

EVOLUTION

LANGDON SMITH

WHEN YOU WERE A TADPOLE AND I WAS A FISH

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EVOLUTION

A Fantasy

"When you were a tadpole
and I was a fish"

By LANGDON SMITH

Boston, JOHN W.
LUCE and COMPANY. MCMIX

1909

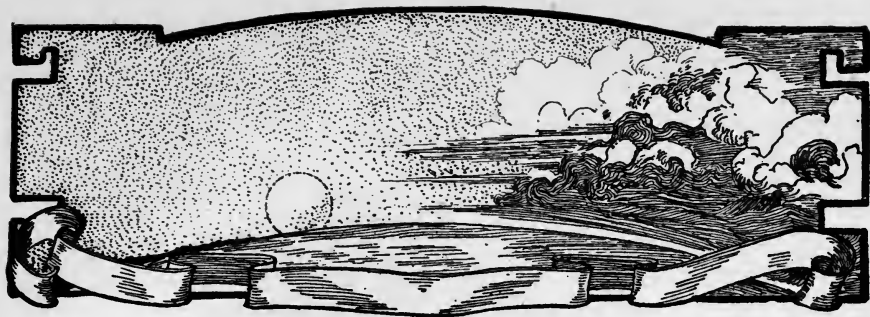
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INTRODUCTION



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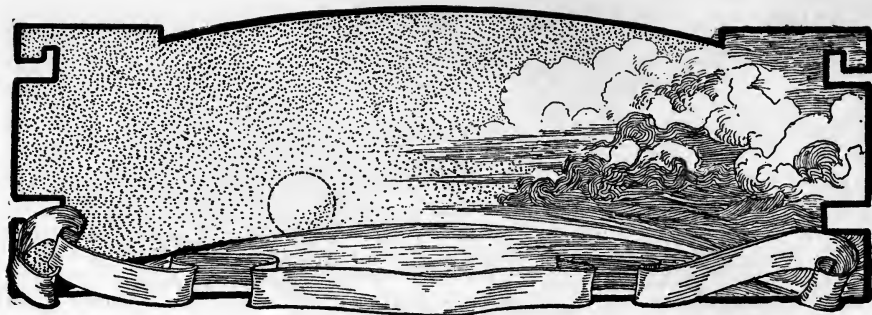


“EVOLUTION” AND THE MAN WHO WROTE IT

To weld the theory of soul-transmigration to the reality of evolution was an inspiration that, coming to Langdon Smith in the midst of a busy life, nevertheless sung itself into his heart with a wealth of poetic meaning and suggestion that found its ultimate expression in the verses which so securely link his name with those whom no passing moment can plunge into obscurity.

In one hundred and eight short lines of poetry he reached back into the geological beginning, picked up the first sparks of life lying inert in the Paleozoic period and brought them side by side into the light of present day civilization and to the highest type of life thus far developed, by stages opposed to no law of nature as interpreted by modern philosopher and scientist.

The author did more than this. To have stopped there would have been merely clever, merely the expression in poetic form of Darwin's "Descent of Man,"



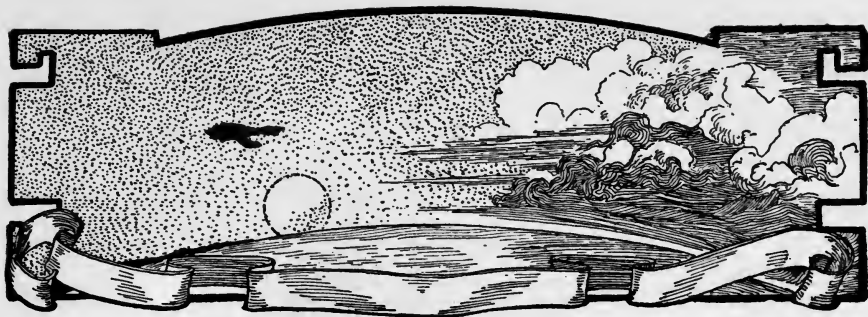
and his epic of Evolution is far more than cleverness, it has the ring of genius.

The crowning glory of "Evolution" is, perhaps, the manner in which he interwove throughout his masterpiece of imagination a golden thread of romance that becomes more and more lustrous as the story unfolds. He linked inseparably physical life and spiritual life, the so-called vital and eternal sparks, as, into the web of the lives that evolve, he wove the woof of love and brought them down through the ages together as one.

"For I loved you even then," he sings as he throws his soul back through the ages to the first vertebrates of the Paleozoic period. Ever together he pictures "life by life," "love by love," "breath by breath," "death by death" and back to "life by life" again, down through every stage of evolution's wonderful path from darkness to light, from trilobite to civilized man.

The beginning of matter, the dawn of life, the changes through all the eons, the theory that life lives anew and love, the soul, lives eternally with it, Langdon Smith encompassed in his poem.

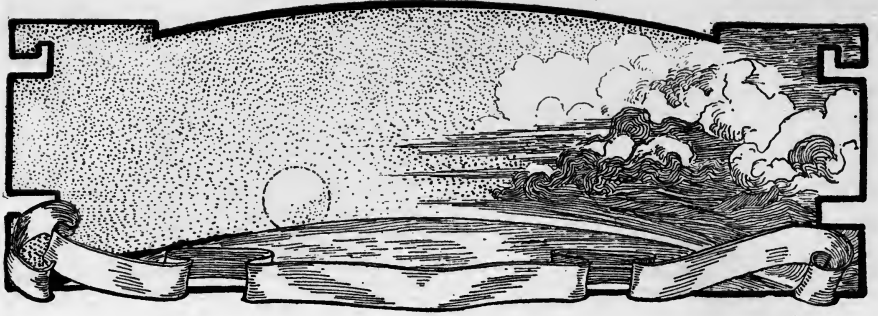
And yet he found no need to dispute Huxley, Spencer, Darwin or Lowell; he saw no reason to rail at



Buddha, Pythagoras, Confucius, Orpheus, Socrates or Jesus. He felt that he had lived in the dim past and that he would live in the lustrous future. He reduced immortality to a science and science to immortality.

Langdon Smith was born in Kentucky Jan. 4, 1858, and received a common school education at Louisville. In boyhood he served in the Comanche and Apache wars as a trooper, his letters descriptive of these campaigns winning him his first newspaper position. Later he acted as a war correspondent during the extended fighting with the Sioux tribes. In 1894 he married Marie Antoinette Wright and soon after went to Cuba as correspondent for the New York Herald, being a non-combatant on Gen. Maceo's staff during the Cuban's effort to overthrow Spanish rule. He again went to Cuba at the outbreak of the Spanish-American war as a representative of the New York Journal. One of the first at the front, he was present at all the principal engagements, taking high rank as a war correspondent.

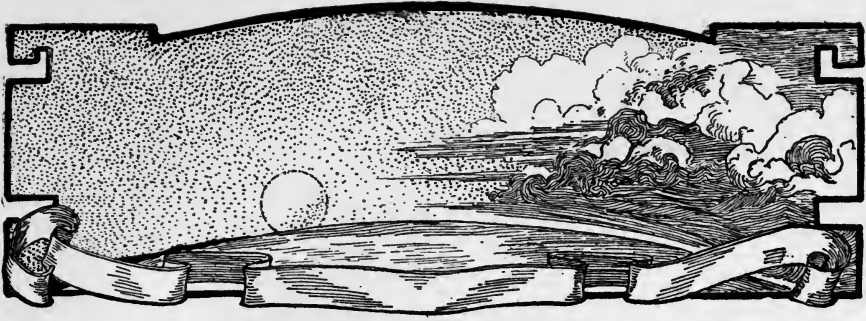
Aside from his success as a newspaper writer, his novel "On the Pan Handle" met a favourable reception; his short stories made him still better known, but it is as the author of "Evolution" that he is best



remembered. Skilled as a war correspondent, himself a veteran Indian fighter, a technical writer of sports, possessed of a mentality too great to be handicapped through lack of university training, he thought for himself upon life and death, of the past and future, and in "Evolution" voiced his beliefs.

The first few stanzas of "Evolution" were written in 1895 and published in the New York Herald where he was then employed. Four years later, when a member of the New York Journal staff, he wrote several more. These he laid aside for a while and then, from time to time, added a stanza until it was completed. Whether the editorial department failed to appreciate the poem, or the foreman of the composing room needed something with which to fill out a page is not known, but "Evolution" first appeared in its entirety in the center of a page of want advertisements in the New York Journal.

A work of such merit, however, could not be lost. Mr. Smith received thousands of congratulatory letters from all parts of the world, accompanied by requests for copies of the poem which were exceedingly difficult to secure until reprinted in April, 1906, in



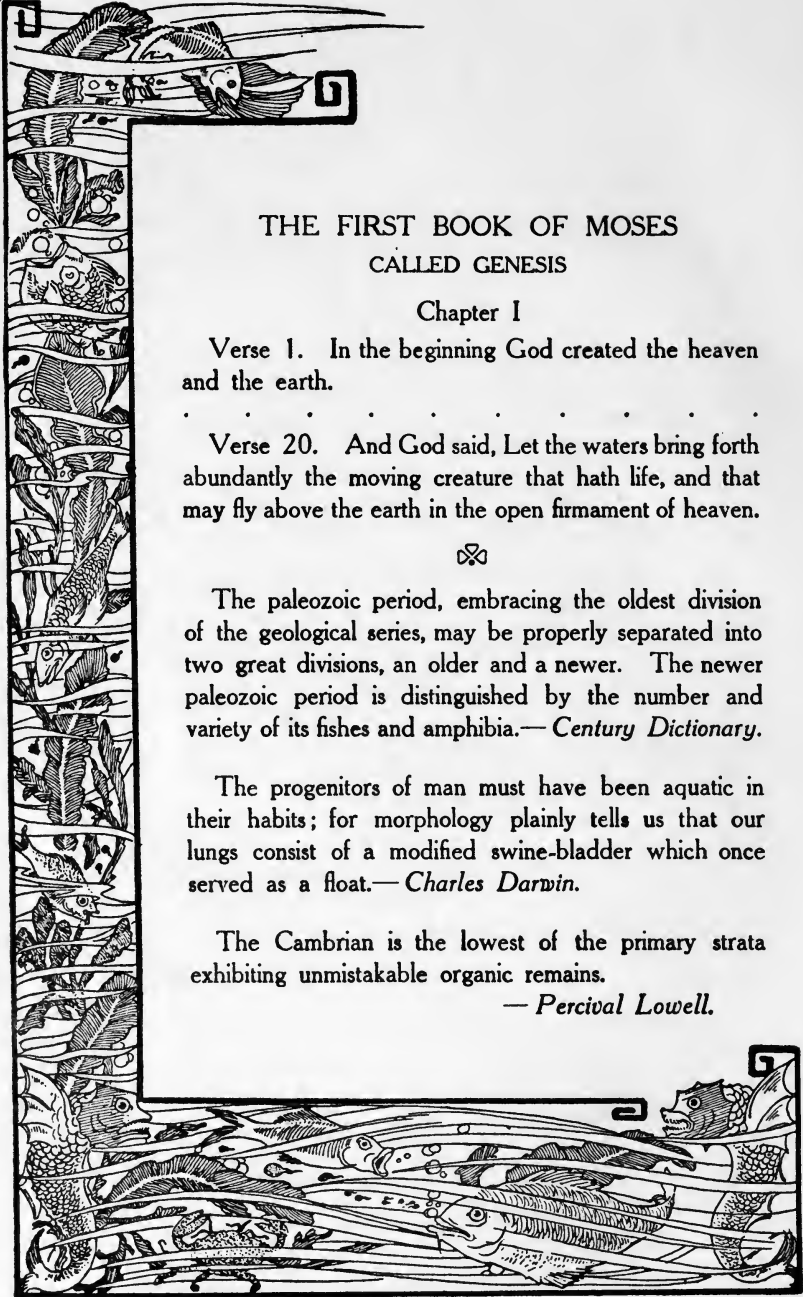
“The Scrap Book,” edited by Mr. Frank A. Munsey.

April eighth, 1908, Langdon Smith died at his home in New York. Admirers of “Evolution” have been struck with the coincidence of his wife’s death occurring as it did within five weeks of his own. Their lives and affections linked as they were, in his poetic fancy at least, since the beginning of time seem to have created between them in reality a bond too close to survive a parting.

LEWIS ALLEN BROWNE.

