

THE INFLUENCE OF THE THEORY OF EVOLUTION
ON THE MAJOR ENGLISH POETS
FROM 1859 TO 1900

by

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Dedicated
to the memory of my husband,
John Asbury Elliott,
a lover of truth and beauty.

PREFACE

I wish to express my deep gratitude to Dr. William Savage Johnson for his unfailing helpfulness and inspiration during the preparation of this thesis. To Professor W. C. Stevens of the Department of Botany I am indebted for aid in criticizing the chapter devoted to Evolution. Dr. Burnham, Dr. Whitcomb, and Professor O'Leary of the English Department made various useful suggestions which I appreciate.

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INTRODUCTION

The subject for this thesis is one of several that were suggested to me by Dr. W. S. Johnson. As I considered choosing it, I was more and more impressed by the interest and benefit that I and possibly others would derive from such a study if it were properly pursued. In these days when discussions of the theory of evolution are more general than accurate, it may be worth while to note what effects have been produced on the thoughts and writings of the English poets by that theory between the appearance of Darwin's "Origin of Species" in 1859 and the beginning of the twentieth century. In a few cases, the poems considered were written before the former date, but these are exceptional.

Whether I should write of evolution as a doctrine or as a theory was a point that puzzled me until I read an article in "The Atlantic Monthly",¹ "Doctrine or Theory --- Which?" There I found:

.....
1. Farr, C. H. vol. 134, no. 5, p. 662

"Doctrines are beliefs regarding which no verifiable evidence is available.... Since there is no definite evidence one way or the other, there is little that causes one to change one's way of thinking in regard to doctrines..... Theories are conclusions based upon a considerable body of accumulated evidence We change our theories frequently Every man has his own doctrines and his own theories." These sentences made it evident that evolution is a theory, since it is "based upon a considerable body of accumulated evidence".

The word "evolution" is limitless in its variety of applications. As Dr. Coulter says, ^{1-A} "We hear not only of the evolution of the solar system, of the earth, of plants, and of animals, but also of the evolution of language, of society, of government, and even of religion. It is evident that the idea of evolution does not belong to any particular subject, but that it suggests a method of studying any subject." In the following study we shall limit ourselves to the evolution of organic life.

CHAPTER I - EVOLUTION

Evolution is regarded as such an essential feature of all scientific work that one is struck by the conservative definitions of it that are given by men who are authorities. Professor J. Arthur Thomson says in his excellent "Outlines of Science"² "It should be frankly answered that the idea of evolution ... cannot be proved as one may prove the Law of Gravitation. All that can be done is to show that it is a key --- a way of looking at things-- that fits the facts. There is no lock that it does not open;"³ and again, "It is quite illegitimate to infer from our dubiety in regard to the factors of evolution any hesitation as to the fact." When one of the world's foremost scientists writes in this way, it is best to refer to the theory of evolution, though there is no doubt as to its validity.

.....
2 J. A. Thomson, v. 1, p. 108

3 Ibid., v.2, p. 368

Before considering the attitude of the rather recent British poetry toward evolution, it may be well to give a very brief outline of science in some of its phases. Its scope is almost limitless as we may judge from this statement:⁴ "Science includes all knowledge communicable and verifiable, which is reached by methodical observation and experiment and admits of concise, consistent, and connected formulation". The five fundamental sciences are: sociology, psychology, biology, physics, and chemistry. While one may study the evolution of the knowledge of any one of these, it is the evolution of biology that is in the mind of the average person when he says the word "evolution".

No one knows when men began to speculate about the origin of life, but we are sure that Aristotle and Empedocles had definite theories about the descent of man. Since their time the most important contributors to the theory of evolution, up to the nineteenth century, were Saint Augusting, Thomas Aquinas, Leibnitz, Buffon, and Erasmus Darwin, the grandfather of Charles Darwin. Lamarck, who lived from 1744 to 1829, was the true founder of the modern theory of evolution, and first published his ideas in 1801.

.....
 4 J. A. Thomson, v. 4, p. 1169

The general outline of the life and works of Charles Darwin need not be given here. One author says of him,⁵ "Darwin was the prince of observers and experimenters. He was also an excellent systematist, a clear, persuasive writer, and into whatever field he entered his work was epoch making." He was a man of infinite patience, working always under the disadvantage of wretched health, and with an amazing humility.^{5-A} "There is no man in the world who so eagerly publishes his mistakes," said Huxley, 'as Darwin. There is no one who more quickly throws open to the world the facts that tell against him. I believe that if to-day he were to find some shattering instance which broke to pieces the work of his life, he would put it down for publication to-morrow.'⁶ Since his time various modifications and amplifications of his ideas have been made by Dr. Vries, Spencer, Huxley, and others.

There are three great types of evolution now being studied: inorganic, organic, and mental. Professor Thomson writes of inorganic and organic evolution in these words:⁶ "Taking it altogether the

.....
5 New Int. Ency., p. 234

5A Royden, p. 56

6 Out. of Sc., v. 1, p. 266

evidence is steadily accumulating, and there are authorities who maintain that already the evidence of inorganic evolution is convincing enough." And again,⁷ "Organic evolution means that the present is the child of the past, and the parent of the future. It is not a power or principle, it is a process of becoming." It is with organic evolution, as we stated before, we shall be most concerned in this study.

