There are two sorts of Magic: the one is infamous, and unhappy, because it hath to do with foul spirits, and consists of Enchantments and wicked Curiosity; and this is called Sorcery. . . . The other Magic is natural; which all excellent wise men do admit and embrace, and worship with great applause; neither is there any thing more highly esteemed, or better thought of, by men of learning.

- Giovanni Battista della Porta, Natural Magic

11-P1) Giambattista della Porta (1535-1615), “Natural Magic” (1589)

Fig. 2.6.1) Title page of della Porta’s ‘Natural Magic’ [TBA]
[frontispiece, nature female, art male and with instrument]

The Preface to the Reader
COURTEOUS READER,

If this work made by me in my Youth, when I was hardly fifteen years old, was so generally received and with so great applause, that it was forthwith translated into many Languages, as Italian, French, Spanish, Arabic; and passed through the hands of incomparable men: I hope that now coming forth from me that am fifty years old, it shall be more dearly entertained. For when I saw the first fruits of my Labors received with so great Alacrity of mind, I was moved by these good Omens; And therefore have added

ventured to fend it once more forth, but with an Equipage more Rich and Noble.

From the first time it appeared, it is now thirty five years, And (without any de-
rogation from my Modesty be it spoken) if ever any man labored earnestly to disclose
the secrets of Nature, it was I: For with all my Mind and Power, I have turned over the
Monuments of our Ancestors, and if they writ any thing that was secret and concealed,
that I enrolled in my Catalogue of Rarities. Moreover, as I traveled through France, It-
aly, and Spain, I consulted with all Libraries, Learned men, and Artificers, that if they
knew anything that was curious; I might understand such Truths as they had proved by
there long experience. Those places and men, I had not the happiness to see, I writ
Letters too, frequently, earnestly desiring them to furnish me with those Secrets, which
they esteemed Rare; not failing with my Entreaties, Gifts, Commutations, Art, and In-
dustry. So that whatsoever was Notable, and to be desired through the whole World,
for Curiosities and Excellent Things, I have abundantly found out, and therewith Beauti-
fied and Augmented these, my Endeavors, in NATURAL MAGICK, wherefore by most
earnest Study, and constant Experience, I did both night and day endeavor to know
whether what I heard or read, was true or false, that I might leave nothing unassayed:
for I oft thought of that Sentence of Cicero, It is fit that they who desire for the good of
mankind, to commit to memory things most profitable, well weighed and approved,
should make trial of all things. To do this I have spared no Pain nor Cost, but have ex-
pended my narrow Fortunes in a large magnificence.

Nor were the Labors, Diligence, and Wealth, of most famous Nobles, Potentates,
Great and L learned Men, wanting to assist me; Especially (whom I name for his Honor)
the Illustrious and most Reverend Cardinal of Estings: All which did afford there Volun-
tary and Bountiful Help to this Work. I never wanted also at my House an Academy of
curious Men, who for the trying of these Experiments, cheerfully disbursed their Mon-
ey, and employed their utmost Endeavors, in assisting me to Compile and Enlarge this
Volume, which with so great Charge, Labor, and Study, I had long before provided. [. . .
]

In our Method I shall observe what our Ancestors have said; Then I shall show by
my own Experience, whether they be true or false, and last of all my own Inventions,
That Learned Men may see how exceedingly this later Age hath surpassed Antiquity. [. . .]

The FIRST BOOK OF Natural Magick: Wherein are searched out the Causes of things which produce wonderful Effects.

Chapter. I: What is meant by the name of Magic.

Porphyry and Apuleius, great Platonists, in an Oration made in the defense do witness, that Magic took her name of original from Persia. [. . .] The first Author that ever wrote of Magic, was Osthanes, who going with Xerxes king of Persia in the war which he made against Greece, did scatter by the way as it were the seeds and first beginnings of this wonderful Art, infecting the world with it wheresoever he came; insomuch that the Grecians did not only greedily desire this knowledge, but they were even mad after it. So then Magic is taken amongst all men for Wisdom, and the perfect knowledge of natural things: and those are called Magicians, whom the Latins call Wise-men, the Greeks call Philosophers, of Pythagoras only, the first of that name, as Diogenes writes: the Indians call them Brackmans [Brahmans], in their own tongue; but in Greek they call them Gymnosophists, as much to say as naked Philosophers: the Babylonians and Assyrian call them Chaldeans, of Chaldaea a county in Asia: the Celts in France call them Druids, Bards, and Semnothites: the Egyptians call them Priests; and the Cabalists call them Prophets. And so in divers countries Magic hath divers names.