E V O L U T I O N





THE FIRST BOOK OF MOSES
CALLED GENESIS

Chapter I

Verse 1. In the beginning God created the heaven
and the earth.

Verse 20. And God said, Let the waters bring forth
abundantly the moving creature that hath life, and that
may fly above the earth in the open firmament of heaven.

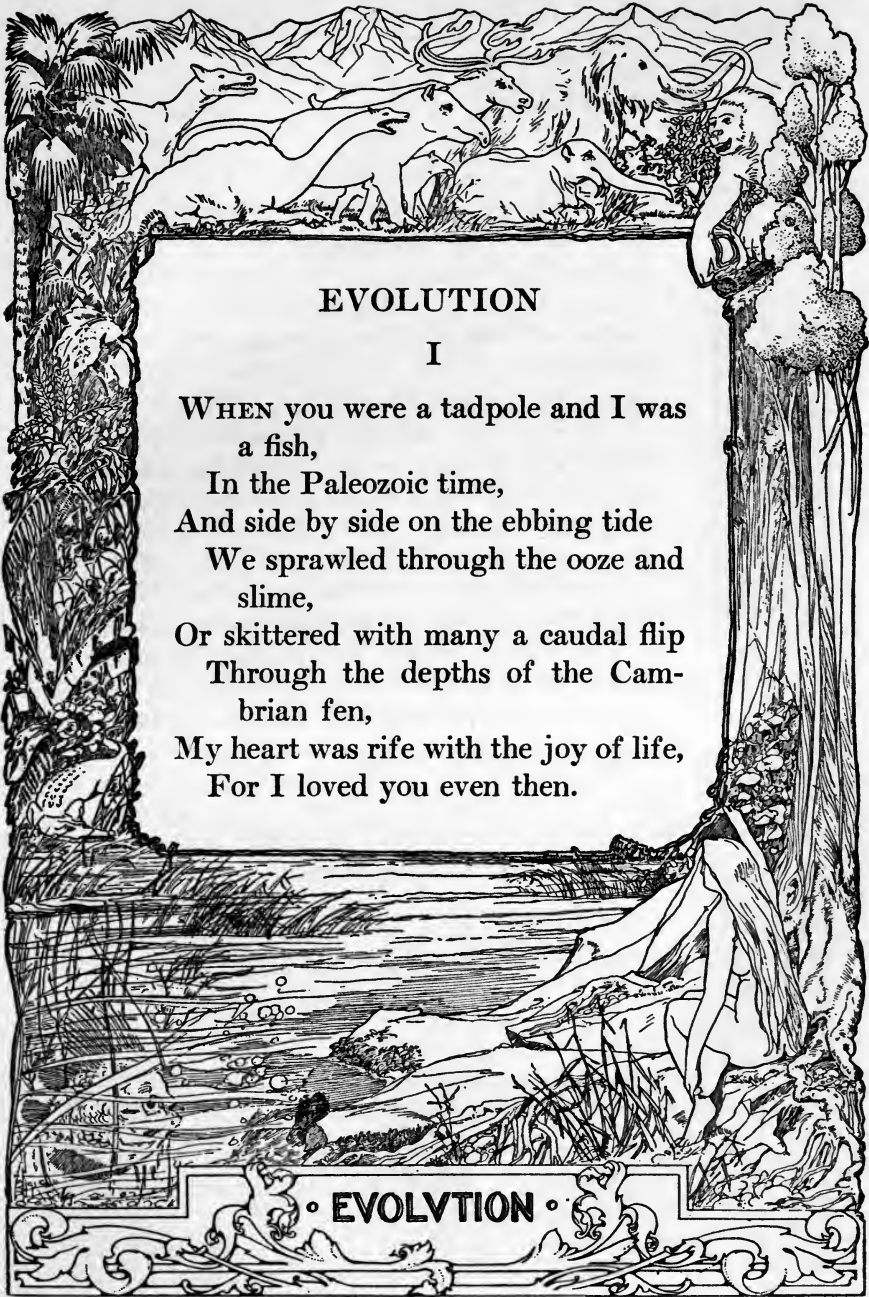


The paleozoic period, embracing the oldest division
of the geological series, may be properly separated into
two great divisions, an older and a newer. The newer
paleozoic period is distinguished by the number and
variety of its fishes and amphibia.— *Century Dictionary.*

The progenitors of man must have been aquatic in
their habits; for morphology plainly tells us that our
lungs consist of a modified swine-bladder which once
served as a float.— *Charles Darwin.*

The Cambrian is the lowest of the primary strata
exhibiting unmistakable organic remains.

— *Percival Lowell.*

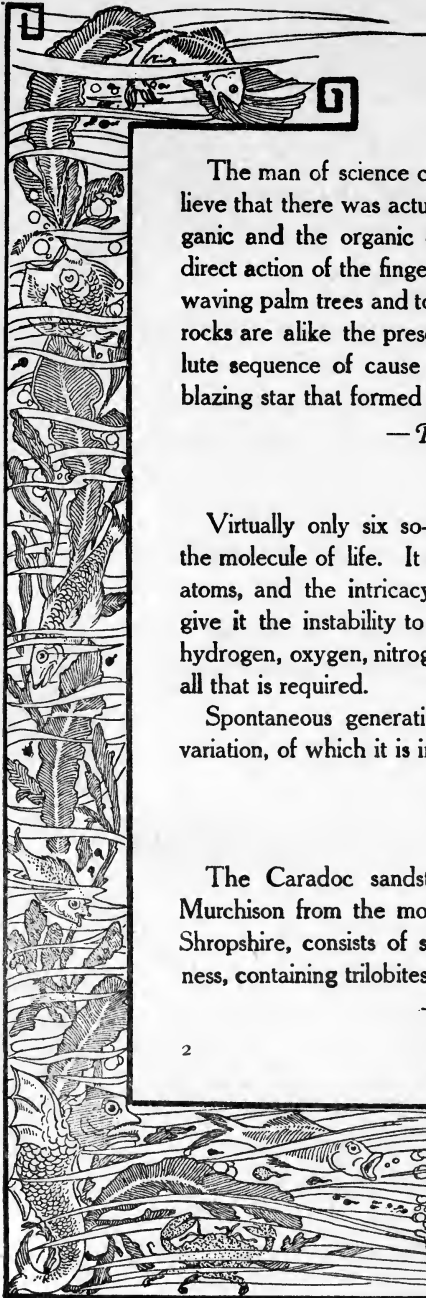


EVOLUTION

I

WHEN you were a tadpole and I was
a fish,
In the Paleozoic time,
And side by side on the ebbing tide
We sprawled through the ooze and
slime,
Or skittered with many a caudal flip
Through the depths of the Cam-
brian fen,
My heart was rife with the joy of life,
For I loved you even then.

• EVOLUTION •



The man of science cannot hesitate. He cannot believe that there was actually a break between the inorganic and the organic evolutions, bridged over by the direct action of the finger of God. He must believe that waving palm trees and toddling children and wave-beaten rocks are alike the present natural outcome of an absolute sequence of cause and effect, passing back to the blazing star that formed the elements that comprise them.

— *Professor Robert K. Duncan,*
University of Kansas.

Virtually only six so-called elements go to make up the molecule of life. It is the number of its constituent atoms, and the intricacy of their binding together, that give it the instability to produce vital actions. Carbon, hydrogen, oxygen, nitrogen, phosphorus and sulphur are all that is required.

Spontaneous generation is as certain as spontaneous variation, of which it is in fact only an expression.

— *Percival Lowell, LL. D.,*
Director of the Lowell Observatory

The Caradoc sandstone named by Sir Roderick Murchison from the mountain called *Caer Caradoc*, in Shropshire, consists of shelly sandstones of great thickness, containing trilobites and many other fossils.

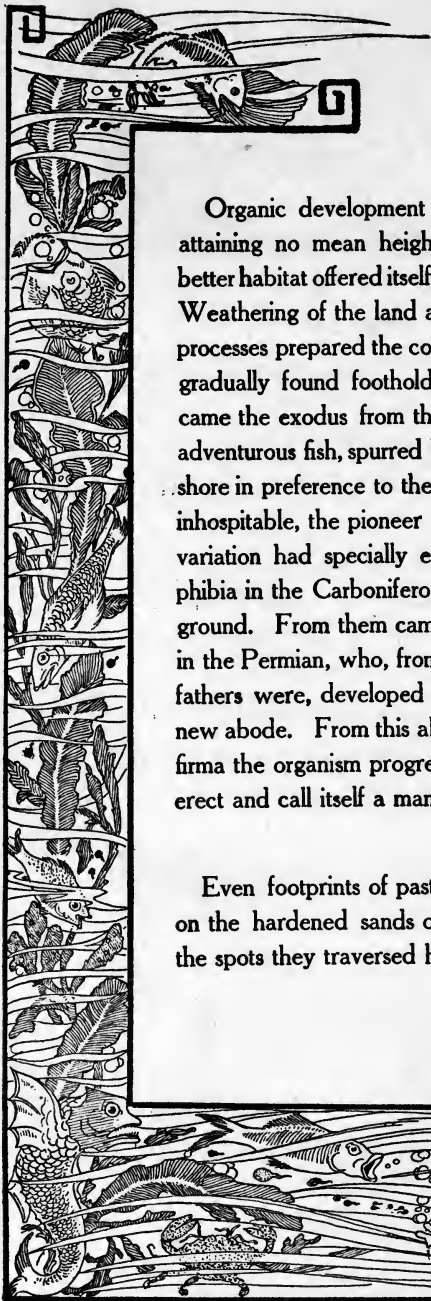
— *Sir Charles Lyell, F. R. S.*



II

Mindless we lived and mindless we
loved,
And mindless at last we died;
And deep in a rift of the Caradoc
drift
We slumbered side by side.
The world turned on in the lathe of
time,
The hot lands heaved amain,
Till we caught our breath from the
womb of death,
And crept into light again.

• EVOLVTION •

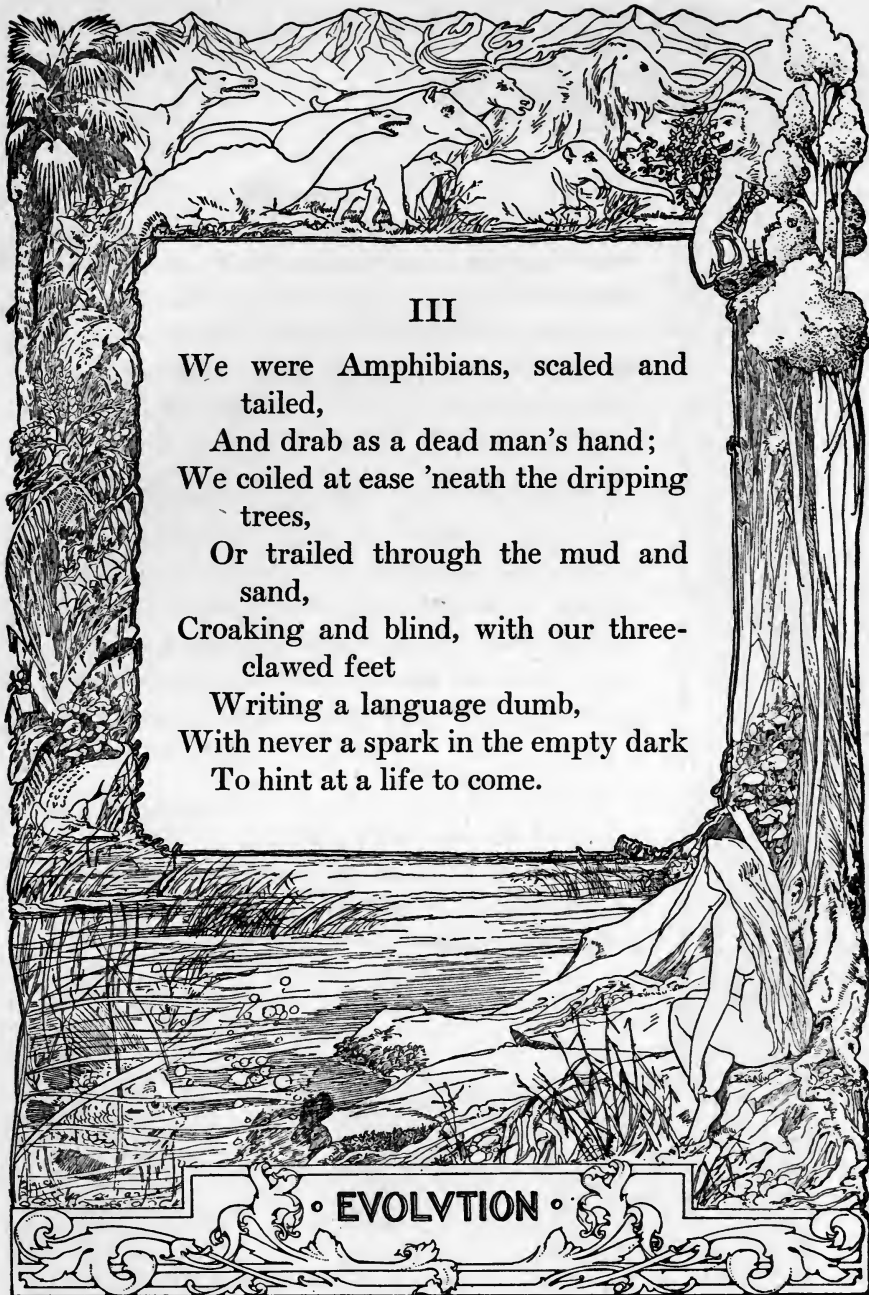


Organic development proceeded from amoeba to fish, attaining no mean height in the process. But at last a better habitat offered itself, and was speedily appropriated. Weathering of the land and constantly changing chemic processes prepared the continents for organic use. Plants gradually found foothold, and insects an abode. Then came the exodus from the sea. We may picture some adventurous fish, spurred blindly from within, essaying the shore in preference to the main. Finding the littoral not inhospitable, the pioneer was followed by others whom variation had specially endowed. Thus arose the amphibia in the Carboniferous era, visitors only to the solid ground. From them came the reptiles, their descendants, in the Permian, who, from the temporary sojourners their fathers were, developed into permanent denizens of the new abode. From this aboriginal crawling out upon terra firma the organism progressed until finally it came to stand erect and call itself a man.

