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## V. Indefinite Extension or Infinite Space

• Descartes  
• & Henry More  
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Henry More was one of the first partisans of Descartes in England even though, as a matter of fact, he never was a Cartesian and later in life turned against Descartes and even accused the Cartesians of being promoters of atheism.<sup>1</sup> More exchanged with the French philosopher a series of extremely interesting letters which throws a vivid light on the respective positions of the two thinkers.<sup>2</sup>

More starts, naturally, by expressing his admiration for the great man who has done so much to establish truth and dissipate error, continues by complaining about the difficulty he has in understanding some of his teachings, and ends by presenting some doubts, and even some objections.

Thus, it seems to him difficult to understand or to admit the radical opposition established by Descartes between body and soul. How indeed can a purely spiritual soul, that is, something which, according to Descartes, has no extension whatever, be joined to a purely material

body, that is, to something which is only and solely extension? Is it not better to assume that the soul, though immaterial, is also extended; that everything, even God, is extended? How could He otherwise be present in the world?

Thus More writes: <sup>3</sup>

*First*, you establish a definition of matter, or of body, which is much too wide. It seems, indeed, that God is an extended thing (*res*), as well as the Angel; and in general everything that subsists by itself, so that it appears that extension is enclosed by the same limits as the absolute essence of things, which however can vary according to the variety of these very essences. As for myself, I believe it to be clear that God is extended in His manner just because He is omnipresent and occupies intimately the whole machine of the world as well as its singular particles. How indeed could He communicate motion to matter, which He did once, and which, according to you, He does even now, if He did not touch the matter of the universe in practically the closest manner, or at least had not touched it at a certain time? Which certainly He would never be able to do if He were not present everywhere and did not occupy all the spaces. God, therefore, extends and expands in this manner; and is, therefore, an extended thing (*res*).

Having thus established that the concept of extension cannot be used for the definition of matter since it is too wide and embraces *both* body and spirit which *both* are extended, though in a different manner (the Cartesian demonstration of the contrary appears to More to be not only false but even pure sophistry), More suggests *secondly* that matter, being necessarily sensible, should be defined only by its relation to sense, that is, by tangi-

bility. But if Descartes insists on avoiding all reference to sense-perception, then matter should be defined by the ability of bodies to be in mutual contact, and by the impenetrability which matter possesses in contradistinction to spirit. The latter, though extended, is freely penetrable and cannot be touched. Thus spirit and body can co-exist in the same place, and, of course, two — or any number of — spirits can have the same identical location and “penetrate” each other, whereas for bodies this is impossible.

The rejection of the Cartesian identification of extension and matter leads naturally to the rejection by Henry More of Descartes’ denial of the possibility of vacuum. Why should not God be able to destroy all matter contained in a certain vessel without — as Descartes asserts — its walls being obliged to come together? Descartes, indeed, explains that to be separated by “nothing” is contradictory and that to attribute dimensions to “void” space is exactly the same as to attribute properties to nothing; yet More is not convinced, all the more so as “learned Antiquity” — that is Democritus, Epicurus, Lucretius — was of quite a different opinion. It is possible, of course, that the walls of the vessel will be brought together by the pressure of matter outside them. But if that happens, it will be because of a natural necessity and not because of a logical one. Moreover, this void space will not be absolutely void, for it will continue to be filled with God’s extension. It will only be void of matter, or body, properly speaking.

In the *third* place Henry More does not understand the “singular subtlety” of Descartes’ negation of the existence of atoms, of his assertion of the indefinite divisi-

bility of matter, combined with the use of corpuscular conceptions in his own physics. To say that the admission of atoms is limiting God’s omnipotence, and that we cannot deny that God could, if He wanted to, divide the atoms into parts, is of no avail; the indivisibility of atoms means their indivisibility by any created power, and that is something that is perfectly compatible with God’s own power to divide them, if He wanted to do so. There are a great many things that He could have done, but did not, or even those that He can do but does not. Indeed, if God wanted to preserve his omnipotence in its absolute status, He would never create matter at all: for, as matter is always divisible into parts that are themselves divisible, it is clear that God will never be able to bring this division to its end and that there will always be something which evades His omnipotence.

Henry More is obviously right and Descartes himself, though insisting on God’s omnipotence and refusing to have it limited and bounded even by the rules of logic and mathematics, cannot avoid declaring that there are a great many things that God cannot do, either because to do them would be, or imply, an imperfection (thus, for instance, God cannot lie and deceive), or because it would make no sense. It is just because of that, Descartes asserts, that even God cannot make a void, or an atom. True, according to Descartes, God could have created quite a different world and could have made twice two equal to five, and not to four. On the other hand, it is equally true that He did not do it and that *in this world* even God cannot make twice two equal to anything but four.

From the general trend of his objections it is clear that the Platonist, or rather Neoplatonist, More was deeply

influenced by the tradition of Greek atomism, which is not surprising in view of the fact that one of his earliest works bears the revealing title, *Democritus Platonisans*. . .<sup>4</sup>

What he wants is just to avoid the Cartesian geometri- zation of being, and to maintain the old distinction between *space* and the things that are *in space*; that are moving *in space* and not only relatively to each other; that *occupy* space in virtue of a special and proper quality or force — impenetrability — by which they resist each other and exclude each other from their “places.”

*Grosso modo*, these are Democritian conceptions and that explains the far-reaching similarity of Henry More’s objections to Descartes to those of Gassendi, the chief representative of atomism in the XVIIth century.<sup>5</sup> Yet Henry More is by no means a pure Democritian. He does not reduce being to matter. And his space is not the infinite void of Lucretius; it is full, and not full of “ether” like the infinite space of Bruno. It is full of God, and in a certain sense it is God Himself as we shall see more clearly hereafter.

Let us now come to More’s *fourth* and most important objection to Descartes:<sup>6</sup>

*Fourth*, I do not understand your indefinite extension of the world. Indeed this indefinite extension is either *simpliciter* infinite, or only in respect to us. If you understand extension to be infinite *simpliciter*, why do you obscure your thought by too low and too modest words? If it is infinite only in respect to us, extension, in reality, will be finite; for our mind is the measure neither of the things nor of truth. And therefore, as there is another *simpliciter* infinite expansion, that of the divine essence, the matter of your

vortices will recede from their centers and the whole fabric of the world will be dissipated into atoms and grains of dust.<sup>7</sup>

Having thus impaled Descartes on the horns of the dilemma, More continues:<sup>8</sup>

I admire all the more your modesty and your fear of admitting the infinity of matter as you recognize, on the other hand, that matter is divided into an actually infinite number of particles. And if you did not, you could be compelled to do so,

by arguments that Descartes would be bound to accept.<sup>9</sup>

To the perplexity and objections of his English admirer and critic Descartes replies<sup>10</sup> — and his answer is surprisingly mild and courteous — that it is an error to define matter by its relation to senses, because by doing so we are in danger of missing its true essence, which does not depend on the existence of men and which would be the same if there were no men in the world; that, moreover, if divided into sufficiently small parts, all matter becomes utterly insensible; that his proof of the identity of extension and matter is by no means a sophism but is as clear and demonstrative as it could be; and that it is perfectly unnecessary to postulate a special property of impenetrability in order to define matter because it is a mere consequence of its extension.

Turning then to More’s concept of immaterial or spiritual extension, Descartes writes:<sup>11</sup>

I am not in the habit of disputing about words, and therefore if somebody wants to say that God is, in some sense, extended because He is everywhere, I shall not

object. But I deny that there is in God, in an Angel, in our soul, and in any substance that is not a body, a true extension, such as is usually conceived by everybody. For by an extended thing everybody understands something [which is] imaginable (be it an *ens rationis* or a real thing), and in which, by imagination, can be distinguished different parts of a determined magnitude and figure, of which the one is in no way the other; so that it is possible, by imagination, to transfer any one of them to the place of another, but not to imagine two of them in the same place.