With the growing interest in psychology, it is natural to find an increasing study in the evolution of the mind. Among the most eminent scientists of our day, the tendency is toward a spiritual rather than a mechanistic attitude toward life.⁸ "Without supposing that there are hard and fast boundary lines, we can^{not} avoid the general conclusion that while monkeys are often intelligent, they seldom, if ever, show even hints of reason, i.e., of working with general ideas. That remains Man's prerogative Since we are in ourselves quite sure of our Mind, we are probably safe in saying that in the beginning was Mind."

.....
7 Out. of Sc., v. 1, p. 56

8 Ibid., v.1, pp. 238 and 244

"Most people consider the terms Darwinism and evolution synonymous, and it is worth our while briefly to differentiate the two." ⁹ When people speak of Darwinism they sometimes mean the general idea of evolution. The essence of the Darwinian theory is in the two words Variation and Selection; and Darwin stated it in a couple of sentences: ¹⁰ 'As many more individuals of each species are born than can possibly survive, and as, consequently, there is a frequently recurring struggle for existence, it follows that any being, if it vary however slightly in any manner profitable to itself, under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be naturally selected. From the strong principle of inheritance any selected variety will tend to propagate its new and modified form.'"

It is remarkable that during the life of Darwin similar conclusions were reached by Wallace in an entirely independent fashion. At the same time the Abbe Mendel was making his important experiments in inheritance, but, unfortunately,

.....
 9 Out. of Sc., v.2, p. 315

10 Ibid., v. 2, p. 366

Darwin did not know of this, since Mendel's work, which practically revolutionized the subject, was not generally known until 1900. Darwin himself, was very open-minded, and as one lecturer has said, "If Darwin were alive today, he himself would not be a Darwinian." These statements cast no slur on what he accomplished, but as Thomson says, ¹¹ "The marvel is not that it is necessary to make some changes in what Alfred Russel Wallace so generously called 'Darwinism', but rather that so much of Darwin's doctrine stands firm, four-square to the winds," and ¹² "When we use the term Darwinism to mean, not his very words, but the living doctrine legitimately developed from his central ideas of variation, selection, and heredity, we may say that Darwinism stands today more firmly than ever. It has changed and is changing, but it is not crumbling away. It is evolving progressively."

The struggle for existence is one of the dominant features of evolution. There are four reasons for it. ¹³ "First, there is the tendency to over-population in many animals... Second, there is the fact that the scheme of nature

.....
 11 *Out. of Sc.*, v. 2, p. 368

12 *Ibid.*, v. 2, p. 391

13 *Ibid.*, v. 1, p. 137

involves nutritive chains... Thirdly, every vigorous animal is a bit of a hustler. There is a fourth great reason for the struggle for existence, namely, the frequent changefulness of the physical environment, which forces animals to answer back or die."

The following words from Geddes' and Thomson's "Evolution" may be of interest here: 14

"This preservation of favorable and this destruction of injurious variations are called natural selection, or less metaphorically, the survival of the fittest, the one term referring mainly to the process, the other to the result... 15

Huxley's tragic vision of 'nature as a gladiatorial show' and consequently of ethical life and progress as merely superimposed by man, as therefore an interference with the normal order of Nature, is still far too dominant among us ... Here in fact, is opening the greatest practical controversy of our science in comparison to which all others have been but academic."

Professor Lane, who also regrets Huxley's pessimistic view of nature, says in this connection,

.....
14 Geddes and Thomson, p. 155

15 Ibid., p. 175

16

"The mistake made by practically all opponents of the doctrine of evolution is that of confusing the Darwinian theory of natural selection, or the survival of the fittest, with evolution itself ... They overlook even in the Darwinian theory itself the fact that the survival of the fit does not mean necessarily the destruction of the individual, but rather want of success in the production of offspring." Studies since Darwin's time have shown that the types that continue are not always the best types possible. ^{16-A} "In fact," writes Coulter, "many 'unfit' forms survive. Natural selection seems to be haphazard, rather than determined by fitness and unfitness... The idea of adaptation (fitness) is so bound up with the theory of natural selection, that if forms survive that are not adapted, natural selection loses a part of its machinery."

Various theories of heredity have occupied scientific experimenters for years, and are still considered of immeasurable importance by naturalists.

¹⁷ Thomson writes: "Heredity is the reproductive relation which secures that like tends to beget

.....
16 Lane, p. 193

16A Coulter, p. 47

17 Out. of Sc., v. 2, p. 368

like, and yet seldom does;" and he quotes the
 words of De Vries: ¹⁸ "The current belief assumes
 that species are slowly changed into new types.
 In contradiction to this conception the theory of
 mutation assumes that new species and varieties
 are produced from existing forms."

¹⁹
 "Modern Darwinism ... welcomes the
 demonstration that brusque, discontinuous
 variations or mutations are common, and that they
 are very heritable."

Of the experiments that have been recently
 carried on I shall not write, except to quote a
 concluding sentence from a summary in the latest
 volume of "The New International Year Book",
²⁰

"There is no evidence in favor of the inheritance
 of acquired characters anywhere in this process".

