make here housis and here shepis of redis [reeds] and alle here othere necessities, as we don here of okys and of othere treis' (137).⁵ Similarly, in his description of the wide variety of fruit trees and the 'rychely arayed' tables of the 'Grete Cane's' palace and court (125–27), Sir John provides further 'glimpses of the material elaborations of culture, where diverse properties and practices substantiate the human' (Mitchell, 2014, 122).

In Egypt, Sir John encounters 'stedis and placis wher the erthe beryth freut vii. tymys in the yer,' as well as the 'applis of paradys,' a fruit that bears 'the figur of the Holy Cros' in its core (35). He then describes the *lignum aloes*, the 'tre that men callid aloes that comyth out of paradys,' that also features in the *super Palladium* (37). As he travels further east, Sir John encounters the 'ferly' [wonder] of the phantom trees in Prester John's lands, which also appear in the *Roman d'Alexandre* (101).

Sir John also describes the Dry Tree, the ancient oak that has existed 'syn the fyrste begynnyng of the world.' He recounts the belief that the Dry Tree lost its

4 This copy of Mandeville's *Book* is one of two surviving manuscripts of the 'Bodley Version.' This version condenses and reorganizes the text, in order to emphasize its 'marvelous anecdotes' (Higgins, 1997, 24).

5 Citations of the Bodley version of *Mandeville's Travels* are by page number to Seymour's 1963 edition.



leaves after the death of Christ, as well as the ‘dyuerse prophesies’ that it shall flower and bear fruit again once a ‘lord and prynce of the west [...] conquere [s] the Holy Land’ (49). Yet Sir John’s account also reminds us that its allegorical or symbolic function does not exhaust its insistent materiality. As in the *super Palladium*, the arboreal matter described in the *Book* always ‘divulges something about itself [...] that cannot be subsumed into allegory or wrested from the mundane’ (Cohen, 2015, 13). Sir John’s description concludes with an appropriately open-ended statement of the Dry Tree’s sundry properties: ‘And many othere vertues hath that dreie tre’ (49).

The author of the *super Palladium* does not claim to have roamed as widely as Sir John, but he does record that he has traveled to Greece, Brabant, Calabria, Thuringia, and Salerno. Like Sir John, he reserves judgment on the efficacy of certain practices he has witnessed and vouches for others. In a passage that particularly resembles Sir John’s narrative voice, he asks the reader to ‘note wel’ that, while he was in Athens, he was taught ‘a wondyrful thing.’ If a small melon is bound in a stone or wooden mold that is ‘al graue [engraved] withinne,’ with the image of ‘a manys hed [...] or sum other fygure,’ the fruit will ‘grow aftyr that forme’ (Gottfried, 1994, 154–61). Gottfried’s experience in Athens might seem slightly tame in comparison to Sir John’s accounts of the ancient Dry Tree, the wonders of Prester John’s lands, or the grand architecture and carpentry of the Great Khan’s court. However, at many points, the *super Palladium* does seem to share with Mandeville’s *Book* an approach to wonder or the ‘wondyrful thing’ not as something to be transcended or explained away (reductively or otherwise), but rather as something to ‘dwell upon’ (Prendergast, 2013, 247). Like the direction for making a pearl appear in the core of an apple, might we think of the passage on the ‘wondyrful thing’ as its own kind of mimesis, as a facsimile or modelling of the ‘creative impulses’ that many medieval thinkers held to be inherent to the natural world (Cohen, 2015, 170)?

The *super Palladium*’s account of this ‘wondyrful thing’ also invites comparisons with late medieval popular romance, a genre which, like Mandeville’s *Book*, is ‘permeated by an aesthetic and a sensibility that stressed the variety and diversity of nature’ (Daston and Park, 1998, 34). The ‘ympe’ [grafted] tree of the fourteenth-century Breton lay *Sir Orfeo* is the most obvious instance of an overlap between horticultural practice and romance world-making. From the familiar, domesticated space of an orchard, the ‘ympe’ tree provides a portal to an alternate dimension, a realm ruled by a fairy king, where the familiar physical laws of cause and effect seem to have been suspended, and where the properties of natural materials have the power to disturb even the most familiar of temporal schemes: the precious stones adorning the fairy king’s castle shine ‘as bright as doth at none the sonne,’ rendering day and night all but indistinguishable (*Sir Orfeo*, 1995, l. 372).

