Micrographia

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Text

I. The Invention of Optical Glasses

By the means of Telescopes,
there is nothing so far distant but may be
represented to our view;
and by the help of Microscopes,
there is nothing so small, as to escape our inquiry;

By this means the Heavens are open'd,
and a vast number of new Stars, and new
Motions,
and new Productions appear in them,

By this the Earth itself,
which lies so near us,
shows quite a new thing to us,
and in every little particle of its matter,

we now behold almost as great a variety of
Creatures,
as we were able before to reckon up
in the whole Universe itself.

II. Of the Point of a Small Sharp Needle

The Image we have here exhibited
was the top of a small and very sharp Needle,
whose point nevertheless appear'd through the
Microscope
above a quarter of an inch broad,
not round nor flat,
but irregular and uneven;
so that it seem'd to have been big enough to have
afforded
a hundred armed Mites room enough to be
rang'd by each other.

The surface of which, though appearing to the
naked eye very smooth,
could not nevertheless hide a multitude of holes
and scratches and ruggedness
from being discover'd by the *Microscope* to
invest it,
several of which inequalities were *casual.*

All the rest that roughen the surface,
were only so many marks of the rudeness and
bungling of *Art.*
So unaccurate is it, in all its productions, even in
those which seem most neat,
that if examin'd with an organ more acute then
that by which they were made,
the more we see of their *Shape*, the less
appearance will there be of their *Beauty;*
whereas in the works of *Nature,*
the deepest Discoveries show us the greatest
Excellencies.

An evident Argument,
that he that was the Author of all these things,
was no other than *Omnipotent;*
being able to include as great a variety of parts
and contrivances
in the yet smallest Discernable Point,
as in those vaster bodies
(which comparatively are also called Points)
such as the *Earth, Sun*, or *Planets.*

Nor need it seem strange that the Earth itself
may be by an *Analogie* call'd a Physical Point:
For as its body, though now so near us as to fill
our eyes
with a sense of the vastness of it,
may by a little Distance
be made vanish into a scarce-visible Speck, or
Point,

So, could a Mechanical contrivance successfully
answer our *Theory,*
we might see the least spot
as big as the Earth itself;
and Discover,
as great a variety of bodies in the *Moon,* or *Planets,*
as in the *Earth.*

III. Substance, Figure, and Bulk

Now that the parts of all bodies,
though never so solid,
do yet vibrate,
I think we need go no further for proof, then
that all bodies have some degrees of heat in them,
and that there has not been yet found any thing *perfectly cold:*

Nor can I believe indeed that there is any such thing in Nature
as a body whose particles are at rest,
or lazy and unactive in the great Theatre of the World,
it being quite contrary to the grand Economy of the Universe.

We see therefore what is the reason of the
Sympathy or uniting of some bodies together,
and of the antipathy or flight of others from each other:
For *Congruity* seems nothing else but a *Sympathy*,
and *Incongruity* an *Antipathy* of bodies;
hence *Similar* bodies once united will not easily part,
and dissimilar bodies once disjoyn'd will not easily unite again.

IV. The Seeds of Tyme

We may perceive even in these small Grains,
how curious and carefull Nature is
in what delicate, strong and most convenient Cabinets she lays them
and closes them in a pulp for their safer protection
when the heat of the Sun begins to animate and move these little *automatons*;
as if she would, from the ornaments wherewith she has deckt these Cabinets,
hint to us, that in them she has laid up her Jewels and Master-pieces.
And this, if we are but diligent in observing, we shall find her method throughout.

The clods and parcels of Earth are all irregular,
whereas in Minerals she does begin to *Geometrize*,
and practise, as 'twere, the first principles of *Mechanicks*,
shaping them of plain regular figures, triangles, squares, *tetraedrons*, cubes.
But none of their forms are comparable to the more compounded ones of Vegetables;
in Animals all those things are exactly defin'd and determin'd;
Here we shall find,
not onely most curiously compounded shapes,
but most stupendious Mechanisms,
here the ornaments are in the highest perfection,
nothing in all the Vegetable kingdom that is comparable to the deckings of a Peacock;
nay, to the curiosity of any feather,
nor to that of the smallest and most despicable Fly.

Who knows, but the Creator may, in those characters,
have written and engraven many of his most mysterious designs and counsels,
and given man a capacity, which, assisted with diligence and industry,
may be able to read and understand them.