Numberless foolish "jokes" are made every
 day about the relation of man to monkey, and
 numberless people have not grasped the idea of
 evolution with respect to this matter. It has
 been epitomized by Thomson thus: ²¹ "Not, indeed,
 that man is descended from any living ape or

.....
 18 Out. of Sc., v. 2, p. 372

19 Ibid., v. 2, p. 389

20 New International Year Book, p. 811

21 Out. of Sc.

monkey; it is rather that he and they have sprung from a common ancestry -- are branches of the same stem. There is wisdom in Pascal's maxim: "It is dangerous to show man too plainly how like he is to the animals, without at the same time reminding him of his greatness. It is equally unwise to impress him with his greatness and not with his lowliness. It is worse to leave him in ignorance of both. But it is very profitable to recognize the truth in both." More recently Dr. Farr has written on this same point: ²² "They (the Fundamentalists) have taken evolution to mean that man is the offspring of the monkey. To the scientist this is only one of an almost infinite number of examples of evolution; and furthermore, it is a deduction with which the scientist may or may not agree. The word "monkey" is used carelessly by many writers, and indicates that they may be unaware of the great gap between the ordinary monkey and the apes. ^{22-A} In fact, "The differences of structure between the lowest monkey and the higher are far greater than those between man and any anthropoid ape".

.....
 22 Farr, p. 663

22A New Standard Ency., v. 1, "Apes"

What is the attitude of science toward itself? There may be, doubtless are, scientists who are "cock-sure" that science is the beginning and end of all wisdom, but the vast majority of investigators feel with Vernon Kellogg, ²³ "Evolution can be only a more or less immediate or detailed explanation of how, granted life, granted matter, granted energy, granted any existence of anything at all, and granted an ultimate cause or causes, the form and behavior of living things can be and are as they are. It is an explanation of process, not primitive cause". But though they do not say it covers all fields of knowledge, they do insist on its fundamental truth. With respect to the truth of evolution, Osborn, for example, says:

24

"Evolution ... is the most firmly established truth in the natural universe." Scientists are almost invariably open minded, eager for every ray of light. For instance, Mr. Osborn writes

25

"I would like to state positively ... that in my opinion Natural Selection is the only cause of evolution which has thus far been discovered and demonstrated. I believe there are many other causes which remain to be discovered."

.....
23 Kellogg, p. 91

24 Osborne, p. 8

25 Ibid.

Contrary to the notion of many people, evolution places man in a higher rather than a lower position in the scale of creation. ²⁶ "The doctrine of evolution teaches more than anything else that man is the culminating achievement in God's plan of creation; that it was by no mere chance that he arrived when and where he did but that he had been foreseen and foreordained from the foundations of the world."

The belief of an evolutionist in any type of religious thought is something that will depend on his own nature. ²⁷ "He may believe in God or not. But his acceptance of evolution and religious belief are two things, separate and not incompatible." Scientists are quite willing to turn over ²⁸ "to Philosophy or Theology or some other form of ideal view" "all questions of ultimate reality, all questions of ultimate origins, all questions of final meaning." ²⁹

"In any inquiry concerning the facts, religion refuses to settle a priori how God must have acted in any given case in nature or revelation, but turns over to humble patient scientific inquiry

.....
26 Lane, p. 199

27 Kellogg, p. 93

28 King, p. 8

29 Ibid., p. 23.

how he did and does act. The vast majority of scientific writers appear to have theistic convictions, and the writer in a reference book so impartial, even, as the New International Encyclopedia concludes the article on zoology by saying ³⁰ "The evolution theory and its implications, therefore, immeasurably enhance our conception of Deity and suggest most strongly that there is a divinity which has shaped our ends".

In brief, then, evolution is a change of form, from a simple to a complex type, and according to Darwin with natural selection as a means toward the survival of the fittest as an end; and since it is a study of process, it is entirely separate from theology, as such.

What is the bearing of this doctrine on ethical, social, religious, and human problems? This question is answered succinctly and ably by ³¹ Mr. Osborn in "Evolution and Religion". "The moral principle inherent in evolution is that nothing can be gained in this world without an effort; the ethical principle inherent in evolution is that the best only has the right to survive; the spiritual principle in evolution is the

.....
 30. New Int. Ency., v. 8, p. 233

31. Osborn, p. 17

evidence of beauty, of order, and of design in the daily myriad of miracles to which we owe our existence." There are times when a partial view of the process of evolution may make us pessimistic, but ³² "Evolution is on the whole integrative; that is to say, it makes against instability and disorder, and toward harmony and progress..... In the study of this advance - the central fact of Organic Evolution - there is assuredly much for man's instruction and much for his encouragement."

Those who wish Biblical authority for their theories may be struck by the following: ³³ "This compelling pragmatic law, which Darwin so clearly saw in operation in plant and animal life and which he called 'natural selection', is the same law that is so clearly expressed in Biblical teachings, as for example:

'And even now the axe is laid unto the roots of the trees; therefore every tree which bringeth not forth good fruit is hewn down and cast into the fire... But the root of the righteous shall not be moved.'"

