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bable; but if the reason be, because of the intense Heat (which is that which most of them assign) 'tis absolutely false, and the contrary is proved by undeniable demonstration. For 'tis demonstrated in Natural Philosophy, that there is no other cause of Heat than Motion, or else the Contact and Light of Hot Bodies. 'Tis also proved that the Sun, in itself, is not hot, nor partakes of any mixed Quality: 'tis proved moreover, that the thickest and smoothest Bodies receive Light in the greatest degree of perfection; and next to them, the thicker which are not smooth, and those which are very thin receive no Light at all. (This was first demonstrated by Avicenna, never mention'd before by any of the Ancients.) From these Premises, this Consequence will necessarily follow, viz. That the Sun do's not Communicate his Heat to the Earth, after the same manner as hot Bodies heat those other Bodies which are near them; because the Sun is not hot in itself. Nor can it be said that the Earth is heated by Motion, because it stands still, and, and remains in the same posture, both when the Sun shines upon it, and when it does not, and yet 'tis evident to Sense, that there is a vast difference in it, in respect of Heat and Cold, at those several

ral times. Nor does the Sun first heat the Air, and so the Earth; because we may observe in hot weather, that the Air which is nearest the Earth, is hotter by much than that which is higher and more remote. It remains therefore that the Sun has no other way of heating the Earth but by its Light, for Heat always follows Light, so that when its Beams are collected, as in Burning-Glasses for instance, it fires all before it. Now 'tis Demonstrated in Mathematicks, that the Sun is a Spherical Body, and so is the Earth; and that the Sun is much greater than the Earth; and that part of the Earth which is at all times illuminated by the Sun is above half of it; and that in that half which is illuminated, the Light is most intense in the midst; both because that part is the most remote from Darkness, which is the Circumference of the Circle, as also, because it lies opposite to more parts of the Sun: and that those parts which are nearest the Circumference of the Circle, have less Light; and so gradually, till the Circumference of the Circle, which encompasses the illuminated part of the Earth, ends in Darkness.

§ 2. Now that is the Center of the Circle of Light, where the Sun is Vertical to the Inhabitants, and then in that place, the Heat is most extremely intense; and
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and so those Countries are the coldest, where the Sun is farthest from being Vertical. And if there were any such place where the Sun was always Vertical, it must needs be extreme hot. Now 'tis demonstrated in Astronomy, that the Sun is Vertical twice a Year only, to those which live under the Equinoctial, viz. when he enters into Aries and Libra; and all the rest of the Year he declines from them, six months Northward, and six months Southward; and for that reason they are neither too hot nor too cold, but of a Moderate Temper between both. There's much more to be said about this Argument, in order to the explaining it fully, but it is not suitable to our purpose; I have only hinted it to you, because it helps the Story a little, and makes it something more probable that a Man may be formed without the help of Father and Mother; and there are some which affirm positively that Hai Ebn Yokdhar was so, others deny it, and tell the Story thus:

§ 3. They say, that there lay, not far from this our Island, another Great Island very fertile and well peopled; which was then governed by a Prince of a Proud and Jealous Disposition; he had a Sister of exquisite Beauty, which he confin'd and restrain'd from Marriage, because he could not