Nothing of that kind applies to God, or to our souls, which are not objects of imagination, but of pure understanding, and have no separable parts, especially no parts of determinate size and figure. Lack of extension is precisely the reason why God, the human soul, and any number of angels can be all together in the same place. As for atoms and void, it is certain that, our intelligence being finite and God's power infinite, it is not proper for us to impose limits upon it. Thus we must boldly assert "that God can do all that we conceive to be possible, but not that He cannot do what is repugnant to our concept." Nevertheless, we can judge only according to our concepts, and, as it is repugnant to our manner of thinking to conceive that, if all matter were removed from a vessel, extension, distance, etc., would still remain, or that parts of matter be indivisible, we say simply that all that implies contradiction.

Descartes' attempt to save God's omnipotence and, nevertheless, to deny the possibility of void space as incompatible with our manner of thinking, is, to say the truth, by no means convincing. The Cartesian God is a *Deus verax* and He guarantees the truth of our clear and

distinct ideas. Thus it is not only repugnant to our thought, but impossible that something of which we clearly see that it implies contradiction be real. There are no contradictory objects in this world, though there could have been in another.

Coming now to More's criticism of his distinction between "infinite" and "indefinite," Descartes assures him that it is not because of<sup>12</sup>

. . . an affectation of modesty, but as a precaution, and, in my opinion a necessary one, that I call certain things indefinite rather than infinite. For it is God alone whom I understand positively to be infinite; as for the others, such as the extension of the world, the number of parts into which matter is divisible, and so on, whether they are *simpliciter* infinite or not, I confess not to know. I only know that I do not discern in them any end, and therefore, in respect to me, I say they are indefinite. And though our mind is not the measure of things or of truth, it must, assuredly, be the measure of things that we affirm or deny. What indeed is more absurd or more inconsiderate than to wish to make a judgment about things which we confess to be unable to perceive with our mind?

Thus I am surprised that you not only seem to want to do so, as when you say that *if extension is infinite only in respect to us then extension in truth will be finite*, etc., but that you imagine beyond this one a certain divine extension, which would stretch farther than the extension of bodies, and thus suppose that God has *partes extra partes*, and that He 'is divisible, and, in short, attribute to Him all the essence of a corporeal being.

Descartes, indeed, is perfectly justified in pointing out that More has somewhat misunderstood him: a space

*beyond* the world of extension has never been admitted by him as possible or imaginable, and even if the world had these limits which we are unable to find, there certainly would be nothing beyond them, or, better to say, there would be no *beyond*. Thus, in order to dispel completely More's doubts, he declares: <sup>18</sup>

When I say that the extension of matter is indefinite, I believe it to be sufficient to prevent any one imagining a place outside it, into which the small particles of my vortices could escape; because wherever this place be conceived, it would already, in my opinion, contain some matter; for, when I say that it is indefinitely extended, I am saying that it extends farther than all that can be conceived by man.

But I think, nevertheless, that there is a very great difference between the amplitude of this corporeal extension and the amplitude of the divine, I shall not say, extension, because properly speaking there is none, but substance or essence; and therefore I call this one *simpliciter* infinite, and the other, indefinite.

Descartes is certainly right in wanting to maintain the distinction between the "intensive" infinity of God, which not only excludes all limit, but also precludes all multiplicity, division and number, from the mere endlessness, indefiniteness, of space, or of the series of numbers, which necessarily include and presuppose them. This distinction, moreover, is quite traditional, and we have seen it asserted not only by Nicholas of Cusa, but even by Bruno.

Henry More does not deny this distinction; at least not completely. In his own conception it expresses itself in the opposition between the material and the divine extension. Yet, as he states it in his second letter to

Descartes,<sup>14</sup> it has nothing to do with Descartes' assertion that there may be limits to space and with his attempt to build a concept intermediate between the finite and the infinite; the world is finite or infinite, *tertium non datur*. And if we admit, as we must, that God is infinite and everywhere present, this "everywhere" can only mean infinite space. In this case, pursues More, re-editing an argument already used by Bruno, there must also be matter everywhere, that is, the world must be infinite.<sup>15</sup>

You can hardly ignore that it is either *simpliciter* infinite or, in point of fact, finite, though you cannot as easily decide whether it is the one or the other. That, however, your vortices are not disrupted and do not come apart seems to be a rather clear sign that the world is really infinite. For my part, I confess freely that though I can boldly give my approval to this axiom: *The world is finite, or not finite, or, what is here the same thing, infinite*, I cannot, nevertheless, fully understand the infinity of any thing whatsoever. But here there comes to my imagination what Julius Scaliger wrote somewhere about the contraction and the dilatation of the Angels: namely, that they cannot extend themselves *in infinitum*, or contract themselves to an imperceptible (*οὐδενόσηρα*) point. Yet if one recognizes God to be positively infinite (that is, existing everywhere), as you yourself rightly do, I do not see whether it is permitted to the unbiassed reason to hesitate to admit forthwith also that He is nowhere idle, and that with the same right, and with the same facility with which [He created] this matter in which we live, or that to which our eyes and our mind can reach, He produced matter everywhere.

Nor is it absurd or inconsiderate to say that, if the extension is infinite only *quoad nos*, it will, in truth and in reality, be finite: <sup>16</sup>

I will add that this consequence is perfectly manifest, because the particle "only" (*tantum*) clearly excludes all real infinity of the thing which is said to be infinite only in respect to us, and therefore in reality the extension will be finite; moreover my mind does perceive these things of which I judge, as it is perfectly clear to me that the world is either finite or infinite, as I have just mentioned.

As for Descartes' contention that the impossibility of the void already results from the fact that "nothing" can have no properties or dimensions and therefore cannot be measured, More replies by denying this very premise: <sup>17</sup>

... for, if God annihilated this universe and then, after a certain time, created from nothing another one, this *intermundium* or this absence of the world would have its duration which would be measured by a certain number of days, years or centuries. There is thus a duration of something that does not exist, which duration is a kind of extension. Consequently, the amplitude of nothing, that is of void, can be measured by ells or leagues, just as the duration of what does not exist can be measured in its inexistence by hours, days and months.

We have seen Henry More defend, against Descartes, the infinity of the world, and even tell the latter that his own physics necessarily implies this infinity. Yet it seems that, at times, he feels himself assailed by doubt. He is perfectly sure that space, that is, God's extension, is infinite. On the other hand, the material world may, perhaps, be finite. After all, nearly everybody believes it; spatial infinity and temporal eternity are strictly parallel, and so both seem to be absurd. Moreover Cartesian cosmology can be put in agreement with a finite world. Could

Descartes not tell what would happen, in this case, if somebody sitting at the extremity of the world pushed his sword through the limiting wall? On the one hand, indeed, this seems easy, as there would be nothing to resist it; on the other, impossible, as there would be no place where it could be pushed.<sup>18</sup>

Descartes' answer to this second letter of More<sup>19</sup> is much shorter, terser, less cordial than to the first one. One feels that Descartes is a bit disappointed in his correspondent who obviously does not understand his, Descartes', great discovery, that of the essential opposition between mind and extension, and who persists in attributing extension to souls, angels, and even to God. He restates<sup>20</sup>

... that he does not conceive any extension of substance in God, in the angels, or in our mind, but only an extension of power, so that an angel can proportionate this power to a greater or smaller part of corporeal substance; for if there were no body at all, this power of God or of an angel would not correspond to any extension whatever. To attribute to substance what pertains only to power is an effect of the same prejudice which makes us suppose all substance, even that of God, to be something that can be imagined.