The poets who are to be considered in this study produced their work chiefly between the year

.....
 32 Out. of Sc., v. 1, p. 56

33 Patten, p. 646

1859 and 1900. During this period the terms "evolution" and "Darwinism" were considered practically synonymous. Let us note that although Darwin did not publish his great work until 1859, the public was aware of some of his theories fifteen years before that date. Mr. Fenton writes: ^{33-A} "That same year (1844) the German edition of the "Journal of Researches" was published and it immediately attracted great attention. There was an increasing demand for the book in England, so in 1845 Darwin brought out a second edition, much improved, and containing, interestingly enough, a number of suggestions of the idea of evolution." At present we take Darwinism to mean in a narrower sense the theories of Darwin about the factors of evolution. In 1900 Mendel's great work on heredity was published and the chief modifications of Darwinism which have been made since that time deal with heredity - "unit-characters", the dominance of certain characteristics, germinal continuity, and the frequency and lasting importance of mutations or sudden changes, and orthogenesis.

In this study we shall look for the influence

upon the poetry of the period stated by Darwin's theories. Specifically, his main points are: (1) the continuous upward progress of all living forms from a single celled existence to more intricate forms; (2) the struggle for existence - a struggle between living creatures and their fellows, and between creatures and their environment; (3) the survival of the fittest, that is, the fittest relative to certain conditions.

Since in some cases we shall notice also a few poems printed before 1859, it may be helpful to note also the explanations offered before that date. In the first place, ^{33B} "during the last decade of the eighteenth century it was announced that organic evolution is explained by the influence of environment". The three men who suggested this almost simultaneously were Erasmus Darwin, Geoffrey Saint-Hilaire, and Johann Wolfgang von Goethe.

Soon after this Lamarck who ^{33-C} "was certainly the most commanding figure among those who transformed organic evolution from a speculation to a science ... laid down certain laws ... The most important ... may be called the

.....
33B Coulter, p. 20

33C Ibid., p. 25

effect of use and disuse. It is very common to refer to this theory as Lamarckism."

Neither of the above theories have been abandoned, although they have necessarily been given different emphasis as other observations and experiments have been made, and Lamarck's theory of acquired characteristics is rejected by the large majority of reputable biologists today.

CHAPTER II - THE RELATION BETWEEN SCIENCE AND POETRY

Before we go into a detailed discussion of the effect of the theory of evolution on certain of the English poets, let us stop to consider the relation of science and poetry in general. To one who is immersed in science, it may seem a very slight connection. To a student of poetry, the relation may seem much closer. Mr. Prescott, in his book "The Poetic Mind", gives his perception of the matter thus: ³⁴ "In every science, for example, we understand to a certain point; beyond lie the parts of the subject we are learning, and beyond these the great unknown. In going forward over this new country toward the unknown, the imagination always leads the way and the reason follows. The poet sees first and points out, the scientist then explains and demonstrates. The familiar country is the region of prose and science. The region of poetry is always just on that frontier where the known verges upon the

.....
34 Prescott, p. 75

unknown ... But since this verge or horizon of thought lies about us always in every science and department of knowledge, - and not only here but in every matter which we may contemplate, and in all our physical surroundings, there is always work for this poetical pioneer - work which only the poet can perform... Without poetry, philosophy and science would not come into being."

This is the opinion of the man of letters, and a quotation from Sir Oliver Lodge will show the attitude of a scientist who stands among the greatest authorities in his line. He says

36
 "There is no antagonism between poetry and science. There should be none between religion and science. There are many ways of arriving at Truth, the scientific path is but one ... The poetry of the man of feeling must not contradict the formulations of the man of science, but they are speaking different languages, and we may know by feeling some aspect of reality which eludes us in scientific analysis ... When science makes minor mysteries disappear, greater mysteries stand confessed. For one object of delight whose

.....
 35 Prescott, p. 293

36 Out. of Sc., v. 4, p. 1082

37 Ibid., p. 1176

emotional value science has inevitably lessened - as Newton damaged the rainbow for Keats - science gives back double."

There may be some scientists who, by constant attention to their work, have failed to gain or have lost an appreciation of poetry and the other arts. Darwin in his Life confessed
38
with regret that he "had lost all taste for music, art, and literature; that he could not endure to read a line of poetry and found Shakespeare so intolerably dull that it nauseated him. These statements may be
38-A
somewhat overdone for "his son tells of many evenings spent with Mrs. Darwin at the piano. He was unable to recognize tunes, but enjoyed good singing, particularly when the songs were of a pathetic nature. Among instrumental music selections from the Symphonies of Beethoven and fragments from Handel were favorites. At one time Darwin made a list of various compositions which he liked, and the impression made on him by each of them."

Wordsworth in the preface to the second edition of his poems, expressed the attitude of a

.....
38 Windle, p. 116

38A Fenton, p. 51

poet toward science which is in direct opposition to the feeling of Keats, and which has been shared by many poets since his time. ³⁹ "If the time should ever come," he writes, "when what is now called Science becomes familiarized to men, then the remotest discoveries of the chemist, the botanist, the mineralogist, will be as proper objects of the poet's art as any upon which it can be employed. He will be ready to follow the steps of the men of science, he will be at his side, carrying sensation into the midst of the objects of Science itself. The poet will lend his divine spirit to aid the transfiguration, and will welcome the being thus produced as a dear and genuine inmate of the household of man."

