



Philosophical Transactions

Please note: Due to an error in the print volume, the page numbering in this article may contain either page numbering skips, or page numbering repetitions, or both. However, the article content is presented in its entirety and in correct reading order.

Please click on "Next Page" (at the top of the screen) to begin viewing the article.

Similiter omnino res succedet, si, sumptis Radiis R, L, cum Angulo A, queramus V, & Radios intermedios; aut, sumpto Radio L, cum Angulis A, V, querantur R, & Radii intermedii.

Verum, si Limbi Latitudo sit Radii non nisi pars Trigesima, Quadragesima, aut adhuc minor; atque Angulus dividendus, non quidem 10 minuta prima, sed totidem secunda, seu minor adhuc: subtilior res est quam ut vulgaris Canon Trigonometricus hic adhibeatur, & quæ omnem sensum fugit; ipsique Circuli concentrici distantis æqualibus, quantum sensu possumus distinguere, invicem disjuncti: quippe unius Pollicis pars millesima, nedum decies aut centies millesima, minor est discrepantia quam ut sensu percipi possit.

Sed nimius sum in re levi. Felicem itaque jam ineuntem Annum comprecatus, longâ sequentium serie continuandum, Valere jubeo.

An Account of some Books.

I. *Some Physico-Theological Considerations about the Possibility of the Resurrection; by the Honourable Robert Boyle, Esq; Fellow of the R. Society. London, 1674. in 8^{vo}.*

THE Noble Author's design in this Discourse being to shew, that the *Philosophical* Difficulties, urged against the *Possibility* of the RESURRECTION, are nothing so insuperable, as they are by some pretended, and by others granted, to be; and having handled this Subject in such a manner, as to make it appear, that *sound Philosophy* may furnish us with good Weapons for the defence of our Faith, and that *Corpusecular* Principles may not only be admitted *without* Epicurean Errors, but be employed *against* them: For these reasons, it was thought it would not be altogether besides the purpose of these Tracts, to give some account of this valuable Essay: Wherein 'tis made out by good *Philosophical* Observations and Experiments, 1. That a Humane Body is not so confin'd to a determinate bulk, but that the same Soul, being united to a portion of duly organiz'd Matter, is acknowledg'd to constitute the same Man, notwithstanding the vast Differences of bigness, which are at several times between the portions of Matter whereto the Human Soul is united. 2. That a considerable part of the Humane Body consists of Bones, which are bodies of a very determinate nature, and not apt to be destroy'd by the operation of Earth or Fire. 3. That of the less stable, and especially the fluid, parts of a Humane Body, there is a far greater expence made by insensible Transpiration, than even Philosophers would imagine. 4. That the small particles of a resolv'd Body may retain their own nature under various alterations and disguises; of which 'tis possible they may be stript afterwards. 5. That without making a Humane Body cease to be the same, it may be repaired and augmented by the adaptation of congruously disposed Matter to that which pre-existed in it. Which things being so, considering Men do not see, why it should be impossible

impossible, that a most Intelligent and an Almighty Being should be able so to order and watch the particles of a humane Body, as that *partly* of those that remain in the Bones, and *partly* of those that copiously fly a way by insensible Transpiration, and *partly* of those that are otherwise dispos'd of upon their resolution, a competent number may be preserv'd or retriev'd; so that stripping them of their Disguises, or extricating them from other parts of Matter, to which they may happen to be joined, he may reunite them betwixt themselves, and, if need be, with particles of Matter fit to be contexted with them, and thereby restore or reproduce a Body, which, being united with the former Soul, may recompose the same Man, whose Soul and Body were formerly disjoin'd by Death.

Which being deduced at large in this Discourse, it is concluded with the consideration of *their* Opinion, who, to facilitate the defence and explication of so abstruse a Point, allow themselves the latitude of expounding the Article of the *Resurrection* in this manner; That, in regard the *humane Soul* is the form of Man; so that, whatever duly organised portion of Matter 'tis united to, it therewith constitutes the same Man; the import of the *Resurrection* is fulfilled in this, that after Death there shall be another State, wherein the Soul shall no longer persevere in its separate Condition, but shall be again united, not to an Ethernal or the like fluid Matter, but to such a Substance as may properly enough be called a humane Body, &c.

