

VII. *Some Attempts made to prove that Herbs of the same Make or Class for the generality, have the like Vertue and Tendency to work the same Effects. In a Discourse made before the Royal Society, by Mr. James Petiver Apothecary, and Fellow of the said Society.*

HAVING by some *Persons* been asked what Method might be best proposed towards the *discovering* of the *Vertues* of *Plants*, amongst others I thought this might not prove an altogether unsuccessful conjecture, *Viz.* That *Plants* of the same *Figure* or *Likeness*, have for the generality much the same *Vertues* and *Use*. Especially if we consider, that the *Organs* or *Structure* of all *Plants* of the same *Family* or *Class*, must have much the same *Vessels* and *Ductus's* to consummate that Regular formation, and consequently the *Juices* Circulated and strained thro' them cannot be very *Heterogeneous*; and that as for the most part, the *Scent* and *Tast* have great affinity, so of course their *Vertue* likewise cannot be very *dissonant*.

1. As for Instance, the *Herbæ Umbelliferae* or *Tribe of Umbelliferous Herbs*. These the Learned Mr. Ray hath accurately Treated of in the 9th. Book of his excellent *History of Plants*, pag. 406. and his *Synopsis* p. 63. and in his 2d. Edition, pag. 101. as hath Mr. Dale also in his *Pharmacologia*, pag. 202.

It's the property of these *Herbs* to have the Position of their *Flower-branches* to proceed from one Basis or *Center*, which expand themselves into an Umbel, whose *Flowers* consist of Five irregular or rather unequal, (that is, differing in shape and bigness) *pentapetalose* *Leaves*,
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from whence their *Seed* are produced, which are naked or double, or by their splitting from so.

This *Genus* I generally observe to be endowed with a *Carminative* Taste and Smell, are powerful expellers of Wind, and are therefore good in all flatulent Diseases, and of great use in the *Chollick*, &c. To Instance a few for *Example*, as *Anise*, *Caraway*, *Cummin*, *Angelica*, *Smallage*, *Parfly*, *Loveage*, &c.

Here is to be noted, that the *Seed* of Umbels are most used, as in all those just mentioned, and the *Roots* also of some are no less prevalent, *Viz.* the *Angelica*, *Fennel*, *Parfly* and *Smallage*, and the *Leaves* of some few, *Viz.* these last recited.

2. Let us now look into another Class, *Viz.* the *Plantæ Galeatæ* and *Verticillatæ*, *Raii Hist. Plant.* lib. 11. pag. 508. *Synops.* 77. and *Ed.* 2. 122. The Medicinal ones of this Tribe are also Treated of in Mr. *Dales Manuductio ad materiam Medicam*, pag. 230. These are a Family of Plants which bear their Flowers in *Rundels* or *Whorles*, at more or less distances round the Stalk, whose *Monopetalose Flowers*, if we may so call them, being such at the bottom, being *Tubulose*, contrary to the last, and are generally divided into Five unequal Segments as the Umbels, but with this distinction, that the two greater *petala* or *Flower-leaves* in this Tribe are sometimes above, and other times below; whereas the others are constantly the same, that is always lye in the same place, being expanded on a flat or plain Surface: The *Flowers* of our *Verticillated* Plants from the different Position of their *Petala*, are therefore distinguished under the *Floræ Galeatæ seu Labiatæ*. The Calyx or Case to the lower, or *Tubulose* part of each Flower serves also for it's Seed Vessel, in the bottom of which is contained, in all I have yet observed, 4 Seeds set close together upon a Plain, which Nature lets fall out when ripe,

ripe, the Husk being always open, and commonly divided into Five Points, Adequating the Segments of each *Flower*.

Now whereas the greatest *Vertue* of the *Umbelliferous Tribe*, were specified to lye in the *Seed*, and next to them the *Roots*, there are few or none as I have yet observed in this *Genus* famous for any extraordinary *Vertues* or *Effects* in those parts, but the Sovereign balm of these chiefly consist in their *Leaves* and *Husks*, rather than the *Flowers*; which last, especially all *Authors* has hitherto given the preference to; as for *Example*, in the *Flowers* of *Rosemary*, *Lavender* and *Sage*, particularly the first, as the only part from which our best *Queen of Hungary's Water* is extracted. I will therefore take this occasion to give my Reasons, for preferring that part which by all others has been hitherto neglected and slighted, or if used, has been by accident only or casually by being contiguous to the *Flower*.

I would not be thought to propose this *Hypothesis* for Cheapness sake, for if my assertion holds good, as I doubt not to prove it, I fear they will quickly sell the *Husks* as dear as the *Flowers*, if they find a great vend or a frequent demand for them.

My Reasons for giving the preference to the *Husks* of this *Tribe*, before the *Flowers*, are, because I commonly observe the *Calyces* are the chiefest, if not the only part on which I find it's Viscous or Sulphureous Particles to adhere, this you may very easily perceive, not only by it's much stronger and penetrating smell, but by the Clamminess of this, far beyond the other parts, as is very apparent, particularly in the *Husks* of *Sage* and *Clary*, and if with Spirit of Wine you make a Distillation of these alone, you will find them much stronger than from a greater quantity of *Flowers* only, which being of finer and more Volatile parts, are only capable

of retaining what the vicinity of the stronger and thicker Texture, which the *Calyces* are composed of, and can without prejudice easily communicate to them.