Many more quotations, chiefly from men of letters, could be given relative to the interdependence of science and poetry, but we shall confine ourselves in closing to a few sentences from Stedman. ^{39-A} "The poet and man of science have a common ground, since few discoveries are made without the exercise of the poet's special gift, - the imagination ... The imagination of the investigator advances from one step to another,

.....
39 Stedman, p. 194

39A Ibid.

and thus, in a certain sense, the mental processes of a Milton and a Newton are near akin. A plodding, didactic intellect is not strictly scientific; nor will great poetry ever spring from a merely phantasmal brain; 'best bard because the wisest,' sings the poet."

CHAPTER III - EARLIER POETS

During the sixteenth, seventeenth, and eighteenth centuries occasional English poets showed in their works genuine interest in several types of science. These instances of a scientific interest are rare, but they are of genuine interest. In her delightful book, "The Life of the Spirit in the Modern English Poets", Miss Scudder notes in this connection Edmund Spenser ^{39-B} "who more than any other English poet loved cosmic speculation, gives us in his fine fragment of "Mutabilitie" the characteristic view ..

"I well consider all that ye have said,
And find that all things steadfastness do
hate,
And changed be; yet, being rightly wayd,
They are not changed from their first estate,
But by their change their being do dilate,

.....
39B Scudder, p. 13

And, turning to themselves at length againe,
 Do work their own Salvation so by Fate;
 Then over them change doth not rule and reigne,
 But they rule over change and do their states
 maintain.'

The conception of a progressive evolution had not dawned; it was not to dawn for centuries.

While he was on a trip to Italy, Milton
 39-C
 visited Galileo, "who was living under the
 surveillance of the Holy Inquisition", but in spite
 of his acquaintance with the great scientist and
 his allusion to him in his poetry, 39-D
 "Milton
 could compromise upon such trifling details as the
 Ptolemaic and Copernican Systems of astronomy, so
 that his universe is simultaneously heliocentric
 and geocentric". Nor was he affected by any
 other phase of science.

The poet Cowley, whose collection of poems
 first appeared in 1668, wrote a panegyric on the
 discoverer of the circulation of the blood which
 shows an interest in another phase of science. In
 part he wrote:

39E

"Thou, Harvey, sought for Truth in Truth's own
 book,

The creatures; which by God himself was writ;

.....
 39C Boyd, p. 457
 39D Ibid., p. 460
 39E Scudder, p. 41

And wisely thought 'twas fit
 Not to read comments only upon it,
 But in th' original itself to look."

About a century later came Cowper who is of interest to us in this connection chiefly because of his power of noting details of nature about him more accurately than his predecessors. ^{39-F} When he described the flowers, the clouds, the weather, he did so with inimitable fidelity. He put down just what he saw with the utmost simplicity, one might almost say with a scientific simplicity. Cowper was one of the first poets to be aware of the constant activity in nature. In "The Task" we find the lines:

39-G

"Constant rotation of th' unwearied wheel
 That nature rides upon, maintains her head,
 Her beauty, her fertility ...
 Its own revolvency upholds the world."

About the same time that Cowper lived, Beddoes, a scholar and physician of prominence, was writing on various topics. ^{39-H} In "Death's Jest Book", that weird tragedy composed by a poet who preceded

.....
 39F Dawson, p. 22
 39G Scudder, p. 20
 39H Stedman, p. 20

Darwin we find the idea of evolution carried to its full extreme:

'I have a bit of Fiat in my soul,
 And can myself create my little world.
 Had I been born a four-legged child, methinks
 I might have found the steps from dog to man,
 And crept into his nature.'

The speaker then hints at the development of mind from inert matter, through the crystal, through the organic plant, and so on through successive grades of animal life culminating with the intellectual man. Even then he adds,

'Have patience but a little, and keep still,
 I'll find means, by and by, of flying higher'."

Phineas Fletcher made a study of the mind and more particularly of the body of man in "The Purple Island". He had real enthusiasm for the delicate mechanism of the body, though his expressions are naturally amusing to a modern physiologist. Richard Payne Knight in his "Progress of Civil Society" made a study of what we now call sociology.

43

Pope felt certain of the omnipotence of God,

"First Cause, least understood", and of an orderly
arrangement of Creation

41

"Far as creations ample range extends,
The scale of sensual, mental powers ascends:
Mark how it mounts to man's imperial race,
From the green myriads in the peopled grass!

42

Vast chain of being, which from God began!
Natures ethereal, human, angel, man,
Beast, bird, fish, insect, what no eye can see,
No glass can see."

Yet for science, as he knew it, he felt great
contempt.

43

"Trace Science, then, with modesty thy guide;
First strip off all her equipage of pride;
Deduct what is but vanity or dress,
Or learning's luxury, or idleness

Then see how little the remaining sum,
Which served the past, and must the times to
come."

He speaks of men who

"Shew'd a Newton as we show an ape".

.....
41 Essay on Man, Ep. I, ll. 207ff
42 Ibid., ll. 237ff
43 Ibid., ll. 43ff

James Thomson I, a poet much nearer Nature than Pope, held a somewhat similar attitude toward that universe. He was aware of a series of creations, which, however, he thought was fixed. In his "Seasons" he refers to

44

"The mighty Chain of Beings, lessening down
From Infinite Perfection to the brink
Of dreary Nothing - desolate abyss!"