We might also think more generally, though, about how horticultural texts represent and narrate a sense of eventful, even wondrous change that also occurs

in romance: the appearance of ‘dyuers thyngis’ or a long-hidden ‘synge’ where we might not expect to find them; the conjunction of two or more living bodies to produce a new, though potentially unstable assemblage; or the transformation of a corpus (vegetable, animal, or human) from one state to another. As Jeffrey Jerome Cohen has demonstrated so compellingly, for all their formal and generic differences, the ‘disparate literary and scientific texts’ of the medieval age often share an important feature: these texts do not so much abstract matter as ‘place materiality into action’ (Cohen, 2015, 139).

Like other forms of practical writing, horticultural manuals are ostensibly structured according to the principle that an action outside of the text, in the world, ‘stands as the complement and realization of one’s reading’ (Orlemanski, 2011, 196). The lowly place of vegetal life within the *scala naturae*, the hierarchical ‘great chain of being’ that structured medieval thought about the cosmos, would seem to lend it to instrumentalization. In the Aristotelian world view that underpinned the *scala naturae*, vegetal life partakes only in the first of the three kinds of living soul: nutritive, sensitive, and rational. As John Trevisa writes in his translation of Bartholomaeus Anglicus’s *De proprietatibus rerum*, vegetal life is ‘yhud,’ it has ‘no soule of feelynge’ (882–3).⁶ The endurance of this kind of compartmentalization of vegetal life is clear. The ‘habitual instrumentalization of the entire plant kingdom’ has reached a grim nadir in 21st-century ‘neoliberal biopolitics’ and its interlocking regimes of hybridization and homogenization of vegetal life in the pursuit of ever-growing profits (Sandilands, 2017, 18, 21).

Yet Trevisa also writes that plants and trees are ‘dyuers in substaunce, in vertu, and in worchyng,’ a statement that sets the scene for a broad-ranging catalogue of vegetal life that revels in its astonishing variety and vitality as well as in its admirable resilience (883). That Book 17, on herbs, plants, and trees, is the longest of *De proprietatibus rerum* seems appropriate: it is verdant, even overgrown at many points. As Michael Marder has demonstrated, for all the enduring influence of the Aristotelian three-part distinction of living soul, the ‘open-endedness’ of vegetal life ‘encroaches’ on even the most orderly of classificatory or metaphysical schemes (Marder, 2014, 35).

While somewhat more bounded in their scope than Book 17 of *De proprietatibus rerum*, horticultural manuals like the *super Palladium* and Bollard’s *Craft* are another place where the ‘open-endedness’ of vegetal life is a spur to further contemplation of its ‘dyuers [...] worchyng.’ The ‘possible future[s]’ invoked by practical writing are open-ended, too. The possibility always exists that something will occur that refuses or even exceeds human intention, and while some results can be more confidently predicted than others, they can never be guaranteed. The kind of industry or craft described is not a site of straightforward human mastery, but frequently one of a ‘feedback loop between active objects and reactive, self-correcting subjects’ (Mitchell, 2014, 133).

6 Citations of John Trevisa’s translation of Bartholomaeus Anglicus’s *De proprietatibus rerum* are by page number to Seymour and Ligey’s 1987 edition.



Inscribed in the passage detailing how to make ‘wrytyng or peynture’ appear in peach kernels and at various other points in the *super Palladium*, I argue, is not simply the prospect that *matere* will neatly bear up whatever designs we impart to it. The text also evokes our dependence on wood and plants for what John Mandeville calls the ‘necessaries’ of human existence (not least for books and manuscripts: wooden boards, paper, ink, pigment, and dyes are all dependent on vegetal matter), as well as the intricacies and eventfulness of material transformation, and the animacy, perhaps even creativity, of vegetal life.

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