

Darwin's Achievement.

(offered a hundred years ago)

Darwin's famous title, "The Origin of Species," should rank as the greatest understatement ever made. For what his book demonstrated was not merely that one species can change into another ^{one} very similar to itself, but that this process can go ^{and} has gone on and on, so as to have resulted, in the vast reaches of geological time, in the gradual flowering ^{and diversification} of the most primitive living matter into all the wondrous types of plants and animals, including ourselves, that have ever inhabited the earth. In addition to that, ^{his book} showed clearly that this extraordinary series of transformations came about without external or internal guidance, foresight, or purpose, through the natural survival and multiplication ^{time without number} of that minority of randomly arising variations that happened ^{in relation to} to be more advantageously endowed for the universal struggle to exist. Thus Darwin's innocent seeming title he really implied things ^{for} more subversive of men's ^{ancient} traditions, and ^{for} more pregnant with boundless ^{new} hope and opportunity for humanity, than any that had ever been dreamed of by men in all ^{their} past history.

(for the first time)

For Darwin's work proved the reality of biological progress, on a virtually unlimited scale. And it proved that ^{this} progress had arisen through life's own self-activity, ^{even though that activity was bound to the changes that the future held} Not that progress is inevitable in all lines of descent, ^{lack of planning} since the great majority have always meant that the great majority always failed somewhere along the way. Yet since there was a tendency ^{for them} to hold on to features that proved to be useful, some lines ^{did} gain increasing ability to cope with their conditions, and even to ^{influence} their environment more advantageously for themselves. In the course of these transformations, all their "adaptive" structures and reactions, including those of mind, became developed. This made mind something that is not ~~part~~ separate from ^{the body} and injected into it, but an ~~integral~~ integral part of it, that is bound to it, and left no place for disembodied spirits.

[no 7] Bringing to light the chromosomes and genes and the ways in which (3)
they mutate ~~and~~ recombine, and behave in populations sub-
jected to the pressures of selection and crossing, they have
made concrete and to some extent quantitative the patterns
that evolution follows. Deeper still deeper in recent years,
they have analyzed the heart material, the DNA, of which the
genes are composed. And they are starting to put together
this material in the laboratory and thus to create the
beginnings of life, and are finding out ^{some of the} ~~by what~~ natural
processes ^{by which} this primitive life arose in the dawn of earth's
history. At the same time, those digging into earth's ancient records have been reconstructing in even
more vivid detail the ~~the~~ patterns of transformation undergone by ^{diverse} living things in their epic journey from
primitive times to the present.

Flourishing this century of growth in ~~in~~ knowledge
of evolution on the part of specialists, the ^{minds of the} general
public and their political leaders in most countries
have been little touched by the new outlook on things.
For those with interests vested in ^{antiquated} ~~past~~ ways of thought
and in the practices based upon them have resisted
as strongly as they dared the efforts of those who
sought to bring ^{newer} this knowledge to the people.
In ^{some of} the (most widely used high school ^{text books} on biology)
in America the word evolution does not occur even in
the index, although the subject is ^{sometimes} ~~discussed~~ ^{groundingly} to some extent,
very near to the end of the book, under the term "racial
development." ^{But} even that is smuggled in, since many text-
books ^{conspicuously} ~~state~~ ^{omit} would not allow ^{the} a book to be used ⁱⁿ which the idea of
evolution was put forward. ^{For this reason} ~~the~~ ^{some} ~~wise~~ ^{reputable} publishers refuse to print text books that are ^{known} ~~known~~ ^{to} ~~be~~ ^{contain} ~~the~~ ^{the} ~~idea~~ ^{of} ~~evolution~~ ^{evolution}, the
idea of evolution does emerge, we find attempts to veil, minimize, and
pervert it. Thus the Catholic Church at last admits
the teaching of the theory, but only on the premise that
man's soul is something apart from the evolutionary process,
breathed in at the appropriate moment. And the widely
sold American magazine "Life", although ^{city recently} ~~publishing~~
Julian Huxley's admirable popular treatment, did so
under the title "Darwin Discovers Nature's Plan," and
thereby ^{gave a false impression} ~~reversed~~ ^{the} ~~the~~ ^{the} ~~meaning~~ ^{of} ~~the~~ ^{the} ~~discovery~~ ^{to} ~~begin~~ ^{with}.

All this. It is ironical that, just (4)

Just when the Western countries are professing to be waking up to the need ^{of more and} better education of their youth in science, these efforts ^{and despite} to withhold the most important lessons of biological science should still be so powerful. At the same time, those controlling education in the Soviet sphere are still promulgating their own falsifications of the subject, and the so-called Darwinism they teach is a travesty of evolution science. If the sooner both sides come to face up to the truths of Darwinism ^{itself} all of the ^{more modern} findings that have ^{shown how these principles} substantiated ~~those Darwinian~~ principles and shown how they are implemented, and of the human and social implications of the subject, the ^{greater} ~~better~~ is the likelihood that all humanity can come to a same common ground of constructive world cooperation, ~~before~~ in time to avoid man-made catastrophe.

And if all this is accomplished, the real job will begin, of deciding how man shall guide his evolution in the future.

know thyself: so state shd. & more.

We are living & 100,000 & other kinds of
animals & plants - getting in each other
way, - insects eating cotton, birds eating
insects, big birds eating little birds etc - all
connected, - with a long past history
in the rocks that illustrate some of the
principles by which forms have died.
Few men can by direct contact & a few
or gain any genl conception & then
realize the world they live in. Especly so in
Tex., & so scattered & varied, but its very
richness in life forms makes it more impor-
ative. To arouse the people & the state to an
interest in their living surroundings, & give them an
intelligent conception of the problems, & a realization
of the more important facts - a museum. -
not cases - life itself - in a good museum, trans-
ported, & much more deeply & effectively - giving
home life in surroundings, & telling story & 2
it lives. Bring them & hills & fort together

understand it. Make fossils live again
 & see old world & its objects become - We
 have ⁸⁸richest finds here - ^{ant} house, camel, elephant
 not merely castles & long houses, & will give the state
 even more dignity to bring out this background
 in its development. Even now, much interest will
 life? most city dwellers should have a chance to
 appreciate - because, to be sure, Turkey, etc. & the forests
 But for the more serious studies of the
 youth in the higher schools, an invaluable need
 for biol. studies, & an incentive. (My interest in
 biol. so from mms.)

Very as don't objects, & fill all. But, it's
also (Azara) Museum is rather of history.
All there are but preliminary to lead up to the
real work of the mus. - the study of these
its treasures by experts, to add to our knowledge of
nature, the principles underlying its workings, &
consequently means of better controlling it.
Thus - insects - about Oim to combat insects
Birds - " " " " " " " "
reptiles, O ther. Fishes, mammals, etc.
One built, its exhibits tell story of its progress &
the realized - e.g. mosquito, its biting, etc. 2nd, 3rd.