If there were no world, there would be no time either. To More's contention that the *intermundium* would last a certain time, Descartes replies: <sup>21</sup>

I believe that it implies a contradiction to conceive a duration between the destruction of the first world and the creation of the second one; for, if we refer this duration or something similar to the succession of God's ideas, this will be an error of our intellect and not a true perception of something.

Indeed, it would mean introducing time into God, and thus making God a temporal, changing being. It would mean denying His eternity, replacing it by mere sempiternity — an error no less grave than the error of making Him an extended thing. For in both cases God is menaced with losing His transcendence, with becoming immanent to the world.

Now Descartes' God is perhaps not the Christian God, but a philosophical one.<sup>22</sup> He is, nevertheless, God, not the soul of the world that penetrates, vivifies and moves it. Therefore he maintains, in accordance with mediaeval tradition, that, in spite of the fact that in God power and essence are one — an identity pointed out by More in favour of God's actual extension — God has nothing in common with the material world. He is a pure mind, an infinite mind, whose very infinity is of a unique and incomparable non-quantitative and non-dimensional kind, of which spatial extension is neither an image nor even a symbol. The world therefore, must not be called infinite; though of course we must not enclose it in limits:<sup>23</sup>

It is repugnant to my concept to attribute any limit to the world, and I have no other measure than my perception for what I have to assert or to deny. I say, therefore, that the world is indeterminate or indefinite, because I do not recognize in it any limits. But I dare not call it infinite as I perceive that God is greater than the world, not in respect to His extension, because, as I have already said, I do not acknowledge in God any proper [extension], but in respect to His perfection.

Once more Descartes asserts that God's presence in the world does not imply His extension. As for the world

itself which More wants to be either *simpliciter* finite, or *simpliciter* infinite, Descartes still refuses to call it infinite. And yet, either because he is somewhat angry with More, or because he is in a hurry and therefore less careful, he practically abandons his former assertion about the possibility of the world's having limits (though we cannot find them) and treats this conception in the same manner in which he treated that of the void, that is, as nonsensical and even contradictory; thus, rejecting as meaningless the question about the possibility of pushing a sword through the boundary of the world, he says:<sup>24</sup>

It is repugnant to my mind, or what amounts to the same thing, it implies a contradiction, that the world be finite or limited, because I cannot but conceive a space outside the boundaries of the world wherever I presuppose them. But, for me, this space is a true body. I do not care if it is called by others imaginary, and that therefore the world is believed to be finite; indeed, I know from what prejudices this error takes its origin.

Henry More, needless to say, was not convinced — one philosopher seldom convinces another. He persisted, therefore, in believing "with all the ancient Platonists" that all substance, souls, angels and God are extended, and that the world, in the most literal sense of this word, is in God just as God is in the world. More accordingly sent Descartes a third letter,<sup>25</sup> which he answered,<sup>26</sup> and a fourth,<sup>27</sup> which he did not.<sup>28</sup> I shall not attempt to examine them here as they bear chiefly on questions which, though interesting in themselves — for example, the discussion about motion and rest — are outside our subject.

Summing up, we can say that we have seen Descartes, under More's pressure, move somewhat from the position he had taken at first: to assert the indefiniteness of the world, or of space, does not mean, negatively, that perhaps it has limits that we are unable to ascertain; it means, quite positively, that it has none because it would be contradictory to posit them. But he cannot go farther. He has to maintain his distinction, as he has to maintain the identification of extension and matter, if he is to maintain his contention that the physical world is an object of pure intellection and, at the same time, of imagination — the precondition of Cartesian science — and that the world, in spite of its lack of limits, refers us to God as its creator and cause.

Infinity, indeed, has always been the essential character, or attribute, of God; especially since Duns Scotus, who could accept the famous Anselmian *a priori* proof of the existence of God (a proof revived by Descartes) only after he had "colored" it by substituting the concept of the infinite being (*ens infinitum*) for the Anselmian concept of a being than which we cannot think of a greater (*ens quo maius cogitari nequit*). Infinity thus — and it is particularly true of Descartes whose God exists in virtue of the infinite "superabundance of His essence" which enables Him to be His own cause (*causa sui*) and to give Himself His own existence<sup>29</sup> — means or implies being, even necessary being. Therefore it cannot be attributed to creature. The distinction, or opposition, between God and creature is parallel and exactly equivalent to that of infinite and of finite being.

## VI. God and Space, Spirit and Matter

Henry More

The breaking off of the correspondence with — and the death of — Descartes did not put an end to Henry More's preoccupation with the teaching of the great French philosopher. We could even say that all his subsequent development was, to a very great extent, determined by his attitude towards Descartes: an attitude consisting in a partial acceptance of Cartesian mechanism joined to a rejection of the radical dualism between spirit and matter which, for Descartes, constituted its metaphysical background and basis.

Henry More enjoys a rather bad reputation among historians of philosophy, which is not surprising. In some sense he belongs much more to the history of the hermetic, or occultist, tradition than to that of philosophy proper; in some sense he is not of his time: he is a spiritual contemporary of Marsilio Ficino, lost in the disenchanted world of the "new philosophy" and fighting a losing battle against it. And yet, in spite of his partially anachronistic standpoint, in spite of his invincible trend towards syncretism which makes him jumble together



Plato and Aristotle, Democritus and the Cabala, the thrice great Hermes and the Stoa, it was Henry More who gave to the new science — and the new world view — some of the most important elements of the metaphysical framework which ensured its development: this because, in spite of his unbridled phantasy, which enabled him to describe at length God's paradise and the life and various occupations of the blessed souls and spirits in their post-terrestrial existence, in spite of his amazing credulity (equalled only by that of his pupil and friend, fellow of the Royal Society, Joseph Glanvill,<sup>1</sup> the celebrated author of the *Scepsis scientifica*), which made him believe in magic, in witches, in apparitions, in ghosts, Henry More succeeded in grasping the fundamental principle of the new ontology, the infinitization of space, which he asserted with an unflinching and fearless energy.

It is possible, and even probable, that, at the time of his *Letters to Descartes* (1648), Henry More did not yet recognize where the development of his conceptions was ultimately to lead him, all the more so as these conceptions are by no means "clear" and "distinct." Ten years later, in his *Antidote against Atheism*<sup>2</sup> and his *Immortality of the Soul*<sup>3</sup> he was to give them a much more precise and definite shape; but it was only in his *Enchiridium metaphysicum*,<sup>4</sup> ten years later still, that they were to acquire their final form.

As we have seen, Henry More's criticism of Descartes' identification of space or extension with matter follows two main lines of attack. On the one hand it seems to him to *restrict* the ontological value and importance of extension by reducing it to the role of an essential attribute of matter alone and denying it to spirit, whereas it is an

attribute of being as such, the necessary precondition of any real existence. There are not, as Descartes asserts, two types of substance, the extended and the unextended. There is only one type: all substance, spiritual as well as material, is extended.

On the other hand, Descartes, according to More, fails to recognize the specific character both of matter and of space, and therefore misses their essential distinction as well as their fundamental relation. Matter is mobile *in* space and by its impenetrability *occupies* space; space is not mobile and is unaffected by the presence, or absence, of matter in it. Thus matter without space is unthinkable, whereas space without matter, Descartes notwithstanding, is not only an easy, but even a necessary idea of our mind.