II. *Waare Oeffening der PLANTEN, door Abraham Munting, M. D. and Prof. Botanices at Groningen. Printed at Amsterdam, 1672, in 4^{to}.*

IN this Piece the Author makes it his Business to describe, from his own Observation and search, the Nature, Culture, Preservation and Propagation of Trees, Shrubs, Herbs, and Flowers: Of *Trees* thus describ'd, there are 65: Of *Shrubs*, 64: Of *Herbs*, and *Flowers*, 449. In all, 578. Of which there being many, that are Exotick to *Europe*, the art and way of ordering them in these parts, is, among the rest, here deliver'd.

Speaking of the setting of Kernels and sowing of Seeds, he gives this Advertisement, that the Kernels and Seeds of such Trees and Plants as bear their Fruit above Ground, must be set or sown in the *decrease* of the Moon; but of such as bear their Fruit under Ground, as *Turnips, Parsnips, Carrots, &c.* must be committed to the Ground in the *increase* of the Moon: Of which, *he adds*, if the contrary be practis'd, it will be found, that those Trees and Plants will indeed bear many Branches and large Leaves, but little, and that very small, Fruit. See the Author *Ch. I.*

To obtain extraordinary good, big, and beautiful Apple-fruit, he adviseth by all means to graft good Graffs upon such Apple-stocks as are produced from the Seed, and have been deprived of their Heart-root, which is that which shoots directly downwards. *Ibid.*

Against *Caterpillars* and black *Flyes*, he prescribes as an excellent remedy, to take Rue, Wormwood, and right Virginian Tobacco, of each a handful, and to boyle it together in two Pails of Water or somewhat less, in a Kettle, for half an hour, and having strain'd it, to besprinkle two or three times the Trees, when blossoming therewith. *Ibid.*

To keep whole *Quinces* found for a great while, he advises to gather them with the hand in the Full Moon of *October* in dry weather, and being well rubb'd and freed from all their *Lanugo* or wooliness, to put them in dry Saw-dust or Sand in a dry place, without letting them touch one another.

To this he subjoins his way of keeping *Cherries* and other Fruit all the Year long.

Discourfing of the *Platanus*, or Plantain-tree, he mentions one of *Asia* recorded in History, fourscore Foot big in compass, wherein such a cavity was made, that *Lucinius Mutianus*, Consul of *Rome*, often dined with eighteen in Company.

Describing the *Rhamnus Catharticus recentiorum*, otherwise *Spina Infeetoria*, he observes, that the Fruit of it, before 'tis ripe, being dry'd a little, and infused in common or Allum-water, yields a yellow colour; but being full ripe, a green.

Treating of the *Tilia* or the *Lime-Tree*, he takes notice, that whereas anciently they used the inner-bark thereof, call'd *Philyra*, to write upon, himself hath seen a whole Book made of such Bark all written upon, which was above 1000 Years old; and that *Ann.* 1662. one of such Books was bought by the Count of *St. Amour*, then Governor of *Arras*, for the Emperor's use, at the rate of 8000 and odd Dutch Guilders, which had formerly been in the Library of *Card. Mazarin* at *Paris*, wherein was written that never yet publish'd piece of *Marcus Cicero de ordinanda Republica*, and *de Inveniendis Oratorum Exordiis*; the which he saith is now kept amongst the *Cimelia* of the Emperor at *Vienna*.

Describing the nature and ordering of the *Cinnamon-tree*, of which one had been sent to the Author, and came in a good condition to his Hands; he relates, that those in *Ceylon* are the best sort of all, which bear a white and very fragrant Flower, and an oval black Fruit, and of which the second Bark yields the right Cinnamon: To which he adds the great care he used in preserving that which was sent him, by housing it by times in a Room furnish'd with a warm Stove, and by keeping it there till *May*, and sometimes

sometimes pouring on the top of it some Milk and Rain-water, mingled in equal quantity, or some Niter-water mingled with Pigeon-dung, &c.

