

Trees will take any forme. Neither let any man so much as think, that it is unprofitable, much lesse impossible, to reform any Tree of what kind soever. For (believe me) I have tryed it, I can bring any tree (beginning betimes) to any form. The Peare and Holly may be made to spread, and the Oke to cloze.

But why do I wander out of the compasse of mine Orchard into the Forrests and Woods? Neither yet am I from my purpose, if boals of timber-trees stand in need of all the saps, to make them great and streight, (for strong growth and dressing makes strong trees) then it must be profitable for fruit, (a thing more immediately serving a mans need) to have all the sap his Root can yield: for as timber, sound, great, and long, is the *good of timber Trees*, and therefore they bear no fruit of worth: so fruit, good, sound, pleasant, great and much, is the end fruit Trees. That gardner therefore shall perform his duty skilfully and faithfully, which shall so dresse his Trees, that they may bear such and such store of fruit, which he shall never do, (I dare undertake) unlesse he keep this Order in dressing his Trees.

The end of trees,

How to dresse a fruit tree.

A fruit Tree so standing, that there need none other end of dressing but fruit, (not Ornaments, not walks, nor delight to such as would please their eye only, and yet the best form cannot but both adorne and delight) must be parted from within two foot or thereabouts, of the earth, so high to give liberty to dresse his Root, and no higher, for drinking up the sap that should feed his fruit, for the boale will be first, and best served and fed, because he's next the Root, and of greatest waxe and substance, and that makes him longest of Life, into two, three, or foure armes, as your stocke or grasses yield twigs, and every arme into two or more branches, and every branch into his severall syons, still spredding by equall degrees, so that his lowest spray be hardly without the reach of a mans hands, and his highest be not past two yards higher, rarely, (especially in the midst) that no one twig touch his fellow. Let him spread as farre as he list without his master-bough, or lop equally. And when any bough doth grow sadder, and fall lower then his fellowes, (as they will with weight of fruit) ease him the next spring of his superfluous twigs, and he will Rise: when any bough or spray shall amount above the rest; either snub his top with a nip be-

twixt

twixt your finger and your thumb, or with a sharp knife, and take him clean away, and so you may use any Cyon you would reforme; and as your tree growes in stature and in strength, so let him rise with his tops but slowly, and early, especially in the midst, and equally, and in breadth also; and follow him upward with lopping his under growth and water boughs, keeping the same distance of two yards, but not above three in any wise, betwixt the lowest and the highest twigs.

1. Thus you shall have well liking, clean-skind, healthfull, great, and long-lasting trees. Benefits of good dressing. Remedy.

2. Thus shall your tree grow low, and safe from winds, for his top will be great, broad, and weighty.

3. Thus growing broad, shall your trees bear much fruit (I dare say) one as much as six of your common trees; and good without shadowing, dropping and fretting; for his boughs, branches, and twigs shall be many, and those are they (not the boal) which bear fruit.

4. Thus shall your boal being little (not small, but low) by reason of his shortnesse, take little, and yeeld much sap to fruit.

5. Thus your trees by reason of strength in time of setting shall put forth more blossomes and more fruit, because free from taints (for strength is a great help to bring forth much) and safely, whereas weaknes failes in setting, though the season be calm.

Some use to bare trees Roots in Winter, to stay the setting till hotter seasons, which I discommend, because