Lowell.

Even footprints of past reptiles confront us, legible still on the hardened sands of time, as if made yesterday in the spots they traversed hundred of centuries ago.

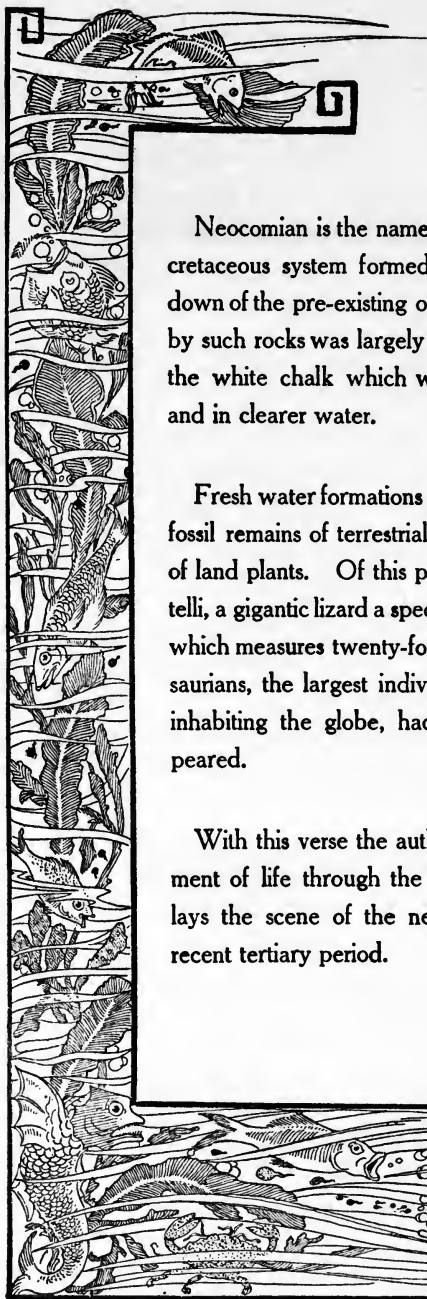
Lowell.



III

We were Amphibians, scaled and
tailed,
And drab as a dead man's hand;
We coiled at ease 'neath the dripping
trees,
Or trailed through the mud and
sand,
Croaking and blind, with our three-
clawed feet
Writing a language dumb,
With never a spark in the empty dark
To hint at a life to come.

• EVOLUTION •



Neocomian is the name given the lower division of the cretaceous system formed in part at least by the wearing down of the pre-existing oolitic rocks. The land formed by such rocks was largely submerged before the origin of the white chalk which was formed in a more open sea and in clearer water.

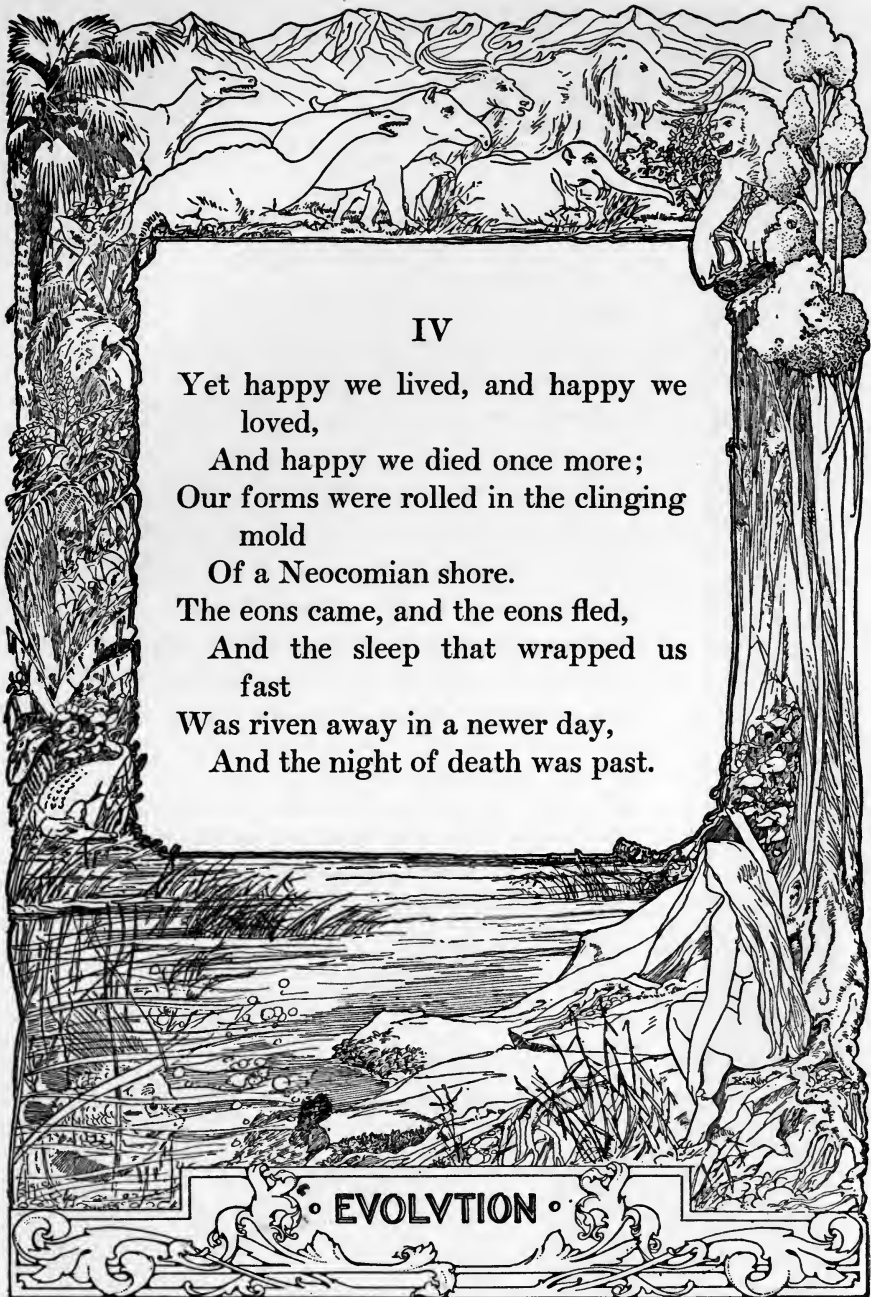
Sir Charles Lyell.

Fresh water formations of the Neocomian period exhibit fossil remains of terrestrial reptiles, the trunks and leaves of land plants. Of this period was the Iguanodon Mantelli, a gigantic lizard a specimen of the thigh-bone of one of which measures twenty-four inches in circumference. The saurians, the largest individuals of the reptile family ever inhabiting the globe, had not at this time entirely disappeared.

Sir Charles Lyell.

With this verse the author ceases to trace the development of life through the early geological formations and lays the scene of the next stanza in the comparatively recent tertiary period.

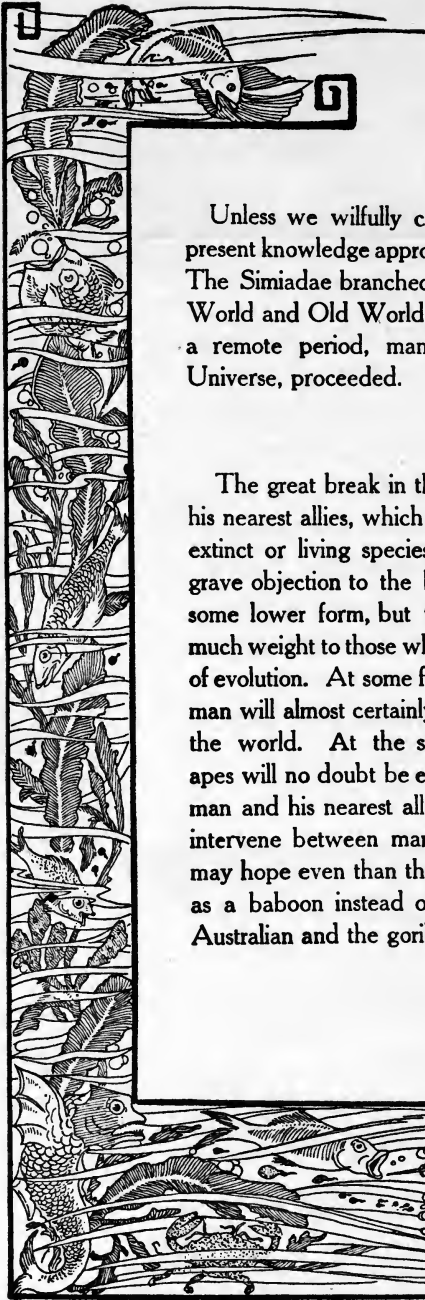
Ed.



IV

Yet happy we lived, and happy we
loved,
And happy we died once more;
Our forms were rolled in the clinging
mold
Of a Neocomian shore.
The eons came, and the eons fled,
And the sleep that wrapped us
fast
Was riven away in a newer day,
And the night of death was past.

