

LIFE'S DEBT TO DEATH

[The writer of this thoughtful study, **Dr. Alexander F. Skutch**, is an American naturalist who enters the temple of nature with the reverence of the true scientist. Educated in the U. S. A., he has done most of his collecting of botanical specimens and study of bird habits—he has never collected birds—in Central and South America. He has contributed articles on birds and plants to many periodicals and a book of his has recently been accepted for publication by the Oxford University Press. He holds at present a Fellowship of the John Simon Guggenheim Memorial Foundation of New York.

It is in the person of such of its pioneers as Dr. Skutch that science may be expected some day to leap the gap on which it still insists between organic and inorganic matter and to recognise that wherever there is motion—and where is there not?—there is life, spirit, consciousness, however handicapped in its expression by its vehicles. The answer to Dr. Skutch's closing question in this article is implicit in what has gone before. Forms die but matter never perishes; the consciousness disembodied temporarily is not destroyed; Life builds, preserves, destroys but to build better, casting her erstwhile vehicles into the alembic men call death, that they may be worked up again as other forms.—ED.]

No one knows how long ago, or under what peculiar circumstances, life arose on the cooling surface of our planet. But those who have weighed the evidence most carefully believe that the interval separating us from the origins of terrestrial life must be measured in hundreds of millions of years, and that the earliest of organized creatures were extremely simple in gross structure, comparable to the lowliest and least differentiated of the living things we know today. And there is no good reason to doubt that the first progenitors of contemporaneous animals and plants suffered from the same limitations which we find without exception in all their progeny—that they could continue to exist only within a narrow range of external conditions

and so were liable to sudden destruction; and that even if they escaped disaster from outside agencies, their own internal processes would in the end bring on old age and death.

Of the many peculiar qualities possessed by the newly formed living substance, perhaps the most significant was its instability, its liability to swift destruction or slow decay—in a word, its mortality. For closely associated with its instability was its capacity to change, to assume new forms. In outward shape the first living beings were in all probability very much simpler than many inorganic objects that were coeval with them, such as crystals and the more complex minerals. But these were far more resistant and enduring than the labile living substance. As

a result, the stable mineral productions remain today much as they were æons ago, while the weak and protean life-substance has flowed on and on to new and more complex forms.

Because living beings were individually so easily destroyed and of such limited duration, if they were to continue to exist collectively it was essential that they reproduce themselves, giving rise to other units which might survive their own destruction. The ability to reproduce, coupled with the capacity of protoplasm to change, made possible the gradual evolution of higher forms of life. It is not impossible that through the æons of geologic time simple beings have arisen which were essentially alive but lacked the capacity for reproduction, and hence failed to remain extant long enough to come to our attention. And some kinds of organisms, especially in the seas, attained a relative stability which, external conditions remaining more or less constant, enabled them as species to survive with scarcely any change for countless millions of years. But life in all its highest, most exciting and most familiar manifestations is characterized by ceaseless reproduction and endless slow change.

That the death of the parent is one of the conditions necessary for the evolution of diverse and more complex forms of life is obvious to anyone who has carefully considered the theory of organic evolution, which has become one of the commonplaces

of modern thought. Much of the mechanics of evolution remains obscure to us; but there can be no doubt that an essential part of the process is the removal of poorly adapted individuals and races, and their replacement by others better fitted to meet the stresses of a constantly changing environment.

Thus the endless variety in size, form and colour of living beings is bound up in the most intimate fashion with their mortality. In a narrower sense, the necessity of plants and animals to reproduce themselves has called into being many of the most curious and beautiful of their characters. Were plants individually indestructible, the green mantle of the earth would persist without change from year to year and there would be little need for plants to blossom and set seed. Flowers in all their delicacy of shape and brightness of colour; fruits with their multiplicity of form, texture, taste and means of dispersal; seeds so various in configuration and mode of development—these are the plants' tribute to death. Among animals, bright colours and adornment by plume and crest and mane have, in the view of many of the most competent zoologists, developed largely because they are of importance in winning mates and thereby perpetuating the kind—the butterfly's wing, the peacock's train, the tanager's coat of many hues, reached their full perfection of beauty because death stood watching in the shadow. Were birds immortal,

they would not need to build nests of such various and curious forms, or lay eggs which delight us with their multiplicity of colouration; possibly also they would not sing, for with many kinds song is intimately associated with the breeding-season. To death we owe a large share of all the beauty, the colour and the music which life displays.

