## Tree Grafting in Pliny's Natural History

It is established that examining the Romans' horticultural activities elucidates their cultural history (Cima and Talamo 2008; von Stackelberg 2009; Frass 2006; Pagán 2006; Spencer 2006). Curiously, however, critics gloss over an important exegetical strand in this narrative: the practice of tree grafting (*insitio*). Because it appears largely in agronomical contexts -- Cato, Columella, and the Younger Pliny (*NH* 14-19)-- grafting is dismissed as a topic more fit for the archaeobotanist than the classicist (an exception is Lowe 2010). This paper extends the semantics of *insitio* beyond its agrotechnical perimeter. First, I survey its role as a metaphor for social interaction, and then I focus on its function as such in the *Natural History*; there, I show that grafting subtends a core value in Pliny's political ethics: benevolent imperial universalism. In illustrating how arboriculture metaphorizes the complexities of human interfacing with a focus on Pliny, I make one general and one author-specific contribution. One, I exemplify that the gap between 'technical' and 'literary' narratives is smaller than it appears; two, I enhance the accelerating recognition of Pliny's *Natural History* as a cultural, as opposed to a (un)scientific, product (Gibson and Morello 2011).

Beginning with the Iliadic simile likening mortals to falling leaves (6.145-9), the anthropomorphism of trees in antiquity is embodied in overlapping traditions. Topoi include common vocabulary for human and tree anatomy, tree animism in religion, and physical and cognitive appropriation of plants as statements of power. Within this general mindset which analogizes trees to people, grafting provides a rich template for human contact: the fragile compatibility between scion and stock, the potential enhancement of the latter, its plausible relapsing into a feral state, the death of either or both parts, and their seeming hybridization are botanical scenarios which also configure individual and collective relationships.

Examples are plentiful: in Ovid, a scion gradually rooting in its stock incarnates the strengthening bond between man and woman (*Ars* 2.649–52). Offspring is often seen as a graft on the parent tree. In Seneca's *Controversiae*, an infelicitous adoption pits the entire family against the spurious, 'grafted' heir (*Con.* 2.1.21.17). Cicero recognizes Greek influences in Rome as a civilizing graft on a rustic stock (*Rep.* 2.34.1). The relocation of a scion and its acclimation to a new environment also underlies the practice of transplantation, which thus blends with grafting. In Livy, Manlius Vulso exhorts his men against the Galatian Gauls by portraying them as weakened by their transplantation into Asia Minor; these *Gallograeci* (38.17.9) are derided as trees that have lapsed from their robust nature by being grafted into foreign soil (38.17.10, 38.17.13). An apt model for social encounters and mutual adaptations, grafting also figures their inevitable outcome: as people ground themselves in new settings and become attached to others, they plant (and get implanted by) new ideas. For instance, to visualize the recalcitrance of a corrupt youth against philosophical correctives, Seneca likens him to a rotten stock rejecting a graft (*Ep.* 112. 2).

The associations of grafting with geographic movement and intellectual exchange inform its use in Pliny's *Natural History*. Unlike his sources, who focus solely on method and technique, Pliny reflects on the origins of grafting and its implications for humanity's relationship with god/nature (*NH* 17.58-9). In this Pliny resembles less his botanical predecessors and more the cosmogonic interests of Lucretius, who is similarly concerned with the inspiration for grafting as proof of sympathy between nature and man (*DRN* 5. 1439-48). Pliny also connects this process to the advent of foreign trees into the Roman center, which have assimilated to Italian soil by being grafted on native stocks. A vivid example of this convergence is his discussion on plum varieties (15.41-3). Finally, Pliny formulates a utilitarian ethics of grafting, in which human ingenuity and abundance in fruit crops is commendable only if made widely available and not as an exercise in novelty (17.8).

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