• EVOLUTION •

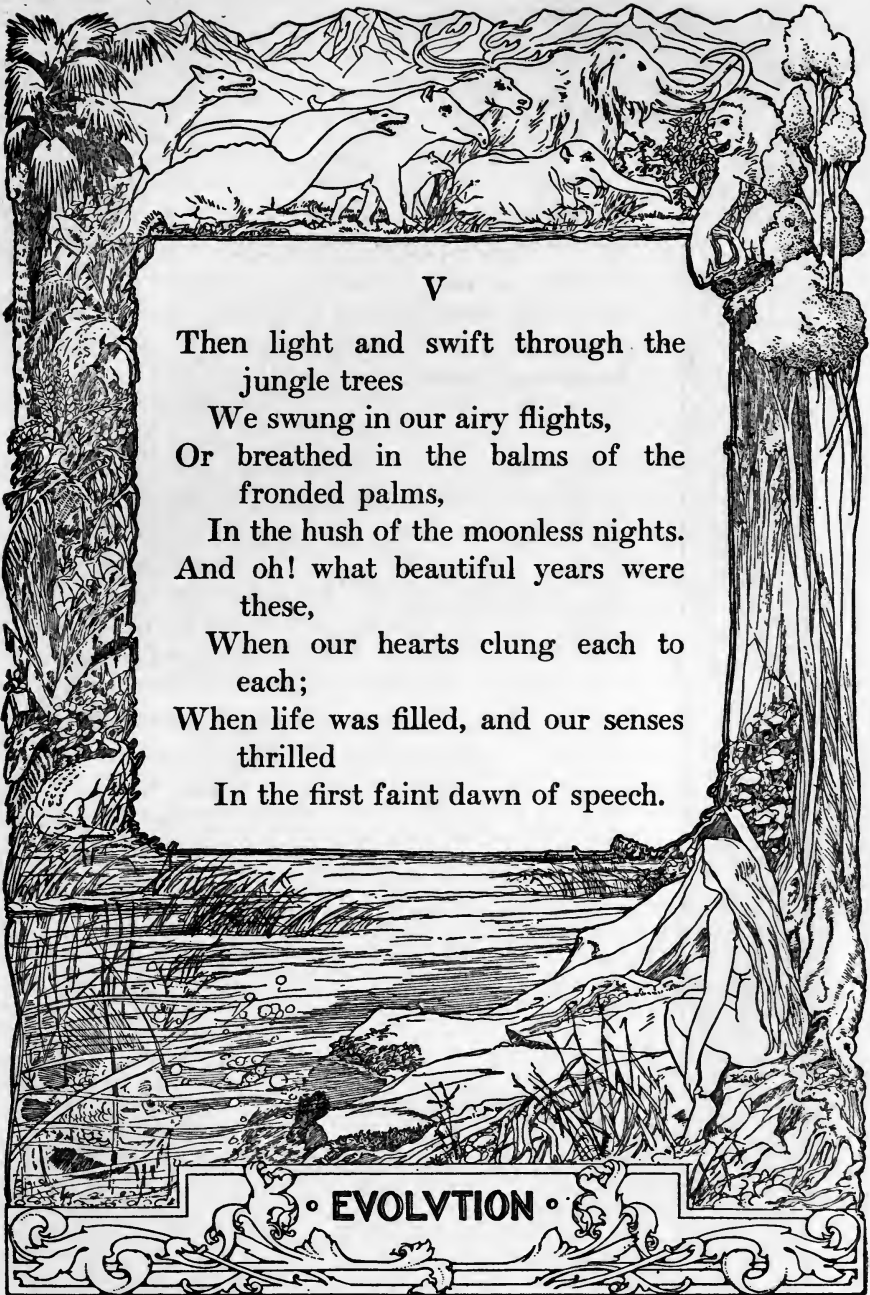


Unless we wilfully close our eyes we may with our present knowledge approximately recognize our parentage. The Simiadae branched into two great stems, the New World and Old World monkeys; and from the latter at a remote period, man, the wonder and glory of the Universe, proceeded.

Charles Darwin.

The great break in the organic chain between man and his nearest allies, which can not be bridged over by any extinct or living species, has often been advanced as a grave objection to the belief that man is descended from some lower form, but this objection will not appear of much weight to those who believe in the general principle of evolution. At some future period the civilized races of man will almost certainly exterminate the savage races of the world. At the same time the anthropomorphous apes will no doubt be exterminated. The break between man and his nearest allies will then be wider, for it will intervene between man in a more civilized state as we may hope even than the Caucasian and some ape as low as a baboon instead of as now between the Negro or Australian and the gorilla.

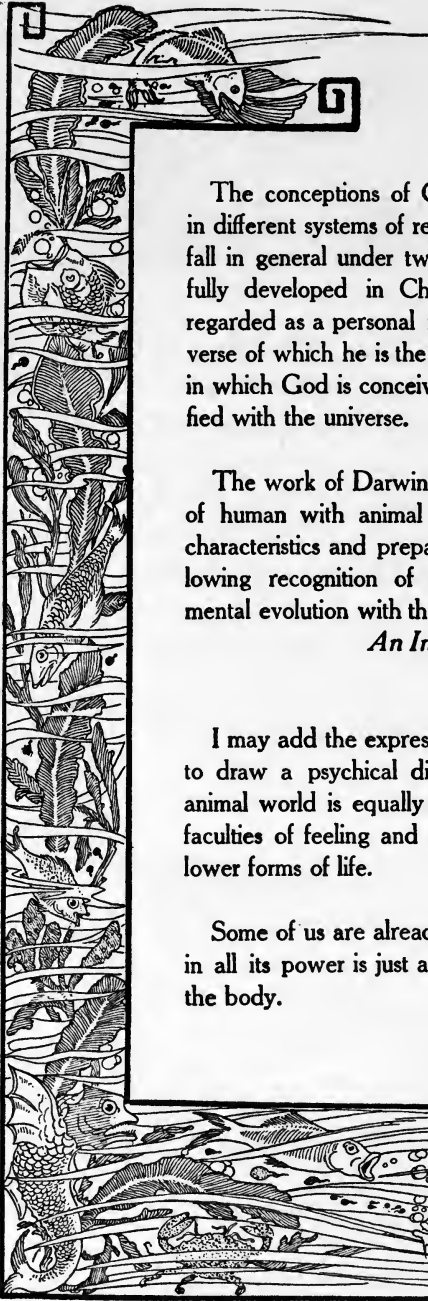
Charles Darwin.



V

Then light and swift through the
jungle trees
We swung in our airy flights,
Or breathed in the balms of the
fronded palms,
In the hush of the moonless nights.
And oh! what beautiful years were
these,
When our hearts clung each to
each;
When life was filled, and our senses
thrilled
In the first faint dawn of speech.

• EVOLUTION •



The conceptions of God are various, differing widely in different systems of religion and metaphysics; but they fall in general under two heads: theism, which is most fully developed in Christianity and in which God is regarded as a personal moral being distinct from the universe of which he is the author and ruler; and pantheism, in which God is conceived as not personal and as identified with the universe. *Century Dictionary.*

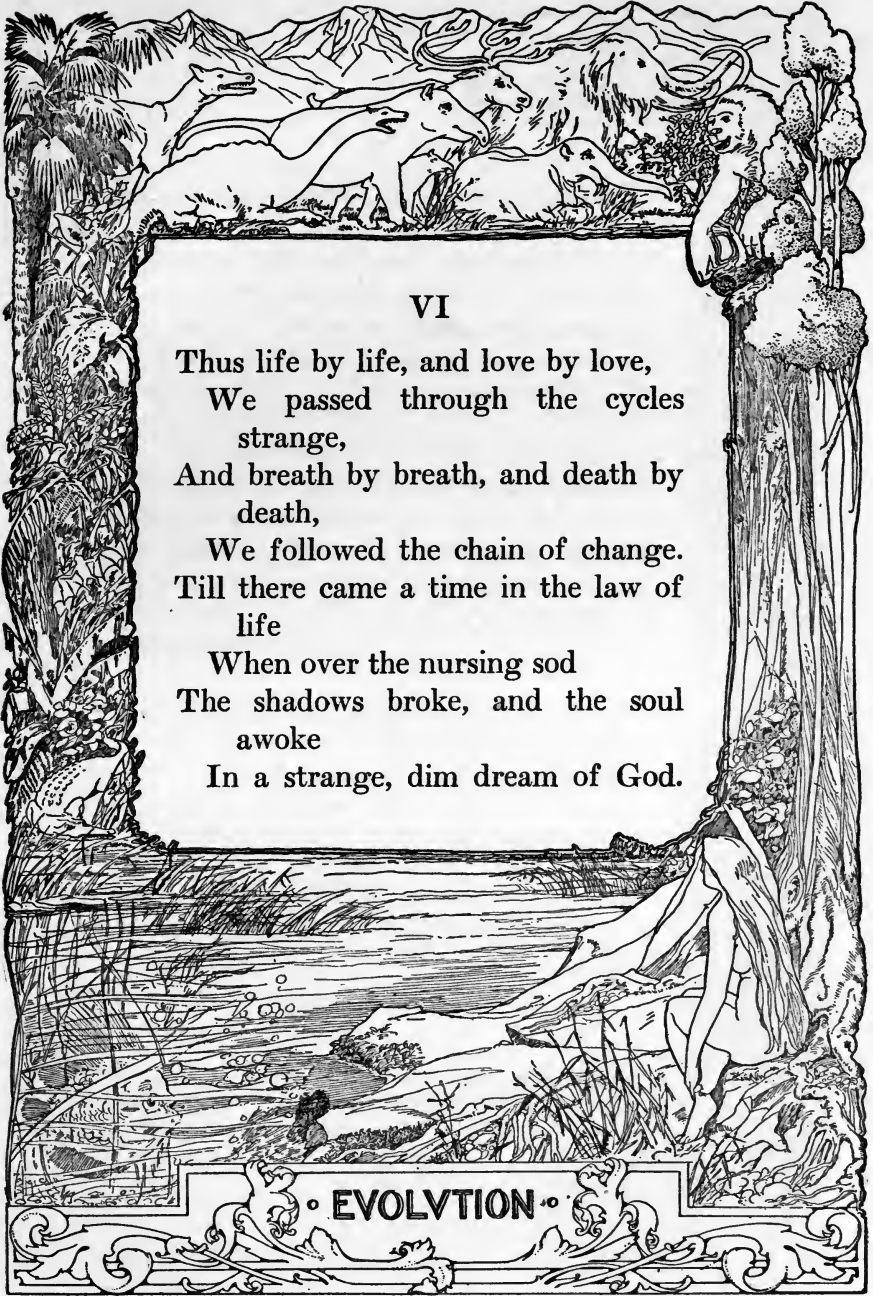
The work of Darwin convinced men of the continuity of human with animal evolution as regards all bodily characteristics and prepared the way for the quickly following recognition of the similar continuity of man's mental evolution with that of the animal world.

An Introduction to Social Psychology
by William McDougall.

I may add the expression of my belief that the attempt to draw a psychical distinction between man and the animal world is equally futile, and that even the highest faculties of feeling and of intellect begin to germinate in lower forms of life. *Huxley, 1863.*

Some of us are already convinced that the human soul in all its power is just as much a product of evolution as the body. *G. Stanley Hall, 1909.*

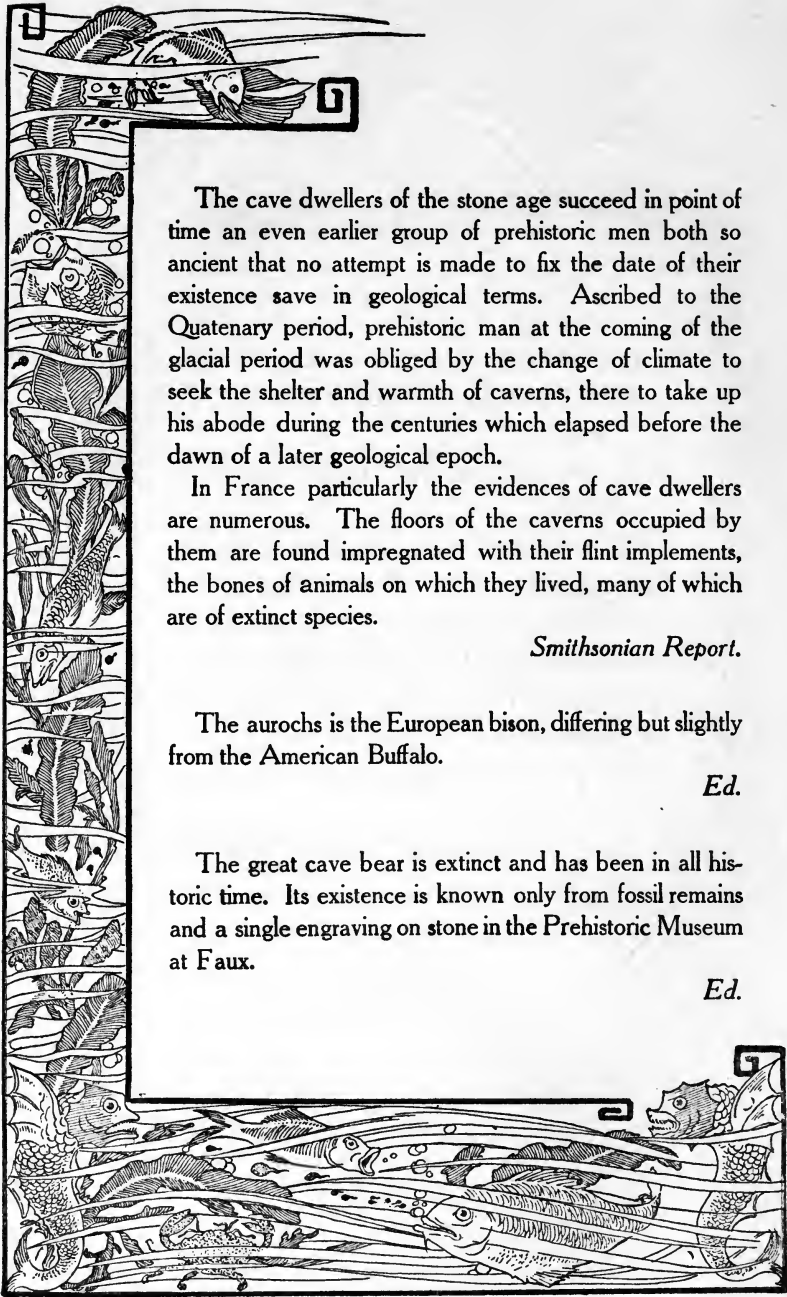




VI

Thus life by life, and love by love,
We passed through the cycles
strange,
And breath by breath, and death by
death,
We followed the chain of change.
Till there came a time in the law of
life
When over the nursing sod
The shadows broke, and the soul
awoke
In a strange, dim dream of God.