The *Nutmeg-tree*, it seems, is of so tender a nature, that of three *Stems*, that were sent him, he could, in spite of all his care, keep alive no more than one, and that no longer than 2½ Years.

Delivering the Culture of that rare African-tree *Guznabimus*, he teaches a general way to make all sorts of hard exotic Seeds thrive in these parts, *viz.* Take some fresh Horse-dung, put it in a Glass, and upon it your Seed; pour thereon some Saltpeter-water, that is, Rain-water, wherein some Saltpeter hath lain a while infused, so as to cover the Seed; then place it upon an Oven, continually, but moderately, kept warm, or in a hot Sand-furnace; and you will find it soon to swell, and beginning to burst, take it out gently, and at the increase of the *May-Moon*, lay it in a Pot fill'd with a common sandy Earth mix'd with Horse-dung of two Years old, and Hen-dung of one Year old, and some Mold of rotten Trees; let this Earth not be above two Straw breadths deep; and put this Pot in a very warm place, to wit, in Horse-dung, for a Fortnight, and then refresh it by putting it in new warm Horse-dung until *June*, covering it in the Night with Glasses; and it will, *saiib he*, thrive exceeding well.

Speaking of the *Glans Unguentaria*, otherwise call'd *Balanus Myrrepsica* or *Ben Arabum*, a very rare Tree, yielding a most fragrant and highly esteem'd Oyl; he is very particular in describing the extraordinary care he used in cultivating such, as were sent to him, in *Holland*.

In the second Book, treating of *Shrubs*, he relates, that he hath kept, for sometime, two young *Glove-trees* (sent him out of the Isles of *Amboina*;) so as that one of them shot in one Year three Inches higher, than it was before; adding the manner of his ordering them. He also takes notice, that those Trees of this kind, which grow in *Java* or *Ceylon*, bear little or no Fruit, and that they love much heat and rain, and do exceedingly draw to themselves the moisture of the Ground encompassing them, so as that almost nothing near them will grow.

Describing the Shrub, call'd *Agnus castus*, he notes, that as anciently the *Athenian Ladies*, keeping the Anniversary of their Goddess, *Venus*, fill'd their Beds with the Leaves of this Plant, to obviate unchastity; so some of the *Italian Monks* this Day not only fill the Pillows, they lye on, with the Leaves, Blossoms, and Seed of the same, but also tye about their Middle some of the Branches thereof, to preserve their Chastity.

In his description of ordering of *Rose-trees*, he sets down a way to have always big and beautiful Roses; which is, by cutting them down

to the ground every fifth year, and renewing the Earth with some old Cow-dung, and by trimming them every Autumn in *October* a little before the full of the Moon. To this he subjoins a way of long preserving Roses, *viz.* by gathering them dry and yet closed, filling a well-baked grey earthen Pot to the top with them, sprinkling over them some good *French Wine* with a little Salt in it, and so setting them by very well closed, in a dry Cellar; and as you take them out, dry them in the Sun or at a fire, where they will open themselves, and give a good scent.

Putting the *Indigo* amongst Shrubs, he relates, how himself cultivated it, so as to keep it good for several years in *Holland*, where, he saith, it grew up to the height of above a Foot and an half.

Examining the several sorts of *Vines*, and amongst them the *Vitis Virginiana foliis laciniatis*, he not only teaches the Culture of it, the Art of obtaining better and bigger Grapes than ordinary, and the several ways of long preserving them, (one of which is, by putting them unbruised in a Box, covering the bottom of it with coarse dry Sand an Inch high, and then laying the Clusters upon that, and pouring the like over them, and so on *stratum super stratum*, and keeping the Box in a dry place,) but also observes a peculiarity in the same, which is, that the Roots of it do love moisture so well, that they will descend sometimes twelve or thirteen Foot deep (as he affirms to have found himself) to get into running Water under Ground.

Treating of *Capers*, he affirms to have found in a Garden at the *Hague* one of these Plants set in the common Ground, and there keeping good in a hard Winter, only a little cover'd.

Describing the several sorts of *Cardamom*, their nature and culture, he saith, though the Seed that was sent him from the Coast of *Malabar*, and from *Java*, would not with all his care thrive with him; yet that which came to him out of *Guiny*, did, by the great industry he used in the ordering thereof.