Chapter II: What is the Nature of Magic.

There are two sorts of Magic: the one is infamous, and unhappy, because it hath to do with foul spirits, and consists of Enchantments and wicked Curiosity; and this is called Sorcery; an art which all learned and good men detest; neither is it able to yield any truth of Reason or Nature, but stands merely upon fancies and imaginations, Such as vanish presently away, and leave nothing behind them; as Iamblichus writes in his book concerning the mysteries of the Egyptians. The other Magic is natural; which all
excellent wise men do admit and embrace, and worship with great applause; neither is there any thing more highly esteemed, or better thought of, by men of learning. The most noble Philosophers that ever were, Pythagoras, Empedocles, Democritus, and Plato, forsook their own countries, and lived abroad as exiles and banished men, rather then as strangers; and all to search out and to attain this knowledge; and when they came home again, this was the Science which they professed, and this they esteemed a profound mystery. They that have been most skilful in dark and hidden points of learning, do call this knowledge the very highest point, and the perfection of natural Sciences; insomuch that if they could find our or devise amongst all natural Sciences, any one thing more excellent or more wonderful then another, that they would still call by the name of Magic. Others have named it the practical part of natural Philosophy, which produceth her effects by the mutual and fit application of one natural thing unto another. The Platonists as Plotinus imitating Mercurius, writes in his book of Sacrifice and Magic, makes it to be a Science whereby inferior things are made subject to superiors, earthly are subdued to heavenly; and by certain pretty allurements, it fetcheth forth the properties of the whole frame of the world. Hence the Egyptians termed Nature her self a Magician, because she hath an alluring power to draw like things by their likes; and this power, say they, consists in love: and the things that were so drawn and brought together by the affinity of Nature, those (they said) were drawn by Magic. But I think that Magic is nothing else but the survey of the whole course of Nature. For, whilst we consider the Heavens, the Stars, the Elements, how they are moved, and how they are changed, by this means we find out the hidden secrecies of living creatures, of plants, of metals, and of their generation and corruption; so that this whole Science seems merely to depend upon the view of Nature, as afterward we shall see more at large. This doth Plato seem to signify in his Alcibiades, where he saith, That the Magic of Zoroastres, was nothing else, in his opinion, but the knowledge and study of Divine things, where-with the Kings Sons of Persia, amongst other princely qualities, were endued; that by the example of the common-wealth of the whole world, they also might learn to govern their own Common-wealth. [. . . ]

This Art, I say, is full of much virtue, of many secret mysteries; it openeth unto us
the properties and qualities of hidden things, and the knowledge of the whole course of Nature; and it teacheth us by the agreement and the disagreement of things, either so to sunder them, or else to lay them so together by the mutual and fit applying of one thing to another, as thereby we do strange works, such as the vulgar sort call miracles, and such as men can neither well conceive, nor sufficiently admire. For this cause, Magic was wont to flourish in Ethiopia and India, where was great store of herbs and stones, and such other things as were fit for these purposes. Wherefore, as many of you as come to behold Magic, must be persuaded that the works of Magic are nothing else but the works of Nature, whose dutiful hand-maid Magic is. For if she find any want in the affinity of Nature, that it is not strong enough, she doth supply such defects at convenient seasons, by the help of vapors, and by observing due measures and proportions; as in Husbandry, it is Nature that brings forth corn and herbs, but it is Art that prepares and makes way for them. Hence was it that Antipho the Poet said, That we overcome those things by Art, wherein Nature doth overcome us; and Plotinus calls a Magician such a one as works by the help of Nature only, and not by the help of Art. Superstitious, profane, and wicked men have nothing to do with this Science; her gate is shut against them: neither do we judge them worthy to be driven away from this profession only, but even out of Cities, and out of the world, to be grievously punished, and utterly destroyed. But now, what is the duty, and what must be the learning of this professor, we purpose to show in that which followeth.

Chapter. III: The Instruction of a Magician, and what manner of man a Magician ought to be.

Now it is meet to instruct a Magician, both what he must know, and what he must observe; that being sufficiently instructed every way, he may bring very strange and wonderful things to pass. Seeing Magic, as we showed before, is a practical part of Natural Philosophy, therefore it behoveth a Magician, and one that aspires to the dignity of that profession, to be an exact and a very perfect Philosopher. For Philosophy teaches, what are the effects of fire, earth, air, and water, the principal matter of the heavens; and what is the cause of the flowing of the Sea, and of the divers-colored
Rain-bow; and of the loud Thunder, and of Comets, and firey lights that appear by night, and of Earth-quakes; and what are the beginnings of Gold and of Iron; and what is the whole witty force of hidden Nature. Then also he must be a skilful Physician: for both these Sciences are very like and near together: and Physic, by creeping in under color of Magic, hath purchased favor amongst men. And surely it is a great help unto us in this kind: for it teaches mixtures and temperatures, and so shows us how to compound and lay things together for such purposes.

