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## The Sky Above

**T**he earth's atmosphere is like an envelope around the earth which becomes thinner with height. In fact it consists of three layers which are called the troposphere, stratosphere and mesosphere. Above a height of 50 km, the atmosphere hardly exists. The earth's atmosphere is a mixture of gases, predominantly nitrogen and oxygen, and it is therefore invisible to the human eye. Only the products that result from atmospheric processes can be seen, such as clouds, rain, snow, dew, frost, fog, mist, rainbow and lightning.

The basic meteorological parameters like temperature, humidity and wind can only be felt by human beings but cannot be seen. The most fundamental atmospheric parameter, which is atmospheric pressure, can be neither seen nor felt by us. The word 'observatory' is therefore somewhat of a misnomer, as not much is observed there. It is in fact a place where accurate measurements of atmospheric parameters are made.

At night when we look upwards, we just see a vast expanse of blackness dotted by the tiny lights of the stars and planets and at times dimly illuminated by the moon. If there are clouds, the night sky seems even darker. It is only during daytime that we can see the sky. It is not that we are seeing the atmosphere which still remains invisible. However, there are very fine particles in the atmosphere, themselves too small for us to see, that scatter the light of the sun in certain wavelengths depending upon their size and the angle of the incident beam. It is this process of scattering that gives colour to the sky. During the day, the

sky mostly appears blue to our eyes, while around sunrise and sunset the sky changes colours rapidly and it may take on a yellow, orange, red or purple hue. When the sky is overcast with thick and tall clouds, it appears gray and dark.

The sky is a reality but not a physical reality. One can take a sample of air and measure its temperature and moisture content, or one can draw water from the sea and record its temperature and salinity. But one cannot cut a piece of the sky and send it for analysis. It does not have properties that can be measured.

Likewise, heaven is not a physical reality but that does not mean that it is not a reality. Its location is unknown to us. But people do seem to know where to look for it. No one drills down into the earth to look for heaven. No one dives to the depths of the ocean to find heaven. Church steeples point upwards to the sky. Temples are built on mountain tops and devotees climb rough and difficult terrain taking great risks to reach there. So to look for heaven, one has to look to the sky. Heaven and sky have a connection.

Both the words sky and heaven have their plural forms as well. In meteorological language, we talk about clear skies and overcast skies. In ordinary usage we talk about gray skies or gloomy skies. In the Bible, we read about heavens meaning that there are more than one. The very first verse of the Bible says: *In the beginning God created the heavens and the earth.*<sup>1</sup> Soon thereafter we read about God calling the 'expanse' as 'sky'.<sup>2</sup> About the great flood at the time of Noah coming to an end, we read: *Now the springs of the deep and the floodgates of the heavens had been closed, and the rain had stopped falling from the sky.*<sup>3</sup> Later on, we

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<sup>1</sup> Genesis 1:1

<sup>2</sup> Genesis 1:8

<sup>3</sup> Genesis 8:2

read about God telling Abram to look up at the heavens and count the stars and that his offspring will be like them.<sup>4</sup>

This is God's warning to his people against worshipping his creation: *And when you look up to the sky and see the sun, the moon and the stars - all the heavenly array - do not be enticed into bowing down to them.*<sup>5</sup> David says in one of his psalms: *Your love, O Lord, reaches to the heavens, your faithfulness to the skies.*<sup>6</sup>

In the Hebrew language of the Old Testament, there is only one word, 'shamayim', for both 'sky' and 'heaven'. In the New Testament Greek also, there is a common word 'ouranos' for 'sky' and 'heaven'. The heavens and the skies are indeed synonymous.



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<sup>4</sup> Genesis 15:5

<sup>5</sup> Deuteronomy 4:19

<sup>6</sup> Psalm 36:5