Of somewhat greater interest to us is "The Botanic Garden", by Erasmus Darwin. At the time of its appearance it was applauded by some who thought it ⁴⁵ "strong, learned, and sweet" as did Cowper, and "sublime, enchanting, gorgeously beautiful", as did Walpole. On the other hand, George Canning wrote a clever parody of the second part of it, "The Loves of the Flowers", which he called "The Loves of the Triangles." We do not feel moved by the verses of Darwin's book, but we can appreciate in it the careful and devoted scientific study of a man worthy to be the grandfather of Charles Darwin.

Wordsworth was probably the greatest poet of Nature England ever produced. The quotation from his preface to the second edition of his poems

.....
44 Thomson I, Summer, ll. 284ff

45 Cambridge Hist., v. 2, p. 194

which has already been made makes him appear very friendly to science.

This would make us think that in the following lines he means, when he says Science, a pedantic devotion to exact information with no leaven of imagination.

46

"Sweet is the lore which Nature brings;
Our meddling intellect
Mis-shapes the beauteous forms of things
We murder to dissect.

"Enough of Science and of Art;
Close up those barren leaves;
Come forth and bring with you a heart
That watches and receives."

The Romantic poets, Byron, Shelley, and Keats were more interested in man as a social being, in love, and in beauty than they were in the progress of science, although in each of these we see a close observation of the details of nature, a wide use of color, and the sense of movement. These are points which were almost wholly lacking before the growth of interest in science. After their time came a period of about

thirty years when no poetry of great significance appeared in England.

CHAPTER IV - ALFRED TENNYSON

Let us now turn to the works of some of the prominent English poets of the latter part of the nineteenth century and see how they show the influence of the scientific thought of their day. First we shall consider the poems of Alfred Tennyson. He is a poet of much importance, not only because of his intrinsic value, but because of his relation to his age. Miss Scudder writes of his, ^{46-A} "Tennyson had one of those choice natures of the second order, which are formed by surrounding influences, and serve for the future as types of the age in which they live. He did not transcend his time; he revealed it." The majority of the poems to which we shall refer appeared after the publication of "The Origin of Species". However, Tennyson had always felt a deep interest in Science, and his son writes of him while he was still at Cambridge, ⁴⁷ "My father-

.....
46A Scudder, p. 281
47 Tennyson, XVIII

after perhaps reading Cuvier or Humboldt - seems to have propounded in some college discussion the theory that "The development of the human body might possibly be traced from the radiated, vermicular, molluscuous, and vertebrate organisms"; and Andrew Lang notes, ⁴⁸ "It was part of the originality of Tennyson as a philosophic poet, that he had brooded on these early theories of evolution, in an age when they were practically unknown to the literary and were not patronized by the scientific world. "Locksley Hall" was published in 1842. In it are the lines, reminiscent of his early years:

49

"Here about the beach I wander'd, nourishing a
a youth sublime

With the fairy tales of science, and the long
result of time".

And of all his poems none is more important
than "In Memoriam". ⁵⁰ "It is the central poem of the century, not only in date, but in scope and character", and Mr. Dawson calls it ⁵¹ "the poem of the century". It is remarkable for many reasons, but particularly for the evolutionary ideas expressed in it. It was published in 1850 many

.....
48 Tennyson, p. 996

49 Ibid., p. 95

50 Scudder, p. 282

51 Dawson, p. 258

years after its first cantos were written, and nine years before the appearance of "The Origin of Species", but not, as we have seen, before some evolutionary theories had been suggested by Darwin and others.

There are certain ideas which run throughout the poems on which we shall fix our attention. One is the very gradual acquisition of knowledge of nature;

52

"Science moves, but slowly, slowly, creeping on from point to point".

He traces the evolution of the world from the beginning, as

53

"They say,

The solid earth whereon we tread
In tracts of fluent heat began,
And grew to seeming-random forms,
The seeming prey of cyclic storms,
Till at the last arose the man."

Tennyson was greatly troubled by the struggle for existence, a point of great importance in the Darwinian theory. It seemed heartless that

.....
52 Tennyson, p. 99, "Locksley Hall"

53 Ibid., p. 275, "In Memoriam"

Nature should cry,

54

"A thousand types are gone

I care for nothing, all shall go";

and we can understand how he could but "faintly
trust the larger hope"

....."considering everywhere

Her secret meaning in her deeds,

And finding that of fifty seeds

She often brings but one to bear".

We see here his realization of the wastefulness
of the process. To show it is ruthless in its
methods he wrote the oft-quoted lines:

55

"Tho' Nature, red in tooth and claw

With ravine, shriek'd against his creed -

..... Dragons of the prime,

That tare each other in their slime,

Were mellow music match'd with him".

The poem "Despair" was published in 1881,
thirty-one years after the appearance of "In
Memoriam". During this interval the public
were increasingly informed on evolutionary ideas.
Tennyson had always accepted Darwin's ideas, and

.....
54 Tennyson, p. 256

55 Ibid.

55-A

Stedman said of him, "His laurel is brighter for the fact that he constantly avails himself of the results of scientific discovery, without making them prosaic". As for his philosophy, it was gradually giving him stronger faith in a beneficent Power in the universe, although doubt was to assail him at times for several years to come. We see in "Despair" the effect of the scientific theories of the time on a man whose mind is naturally religious who has been listening both to the theories of science and to a bigoted preacher. The latter saves the man when he attempts suicide and the man explains his state of mind. Speaking of God, he says:

56

"He is only a cloud and ^a smoke who was once a
pillar of fire, [^]

The guess of a worm in the dust, and the
shadow of its desire -

Of a worm as it writhes in a world of the weak
trodden down by the strong,

Of a dying worm in a world, all massacre,
murder, and wrong.