1. They hurt the Roots.

2. It stayes nothing at all.

3. Though it did, being small, with us in the North they have their part of our April and May Frosts.

4. Hinderance cannot profit weak trees in setting.

5. They waste much labour.

6. Thus shall your tree be easie to dresse, and without danger, either to the tree or the dresser.

7. Thus may you safely and easily gather your fruit without falling, bruising, or breaking of Cyons.

This is the best form of a fruit tree, which I have here shadowed

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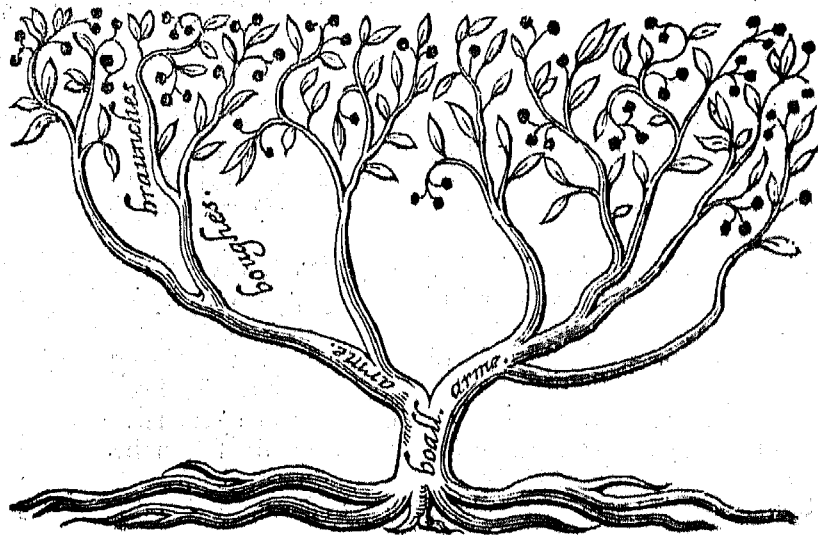
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dowed out for the better capacity of them that are led more with the eye, then the mind, craving pardon for the deformity, because I am nothing skilfull either in the painting or carving.

Imagine that the paper makes but one side of the tree to appear, the whole round compass will give leave for many more armes, boughs, branches, and cyons.

The perfect form of a Fruit-tree.



If any tree cannot well be brought to this form : *Experto crede Roberto*, I can shew divers of them under twenty years of age.

Time best for
Proyning.

The fittest time of the Moon for proyning, is, as of grafting, when the sap is ready to stir (not proudly stirring) and so to cover the wound : and of the year, a month before (or at least when) you graffe. Dresse Peares, Apricocks, Peaches, Cherries, and Bullyes sooner. And old trees before young plants, you may dresse at any time betwixt Leaf and Leaf. And note where you take any thing away, the sap the next Summer will be putting : Be sure therefore when he puts a bud in any place where you would not have him, rub it off with your finger.

And

And here you must remember the common homely proverbe : Dressing be-

Soone crookes the tree

That good Camrel must be.

Begin betimes with trees, and do what you list : but if you let them grow great and stubborne, you must do as the tree list. They will not bend but break, nor be wound without danger. A small branch will become a bough, and a bough an arme in bignesse. Then if you cut him, his wound will fester, and hardly without good skill recover : therefore, *Obsta principis*. Of such Faults of evill wounds, and lesser, or any bough cut off a handfull or more from drest trees, and the remedy. the body, comes hollownesse, and untimely death. And therefore when you cut, strike close, and clean, and upward, and leave no bunch.

This forme in some cases sometimes may be altered : If your tree, or trees, stand near your walks, if it please your fancy more, let him not break till his boal be above your head : so may you walk under your trees at your pleasure. Or if you set your fruit trees for your shades in your Groves, then I respect not the forme of the tree but the comlineesse of the walk. The form altered.

All this hitherto spoken of dressing, must be understood of young plants, to be formed : it is meet somewhat be said for the instruction of them that have old trees already formed, or rather deformed : for *Malum non vitatur nisi cognitum*. The faults therefore of a disordered tree, I find to be five. Dressing of old trees.

1. An unprofitable boale.
2. Water boughs.
3. Fretters.
4. Suckers. And,
5. One principal top.

Faults are
five, and their
remedies.

A long boal asketh much feeding, and the more he hath the more he desires, and gets, (as a drunken man drink, or a covetous man wealth,) and the lesse remains for the fruit ; he puts his boughs into the ayr, and makes them, the fruit and it self more dangered with winds ; for this I know no remedie, after that the tree is come to growth ; once evill, never good. Long boale. No remedy.