Moreover, it is required of him, that he be an Herbalist, not only able to discern common Simples, but very skilful and sharp-sighted in the nature of all plants: for the uncertain names of plants, and their near likeness of one to another, So that they can hardly be discerned, hath put us to much trouble in some of our works and experiments. And as there is no greater inconvenience to any Artificer, then nor to know his tools that he must work with: so the knowledge of plants is so necessary to this profession that indeed it is all in all. He must be as well seen also in the nature of Metals, Minerals Gems and Stones. Furthermore, what he must have in the art of Distillation, which follows and resembles the showers and dew of heaven, as the daughter the mother; I think no man will doubt of it: for it yields daily very strange inventions, and most witty devices, and shows how to find out many things profitable for the use of man: As for example, to draw out of things dewy vapors, unsavory and gross scents or spirits, clots, and gummy or slimy humors; and that intimate essence which lurks in the inmost bowels of things, to fetch it forth, and sublimate it, that it may be of the greater strength. And this he must learn to do, not after a rude and homely manner, but with knowledge of the causes and reasons thereof.

He must also know the Mathematical Sciences, and especially Astrology; for that shows how the Stars are moved in the heavens, and what is the cause of the darkening of the Moon; and how the Sun, that golden planer, measures our the parts of the world, and governs it by twelve Signs: for by the sundry motions and aspects of the heavens, the celestial bodies are very beneficial to the earth; and from thence many things receive both active and passive powers, and their manifold properties: the difficulty of which point long troubled the Platonists minds, how these inferior things should receive
influence from heaven.

Moreover, he must be skilful in the Optics, that he may know how the sight may be deceived, and how the likeness of a vision that is seen in the water, may be seen hanging without in the air, by the help of certain Glasses of divers fashions; and how to make one see that plainly which is a great way off, and how to throw fire very far from us: upon which sleights, the greatest part of the secrecies of Magic doth depend.

These are the Sciences which Magic takes to her self for servants and helpers; and he that knows not these, is unworthy to be named a Magician. He must be a skilful workman, both by natural gifts, and also by the practice of his own hands: for knowledge without practice and workmanship, and practice without knowledge, are nothing worth; these are so linked together, that the one without the other is but vain, and to no purpose. Some there are so apt for these enterprises, even by the gifts of Nature, that God may Seem to have made them hereunto. Neither yet do I Speak this as if Art could nor perfect any thing: for I know that good things may be made better, and there are means to remedy and help forward that which lacks perfection. First, let a man consider and prepare things providently and skillfully, and then let him fall to work, and do nothing unadvisedly. This I thought good to speak of, that if at any time the ignorant be deceived herein, he may not lay the fault upon us, but upon his own unskillfulness: for this is the infirmity of the scholar, and not of the teacher: for if rude and ignorant men shall deal in these matters, this Science will be much discredited, and those strange effects will be accounted haphazard, which are most certain, and follow their necessary causes.

If you would have your works appear more wonderful, you must not let the cause be known: for that is a wonder to us, which we see to be done, and yet know not the cause of it: for he that knows the causes of a thing done, doth not so admire the doing of it; and nothing is counted unusual and rare, but only so far forth as the causes thereof are not known. Aristotle in his books of Handy-trades, saith, that master-builders frame and make their tools to work with; but the principles thereof, which move admiration, those they conceal. A certain man put out a candle; and putting it to a stone or a wall, lighted it again; and this seemed to be a great wonder: but when once they perceived
that he touched it with brimstone, then, saith Galen, it ceased to seem a wonder. A miracle, saith Ephesius, is dissolved by that wherein it seemed to be a miracle.

Lastly, the professor of this Science must also be rich: for if we lack money, we shall hardly work in these cases: for it is not Philosophy that can make us rich; we must first be rich that we may play the Philosophers. He must spare for no charges, but be prodigal in seeking things out; and while he is busy and careful in seeking, he must be patient also, and think it not much to recall many things; neither must he spare for any pains: for the secrets of Nature are not revealed to lazy and idle persons. Wherefore Epicharmus said very well, that men purchase all things at Gods hands by the price of their labor. And if the effect of thy work be not answerable to my description, thou must know that thy self hast failed in some one point or another; for I have set down these things briefly, as being made for witty and skilful workmen and nor for rude and young beginners. [. . . ]

Chapter VII: Of Sympathy and Antipathy; and that by them we may know and find out the virtues of things.