It is not only in physical qualities that death has enriched life; it has been responsible also for the development of many of its noblest attributes of mind and spirit. Were living beings immortal instead of the frail, perishable creatures they are, it is likely that they would be even more selfish and callous to the sufferings of others than we find them. For, if immortal, they would long ago have populated the earth to capacity and would need to rear no more progeny; but, being mortal, they must leave offspring, which in the higher animals must be fed and protected until they can care for themselves. The necessity to nourish, shelter and defend the young has more than anything else called forth generosity, courage and self-sacrificing devotion in animals which otherwise would find food for themselves alone, flee from rather than face danger as the surest means of saving their own skins, and know no obligation beyond the satisfaction of their appetites.

If non-human animals have a sense of duty—and I believe that those more highly endowed possess at least the germ of this feeling, even

if they cannot talk about it—it has arisen in connection with the nest, the den or the hive where their little ones are sheltered and reared. To hatch out their eggs and keep their nestlings warm, birds must sit motionless for long periods, although constant movement seems more in keeping with their lightsome, restless natures. They nourish their young with food taken from their own mouths, often at a time when the close observer can detect signs that they themselves are hungry. Feeble birdlings hardly bigger than a man's thumb will often risk death by attacking the snake, cat, hawk or man which threatens or seems to threaten the safety of their eggs or nestlings. The performance of such acts is the very essence of duty; and if birds and furry animals are

Glad hearts! without reproach or blot
Who do thy work and know it not,

they are laying the foundation upon which we have rationalized and systematized our notions of that "Stern Daughter of the Voice of God." With men, feelings of duty as well as most other civic virtues originate in the home; and the home has no biologic significance save as the shelter of the children who will replace their mortal parents.

The necessity to perpetuate the kind is the origin of love, which is one of the strongest influences in the formation of the human character. Love if allowed to degenerate into uncontrolled physical passion degrades man below the lowest of the beasts; when nourished with noble

sentiments and unselfish devotion it lifts him among the immortals. Love may be either the foul canker or the flowering of the human spirit; according to our response to it we grow or shrink in spiritual stature. In no other way are we more directly accountable for the growth of our own spiritual nature than in the path we choose when beckoned onward by love.

If we were immortal and indestructible we should have no cause ever to feel afraid, and without fear we could not know what it is to be brave. We should have no heroes or tales of heroism. We should be without knowledge of most of mortal life's "hopes and fears, so blind and yet so sweet with death about them." Were our life without term we could without reproach put off until tomorrow whatever we did not feel inclined to do today. There would be no reason to be diligent

at our task, since in an indefinitely prolonged existence there would always remain ample time to complete it. Industry would cease to be considered a virtue. I knew a scientist who kept a human skull upon his desk, to remind him hourly how short his span of life, and how he must persevere to complete his work ere he, too, became a grinning death's-head.

But for death we might still be amœbæ rather than men. To him we owe a large share of the beauty and colour and variety of life—flowers, bright plumage, the song of the bird and the nobility of the human spirit. When he calls us he merely claims his own. We can only wonder what his purpose may be in delivering up to decay and putrefaction all that he has laboured so long and patiently to create. Will he save nothing from the apparent dissolution of all his handiwork?

ALEXANDER F. SKUTCH

To live as a plant, the *seed* must die. To live as a conscious entity in the Eternity, the passions and senses of man must first DIE before his body does. "To live is to die and to die is to live," has been too little understood in the West. Siva, the *destroyer*, is the *creator* and the Saviour of Spiritual man, as he is the good gardener of nature. He weeds out the plants, human and cosmic, and kills the passions of the physical, to call to life the perceptions of the spiritual, man.

—H. P. BLAVATSKY