Henry More's pneumatology does not interest us here; still, as the notion of spirit plays an important part in his — and not only his — interpretation of nature, and is used by him — and not only by him — to explain natural processes that cannot be accounted for or "demonstrated" on the basis of purely mechanical laws (such as magnetism, gravity and so on), we shall have to dwell for a moment on his concept of it.

Henry More was well aware that the notion of "spirit" was, as often as not, and even more often than not, presented as impossible to grasp, at least for the human mind,<sup>5</sup>

But for mine own part, I think the *nature* of a *spirit* is as conceivable and easy to be defined as the nature of anything else. For as for the very *Essence* or bare *Substance* of any thing whatsoever, he is a very Novice in speculation that does not acknowledge that utterly unknowable; but for the *Essential* and *Inseparable Properties*, they are as intelligible and explicable in a Spirit as in any other Subject

whatever. As for example, I conceive the intire *Idea* of a *Spirit* in generall, or at least of all finite, created and subordinate *Spirits*, to consist of these severall powers or properties, viz. *Self-penetration*, *Self-motion*, *Self-contraction* and *Dilatation*, and *Indivisibility*; and these are those that I reckon more absolute: I will adde also what has relation to another and that is power of *Penetrating*, *Moving* and *Altering the Matter*. These *Properties* and *Powers* put together make up the *Notion* and *Idea* of a *Spirit* whereby it is plainly distinguished from a *Body* whose parts cannot penetrate one another, is not *Self-moveable*, nor can *contract* nor *dilate* it self, is *divisible* and *separable* one part from another; but the parts of a *Spirit* can be no more separable, though they be dilated, than you can cut off the *Rayes* of the *Sun* by a pair of Scissors made of pellucid Crystall. And this will serve for the settling of the *Notion* of a *Spirit*. And out of this description it is plain that *Spirit* is a notion of more *Perfection* than a *Body*, and therefore more fit to be an *Attribute* of what is *absolutely Perfect* than a *Body* is.

As we see, the method used by Henry More to arrive at the notion or definition of spirit is rather simple. We have to attribute to it properties opposite or contrary to those of body: penetrability, indivisibility, and the faculty to contract and dilate, that is, to extend itself without loss of continuity, into a smaller or larger space. This last property was for a very long time considered as belonging to matter also, but Henry More, under the conjoint influence of Democritus and Descartes, denies it to matter, or body, which is, as such, incompressible and always occupies the same amount of space.

In *The Immortality of the Soul* Henry More gives us an even clearer account both of his notion of spirit and

of the manner in which this notion can be determined. Moreover he attempts to introduce into his definition a sort of terminological precision. Thus, he says,<sup>6</sup> "by *Actual Divisibility* I understand *Discerpibility*, gross tearing or cutting of one part from the other." It is quite clear that this "discerpibility" can only belong to a body and that you cannot tear away and remove a piece of a spirit.

As for the faculty of contraction and dilation, More refers it to the "essential spissitude" of the spirit, a kind of spiritual density, fourth mode, or fourth dimension of spiritual substance that it possesses in addition to the normal three of spatial extension with which bodies are alone endowed.<sup>7</sup> Thus, when a spirit contracts, its "essential spissitude" increases; it decreases, of course, when it dilates. We cannot, indeed, *imagine* the "spissitude" but this "*fourth Mode*," Henry More tells us,<sup>8</sup> "is as easy and familiar to my Understanding as that of the *Three dimensions* to my sense or Phansy."

The definition of spirit is now quite easy: <sup>9</sup>

I will define therefore a *Spirit* in generall thus: *A substance penetrable and indiscerpible*. The fitness of which definition will be better understood, if we divide *Substance* in generall into these first Kindes, viz. *Body* and *Spirit* and then define *Body* *A Substance impenetrable and discernible*. Whence the contrary Kind to this is fitly defined, *A Substance penetrable and indiscerpible*.

Now I appeal to any man that can set aside prejudice, and has the free use of his Faculties, whether every term of the Definition of a *Spirit* be not as intelligible and congruous to Reason, as in that of a *Body*. For the precise *Notion* of *Substance* is the same in both, in which, I conceive, is com-

prised *Extension* and *Activity* either connate or communicated. For *Matter* it self once moved can move other *Matter*. And it is as easy to understand what *Penetrable* is as *Impenetrable*, and what *Indiscerpible* is as *Discerpible*; and *Penetrability* and *Indiscerpibility* being as *immediate* to *Spirit* as *Impenetrability* or *Discerpibility* to *Body*, there is as much reason to be given for the Attributes of the one as of the other, by Axiome 9.<sup>10</sup> And *Substance* in its precise notion including no more of *Impenetrability* than of *Indiscerpibility* we may as well wonder how one kind of *Substance* holds out its parts one from another so as to make them *impenetrable* to each other (as *Matter*, for instance does the parts of *Matter*) as that parts of another substance hold so fast together that they are by no means *Discerpible*. And therefore the *holding out* in one being as difficult a business to conceive as the *holding together* in the other, this can be no prejudice to the notion of a *Spirit*.

I am rather doubtful whether the modern reader — even if he puts aside prejudice and makes free use of his faculties — will accept Henry More's assurance that it is as easy, or as difficult, to form the concept of spirit as that of matter, and whether, though recognizing the difficulty of the latter, he will not agree with some of More's contemporaries in "the confident opinion" that "the very notion of a *Spirit* were a piece of Nonsense and perfect Incongruity." The modern reader will be right, of course, in rejecting More's concept, patterned obviously upon that of a ghost. And yet he will be wrong in assuming it to be pure and sheer nonsense.

In the first place, we must not forget that for a man of the seventeenth century the idea of an extended, though not material, entity was by no means something strange or even uncommon. Quite the contrary: these

entities were represented in plenty in their daily life as well as in their scientific experience.

To begin with, there was light, assuredly immaterial and incorporeal but nevertheless not only extending through space but also, as Kepler does not fail to point out, able, in spite of its immateriality, to act upon matter, and also to be acted upon by the latter. Did not light offer a perfect example of penetrability, as well as of penetrating power? Light, indeed, does not hinder the motion of bodies through it, and it can also pass through bodies, at least some of them; furthermore, in the case of a transparent body traversed by light, it shows us clearly that matter and light can coexist in the same place.

The modern development of optics did not destroy but, on the contrary, seemed to confirm this conception: a real image produced by mirrors or lenses has certainly a determinate shape and location in space. Yet, is it body? Can we disrupt or "discerp" it, cut off and take away a piece of this image?

As a matter of fact, light exemplifies nearly all the properties of More's "spirit," those of "condensation" and "dilatation" included, and even that of "essential spissitude" that could be represented by the intensity of light's varying, just like the "spissitude," with its "contraction" and "dilatation."

And if light were not sufficiently representative of this kind of entity, there were magnetic forces that to William Gilbert seemed to belong to the realm of animated much more than to purely material being: <sup>11</sup> there was attraction (gravity) that freely passed through *all* bodies and could be neither arrested nor even affected by any.