Water boughes, or under growth, are such boughes as grow low under others, and are by them over-grown, over-shadowed ; dropped on, and pinde for want of plenty of sap, and by that meanc

1. Water
boughes.

means in time dye: For the sap preffeth upward : and it is like water in her course, where it findeth most issue, thither it floweth, leaving the other lesse sluices dry, even as wealth to wealth, and much to more. These so long as they bear, they bear lesse, worse and fewer fruit, and waterish.

Remedic.

The Remedy is easie, if they be not grown greater than your arme, lop them close and clean, and cover the middle of the wound ; the next Summer when he is dry, with a salve made of tallow, tarre, and a very little pitch, good for the covering of any such wound of a great tree : unless it be bark pild, and then a sear cloth of fresh butter, hony and waxe presently (while the wound is green) applied, is a soveraign remedy, in Summer especially. Some bind such wounds with a thumb Rope of hay, moist, and rub it with dung.

Bark pild, and the remedie.

Fretters.

Fretters are, when as by negligence of the Gardner, two or more parts of the tree, or of divers trees, as armes, boughs, branches, or twigs, grow so neer and close together, that one of them by rubbing doth wound one another. This fault of all other shews the want of skill (or care at least) in the arborist : for here the hurt is apparent, and the remedye easie, seen to, betimes : galls are wounds incurable, but by taking away those members : for let them grow, and they will be worse and worse, and to kill themselves with civill strife for Roomth; and danger the whole tree. Avoid them betime therefore, as a Common-wealth doth bofome enemies.

Touching.

Remedic.

Suckers.

A Sucker is a long, proud, and disorderly Oyon, growing streight up (for pride of sap makes proud, long, and streight growth) out of any lower parts of the tree, receiving a great part of the sap, and bearing no fruit, till it have tyrannized over the whole tree. These are like idle and great Drones amongst Bees : and proud and idle members in a Common-Wealth.

The Remedy of this is, as of water boughs, unless they be grown greater than all the rest of the boughs ; and then your Gardner (at your discretion) may leave him for his boale, and take away all, or the most of the rest. If he by little slip him, and set him, perhaps he will take : my fairest Apple tree was such a slip.

One principall top or bough, and Remedy.

One or two principall top boughes are as evill, in a manner as suckers ; they rise of the same cause, and receive the same Remedy :

medy ; yet these are more tolerable, because these bear fruit, yea the best: but Suckers of long time do not bear.

I know not how your tree should be faulty, if you reforme Instruments for dressing. all your vices timely, and orderly. As these Rules serve for dressing young trees, and sets in the first setting : so may they well serve to help old trees, though not exactly to cure them.

The instruments fittest for all these purposes, are most commonly, for the greatest trees, an handsome, long, light Ladder of Firpole, a little, nimble, and strong armed Saw, and sharpe. For lesse trees, a little and sharpe hatchet, a broad mouthed Chisel, strong and sharp, with an hand beetle, your strong and sharp Clever, with a knock, and (which is a most necessary instrument amongst little trees) a great hasted and sharp knife or whittle. And as needfull is a Stool on the top of the Ladder of eight or more rungs, with two back feet, whereon you may safely, and easily stand to graffe, to dresse, and to gather fruit, thus formed. The feet may be fast wedged in : but the Ladder must hang loose with two bands of Iron, and thus much of dressing trees for fruit, formally to profit.



CHAP. XII. Of Soyling.

There is one thing yet very necessary for to make your Orchard both better, and more lasting : Yea so necessary, that Necessity of without it your Orchard cannot last, nor prosper long, which soyling. is neglected generally both in precepts and in practise, viz. manuring with soyl : whereby it hapneth that when trees (amongst other evils) through want of fatnesse to feed them, become most sicke, and in their growth are evil (or not thriving) it is either attributed to some wrong cause, as age (when indeed they are but young) or evil standing (stand they never so well) or such like, or else the cause is altogether unknown, and so not amended.