• EVOLUTION •



The cave dwellers of the stone age succeed in point of time an even earlier group of prehistoric men both so ancient that no attempt is made to fix the date of their existence save in geological terms. Ascribed to the Quaternary period, prehistoric man at the coming of the glacial period was obliged by the change of climate to seek the shelter and warmth of caverns, there to take up his abode during the centuries which elapsed before the dawn of a later geological epoch.

In France particularly the evidences of cave dwellers are numerous. The floors of the caverns occupied by them are found impregnated with their flint implements, the bones of animals on which they lived, many of which are of extinct species.

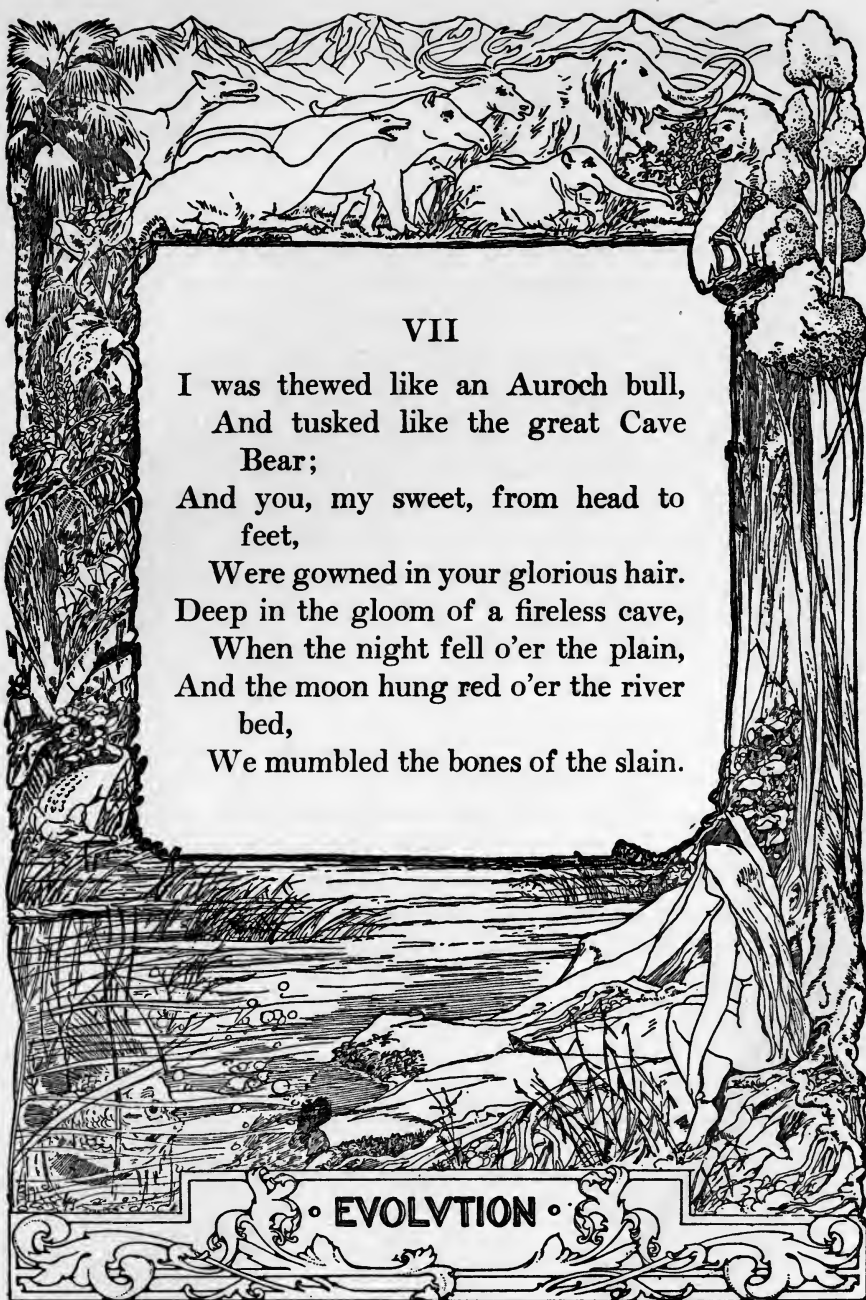
Smithsonian Report.

The aurochs is the European bison, differing but slightly from the American Buffalo.

Ed.

The great cave bear is extinct and has been in all historic time. Its existence is known only from fossil remains and a single engraving on stone in the Prehistoric Museum at Faux.

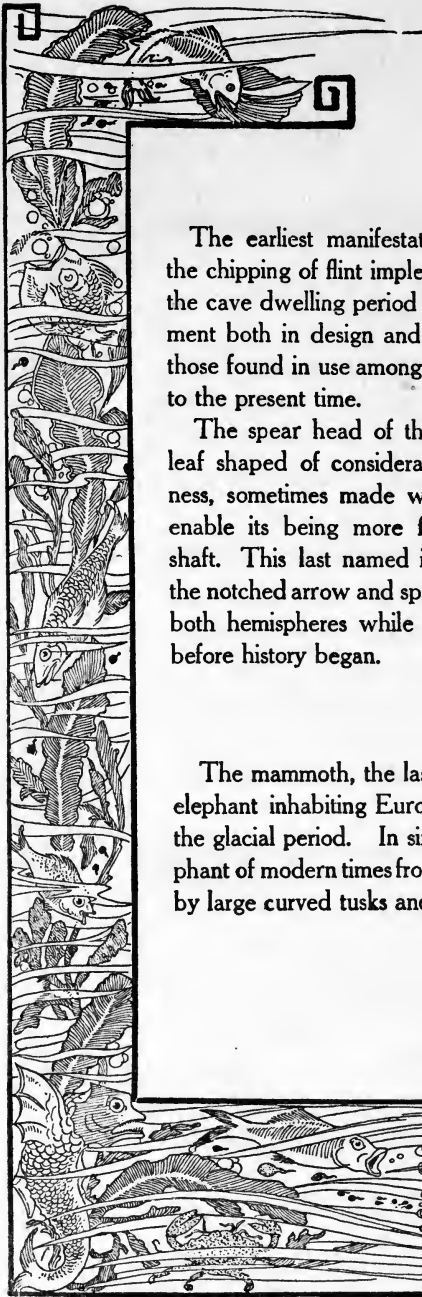
Ed.



VII

I was thewed like an Auroch bull,
And tusked like the great Cave
Bear;
And you, my sweet, from head to
feet,
Were gowned in your glorious hair.
Deep in the gloom of a fireless cave,
When the night fell o'er the plain,
And the moon hung red o'er the river
bed,
We mumbled the bones of the slain.

• EVOLUTION •



The earliest manifestations of human art consisted of the chipping of flint implements, which before the close of the cave dwelling period had reached a state of development both in design and workmanship comparable with those found in use among uncivilized peoples almost down to the present time.

The spear head of this period was of flint or quartz leaf shaped of considerable length and decreased thickness, sometimes made with a shoulder on one side to enable its being more firmly attached to the wooden shaft. This last named innovation was the precursor of the notched arrow and spear head which travelled through both hemispheres while civilization was yet young and before history began.

Smithsonian Report.

The mammoth, the last survivor of the three species of elephant inhabiting Europe, flourished before and during the glacial period. In size this species exceeded the elephant of modern times from which it is further distinguished by large curved tusks and a thick coat of hair.

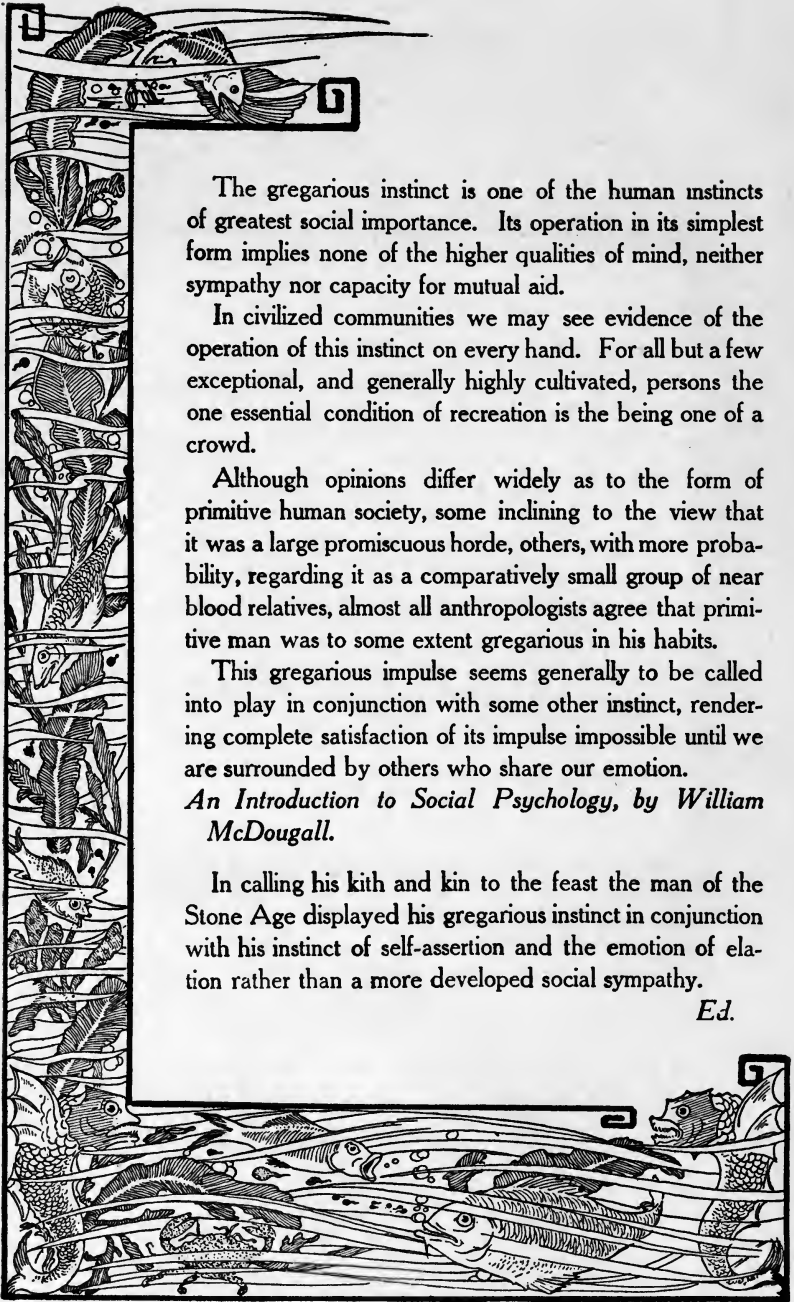
Ed.



VIII

I flaked a flint to a cutting edge,
And shaped it with brutish craft;
I broke a shank from the woodland dank,
And fitted it, head and haft.
Then I hid me close to the reedy tarn,
Where the Mammoth came to drink; —
Through brawn and bone I drave the stone,
And slew him upon the brink.

• EVOLVTION •



The gregarious instinct is one of the human instincts of greatest social importance. Its operation in its simplest form implies none of the higher qualities of mind, neither sympathy nor capacity for mutual aid.

In civilized communities we may see evidence of the operation of this instinct on every hand. For all but a few exceptional, and generally highly cultivated, persons the one essential condition of recreation is the being one of a crowd.

Although opinions differ widely as to the form of primitive human society, some inclining to the view that it was a large promiscuous horde, others, with more probability, regarding it as a comparatively small group of near blood relatives, almost all anthropologists agree that primitive man was to some extent gregarious in his habits.