By reason of the hidden and secret properties of things, there is in all kinds of creatures a certain compassion, as I may call it, which the Greeks call Sympathy and Antipathy, but we term it more familiarly, their consent, and their disagreement. For some things are joined together as it were in a mutual league, and some other things are at variance and discord among themselves; or they have something in them which is a terror and destruction to each other, whereof there can be rendered no probable reason: neither will any wise man seek after any other cause hereof but only this, That it is the pleasure of Nature to see it should be so, that she would have nothing to be without his like, and that amongst all the secrets of Nature, there is nothing but hath some hidden and special property; and moreover, that by this their Consent and Disagreement, we might gather many helps for the uses and necessities of men; for when once we find one thing at variance with another, presently we may conjecture, and in trial so it will prove, that one of them may be used as a fit remedy against the harms of the other: and surely many things which former ages have by this means found out, they have
commended to their posterity, as by their writings may appear.

There is deadly hatred, and open enmity betwixt Coleworts and the Vine; for whereas the Vine winds it self with her tendrils about every thing else, she shuns Coleworts only: if once she come near them, she turns her self another way, as if she were told that her enemy were at hand: and when Coleworts is seething, if you put never so little wine unto it, it will neither boil nor keep the colour. By the example of which experiment, Androcider found out a remedy against wine, namely, that Coleworts are good against drunkenness, as Theophrastus saith, in as much as the Vine cannot away with the favor of Coleworts. [ . . . ]

A man is at deadly hatred with a Serpent: for if he do but see a Serpent, presently he is fore dismayed; and if a woman with child meet a Serpent, her fruit becometh abortive: hence it is, that when a woman is in very sore travel [travail], if she do but smell the fume of an Adders hackle, it will presently either drive out, or destroy her child her child: but it is better to anoint the mouth of the womb in such a case, with the fat of an Adder. [ . . . ]

A Dog and a Wolf are at great emnity: and therefore a Wolves skin put upon any one that is bitten of a mad Dog, assuageth the swelling of the humor. [ . . . ]

Chapter XI: That the likeness of things showeth their secret virtues.

Who so looks into the writings of the Ancients [ . . . ] shall find that they gathered all from that likeness of seeds, fruits, flowers, leaves and roots, as also of the stars, metals, gems, and stones, that likeness, say, which these things have to the diseases and parts of a mans body, as also of other living creatures [ . . . ] Polypus, saith that some herbs have a peculiar kind of form, as the root of the herb Scorpius, called by some Walwort, and the root of Polypody: for that it is like a Scorpion, and is good against the sting of him [ . . . ] and is of force to kill him. [The] herb Rag-wort is forcible unto; for they grow double, a greater and a smaller; the greater helps generation, the smaller hinders it. And this herb is called Testiculus. Some herbs are good for procreation of a male, and some of a female; as the herb which is called Marifica, and Foeminipara; both are like each other: the fruit of the Foeminipara is like the moss of an
Olive-tree; the fruit of the Maripara is double like a man's stones. [. . .]

**Book 7: Of the Wonders of the Loadstone**

Whether Garlic can hinder the virtues of the Loadstone.

Now I shall pass on to other properties of the Loadstone: and first, whether the Loadstones attraction can be any ways hindered. *Plutarch* saith, that Garlic is at great enmity with the Loadstone; and such antipathy and hatred there is between these insensible Creatures, that if the Loadstone be smeared with Garlic, it will drive away Iron from it. *Ptolemy* confirms the same, that the Load-stone will not draw Iron, if it be anointed with Garlic; as Amber will no more draw straws, and other light things to it, if they be first steeped in Oil. It is a common Opinion amongst Sea-men, that Onions and Garlic are at odds with the Loadstone: and Steers-men, and such as tend the Mariners Card are forbid to eat Onions or Garlic, lest they make the Index of the Poles [mariner's compass] drunk. But when I tried all these things, I found them to be false: for not only breathing and belching upon the Loadstone after eating of Garlic, did not stop its virtues: but when it was all anointed over with the juice of Garlic, it did perform its office as well as if it had never been touched with it: and I could observe almost not the least difference, lest I should seem to make void the endeavors of the Ancients. And again, When I inquired of Mariners, whether it were so, that they were forbid to eat onions and Garlic for that reason; they said, They were old Wives fables, and things ridiculous; and that Sea-men would sooner lose their lives, then abstain from eating Onions and Garlic. [. . .]