Can there be devised any way by nature, or art, sooner or soundlier to suck out, and take away the heart of earth, then by great trees; such great bodies cannot be sustained without great store of sap? what living body have you greater then of trees; the great Sea monsters (whereof one came at land at Teesmouth

Trees great Suckers.

in *Yorkshire*, hard by us, 18 yards in length, and neer as much in compasse) seeme hideous, huge, strange, and monstrous, because they be indeed great, but especially, because they are seldom seen: but a tree liking, come to his growth and age, twice that length, and of a bulk never so great, besides his other parts, is not admired, because he is so commonly seen. And doubt not, but if he were well regarded from his kernell, by succeeding ages, to his full strength, the most of them would double their measure. About fifty yeers agoe, I heard by credible and constant reports, That in *Bookham Parke* in *Westmerland*, neer unto *Penrith*, there lay a blown Oak, whose trunk was so bigge, that two Horse-men being the one on the one side, and the other on the other side, they could not see one another: to which if you add his arms, boughs, & roots, & consider of his bignesse, what would he have been, if preserved to the vantage? Also I read in the History of the *West-Indians*, out of *Peter Martyr*, that sixteen men taking hands one with another, were not able to fathome one of those trees about. Now nature having given to such, a faculty by large and infinite Roots, taws and tangles, to draw immediately his sustenance from our common mother the earth (which is like in this poynt to all other mothers that bear) hath also ordained that the tree over-loaden with fruit, and wanting sap to feed all she hath brought forth, will wain all she cannot feed, like women bringing forth more Children at once than she hath teats. See you not how trees especially, by kind being great, standing so thick and close, that they cannot get plenty of sap, pine away all the grasse, woods, lesser shrubs and trees; yea, and themselves also, for want of vigour of sap? so that trees growing large, sucking the soyl whereon they stand continually and amaine, and the soizon of the earth that feeds them decaying (for what is there that wastes continually, that shall not have an end?) must either have supply of sucking, or else leave thriving and growing. Some grounds will bear corn while they be new, and no longer, because their crust is shallow, and not very good, and lying they scind and wash and become barren. The ordinary corn soyls continue not fertile, without fallowing & soyling, and the best requires supply even for the little body of corn. How then can we think that a

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ny Ground how good soever can sustain bodies of such greatness, and such great feeding, without great plenty of sap arising from good earth? This is one of the chief causes why so many of our Orchards in England are so evill thriving when they come to growth, and our fruit so bad. Men are loath to bestow much ground; and desire much fruit, and will neither set their trees in sufficient compass, nor yet feed them with manure. Therefore of necessity Orchards must be soyled.

The fittest time is, when your trees are grown great, and have neer hand spread your earth, wanting new earth to sustaine them, which if they do, they will seek abroad for better earth; and shun that which is barren (if they find better) as cattell evill pasturing. For nature hath taught every creature to desire and seek his own good, and to avoid hurt. The best time of the year is at the fall, that the frost may bite and make it tender, and the Rain wash it into the roots. The Summer time is perilous if ye dig, because the sap stirs amain. The best kind of soyl is such as is fat, hot, and tender. Your earth must be lightly opened, that the Dung may go in, and wash away; and but shallow, lest you hurt the Roots; and in the spring, closely and equally made plain again for fear of Suckers. I could wish, that after my trees have fully possessed the soyl of mine Orchard, that every seven years at least, the soyl were bespread with dung half a foot thick at least. Puddle water out of the Dunghill poured on plentifully, will not only moisten but fatten exceedingly in *June*, and *July*, if it be thick and fat, and applied every year, your Orchard shall need none other soiling. Your ground may lye so low at the River side, that the flood standing some dayes and nights thereon, shall save you all this labour of soiling.

C H A P. XIII.

Of Annoyances.

A Chief help to make every thing good, is to avoid the evils thereof: you shall never attain to that good of your Orchard you look for, unless you have a Gardener that can discern the diseases of your trees, and other annoyances of your Orchard, and find out the causes thereof, and know and apply fit Remedies for the same. For be your ground such plants and trees as you would wish, and if they be wasted with hurtfull things, what have

have you gained, but your labour for your travel? It is with an Orchard and every tree, as with mans body. The best parts of physick for preservation of health, is to foresee and cure diseases.