This gregarious impulse seems generally to be called into play in conjunction with some other instinct, rendering complete satisfaction of its impulse impossible until we are surrounded by others who share our emotion.

An Introduction to Social Psychology, by William McDougall.

In calling his kith and kin to the feast the man of the Stone Age displayed his gregarious instinct in conjunction with his instinct of self-assertion and the emotion of elation rather than a more developed social sympathy.

Ed.



IX

Loud I howled through the moonlit
wastes,

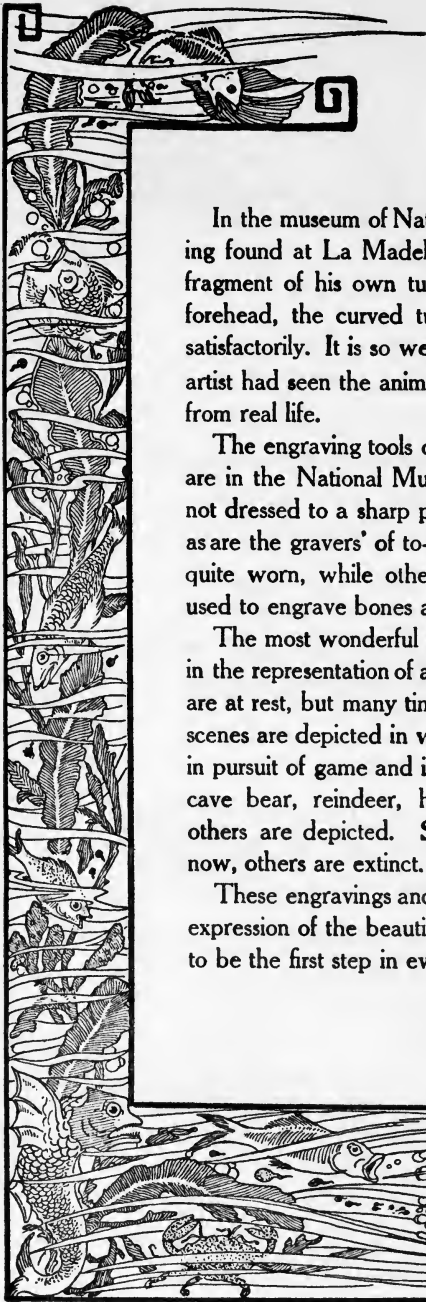
Loud answered our kith and kin;
From west and east to the crimson
feast

The clan came trooping in.
O'er joint and gristle and padded
hoof,

We fought, and clawed and tore,
And cheek by jowl, with many a
growl,

We talked the marvel o'er.

• EVOLUTION •



In the museum of Natural History in Paris is an engraving found at La Madelaine of a mammoth carved on a fragment of his own tusk. The lofty skull, the bulging forehead, the curved tusks and shaggy hair identify it satisfactorily. It is so well done that one must believe the artist had seen the animal if he did not make the drawing from real life.

The engraving tools of this period, specimens of which are in the National Museum at Washington, are of flint not dressed to a sharp point from all sides, but V shaped as are the gravers' of to-day. Some of the specimens are quite worn, while others are sharp and could now be used to engrave bones as in the prehistoric times.

The most wonderful exhibition of art in this epoch was in the representation of animal life. Sometimes the animals are at rest, but many times they are in action. Hunting scenes are depicted in which the hunter, a man, is shown in pursuit of game and in conflict with it. The mammoth, cave bear, reindeer, horse, bison, musk-ox, birds, and others are depicted. Some of these are Arctic animals now, others are extinct.

These engravings and carvings mark the earliest human expression of the beautiful in art for art's sake and is said to be the first step in evolution from savagery.

Smithsonian Report.



X

I carved that fight on a reindeer bone,
With rude and hairy hand,
I pictured his fall on the cavern wall
That men might understand.
For we lived by blood, and the right
of might,
Ere human laws were drawn,
And the Age of Sin did not begin
Till our brutal tusks were gone.

• EVOLVTION •



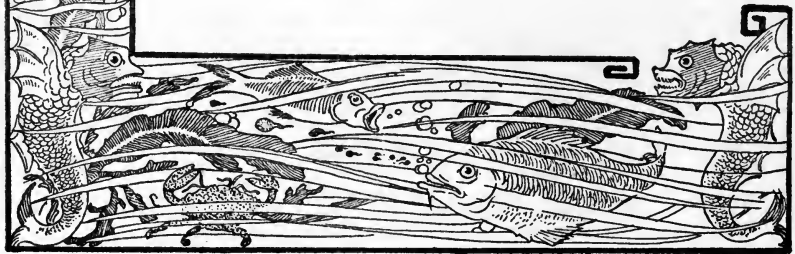
Since the acceptance of the principle of evolution there has come a realization of the continuity in nature which establishes in the mind of man a relation of intimacy with it limited neither by time nor space. The impersonal attitude from which man viewed nature has given place to a sense of kinship with it and with every product of its laws and even with those laws themselves. His thoughts, should he throw them back a million years, have not even then travelled so far as to reach the border land of a time the impress of which he does not bear in his own person.

Nor is his soul, the moral and emotional part of his nature, less intimately linked to the history of that dim past and each succeeding period of time. The untried soul, whether it lights eyes "deep as the Devon springs" or no, be it howsoever young it may, is yet of the ages.

For of all the false assumptions on which ethical systems were once founded none was more so than the conception of a special faculty of moral intuition or instinct, a conscience implanted afresh in each human breast as a miraculous gift.

The truth is, that men are moved by a variety of impulses whose nature has been determined through long ages of evolutionary process without reference to their life in civilized societies.

Ed.





XI

And that was a million years ago,
In a time that no man knows;
Yet here to-night in the mellow light,
We sit at Delmonico's;
Your eyes are deep as the Devon
springs,
Your hair is as dark as jet,
Your years are few, your life is new,
Your soul untried, and yet —

• EVOLUTION •



Kimmeridge clay, the lowest series of the Upper Oolite, consists of dark, bluish gray shaly clay which is sometimes bituminous and occasionally, as at Kimmeridge in the Isle of Purbeck, passes into a shale so rich in bituminous matter as to be used as a fuel. The series attains a maximum thickness of 600 feet.

Chamber's Encyclopaedia.

Beneath the cretaceous rocks in S. E. England a fresh-water formation is found called the Wealden, which is of great interest as being interlaced between two marine formations. It is composed of three minor groups, Weald clay, Hasting sand and Purbeck beds or flags of limestone and marl. The Wealden formation is rich in fossils. The bones of birds of the order of Grallae have been discovered by Dr. Mantell in the Wealden and appear to be the oldest well-authenticated examples of fossils of this class hitherto found in Great Britain.

Lyell's Elements of Geology.

Bagshot sands, or stones, consist of a series of strata overlying the London clay, the name being from Bagshot Heath near Windlesham, Surrey, where they were first examined. They belong to the Eocene system.

Chamber's Encyclopaedia.

At some places, as near Orford, England, the coral-line crag is exposed at the surface, and the bottom of it has not been reached at the depth of fifty feet. The crag shell belongs to the older Pliocene period and indicates a temperate climate.

Lyell's Elements of Geology.

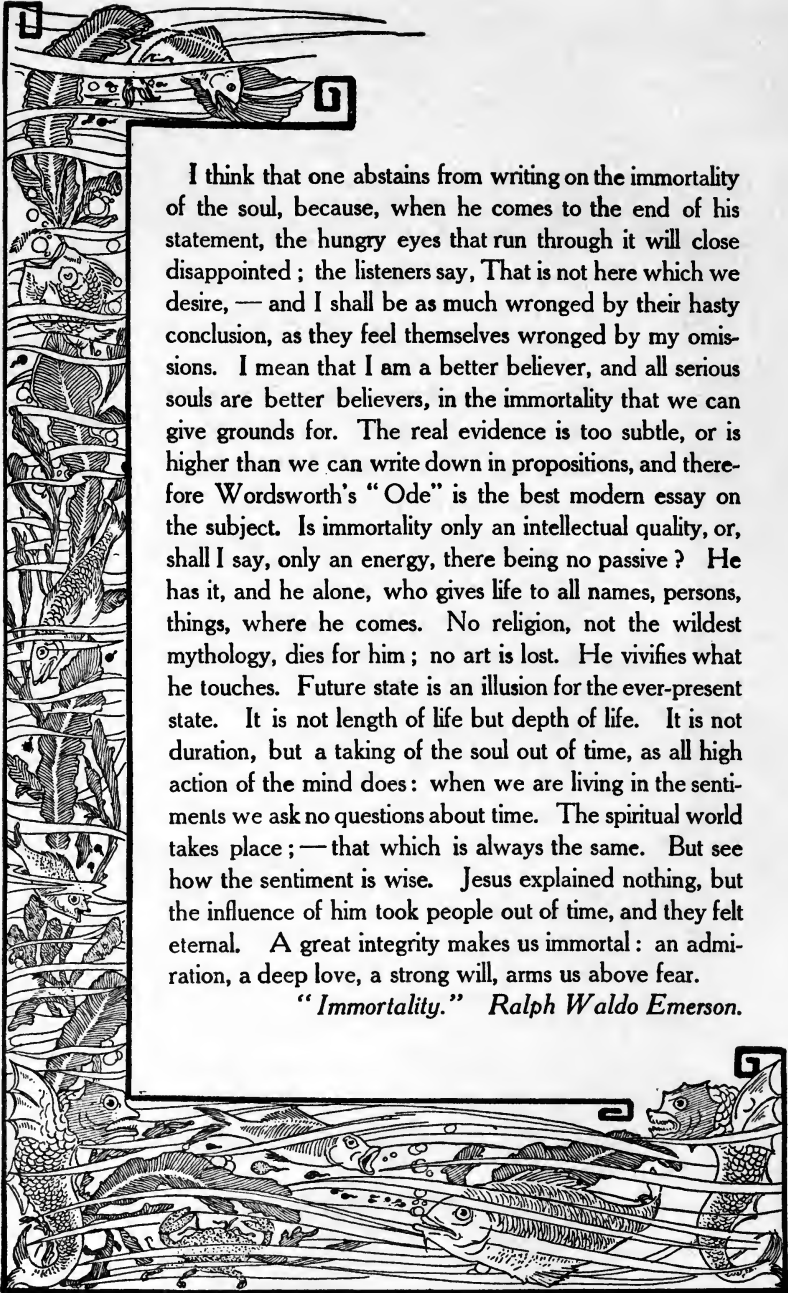




XII

Our trail is on the Kimmeridge clay,
And the scarp of the Purbeck flags,
We have left our bones in the Bag-
shot stones,
And deep in the Coraline crags;
Our love is old, our lives are old,
And death shall come amain;
Should it come to-day, what man may
say
We shall not live again?

• EVOLUTION •



I think that one abstains from writing on the immortality of the soul, because, when he comes to the end of his statement, the hungry eyes that run through it will close disappointed ; the listeners say, That is not here which we desire, — and I shall be as much wronged by their hasty conclusion, as they feel themselves wronged by my omissions. I mean that I am a better believer, and all serious souls are better believers, in the immortality that we can give grounds for. The real evidence is too subtle, or is higher than we can write down in propositions, and therefore Wordsworth's "Ode" is the best modern essay on the subject. Is immortality only an intellectual quality, or, shall I say, only an energy, there being no passive ? He has it, and he alone, who gives life to all names, persons, things, where he comes. No religion, not the wildest mythology, dies for him ; no art is lost. He vivifies what he touches. Future state is an illusion for the ever-present state. It is not length of life but depth of life. It is not duration, but a taking of the soul out of time, as all high action of the mind does : when we are living in the sentiments we ask no questions about time. The spiritual world takes place ; — that which is always the same. But see how the sentiment is wise. Jesus explained nothing, but the influence of him took people out of time, and they felt eternal. A great integrity makes us immortal : an admiration, a deep love, a strong will, arms us above fear.

"Immortality." Ralph Waldo Emerson.



XIII

God wrought our souls from the
Tremadoc beds
And furnished them wings to fly;
He sowed our spawn in the world's
dim dawn,
And I know that it shall not die;
Though cities have sprung above the
graves
Where the crook-boned men made
war,
And the ox-wain creaks o'er the bur-
ied caves,
Where the mummied mammoths
are.