O we poor orphans of nothing - alone on that
lonely shore -

Born of the brainless Nature who knew not that
which she bore!

.....
55A Stedman, p. 193

56 Tennyson, p. 534

Trusting no longer that early flower would
be heavenly fruit -

Come from the brute, poor souls - no souls -
and to die with the brute -

And Doubt is lord of this dunghill and crows
to the sun and the moon,

Till the Sun and the Moon of our science are
both of them turned into blood,

And Hope will have broken her heart, running
after a shadow of good;

For their knowing and know-nothing books are
scattered from hand to hand."

We must keep in mind while reading these
desolate words that they are the result of but a
partial view of the struggle for existence, and
that they are equally the result of being

57

"Nursed in the drear night - fate of your
fatalist creed".

"Vastness" which he published in 1885,
presents the gloomy speculations of a materialistic
philosopher who may have been influenced by the
Spencerian interpretation of evolution.

58

"Spring and Summer and Autumn and Winter and all
these old revolutions of earth;

All new-old revolutions of Empire - change of
the tide - what is all of it worth?

.....
57 Tennyson, p. 533

58 Ibid., p. 789

What the philosophies, all the sciences, poesys,
varying voices of prayer?

All that is noblest, all that is basest, all that
is filthy with all that is fair? ...

What but a murmur of gnats in the gloom, or a
moment's anger of bees in their hive?"

The last words of this poem however, take a
different turn:

"Peace, let it be! ... the dead are not dead
but alive".

Admission of the truth of evolution and a
desire to view its possibilities for improving
mankind began to appear as early as 1850 in "In
Memorian" and grew in intensity in Tennyson's mind
as he became older. At times he thought of
individual development of the entire human race.
These lines could apply to either:

59

"Arise and fly

The reeling Pawn, the sensual feast;

Move upward, working out the beast

And let the ape and tiger die".

Ultimately, Tennyson believed in the
survival of the fittest, and that it is God who
rules the world.

60

"God is law, say the wise; O Soul and let us
rejoice,

For if he thunder by law the thunder is yet His
voice."

If he sees

61

"Evolution ever climbing after some ideal good
And Reversion ever dragging Evolution in the
mud",

he also looks forward to the time when we shall
have

62

"All diseases quenched by science, no man halt
or deaf or blind

Stronger ever born of weaker, lustier body,
larger mind, -

Every tiger madness muzzled, every serpent
passion killed,

Every grim ravine a garden, every blazing
desert tilled".

In 1885 Tennyson published the poem, "By an
Evolutionist", parts of which I shall quote because
the work shows so clearly his feeling in regard
to the struggle that must go on between the body
and spirit of man, and to which we can see no end.

.....
60 Tennyson, "Higher Pantheism", p. 234
61 Ibid., p. 553, "Locksley Hall Sixty Years After"
62 Ibid., p. 552

63

"The Lord let the house of a brute to the soul
of a man,

And the man said; 'Am I your debtor?'

And the Lord - 'Not yet, but make it as clean
as you can,

And I will then let you a better'.

"If my body come from brutes, my soul uncertain,
or a fable

Why not bask amid the senses while the sun of
morning shines,

I, the finer brute rejoicing in my hounds, and
in my stable,

Youth and health, and birth and wealth, and
choice of women and of wines?

"If my body come from brutes, though somewhat
finer than their own,

I am heir, and this my kingdom. Shall the
royal voice be mute?

No, but if the rebel subject seek to drag me
from the throne,

Hold the sceptre, Human Soul, and rule thy
province of the brute.

"I have climb'd to the snows of Age, and I gaze
at a field in the Past,

Where I sank with the body at times in the
sloughs of a low desire.

But I hear no yelp of the beast, and the man is
quiet at last

As he stands on the heights of his life with a
glimpse of a height that is higher."

Four of the short poems which were published in 1892 deal with the same theme in different ways. "Mechanophilus" is a glance toward the development of man's achievements in a mechanical way.

64

"As we surpass our father's skill

Our sons will shame our own.

A thousand things are hidden still

And not a hundred known."

"The Making of Man" shows us that

65

"Man as yet is being made, and ere the crowning
Age of ages,

Shall not aeon after aeon pass and touch him
into shape?

Till the peoples all are one, and all their
voices blend in choric

Hallelujah to the Maker. 'It is finish'd, Man
is made!'"

"The Dawn" gives us vivid pictures of men at various stages of social development, and again a sense of the almost infinite time required for his perfection, and the question

66

"Ah, what will our children be,

The men of a hundred thousand, a million
summers away?"

.....
64 Tennyson, p. 865

65 Ibid., p. 865

66 Ibid.

Perhaps none of Tennyson's short poems gives a better idea of the breadth of his vision than "Faith", published in 1892. It will be the last of his work I shall quote:

67

"Doubt no longer that the Highest is the wisest
and the best,

Let not all that saddens Nature blight thy hope
or break thy rest,

Quail not at the fiery mountain, at the
shipwreck, or the rolling

Thunder, or the rending earthquake, or the
famine, or the pest.