**Book 9: Of Beautifying Women**

*How to adorn Women, and make them Beautiful.*

Since next to the Art of Physic, follow: the Art of Adorning our selves, we shall set down the Art of Painting; and how to beautify Women from Head to Foot, in many Experiments: yet lest any man should think it superfluous, to interpose these things that belong to the Ornaments of Women, I would have them consider, that I did not write these things for to give occasion to augment Luxury, and for to make people voluptu-
ous. But when God, the Author of all things, would have the Natures of all things to continue he created Male and Female, that by fruitful Procreation, they might never want [lack] Children: and to make Man in love with his Wife, he made her soft, delicate and fair, to entice man to embrace her. We therefore, that Women might be pleasing to their Husbands, and that their Husbands might not be offended at their deformities, and turn into other women’s chamber:, have taught Women, how, by the Art of Decking themselves and Painting, if they be ashamed of their foul and swarthy Complexions, they may make themselves Fair and Beautiful. [. . .]

Chapter XXII: How Tetters may be taken from the Face, or any other part of the Body.

Ring-worms will so deform the Face, that nothing can do it more: sometimes they run upon other parts of the Body, as the Arm-pits and Thighs: there drops forth of them, a stinking water that will foul the cloths. I found these Remedies:

Against Tetters.

Distil water from the Roots of Sourdock, and add to every pound of these, of Pompions and Salt-Peter, half an ounce; Tartar of white-Wine, two ounces: let them soak for some days: then distil them, and wash your Face in the morning therewith; and at night, smear it with Oil of Tartar and of Almonds, mingled. Oil of Eggs is good also to anoint them with. Yet sometimes these Tetters are so fierce, that no Remedies can cure them. I shall set down Another [cure. . . .] Take Salt-Peter, three ounces; Oil of bitter Almonds, two pound; of Squils, half a pound; one Lemon without the Pills: mingle them, and let them ferment three days: then, with Chemical Instruments, extract the Oil, and anoint your Tetters therewith, and they will be gone, though they Seem to turn to a Leprosy. [. . .]

Book 17: Of Strange Glasses.

Of the effects of a Lenticular Crystal.

Many are the operations of a Lenticular Crystal, and I think not fit to pass them over in silence. For they are Concaves and Convexes. The same effects are in speci-
tacles, which are most necessary for the use of man’s life; whereof no man yet hath as-
signed the effects nor yet the reasons of them. [ . . . ]

By a Lenticular Crystal to see things that are far off; as if they were close by. For
setting your eye in the Center of it behind the Lenticular, you are to look upon a thing
afar off, and it will show so near, that you will think you touch it with your hand: You
shall see the clothes colors, men’s faces, and know your friends a great way from you.
It is the same To read an Epistle a great way off with a Lenticular Crystal.

For is you set your eye in the same place, and the Epistle be at a just distance,
the letters will seem so great, that you may read them perfectly. But if you incline the
Lenticular to behold the Epistle obliquely, the letters will seem so great, that you may
read them above twenty paces off. And if you know how to multiply Lenticulars, I fear
not but for a hundred paces you may see the smallest letters, that from one to another
the Characters will be made greater: a weak sight must use spectacles fit for it. He that
can fit this well, hath gain’d no small Secret. [ . . . ]

Chapter XI: Of Spectacles whereby one may see very far, beyond imagination

I will not omit a thing admirable and exceeding useful; how bleary-ey’d people
may see very far, and beyond that one would believe. I spake of Ptolemy’s Glass, or
rather spectacle, whereby for fix hundred miles, he saw the enemies ships coming; and
I shall attempt to show how that might be done, that we may know our friends some
miles off, and read the smallest letters at a great distance, which can hardly be seen. A
thing needful for man’s use, and grounded upon the Optics. And this may be done very
easily; but the matter is not so to be published too easily; yet perspective will make it
clear. Let the strongest sight be in the Center of the Glass, where it shall be made, and
all the Sun beams are most powerfully dispersed, and unite not, but in the Center of the
aforesaid Glass: in the middle of it, where diameters cross one the other, there is the
concourse of them all. Thus is a Concave pillar-Glass made with sides equidistant: but
let it be fitted by those Sections to the side with one oblique Angle: but obtuse Angled
Triangles, or right Angled Triangles must be cut here and there with cross lines, drawn
from the Center, and so will the spectacle be made that is profitable for that use I speak
of.