Moreover, we must not forget that the "ether," which played such an important role in the physics of the nineteenth century (which maintained as firmly or even more firmly than the seventeenth the opposition between "light" and "matter," an opposition that is by no means completely overcome even now), displayed an ensemble of properties even more astonishing than the "spirit" of Henry More. And finally, that the fundamental entity of contemporary science, the "field," is something that possesses location and extension, penetrability and indiscernibility. . . . So that, somewhat anachronistically, of course, one could assimilate More's "spirits," at least the lowest, unconscious degrees of them, to some kinds of fields.<sup>11a</sup>

But let us now come back to More. The greater precision achieved by him in the determination of the concept of spirit led necessarily to a stricter discrimination between its extension and the space in which, like everything else, it finds itself, concepts that were somehow merged together into the divine or spiritual extension opposed by More to the material Cartesian one. Space or pure immaterial extension will be distinguished now from the "spirit of nature" that pervades and fills it, that acts upon matter and produces the above-mentioned non-mechanical effects, an entity which on the scale of perfection of spiritual beings occupies the very lowest degree. This spirit of nature is<sup>12</sup>

*A Substance incorporeal but without sense or animadversion, pervading the whole matter of the Universe, and exercising a plastic power therein, according to the sundry predispositions and occasions of the parts it works upon, raising such Phenomena in the world, by directing the parts of the*

*matter, and their motion, as cannot be resolved into mere mechanical power.*

Among these phenomena unexplainable by purely mechanical forces, of which Henry More knows, alas, a great number, including sympathetic cures and consonance of strings (More, needless to say, is a rather bad physicist), the most important is gravity. Following Descartes, he no longer considers it an essential property of body, or even, as Galileo still did, an unexplainable but real tendency of matter; but—and he is right—he accepts neither the Cartesian nor the Hobbesian explanation of it. Gravity cannot be explained by pure mechanics and therefore, if there were in the world no other, non-mechanical, forces, unattached bodies on our moving earth would not remain on its surface, but fly away and lose themselves in space. That they do not is a proof of the existence in nature of a "more than mechanical," "spiritual" agency.

More writes accordingly in the preface to *The Immortality of the Soul*,<sup>13</sup>

*I have not only confuted their [Descartes' and Hobbes'] Reasons, but also from Mechanical principles granted on all sides and confirmed by Experience, demonstrated that the Descent of a stone or a bullet, or any such like heavy Body is enormously contrary to the Laws of Mechanicks; and that according to them they would necessarily, if they lye loose, recede from the Earth and be carried away out of our sight into the farthest parts of the Aire, if some Power more than Mechanical did not curb that Motion, and force them downwards towards the Earth. So that it is plain that we have not arbitrarily introduced a Principle but that it is forced upon us by the undeniable evidence of Demonstration.*

As a matter of fact the *Antidote against Atheism* had already pointed out that stones and bullets projected upwards return to earth — which, according to the laws of motion, they should not do; for,<sup>14</sup>

. . . if we consider more particularly what a strong tug a massive Bullet, suppose of lead or brass must needs give (according to that prime *Mechanicall* law of motion persisting in a straight line) to recede from the superficies of the Earth, the Bullet being in so swift a Motion as would dispatch some fifteen Miles in one Minute of an Hour; it must needs appear that a wonderful Power is required to curb it, regulate it, or remand it back to the Earth, and keep it there, notwithstanding the strong Reluctancy of that first Mechanical law of Matter that would urge it to recede. Whereby is manifested not only the marvellous Power of *Unity* in *Indiscernibility* in the *Spirit of Nature* but that there is a peremptory and even forcible Execution of an *all-comprehensive and eternal Council* for the *Ordering* and the *Guiding* of the Motion of *Matter* in the Universe to what is the *Best*. And this phenomenon of Gravity is of so *good* and *necessary* consequence, that there could be neither Earth nor Inhabitants without it, in this State that things are.

Indeed, without the action of a non-mechanical principle all matter in the universe would divide and disperse; there would not even be bodies, because there would be nothing to hold together the ultimate particles composing them. And, of course, there would be no trace of that purposeful organization which manifests itself not only in plants, animals and so on, but even in the very arrangement of our solar system. All that is the work of the spirit of nature, which acts as an instrument, itself unconscious, of the divine will.

So much for the spirit of nature that pervades the whole universe and extends itself in its infinite space. But what about this space itself? the space that we cannot conceive if not infinite — that is, necessary — and that we cannot “disimagine” (which is a confirmation of its necessity) from our thought? Being immaterial it is certainly to be considered as spirit. Yet it is a “spirit” of quite a special and unique kind, and More is not quite sure about its exact nature. Though, obviously, he inclines towards a very definite solution, namely towards the identification of space with the divine extension itself, he is somewhat diffident about it. Thus he writes:<sup>15</sup>

If there were no *Matter* but the Immensity of the Divine Essence only occupying all by its Ubiquity, then the *Reduplication*, as I may so speak, of his indivisible substance, whereby he presents himself intirely everywhere, would be the Subject of that Diffusion and Measurability. . . .

for which the Cartesians require the presence of matter, asserting that material extension alone can be measured, an assertion which leads inevitably to the affirmation of the infinity and the necessary existence of matter. But we do not need matter in order to have measures, and More can pursue:<sup>16</sup>

And I adde further, that the perpetual observation of this infinite Amplitude and Mensurability, which we cannot disimagine in our Phancie but will necessary be, may be a more rude and obscure notion offered to our mind of that *necessary* and *self-existent* Essence which the *Idea* of God does with greater fulness and distinctness represent to us. For it is plain that not so much as our Imagination is engaged to an appropriation of this *Idea of Space* to corporeal

*Matter*, in that it does not naturally conceive any impenetrability or tangibility in the Notion thereof; and therefore it may as well belong to a *Spirit* as a *Body*. Whence as I said before, the *Idea* of God being such as it is, it will both justly and necessarily cast this ruder notion of *Space* upon that infinite and eternal spirit which is God.

There is also another way of answering this Objection, which is this; that this Imagination of *Space* is not the imagination of any real thing, but only of the large and immense capacity of the potentiality of the *Matter*, which we can not free our Minds from but must necessarily acknowledge that there is indeed such a possibility of *Matter* to be measured upward, downward, every way *in infinitum*, whether this *corporeal Matter* were actually there or no; and that though this potentiality of *Matter* and *Space* be measurable by furloughs, miles, or the like, that it implies no more real Essence or Being, than when a man recounts so many orders or Kindes of the Possibilities of things, the compute or number of them will infer the reality of their Existence.

But if the Cartesians would urge us further and insist upon the impossibility of measuring the nothingness of void space,<sup>17</sup>

. . . it may be answered, That *Distance* is no real or *Physical* property of a thing but only *notional*; because more or less of it may accrue to a thing when as yet there has been nothing at all done to that to which it does accrue.

And if they urge still further and contend, that . . . distance must be some *real* thing . . . I answer briefly that *Distance* is nothing else but the privation of tactual union and the greater *distance* the greater privation . . .; and that this privation of tactual union is measured by *parts*, as other privations of qualities by *degrees*; and that *parts*

and *degrees*, and such like notions, are not *real* things themselves any where, but our mode of conceiving them, and therefore we can bestow them upon Non-entities as well as Entities. . . .

But if this will not satisfy, 'tis no detriment to our cause. For if after the removal of *corporeal Matter* out of the world, there will be still *Space* and *distance*, in which this very matter, while it was there, was also conceived to lye, and this *distant Space* cannot but be something, and yet not corporeal, because neither impenetrable nor tangible, it must of necessity be a substance Incorporeal, necessarily and eternally existent of it self: which the clearer *Idea* of a *Being absolutely perfect* will more fully and punctually inform us to be the *Self-subsisting* God.

We have seen that, in 1655 and also in 1662, Henry More was hesitating between various solutions of the problem of space. Ten years later his decision is made, and the *Enchiridium metaphysicum* (1672) not only asserts the real existence of infinite void space against all possible opponents, as a real precondition of all possible existence, but even presents it as the best and most evident example of non-material — and therefore spiritual — reality and thus as the first and foremost, though of course not unique, subject-matter of metaphysics.

