

on the mains so as to protect our dwellings. It must also be remembered that while the protoplasm of plants and that of animals is the same, the function of plants is really to store up energy that the animal avails itself of. The plant must have sunlight in large quantities, it is necessary to its growth. But to man and animal life it is not so directly necessary. Animal life thrives with very little sunlight, or none at all. This is of course pointblank against popular notions as to the blessing of sunshine; but it is very doubtful whether sunlight is always directly beneficial to animal growth and development, and too much of it is certainly harmful, especially where nature has not provided a protection against it, as in the black and yellow races and some birds and animals. As this is rank heterodoxy let us think about it for a little while.

It is interesting, in the first place, to remember that animal life is by nature aquatic. Human life begins in an aquatic medium and at a certain period in pre-natal life it is equipped with gills. The rhythms of life, which have been studied carefully of late, seem to point back to a time when the effects of the tides were felt by our remote protozoic ancestors as vital stimuli. The majority of the cells that compose the human body are aquatic in habit and marine at that, requiring a saline solution in order to vigorous existence. Now, water absorbs the ultra-violet rays of sunlight and protects the cells which could not otherwise exist. The liquid in which the brain literally swims, is not only nutritive—it is also protective, like the hair upon the scalp from the destructive actinic rays.

It is interesting to consider the fact that most animals are like the cat, nocturnal in habits, passing the day in dens and the hollows of logs and trees, and holes in the ground, and coming out at night. This is also true of the natives of sunny climes. The negro is by nature a nocturnal animal, preferring to spend the day in sleep, and coming forth at night to sing and dance by the light of the moon. Animals that come forth by day are protected by fur and feathers from the sunlight, the parts most exposed being darker than the rest; while naked animals like the elephant and rhinoceros, have a black skin. Black ants live in the sunshine while white ants come forth by night. Ants place their eggs in the sunlight a short time every day, but when the light becomes oppressive they remove them to the nurseries on the south side of the hill where they get warmth without direct sun exposure. All these instances and, they might be multiplied, prove that nature protects animal life from too great exposure to the sunlight; that the animal spends his time preferably in the dark, indicating that while