Two kinds of evils in an Orchard.

All the diseases of an Orchard are of two sorts, either inter-nall, or externall. I call those inward hurts which breed on, and in, particular trees.

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| 1 Galls. | 5 Bark bound. |
| 2 Canker. | 6 Bark pild. |
| 3 Mosse. | 7 Worm. |
| 4 Weaknesse in setting | 8 Deadly wounds. |

Galls.

Galls, Cankers, Mosse, Weaknesse, though they be divers diseases, yet (howsoever authors think otherwise) they rise all out of the same cause.

Galls we have described with their cause and remedy, in the eleventh Chapter under the name of fretters.

Canker.

Canker is the consumption of any parts of the tree barke and wood; which also in the same place is deciphered under the title of water-boughs.

Mosse.

Mosse is sensible seen and known of all, the cause is poynted out in the same Chapter, in the discourse of timber wood, and partly also the remedy: but for Mosse adde this, that any time in summer (the spring is best, when the cause is removed) with an Hair cloth immediately after a showre of rain, rub off your Mosse or with a piece of wood (if the mosse abound) forned like a great knife.

Weaknesse in setting.

Weaknesse in the setting of your fruit shall you find there also in the same Chapter, and his remedy. All these flow from the want of Roomth in good soyl, wrong planting, Chapter seven, and evil, or no dressing.

Bark-bound.

Bark bound as I think riseth of the same cause, and the best and present remedy (the causes being taken away) is with your sharp knife in the spring, length way to launce his bark thorow-out 3 or 4 sides of his boult.

Worm.

The disease called the worm is thus discerned: the bark will be hollow in divers places like gall, the wood will dye and dry, and you shall see easily the bark swell: it is verily to be thought that therein is bred some Worm. I have not yet thorowly sought it out, because I was never troubled therewithall: but only

only have seen such trees in divers places. I think it a Worme rather, because I see this disease in trees, bringing fruit of sweet taste, and the swelling shewes as much. The remedy (as I conjecture) is, so soon as you perceive the wound, the next Spring cut it out bark and all, and apply Cows pisse and vinegar presently, and so twice or thrice a week, for a moneths space: For I well perceive, if you suffer it any time, it eates the Tree or bough round, and so kills. Since I first wrote this treatise, I have changed my mind concerning the disease called the worm, because I read in the History of the West-Indians, that their Trees are not troubled with the disease called the Worm or Canker, which ariseth of a raw and evill concocted humor or sap. Witnesse Pliny: by reason the Country is more hot then ours; wherefore I think the best remedy is (not disallowing the former, considering that the Worme may breed by such an humor) warme standing, sound lopping, and good dressing.

Bark-pill'd, you shall find with his remedy, in the eleventh Chapter.

Deadly wounds are, when a mans Arborist wanting skill, cuts off armes, boughes or branches an inch, or (as I see sometimes) an handfull, or halfe a foot or more from the body: these so cut, cannot cover in any time with sap, and therefore they dye, and dying they perish the heart, and so the tree becomes hollow, and with such a deadly wound cannot live long.

The remedy is, if you find him before he be perished, cut him close, as in the 11. Chapter: if he be heal'd, cut him close, fill his wounds though never so deep, with mortar well tempered, and so, cloze at the top his wound with a Sear-cloth nailed on that no Ayre nor Rain approach his wound. If he be very old and declining, he will recover: and the hole being closed, his wound within shall not hurt him for many years.

Hurts on your trees are chiefly, Ants, Earwigs, and Caterpillars. Of Ants and Earwigs is said, Chap. 10. Let there be no swarms of piss-mire near your tree roots, no not in your Orchard: turn them over in a frost, and pour in water, and you kill them.

For Caterpillars, the vigilant Fruiterer shall soone espy their lodging by their web, or the decay of leaves eaten round about them. And being seen, they are easily destroyed with your hand,