Thus Henry More tells us that “the first method for proving the uncorporeal things” must be based on<sup>18</sup>

. . . the demonstration of a certain unmovable extended [being] distinct from the movable matter, which commonly is called *space* or inner *locus*. That it is something real and not imaginary, as many people assert, we shall prove later by various arguments.

Henry More seems to have completely forgotten his own uncertainty concerning the question; in any case he does not mention it and pursues: <sup>19</sup>

First, it is so obvious that it hardly needs proof, as it is confirmed by the opinions of nearly all the philosophers, and even of all men in general, but particularly of those who, as it is proper, believe that matter was created at a certain time. For we must either acknowledge that there is a certain extended [entity] besides matter, or that God could not create finite matter; indeed, we cannot conceive finite matter but as surrounded on all sides by something infinitely extended.

Descartes remains, as we see, the chief adversary of Henry More; indeed, as More discovered meanwhile, by his denial both of void space and of spiritual extension, Descartes practically excludes spirits, souls, and even God, from his world; he simply leaves no *place* for them in it. To the question "where?," the fundamental question which can be raised concerning any and every real being — souls, spirits, God — and to which Henry More believes he can give definite answers (here, elsewhere or — for God — everywhere), Descartes is obliged, by his principles, to answer: *nowhere, nullibi*. Thus, in spite of his having invented or perfected the magnificent *a priori* proof of the existence of God, which Henry More embraced enthusiastically and was to maintain all his life, Descartes, by his teaching, leads to materialism and, by his exclusion of God from the world, to atheism. From now on, Descartes and the Cartesians are to be relentlessly criticized and to bear the derisive nickname of *nullibists*.

Still, there are not only Cartesians to be combatted.

There is also the last cohort of Aristotelians who believe in a finite world, and deny the existence of space outside it. They, too, have to be dealt with. On their behalf Henry More revives some of the old mediaeval arguments used to demonstrate that Aristotelian cosmology was incompatible with God's omnipotence.

It cannot be doubted, of course, that if the world were finite and limited by a spherical surface with no space outside it,<sup>20</sup>

it would follow, secondly, that not even divine omnipotence could make it that this corporeal finite world in its ultimate surface possess mountains or valleys, that is, any prominences or cavities.

Thirdly, that it would be absolutely impossible for God to create another world; or even two small bronze spheres at the same time, in the place of these two worlds, as the poles of the parallel axes would coincide because of the lack of an intermediate space.

Nay, even if God could create a world out of these small spheres, closely packed together (disregarding the difficulty of the space that would be left void between them), He would be unable to set them in motion. These are conclusions which Henry More, quite rightly, believed to be indigestible even for a camel's stomach.

Yet Henry More's insistence on the existence of space "outside" the world is, obviously, directed not only against the Aristotelians, but also against the Cartesians to whom he wants to demonstrate the possibility of the limitation of the material world, and at the same time, the mensurability, that is, the existence of dimensions (that now are by no means considered as merely "no-

tional" determinations) in the void space. It seems that More, who in his youth had been such an inspired and enthusiastic adherent of the doctrine of the infinity of the world (and of worlds), became more and more adverse to it, and would have liked to turn back to the "Stoic" conception of a finite world in the midst of an infinite space, or, at least, to join the semi-Cartesians and reject Descartes' infinitization of the material world. He even goes so far as to quote, *with approval*, the Cartesian distinction of the indefiniteness of the world and the infinity of God; interpreting it, of course, as meaning the real *finiteness* of the world opposed to the infinity of space. This, obviously, because he understands now much better than twenty years previously the positive reason of the Cartesian distinction; infinity implies necessity, an infinite world would be a necessary one. . . .

But we must not anticipate. Let us turn to another sect of philosophers who are at the same time More's enemies and allies.<sup>21</sup>

But also those philosophers who did not believe in the creation of matter nevertheless acknowledged [the existence of] Space, such are *Leucippus, Democritus, Demetrius, Metrodorus, Epicurus* and also all the *Stoics*. Some people add Plato to these. As for Aristotle, who defined place (*Locus*) as the nearest surface of the ambient body, he was in this question deserted by a great number of his disciples who rightly observed that in this case he was not in agreement with himself, as indeed he attributed to *place* properties that could not pertain to any thing but to the space occupied by any body; that is, *Equality* and *Immobility*.

It is, moreover, worth while mentioning that those philosophers who made the world finite (such as Plato, Aristotle

and the Stoics) acknowledged *Space* outside the world, or beyond it, whereas those who [believe in] infinite worlds and infinite matter, teach that there is even inside the world an intermixed *vacuum*; such are Democritus and all the Ancients who embraced the atomic philosophy, so that it seems to be entirely confirmed by the voice of nature that there is *διαστημα τι χωρίου*, a certain interval or space really distinct from mundane matter. As for the posteriors, this is sufficiently known. Whereas concerning the *Stoics*, *Plutarch* testifies that they did not admit any void inside the world, but an infinite one outside. And *Plato* says in his *Phaedrus* that above the supreme heaven where he places the purest souls, there is a certain *Supracelestial place* (*locus*), not very different from the abode of the blessed of the Theologians.

As the admission of an infinite space seems thus to be, with very few exceptions, a common opinion of mankind, it may appear unnecessary to insist upon it and to make it an object of discussion and demonstration. More explains therefore that<sup>22</sup>

I should assuredly be ashamed to linger so long upon so easy a question if I were not compelled to do it by the great name of Descartes, who fascinates the less prudent to such an extent that they prefer to rave and rage with Descartes, than to yield to most solid arguments if the *Principles of Philosophy* are opposed to them. Among the most important [tenets] that he himself mentions is that one I have so diligently combatted [elsewhere], namely, that not even by Divine virtue could it happen that there should be in the Universe any interval which, in reality, would not be matter or body. Which opinion I have always considered false; now however I impugn it also as impious. And in order that it should not appear as not completely



overcome, I shall present and reveal all the subterfuges by which the Cartesians want to elude the strength of my demonstrations, and I shall reply to them.

I must confess that Henry More's answers to the "principal means that the Cartesians used in order to evade the strength of the preceding demonstrations" are sometimes of very dubious value. And that "the refutation of *them all*" is, as often as not, no better than some of his arguments.

Henry More, as we know, was a bad physicist, and he did not always understand the precise meaning of the concepts used by Descartes — for instance, that of the relativity of motion. And yet his criticism is extremely interesting and, in the last analysis, just.<sup>23</sup>

The first way to escape the strength of our Demonstrations is derived from the Cartesian definition of motion which is as follows: [motion is] *in all cases the translation of a body from the vicinity of those bodies which immediately touch it and are considered as at rest, into the vicinity of others.*<sup>24</sup>

From this definition, objects Henry More, it would follow that a small body firmly wedged somewhere between the axis and the circumference of a large rotating cylinder would be at rest, which is obviously false. Moreover, in this case, this small body, though remaining at rest, would be able to come nearer to, or recede from, another body *P*, placed immobile, outside the rotating cylinder. Which is absurd as "it supposes that there can be an approach of one body to another, quiescent, one without local motion."

Henry More concludes therefore: <sup>25</sup>

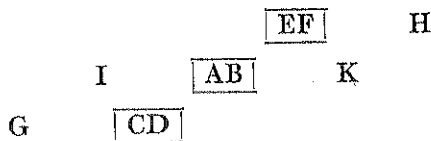
. . . that the preceding definition is gratuitously set up by Descartes and, because it is opposed to solid demonstrations, it is manifestly false.