• EVOLVTION •

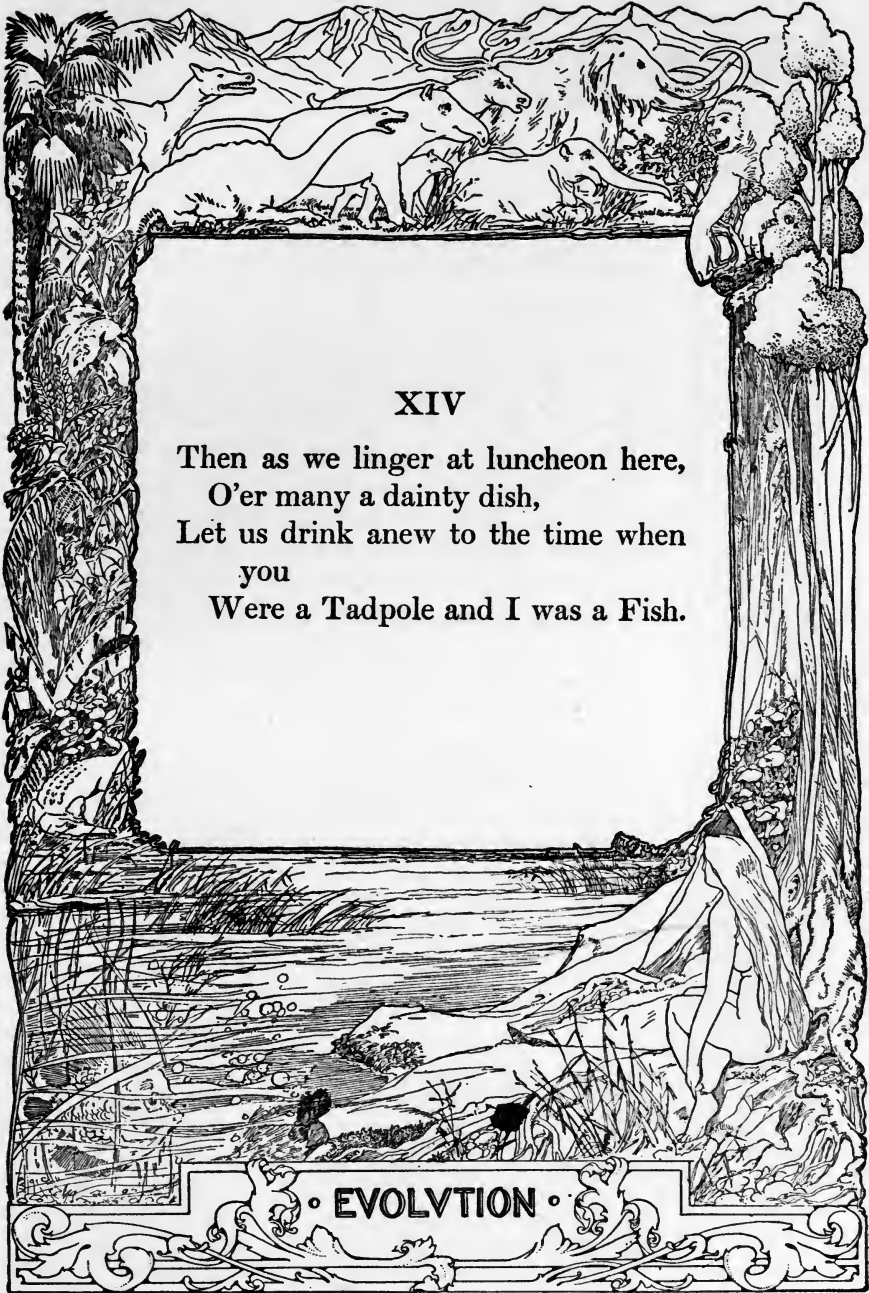


Nietzsche believed that an ideal human society would be one in which a vast, inert, religious, moral slave class stood beneath a small, alert, iconoclastic, immoral, progressive master class. He held that this master class — this aristocracy of efficiency — should regard the slave class as all men now regard the tribe of domestic beasts : as an order of servitors to be exploited and turned to account. The aristocracy of Europe, though it sought to do this with respect to the workers of Europe, seemed to him to fail miserably, because it was itself lacking in true efficiency. Instead of practising a magnificent opportunism and so adapting itself to changing conditions, it stood for formalism and permanence. Its fetish was property in land and the worship of this fetish had got it into such a rut that it was becoming less and less fitted to survive, and was, indeed, fast sinking into helpless parasitism. Its whole color and complexion were essentially apollonic.

Therefore Nietzsche preached the gospel of Dionysus, that a new aristocracy of efficiency might take the place of this old aristocracy of memories and inherited glories. He believed that it was only in this way that mankind could hope to forge ahead, — mankind bent on achieving, not the equality of all men, but the production, at the top, of the superman.

The Philosophy of Friedrich Nietzsche,
by Henry L. Mencken.





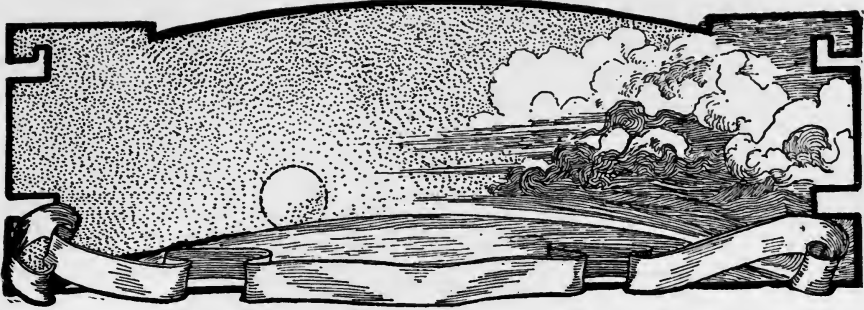
XIV

Then as we linger at luncheon here,
O'er many a dainty dish,
Let us drink anew to the time when
you
Were a Tadpole and I was a Fish.

• EVOLUTION •

FIFTY YEARS OF EVOLUTION



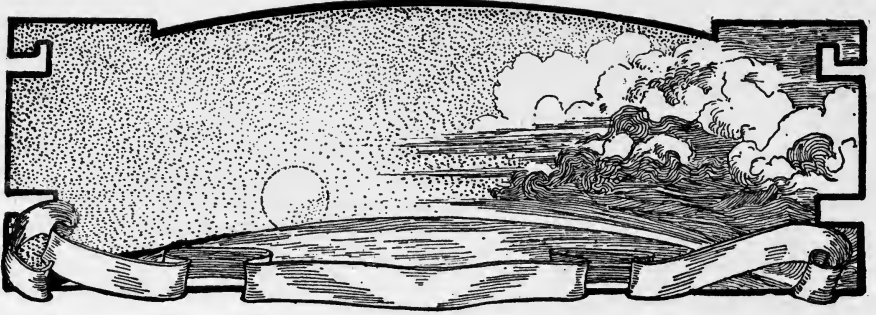


FIFTY YEARS OF EVOLUTION

By a fortuitous coincidence the one hundredth anniversary of Charles Darwin's birth falls within the same year as that which marks the fiftieth since the publication of "The Origin of Species" in which he laid before the world for the first time convincing evidence of the theory of Evolution.

That a double anniversary of such moment, giving as it did an opportunity to honor on the same occasion both the nobility of the individual himself and his epoch making work, would be fittingly celebrated, was universally expected and more than happily realized. The tribute of every scientific body of importance throughout Europe and America has been paid to the memory of the dead man and to the ever living, ever waxing revelation of his mind.

The realization of a new truth, so potent as to uproot the established attitude of mind of perhaps more than one-half of the civilized world toward philosophy and science, is a phenomenon that has been recorded but seldom, and fortunately; for, the laws of nature make but

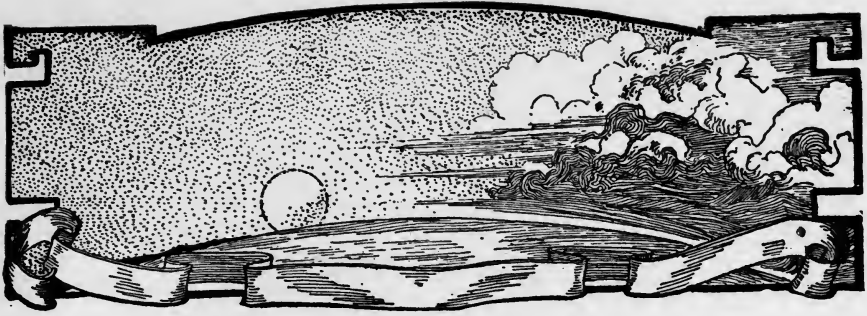


slight provision to safeguard against the results of violent change whether it be physical or mental and emotional.

But such truths have nevertheless at rare intervals blazed across the darkling sky that curtains the yet unreached limit of human intelligence lighting the beacons on new heights of learning and understanding,—heights which once gained have become the permanent heritage of mankind in his advance from whence he views the ever widening aspect of the material and spiritual world beckoning him forward to paths that lead their winding course through the fertile fields of knowledge to that temple beyond the horizon where dwells the Spirit of Ultimate Comprehension.

To such a peak Galileo unfalteringly guided the steps of men, though the heel of the advance crushed into dust the philosophy of centuries and the dogma of the church. To such another Newton led the way by his discovery of the laws of gravitation. One of lesser height perhaps, though equally far in the van, was mounted when the principle of the conservation and correlation of forces was demonstrated.

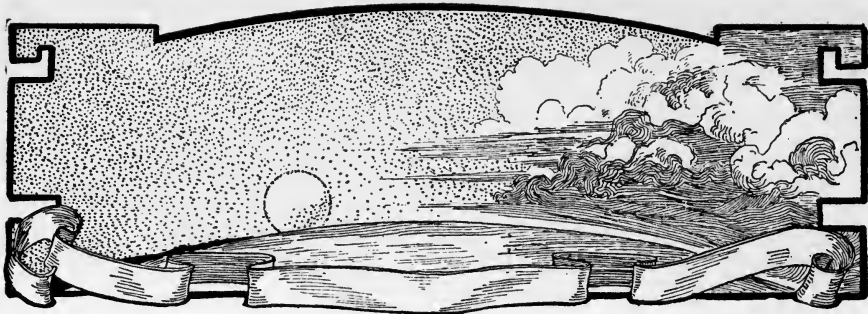
Can there be a moment's hesitation in adding to this



company the name of Charles Darwin or in recognizing in the watchfire of Evolution the flaming torch which lights the topmost crag in the whole range of human understanding?

If a doubt lingers in any mind it will vanish on giving a little reflection to the views held by the leading zoologists, biologists, theologians, philosophers and indeed the mass of educated men in general before the publication of "The Origin of Species" and comparing such views with those now held either by them or their representatives of later generations.

The theologians, who from the beginning of time have accredited themselves as the custodians of all fundamental truth having, by hasty discards of old dogmas, survived the shock of learning that the earth is round, and that the sun, moon and stars are held in place in the universe by the force of gravity, continued to hold as they had for some four thousand years to the theory of individual creation as set forth by the biblical authors. In the main this proposition had passed unchallenged even by scientists, though before Darwin, as he is at pains to record with all possible detail, some naturalists, to make use of a very general term, expressed the opin-

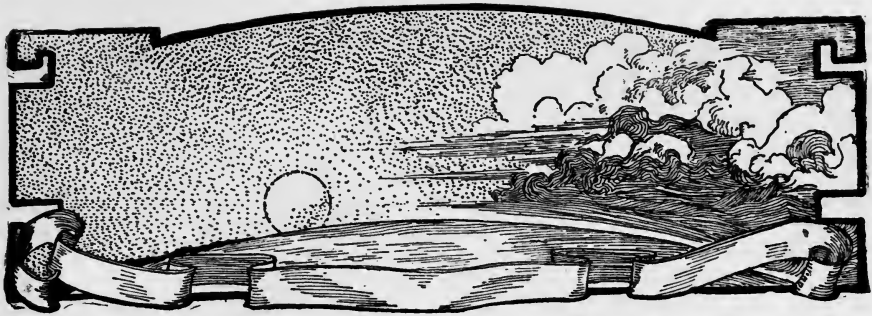


ion that changed conditions of life had given rise to a sufficient differentiation in individual forms to create new species. Nor did Philosophy herself in those days steer her bark far enough from the shores of dogma to catch the broad sweeping current of the law of change.

Like a meteor, fell "The Origin of Species" into this placid pool of thought, on the banks of which Theology, Philosophy and the youngest of the pilgrims, Science, had halted in their march several years before, and where they still lingered dreaming dreams and telling each other tales of folklore.