Out of the 3d. Book, about *Herbs*, we can here take notice but of very few; of which the first shall be the *Jalappa vera*, or the *Mirabilis Peruviana*, bearing a very pleasant Flower, which varies almost in all the individuals thereof, and opens not but about Sun-set, yielding all Night a most fragrant scent, which is the stronger, the darker the Night is, and the weaker, the clearer the Night is; being quite destitute thereof in the Day time, except it be close and rainy Weather; the heat of the Sun, it seems, consuming the subtle odoriferous Particles. The like quality is observ'd in one kind of *Geranium*, which therefore is called *Geranium nocte olens*.

Of *Onions* he observes, that they thrive best, when set at the time of the decreasing Moon, and best of all, when the Moon is nearest its end.

Of the *Aloe Americana mucronato folio*, he relates the strange quickness of its growth, one of that Plant in the Garden of Card. *Farnesius* at *Rome* having shot up in one Month to the height of 23 Foot; and another at *Madrid* in one Night 10 Foot high, and after that, in eight Days, 25 Foot; which was there held for so great a Miracle, that they built a Chapel upon the place, &c.

Of the *Sugar-Cane* he teaches the Culture, and mentions to have had one of them, that with great care laste'd good in his Garden two Years, and had young Shoots, but dy'd the third in Autumn.

Treating of the *Brassica Cauli-flora*, or Colly-flowers, he takes occasion to recommend a way of preserving these and other such Plants, when young, from

Caterpillars and the like Vermin, *viz.* by putting their Seeds on fresh Horse-dung in a Glass, covering it with Saltpeter-water (above-mentioned) and exposing it to the Sun, which will soon make them burst and sprout; whereupon they are to be put in a rich Ground at a Straw's depth, well fenced from cold Winds, and covered with Straw in a sharp Air, each Seed by it self, a hand's breadth distant from one another, watering them in dry Weather with Rain-water mingled with Sheeps-dung, exposed for a while to the Sun, and then poured off and mix'd with a little Saltpeter-water; which being carefully done will not only hasten the growth of these young Plants, but also keep them from all such Vermine.

Discouring of the *Sedum majus arborescens*, he observes, that its upper, as well as lower, Branches, shoot down into the Ground, and there become new Roots; and then he teaches, that all sorts of Plants, when they come up, may be secured from the annoyance of Birds, Mice, and other Vermin, by infusing their Seed for a while in the expressed Juice of House-leek; which, he saith, will also meliorate the Fruit.

Speaking of *Pease*, he notes, that being planted in the wane of the Moon, they yield few Leaves, and stowe of Pease; but if at the time of the increase of the Moon, the contrary; as also, that those that have been attacked by Worms, do yield the best and sweetest Pease. If you will have Pease two or three Weeks sooner than others, plant them in an open, dry and sunny Ground in *November*, after the last quarter of the Moon, before the Frost comes in, and do not cover them, that so they may shoot no, or little, root at the Season; and they will shoot and grow the following Spring, before others be set, especially if they stand in long Rows, a Foot and a half distant from one another, for the Sun freely to play on them.

Treating of *Melons* and *Cucumbers*, he gives good directions for the Culture of the former in these parts, and for procuring greater or smaller Fruit of the latter, as also for preserving these all Winter long.

Of the *Consolida regalis*, he teaches a way of obtaining double ones from single, *viz.* by keeping only the Heart or Main-shoot or Stem, and gathering the Seed thereof, and doing the like the next Year with the Seed produced of the former, and then sowing this second Seed the third Year.

Describing the *Juca gloriosa* & *Americana filamentosa*, and directing the manner of cultivating it, he affirms to have had one of them grow in his own Garden, producing the first time three hundred and sixty four Flowers upon one only Stem at one and the same time altogether.

Considering the *Dipsacus spinosus Americanus*, (the *Teasel* of America) he notes this peculiar in it, that it shuts most of its Leaves from beneath so close, that the rain falling into them, cannot run out again, but is there stay'd, till by drought the Leaves shrinking do open a little, whereby the Rain-water sinks downward, and moistening the Root, refreshes and recovers the whole Plant.