More's error is obvious. It is clear that, if we accept the Cartesian conception of the relativity of motion, we no longer have any right to speak of bodies as being absolutely "in motion" or "at rest" but have always to add the point or frame of reference in respect to which the said body is to be considered as being at rest or in motion. And that, accordingly, there is no contradiction in stating that the selfsame body may be at rest in respect to its surroundings and in motion in respect to a body placed farther away, or *vice versa*. And yet Henry More is perfectly right: the extension of the relativity of motion to rotation — at least if we do not want to restrict ourselves to pure kinematics and are dealing with real, physical objects — is illegitimate; moreover, the Cartesian definition, with its more than Aristotelian insistence on the vicinity of the points of reference, is wrong and incompatible with the very principle of relativity. It is, by the way, extremely probable that Descartes thought it out not for purely scientific reasons, but in order to escape the necessity of asserting the motion of the earth and to be able to affirm — with his tongue in his cheek — that the earth was at *rest* in its vortex.

It is nearly the same concerning More's second argument against the Cartesian conception of relativity, or, as More calls it, "reciprocity" of motion. He claims <sup>26</sup>

*That the Cartesian definition of motion is rather a description of place; and that if motion were reciprocal, its nature would compel one body to move by two contrary motions and even to move and not to move at the same time.*

Thus for instance, let us take three bodies, CD, EF and AB, and let EF move towards H, whilst CD moves



towards G, and AB remains fixed to the earth. Thus it does not move and yet moves at the same time: who can say anything more absurd? And is it not evident<sup>27</sup>

that the Cartesian definition of motion is repugnant to all the faculties of the soul, the sense, the imagination and the reason.

Henry More, it is clear, cannot transform the concept of motion into that of a pure relation. He feels that when bodies move, even if we consider them as moving in respect to each other, something happens, at least to one of them, that is unilateral and not reciprocal: it *really* moves, that is, changes its place, its internal *locus*. It is in respect to this "place" that motion has to be conceived and not in respect to any other, and therefore<sup>28</sup>

the supposition of the Cartesians that local motion is relative to the place where the body is not, and not [to the place] where it is, is absurd.

In other terms, relative motion implies absolute motion and can only be understood on the basis of absolute motion and thus of absolute space. Indeed, when a cylindrical body is in circular motion, all its internal points not only change their position in respect to its surrounding surface, or a body placed outside it: they move, that is, pass

through some extension, describe a trajectory in this extension which, therefore, does not move. Bodies do not take their places with them, they go from one place to another. The place of a body, its internal *locus*, is not a part of the body: it is something entirely distinct from it, something that is by no means a mere potentiality of matter: a potentiality cannot be separated from the actual being of a thing, but is an entity, independent of the bodies that are and move in it. And even less is it a mere "phansy,"<sup>29</sup> as Dr. Hobbes has tried to assert.

Having thus established, to his own satisfaction, the perfect legitimacy and validity of the concept of space as distinct from matter and refuted their merging together in the Cartesian conception of "extension" Henry More proceeds to the determination of the nature and the ontological status of the corresponding entity.

"Space," or "inner *locus*," is something extended. Now, extension, as the Cartesians are perfectly right in asserting, *cannot be an extension of nothing*: distance between two bodies is something real, or, at the very least, a relation which implies a *fundamentum reale*. The Cartesians, on the other hand, are wrong in believing that void space is nothing. It is something, and even very much so. Once more, it is not a fancy, or a product of imagination, but a perfectly *real* entity. The ancient atomists were right in asserting its reality and calling it an intelligible nature.

The reality of space can be demonstrated also in a somewhat different manner; it is certain<sup>30</sup>

. . . that a real attribute of any subject can never be found anywhere but where some real subject supports it. But extension is a real attribute of a real subject (namely

matter), which [attribute] however, is found elsewhere [namely there where no matter is present], and which is independent of our imagination. Indeed we are unable not to conceive that a certain immobile extension pervading everything in infinity has always existed and will exist in all eternity (whether we think about it or do not think about it), and [that it is] nevertheless really distinct from matter.

It is therefore necessary that, because it is a real attribute, some real subject support this extension. This argumentation is so solid that there is none that could be stronger. For if this one fails, we shall not be able to conclude with any certainty the existence in nature of any real subject whatever. Indeed, in this case, it would be possible for real attributes to be present without there being any real subject or substance to support them.

Henry More is perfectly right. On the basis of traditional ontology — and no one in the seventeenth century (except, perhaps, Gassendi, who claims that space and time are neither substances nor attributes but simply space and time) is so bold or so careless as to reject it or to replace it by a new one — his reasoning is utterly unobjectionable. Attributes imply substances. They do not wander alone, free and unattached, in the world. They cannot exist without support, like the grin of the Cheshire cat, for this would mean that they would be attributes of *nothing*. Even those who, like Descartes, modify traditional ontology by asserting that the attributes reveal to us the very nature, or essence, of their substance — Henry More sticks to the old view that they *do not* — maintain the fundamental relationship: no real attribute without real substance. Henry More, therefore, is perfectly right,

too, in pointing out that his argumentation is built on exactly the same pattern as the Cartesian and <sup>81</sup>

. . . that this is the very same means of demonstration as Descartes uses to prove that Space is a substance though it becomes false, in his case, insofar as he concludes that it is a corporeal one.

Moreover, Henry More's conclusion from extension to the underlying and supporting substance is exactly parallel to that of Descartes <sup>81</sup>

. . . though he [Descartes] aims at another goal than myself. Indeed, from this argument he endeavors to conclude that the Space that is called void is the very same corporeal substance as that called matter. I, on the contrary, since I have so clearly proved that Space or internal place (*locus*) is really distinct from matter, conclude therefrom that it is a certain incorporeal subject or spirit, such as the Pythagoreans once asserted it to be. And so, through that same gate through which the Cartesians want to expel God from the world, I, on the contrary (and I am confident I shall succeed most happily) contend and strive to introduce Him back.

To sum up: Descartes was right in looking for substance to support extension. He was wrong in finding it in matter. The infinite, extended entity that embraces and pervades everything is indeed a substance. But it is not matter. It is Spirit; not *a* spirit, but *the* Spirit, that is, God.

Space, indeed, is not only real, it is something divine. And in order to convince ourselves of its divine character we have only to consider its attributes. Henry More proceeds therefore to the <sup>82</sup>

*Enumeration of about twenty titles which the metaphysicians attribute to God and which fit the immobile extended [entity] or internal place (locus).*

When we shall have enumerated those names and titles appropriate to it, this infinite, immobile, extended [entity] will appear to be not only something real (as we have just pointed out) but even something Divine (which so certainly is found in nature); this will give us further assurance that it cannot be nothing since that to which so many and such magnificent attributes pertain cannot be nothing. Of this kind are the following, which metaphysicians attribute particularly to the First Being, such as: *One, Simple, Immobile, Eternal, Complete, Independent, Existing in itself, Subsisting by itself, Incorruptible, Necessary, Immense, Uncreated, Uncircumscribed, Incomprehensible, Omnipresent, Incorporeal, All-penetrating, All-embracing, Being by its essence, Actual Being, Pure Act.*

There are not less than twenty titles by which the Divine Numen is wont to be designated, and which perfectly fit this infinite internal place (*locus*) the existence of which in nature we have demonstrated; omitting moreover that the very Divine Numen is called, by the Cabalists, MAKOM, that is, Place (*locus*). Indeed it would be astonishing and a kind of prodigy if the thing about which so much can be said proved to be a mere nothing.