Instantly Science, his young blood and imagination electrified by the message, darted forward on winged feet, his eyes ablaze with the promise of measureless service to mankind. His elder companions paused awhile sniffing the air for brimstone and calling after him to stay his pace, but as in his wake followed first one and then another of their disciples the chill of loneliness fell upon them, and they too set out to overtake, if might be, the leader now far in the distance.

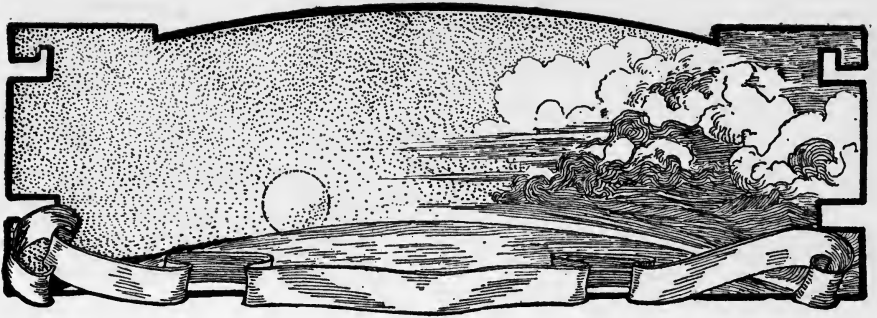
To restate briefly the principal advanced by Darwin in "The Origin of Species" it may be said that, all forms of living organisms, plants and animals including



man, are the lineal descendants of ancestors on the whole somewhat simpler, that these again are descended from yet simpler forms, and so on back to the single cell of living matter the creation of which later scientists, such as Lowell, ascribe to spontaneous chemical action. The rise of the numberless species of living organisms now existent, as well as those whose life history is recorded only by fossil remains in the rocks of past geological eras, Darwin attributes chiefly to natural selection during a long course of descent, aided in an important manner by the inherited effect of the use or disuse of parts, and in an unimportant manner by external conditions and by variations.

So far reaching has been the effect, in all departments of science, occasioned by the changed viewpoint from which subsequent investigations have been conducted, that no words can adequately express it.

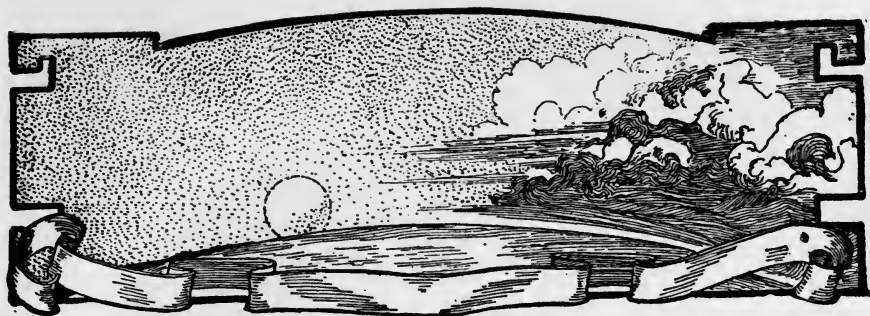
True, we the great mass of mankind, without specialized scientific knowledge continue incapable of original investigation, often even unable to fathom the terminology employed in the treatment of the less familiar subjects. To us the intricacies and minutiae of science continue as a sealed book, but the far reaching principle of



evolution, in its wide application, now that our thoughts have been intelligently directed toward it, presents itself with so strong an appeal to our faculty of common-sense and its simpler evidences are so clearly within range of our observation that only one of unreceptive mind reaches man's estate without consciousness of the change, the development, the evolution in the world about him even during the few short years of his existence. Through this consciousness he, too, acquires a viewpoint from which evolutionary law unfolds itself, as a natural expression of the known forces of nature.

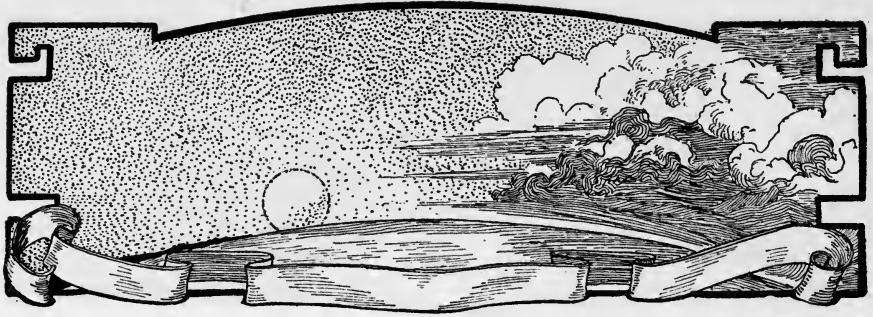
While Darwin in "The Origin of Species" refrained from attempting to trace in detail the genealogy of any particular species, certain conclusions were obvious by analogy. The most revolutionary of these imaginatively, though not scientifically, pointed directly to the origin of the human race. These inferences a few years later he presented with all the evidence at his command in "The Descent of Man."

The shock produced did not spring directly from the biological revelations nor from the realization that the nearest extant ancestors of the lower races of man are the anthropoid apes, but rather from the blow it dealt



the enormous vanity and egoism of the human species. This egoism had built up out of itself the conception that the universe had its being solely to accommodate the needs of man who was of truth its centre; and having conceived the idea of a personal god insisted that he bore the image of man. Correlative conclusions of distinct creation and ready made mystical endowments peculiar to his order, which as man was the classifier he had declared to be entirely separate and unrelated to any other order, naturally followed.

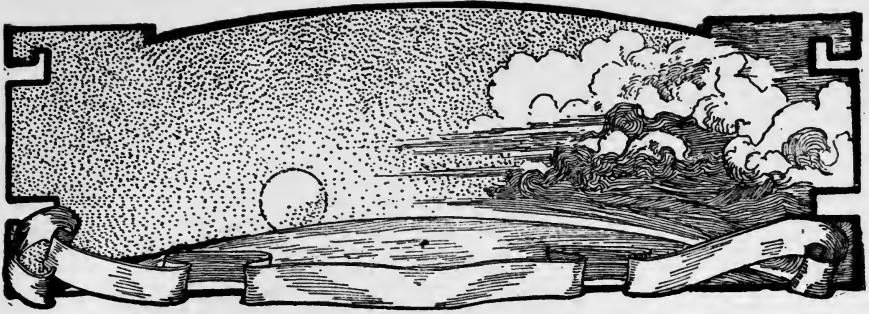
The disturbance of man's ideas of himself was in no sense lessened by the knowledge that his material comfort and well being were certain to be benefited by discoveries inspired by evolution nor that no tangible possession acquired during his entire history was endangered. A child of his imagination, the natural offspring of his introspective and self-centered habit alone was struck down. Yet to recover his mental balance was all the harder for that very reason and not only on account of the long period through which his erroneous conception of himself had persisted but also because his spiritual concepts, systematized into religious dogma, had become interwoven with it. A supernatural or divine



authority was claimed for these dogmas which were dependent for their existence primarily on a maintenance of man's exaggerated egoism and incidentally on his continued affirmation of the accuracy of historical religious records at variance with the truth as demonstrable facts satisfying to his more developed powers of reasoning assured him.

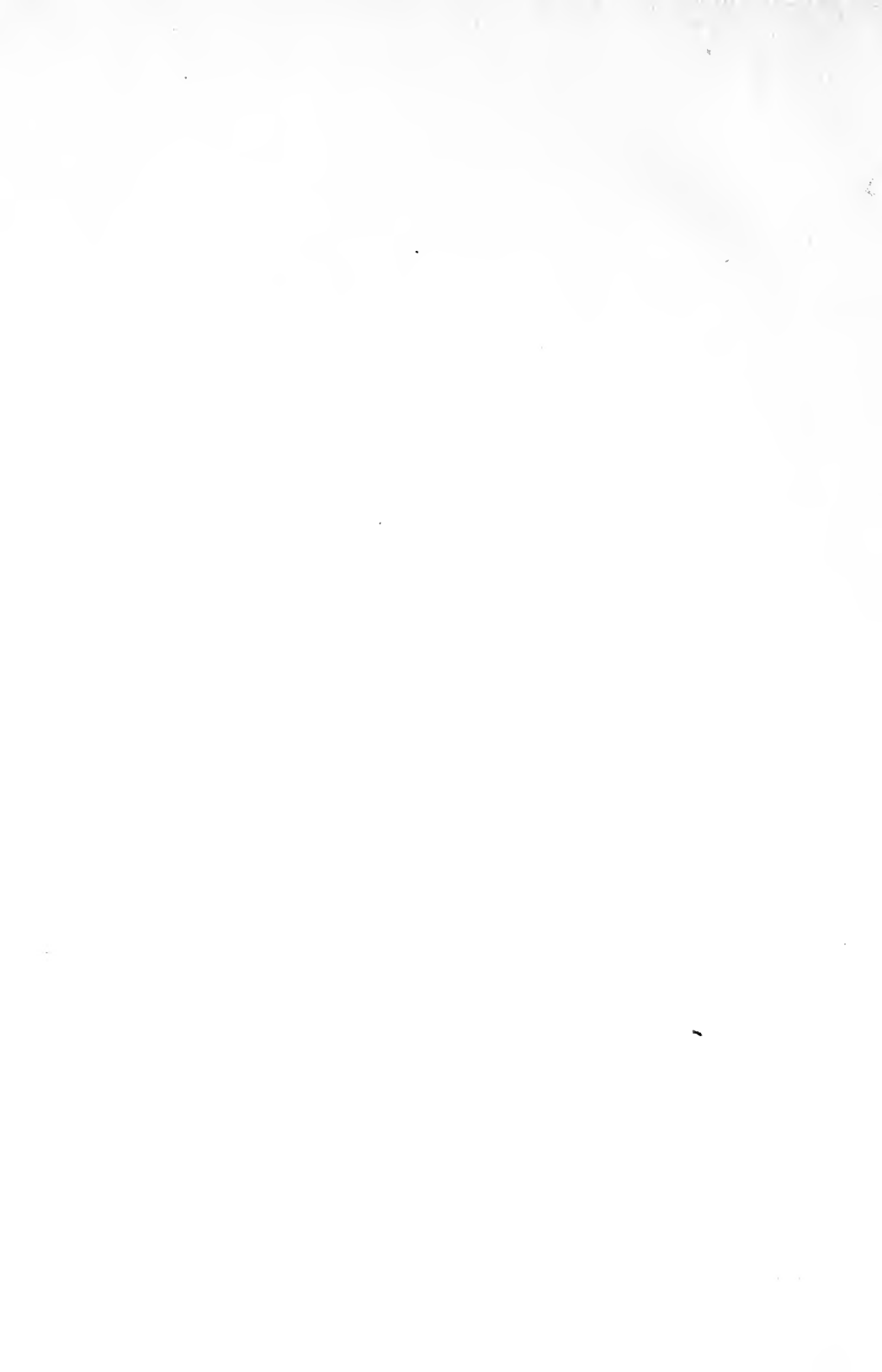
Nevertheless with rapidly increasing momentum man is adapting himself to the more inspiring view which a comprehension of his own place in the universe has given him.

No lessening of the spiritual quality in his nature comes with the growing understanding of nature, but true to the universal law of evolutionary advance, it expands. Though every dogma religion has hitherto produced is probably false and destined to be discarded, yet there can be no apprehension that with them will depart religious feeling or spiritual sensitiveness. The passionate outcry raised on every hand when it was appreciated that Darwin's discoveries meant the recasting of substantially all established beliefs was not necessary to convince the world that ideas and emotions, the resultant of mental operations, are far more real and hold a firmer



place in man's heart than any tangible product of his or nature's hand. Scarcely is there a page of history but bears upon its face this testimony.

As further and further man projects his intelligence into the realms of space, as deeper and deeper he penetrates into nature's mysteries, he gradually overcomes the tendency to attempt the formularization of it all in terms of self. His whole personality becomes more fluid and vibrates in ever closer unison with the majestic forces of Cosmos. From such an approach comes an irresistible stimulus to all that is spiritual in him, to all that quality underlying the consciousness that the prime realities are the intangible and not those known to the sensory organs. In such an approach lies also the surerest promise that psychology, having taken as its watchword, "the necessary acquirement of each mental capacity by gradation," will, profiting by that unison, disclose to our intelligence the secret by which we may grasp mentally those spiritual realities with as strong a sensory assurance as we now do the tangible.







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