

The Rainbow passage

When the sunlight strikes raindrops in the air, they act as a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow. Throughout the centuries people have explained the rainbow in various ways. Some have accepted it as a miracle without physical explanation. To the Hebrews it was a token that there would be no more universal floods. The Greeks used to imagine that it was a sign from the gods to foretell war or heavy rain. The Norsemen considered the rainbow as a bridge over which the gods passed from earth to their home in the sky. Others have tried to explain the phenomenon physically. Aristotle thought that the rainbow was caused by reflection of the sun's rays by the rain. Since then physicists have found that it is not reflection, but refraction by the raindrops which causes the rainbows. Many complicated ideas about the rainbow have been formed. The difference in the rainbow depends considerably upon the size of the drops, and the width of the colored band increases as the size of the drops increases. The actual primary rainbow observed is said to be the effect of super-imposition of a number of bows. If the red of the second bow falls upon the green of the first, the result is to give a bow with an abnormally wide yellow band, since red and green light when mixed form yellow. This is a very common type of bow, one showing mainly red and yellow, with little or no green or blue.

空氣中,當陽光照在雨滴中折射就形成了彩虹.彩虹是由白光分散成許多漂亮的顏色組成的.他的形狀是長弓形,至高點在正中央,兩端則跨越地平線.有個傳說敘述著在彩虹的一端有個黃金做成的鍋子,人們看呀看的,但沒有人曾經找到過.所以當形容一個人做超過自己能力範圍的事情的時候,英文會說這個人”在彩虹某端尋找黃金鍋子“幾世紀以來人們試著用各種方式解釋彩虹.有些人覺得他是個奇蹟而不是什麼物理現象.對希伯來人來說,這種現象象徵了世界再也不會有洪害.希臘人曾經以為彩虹是神預告世人戰爭或是大雨即將來臨.挪威人覺得彩虹是神從天堂來到人間的一座橋.其他人則試著用物理的現象解釋彩虹.亞里斯多德解釋彩虹是陽光經由雨水反射形成的.之後物理學家發現彩虹是陽光經由雨水折射並非反射而成.還有很多其他複雜的理論相繼形成.雨滴的大小也可以影響彩虹的形成.雨滴越大彩虹的寬度越大.我們肉眼所看到的彩虹其實是很多道弓狀的虹組成的.如果第二道虹的紅色在第一道虹的綠色前面,這道虹就會變成黃色.因為當紅色和綠色的光交會時,會形成黃色的光.這種虹很常見,只有紅色和黃色與一點點(甚至沒有)綠色或藍色.