Indeed, it would be extremely astonishing if an entity eternal, uncreated, and existing in and by itself should finally resolve into pure nothing. This impression will only be strengthened by the analysis of the "titles" enumerated by More, who proceeds to examine them one by one: <sup>33</sup>

*How this infinite extended [entity] distinct from matter is One, Simple, and Immovable.*

But let us consider the individual titles and note their congruence. This Infinite Extended [entity] distinct from matter is justly called *One*, not only because it is something homogeneous and everywhere similar to itself, but because it is to such an extent one, that it is absolutely impossible that of this one there be many, or that it become many, as it has no physical parts out of which it could be multiplied or in which, truly and physically, it could be divided, or in which it could be condensed. Such indeed is the internal, or, if you prefer, innermost *locus*. From which it follows that it is aptly called *Simple*, since, as I have said, it has no physical parts. As for what pertains to those diversities of which a logical distribution can be made, there is absolutely no thing so simple that they would not be found in it.

But from the Simplicity its Immobility is easily deduced. For no Infinite Extended [entity] which is not co-augmented from parts, or in any way condensed or compressed, can be moved, either part by part, or the whole [of it] at the same time, as it is infinite, nor [can it be] contracted into a lesser space, as it is never condensed, nor can it abandon its place, since this Infinite is the innermost place of all things, inside or outside which there is nothing. And from the very fact that something is conceived as being moved, it is at once understood that it cannot be any part of this Infinite Extended [entity] of which we are speaking. It is therefore necessary that it be immovable. Which attribute of the First Being Aristotle celebrates as the highest.

Absolute space is infinite, immovable, homogeneous, indivisible and unique. These are very important properties which Spinoza and Malebranche discovered almost at the same time as More, and which enabled them to put extension — an intelligible extension, different from that

which is given to our imagination and senses — into their respective Gods; properties that Kant — who, however, with Descartes, missed the indivisibility — was to re-discover a hundred years later, and who, accordingly, was unable to connect space with God and had to put it into ourselves.

But we must not wander away from our subject. Let us come back to More, and More's space.<sup>34</sup>

It is indeed justly called *Eternal*, because we can in no way conceive but that this One, Immoveable and Simple [entity] was always, and will be always. But this is not the case for the movable, or for what has physical parts, and is condensed or compressed into parts. Accordingly, Eternity, at least the necessary one, implies also the perfect simplicity of the thing.

We see it at once: space is eternal and therefore uncreated. But the things that are in space by no means participate in these properties. Quite the contrary: they are temporal and mutable and are created by God in the eternal space and at a certain moment of the eternal time.

Space is not only eternal, simple and one. It is also<sup>35</sup>

. . . *Complete* because it does not coalesce with any other thing in order to form one entity [with it]; otherwise it would move with it at the same time as [that thing], which is not the case of the eternal *locus*.

It is indeed not only Eternal but also *Independent*, not only of our *Imagination*, as we have demonstrated, but of anything whatever, and it is not connected with any other thing or supported by any, but receives and supports all [things] as their site and place.

It must be conceived as *Existing by itself* because it is totally independent of any other. But of the fact that it

does not depend on anything there is a very manifest sign, namely, that whereas we can conceive all other things as destructible in reality, this Infinite Immoveable Extended [entity] cannot be conceived or imagined destructible.

Indeed, we cannot "disimagine" space or think it away. We can imagine, or think of, the disappearance of any object *from* space; we cannot imagine, or think of, the disappearance of space itself. It is the necessary presupposition of our thinking about the existence or non-existence of any thing whatever.<sup>36</sup>

But that it is *Immense* and *Uncircumscribed* is patent, because wherever we might want to imagine an end to it, we cannot but conceive an ulterior extension which exceeds these ends, and so on *in infinitum*.

Herefrom we perceive that it is incomprehensible. How indeed could a finite mind comprehend that which is not comprehended by any limit?

Henry More could have told us, here too, that he was using, though of course for a different end, the famous arguments by which Descartes endeavoured to prove the indefiniteness of material extension. Yet he may have felt that not only the goal of the argument, but also its very meaning, opposed it to that of Descartes. Indeed, the *progressus in infinitum* was used by Henry More not for *denying*, but for *asserting* the absolute infinity of the extended substance, which<sup>37</sup>

. . . is also uncreated, because it is the first of all, for it is by itself (*a se*) and independent of anything else. And *Omnipresent* because it is immense or infinite. But *Incorporeal* because it penetrates matter, though it is a substance, that is, an in-itself subsisting being.

Furthermore it is *All-pervading* because it is a certain immense, incorporeal [entity], and it embraces all the singular [things] in its immensity.

It is even not undeservedly called *Being by essence* in contradistinction to *being by participation*, because *Being by itself* and being *Independent* it does not obtain its essence from any other thing.

Furthermore, it is aptly called *being in act* as it cannot but be conceived as existing outside of its causes.

The list of "attributes" common to God and to space, enumerated by Henry More, is rather impressive; and we cannot but agree that they fit fairly well. After all, this is not surprising: all of them are the formal ontological attributes of the absolute. Yet we have to recognize Henry More's intellectual energy that enabled him not to draw back before the conclusions of his premises; and the courage with which he announced to the world the spatiality of God and the divinity of space.

As for this conclusion, he could not avoid it. Infinity implies necessity. Infinite space is absolute space; even more, it is an Absolute. But there cannot be two (or many) absolute and necessary beings. Thus, as Henry More could not accept the Cartesian solution of the indefiniteness of extension and had to make it infinite, he was *eo ipso* placed before a dilemma: either to make the material world infinite and thus *a se* and *per se*, neither needing, nor even admitting, God's creative action; that is, finally, not needing or even not admitting God's existence at all.

Or he could — and that was exactly what he actually did — separate matter and space, raise the latter to the dignity of an attribute of God, and of an organ in which

and through which God creates and maintains His world, a finite world, limited in space as well as in time, as an infinite creature is an utterly contradictory concept. That is something that Henry More acknowledges not to have recognized in his youth when, seized by some poetic furor, he sang in his *Democritus Platonissans* a hymn to the infinity of the worlds.

To prove the limitation in time is not very difficult: it is sufficient, according to More, to consider that nothing can belong to the past if it did not become "past" after having been "present"; and that nothing can ever be "present" if it did not, before that, belong to the future. It follows therefrom that all past events have, at some time, belonged to the future, that is, that there was a time when all of them were not yet "present," not yet existent, a time when everything was still in the future and when nothing was real.

It is much more difficult to prove the limitation of the spatial extension of the (material) world. Most of the arguments alleged in favor of the finiteness are rather weak. Yet it can be demonstrated that the material world must, or at least can, be terminated, and therefore is not really infinite.

And, in order not to dissimulate anything, this seems to be the best argument for demonstrating that the Matter of the World cannot be absolutely infinite but only indefinite, as Descartes has said somewhere, and to reserve the name of infinite for God alone. Which must be asserted as well of the *Duration* as of the *Amplitude of God*. Both are indeed absolutely infinite; those of the World, however, only indefinite . . . that is, in truth, finite. In this way God is duly, that is, infinitely, elevated above the Universe, and

is understood to be not only by an infinite eternity older than the World, but also by immense spaces larger and more ample than it.

The circle is closed. The conception that Henry More ascribed to Descartes — though falsely — and so bitterly criticized in his youth, has demonstrated its good points. An indeterminately vast but finite world merged in an infinite space is the only conception, Henry More sees it now, that enables us to maintain the distinction between the contingent created world and the eternal and *a se* and *per se* existing God.

By a strange irony of history, the *κενό* of the godless atomists became for Henry More God's own extension, the very condition of His action, in the world.