I look upon the generality of this Tribe, to be a degree Warmer than the last, and their Heat consequently to approach nearer to the *Aromatæ* or Spices, than the *Carminatives*, and the Effects therefore to be more peculiarly appropriated to such Nervous Diseases, as are more intense, and the *Umbelliferæ* cannot so quickly reach, *Viz Apoplexies, Epilepsies, Palsies, &c.* in which cases our *Lavender, Rosemary, Sage, Stæchas,* and some others, are Simples which all our antient *Physitians* (in these stubborn Diseases) have very much applauded. Yet at the same time we must not forget the many Celebrated Effects that are owing to some others of this Family, as *Mint, Bawm, Pennyroyal, Savory, Time, Hyssop, Marjoram, Basil, Origanum, Dittanny of Creet, Marum* or common *Mastick-time,* with *Marum Syriacum* and some other, no less Noble Herbs of this Family, that I have lately received both from the *East* and *West-Indies,* which I have also Experienc'd in some Cases with very good success.

3. We proceed next to those herbs which have a *Tetrapetalose Regular Flower*, (by *Regular* I mean, such as have Four equal *petala* in each Flower), these Mr. *Ray* Treats of in his Sixteenth Book of his *History of Plants,* and in his *Synopsis Stirpium Britannicarum* pag. 108. and in his *Second Edition,* p. 164. under the Title of *Herbæ Flore Terrapetalo uniformi* and by Mr. *Dale* in his *Pharmacologia,* under the same Character pag. 292. these in Relation to their Seed-Vessels, are sub-divided under two Heads. *Viz. Siliquosæ vel Capsulatæ,* being such as have their Seeds contained in long or short receptacles as *Pods* or *Capsules.*

The known Herbs of this *Genus* that are most commonly used in *Physick*, are the following, *Viz.* The *Sinapi*, *Raphanus*, *Eruca*, *Alliaria*, *Paronychia* or *Whitlow grass*, *Sophia Chyrurgorum*, *Erysimum*, *Nasturtium*, *Cochearia utriusq;* with some others.

The most Essential Vertue and use of the Herbs of this *Class* I observe are more particularly in the Leaves and Seed, and next them the Roots, and if any parts are slished, it's the *Flowers* and *Podds*.

The *Leaves* are more particularly used in the *Water* and *Garden Cresses*, *Sea* and *Garden Scurvy-grass*, *Hedge-Mustard*, *Iberis*, or *Sciatica Cresses*, *Lepidium* seu *Piperitis* *Officinarum*, *Cardamine*, *Bursa pastoris*, &c. To which may be added our *Cabbage*, *Coleworts*, *Savoys*, *Sprouts*, &c. which are of this Tribe also; and tho' they are of no great Reputation in *Physick*, yet for some Ages past they have got no small esteem in the *Kitchen*.

Others of this *Family* that are more peculiarly eminent for the *Vertue* contained in their *Seed*, are the Common *Mustard* and *Rape*, the *Tblaspi* *Dioscoridis* or *Treacle Mustard*, the *Eruca* or *Rocket*, and *Sophia Chyrurgorum* or *Flixweed*, the Seed of which last I am informed, by a very Worthy Member of this Society, hath for some Years past been used by several People in the *North* of *England*, for the *Stone* and *Gravel* with with very good success. The like hint, if I mistake not, Signior *Paul Boccone* gives us in his late *Italian Book*, Intituled *Museo di Fisica*.

We come now to the *Roots*, Two or Three of which have gained no small repute, as well in *Diet* as *Physick*, *Viz.* The *Radishes*, both *Garden* and *Spanish*, (which is the large *Black-rooted*;) as also the *Wild* or *Horse Radish*, and to these the round and long Rooted *Turnep* must be added.

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Most of this *Tribe* I find, tho' they are *not* like the two last, *viz.* the *Umbelliferæ* and *Verticillatæ*, yet they exert their power in a much different manner, to wit, by a *Diuretick volatile Salt*, and are found most prevalent and effectual in *Chronick Diseases*, as the *Scurvy*, *Dropsy*, *Gout*, *Jaundice*, and other ill habits of the Body, where the *Blood* is vitiated, rather in it's Particles, than irregular Motion, carrying off it's impurity by a *Diuretick Diacrisis* or discharge of the offending Heterogeneous Salts therein contained, and consequently by purification, disposing of it to a better, or more sane disposition.

Whether these conjectures agreed with the opinion of some *Practitioners* of *Physick*, I know not, but I am certain the effects of many of these *Herbs*, as *Water-Cresses*, *Garden* and *Sea Scurvy-grass*, with *Mustard seed*, and *Garden* and *Horse Radish*, which are all of this *Family*, are by most, if not all *Physicians*, as well Antient as Modern, allowed to be extraordinary *Diureticks* and *Anti-scorbuticks*.

Something more might be said on these *Heads*, and some other *Classes*, which at another time I shall endeavour to Illustrate, if what I have here already humbly offered, may be thought Worthy the acceptance of so *Illustrious* and *Learned a Society*

May the 10th.

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