Mentioning the *Ferrum equinum volubile* (by him esteemed the same with the *Convolvulus*;) he saith to have had some of the Seed, come out of America, and sent him from *St. Lucar*, which, having infus'd in Saltpeter-water and Horse-dung in a Glass, and set upon a warm Iron oven, till it swelled and broke, he put it in a Pot fill'd with good Mould and standing in a warm place; whereupon it soon began to appear above ground, and that that Year to the height of three Foot, the next Year yet higher, and then produced also two or three Flowers, which, without leaving any Seed, perished.

Concerning the *Linum Sativum* (*manured Flax*;) he takes notice that it draws

draws to it self all the neighbouring goodness of the ground, and makes it very barren for other things; and then, that the *closer* the seed of it is sown, the *finer* flax it yields.

If we had not been obliged to be short, we should have glanced at many other plants, whose culture and peculiarities this Author describes, and especially at divers of such, as are originally *Indian, Arabian, and African*; the method of the ordering of which he hath taken pains to deliver with care. I shall only in short annex a few lines concerning the strange and extravagant Trade, that was driven with *Tulips*, A. 1634. 1635. 1636. and 1637 in *Holland*; when, witness this Writer, many Shop keepers and Trades-men quit their Shops and Trades, and wholly addicted themselves to the sole Trade of *Tulips*, which were then valued above gold, pearls, and the most precious gems; insomuch that for one Tulip, call'd the *Vice-roy*, were bought these following commodities, *viz.* 2 last of Wheat, 4 last of Rye, 4 fat Oxen, 12 fat Mutton, 8 fat Hogs, 2 Hogheads of Wine, 4 tunns of good Beer, 2 tunns of Butter, 1000 lb. of Cheese, a Bed with all its appurtenances, a suit of Cloaths, and a silver Beaker; valued in all 2500 gilders, or about 200*l.* sterl. Moreover, there were offer'd 12 acres of land, lying in a good place, for one *Tulip-bulbe*. And in a publick outcry of such bulbes there was made of them the sum of 90000 gilders. And they sold many of them by weight and their names, at an incredible rate; which when it was come to be intolerable, the States, weighing the mischiefs thereof to substantial trade, and consequently to the publick, decried it, and so brought it down, that a Tulip, which had cost 5000 gilders, was a little while after bought for 50 gilders, &c.

III. *The Prevention of Poverty; shewing the Causes of the decay of Trade, Fall of Land, and Want of Money: With Expedients for remedying the same, and bringing the Kingdom to an eminent degree of Riches and Prosperity.* By Rich. Haynes, London, 1674. in 8^{vo}.

THE promising Title invited me to look into this short Tract: Wherein I find a part of the same, that is represented by several Authors in the foregoing *Transactions*, N^o. 101. 102. 103. But with Offer of Solutions and Answers against the strongest Objections devised against his particulars, which are these. 1. To advance our *Staple-Trade*, by restraining effectually, by penalties or otherwise, the exportation of unwrought Wooll, and Fullers Earth, which is necessary for cloathing, and can be had no where but in *England*. 2. To promote the *Linnen Trade*, and the sowing of Hemp and Flax, for domestick uses, and for our Naval Affairs. 3. He saith, *Salt* may be made at home, enough for all our occasions, and as good for all purposes as the Bay-Salt imported. 4. *Salt-peter*, of which, he saith, we may make and raise a sufficient quantity in our own Nation, for all occasions. 5. To promote *Iron-works*: In this he differs from our former Advisers, who conceive them to be destructive to our Timber, necessary for Shipping: But he offers reasons to the contrary; that it will raise the Price of wood and coal, and encourage the planting of Coppices and Timber-woods on many bare and barren hills, &c. Others wish, that more *Iron-mills* were employ'd to reduce that Wilderness of *New-England* to more profitable Tillage; and more curious *Iron-works* devised for many vacant hands in our *England*.

What he saith of altering *Coin*, and other such matters, I must refer to more competent Judges in such cases, &c.