"Neither mourn if human creeds be lower than
the heart's desire!

Through the gates that bar the distance comes
a gleam of what is higher.

Wait till Death has flung them open, when the
man will make the Maker

Dark no more with human hatred in the glare of
deathless fire!"

Thus we see that although Tennyson never doubted the theory of evolution, his mind turned gradually from an emphasis on the struggle itself to emphasis on the prospect of infinite advancement to which he felt mankind was tending, an emphasis on the end rather than on the process of the change. This change was accompanied by a transition in temper, so that although in some of

his later work he showed occasional doubt, his philosophy became more steadfast and cheerful.

As a final summing up of the attitude of Tennyson toward truth in general, including the phase here studied, we might repeat the words of the Master of Trinity, which were spoken in 1913:

68

"On such high subjects as the blessing of honest belief, the blessing also of 'honest doubt', the supreme majesty of veracity and every form of truth, the grandeur of the Creator's living energy in the Universe, as partly revealed by science, in whose multiplying and advancing triumphs the poet personally exulted ... who, I ask, since Dante, has written, I do not say with more piety or more tenderness, but with more manliness and power?"

CHAPTER V - ROBERT BROWNING

In studying Browning we find an interest in science which, if less intense than Tennyson's, is more pervasive. His friend and commentator, Dr. Berdoe, says, ⁶⁹ "he has so largely imbibed and assimilated the science of the time that almost every page of his works is permeated by its influence" and ⁷⁰ "Browning's theory of life is eminently in accord with the teachings of evolution and development".

It is, indeed, remarkable to note the vast fund of information which Browning uses concerning various phases of natural phenomena. Chemistry, physics, biology, mathematics - all are used to furnish apt illustrations. When we have noted even a portion of these we are ready ⁷¹ to agree with Dr. Berdoe, "Scientific students of Browning must often think what a scientist he would have made, just as readers of Professor

.....
69 Berdoe, p. 66

70 Ibid., p. 108

71 Ibid., p. 61

Tyndall are always exclaiming, 'Here is the poet of science!'"

To begin with, let us see from a poem written in 1864 how Browning feels the importance of even the smallest objects, and the indivisible connection between these and the Creator: -

72

"We find great things are made of little things,
And little things go lessening till at last
Comes God behind them. Talk of mountains now?
We talk of mould that heaps the mountain, mites
That throng the mould and God that makes the
mites.

The Name comes close behind a stomach-cyst,
The simplest of creations."

The ability of the scientist to penetrate the essence of matter, organic and inorganic, is outlined in the passage, written in 1872:

73

"And the delight wherewith I watch this crowd
must be

Akin to that which crowns the chemist when he
winds

Thread up and up, till clue be fairly clutched-
unbinds

The composite, ties fast the simple to its mate,

.....
72 Browning, p. 533, "Mr. Sludge the Medium"

73 Ibid., p. 963, "Fifine at the Fair"

And tracing each effect back to its cause, elate,
 Constructs in fancy from the fewest primitives,

The complex and complete, all diverse life
 that lives,

Not only in beast, bird, fish, reptile, insect, but
 the very plants and earths and ore."

In "Paracelsus" (1835) which is a study of
 the mind of an obscure but important scientist,
 and which is one of Browning's earlier works, we
 first find manifestations of a belief in the
 evolution of man as inevitable.

This poem is one of the most important for
 this study. Mr. Dawson says, ^{73-A} "'Paracelsus'
 is a great poem, one of the greatest in English
 literature ... Browning has written as grandly
 in other poems, but nowhere has he so fully
 expressed the scientific spirit of the time, or
 written with completer power of thought and
 utterance ... perhaps the most wonderful thing
 about it is the vision of evolution which is found
 in its concluding pages, - pages, let it be noted,
 which were written many years before Darwin had
 published his 'Origin of Species'."

74

"Imperfect qualities throughout creation,

.....
 73A Dawson, p. 328

74 Browning, p. 62, "Paracelsus"

Suggesting some one creature yet to make,
Some point where all those scattered rays
should meet

Convergent in the faculties of man.

. . .

Hints and previsions of which faculties
Are strewn confusedly everywhere about
The inferior natures and all lead up higher,
All shape out dimly the superior race,
The heir of hopes too fair to turn out false,
And man appears at last."

And again

75

"Thus he dwells in all,
From life's minute beginnings, up at last
To man - the consum^mation of this scheme
Of being, the completion of this sphere
Of life; whose attributes had here and there
Been scattered o'er the visible world before,
Asking to be combined, dim fragments meant
To be united in some wondrous whole."

The most striking passage concerned with
evolution is found in "Prince Hohenstiel-Schwangau",
(1871), a passage which is not only lucid and
unified, but expressive of a delighted attitude toward

the whole matter.

76

"That mass man sprung from was a jelly-lump
 Once on a time; he kept an after course
 Through fish and insect, reptile, bird, and
 beast,
 Till he attained to be an ape at last
 Or last but one. And if this doctrine shock
 In aught the natural pride'.. Friend, banish
 fear,

The natural humility replies . . .

God takes time.

I like the thought He should have lodged me
 once

I' the hole, the cave, the hut, the tenement,
 The mansion and the palace; made me learn
 The feel o' the first, before I found myself
 Loftier i' the last, not more emancipate;
 From first to last of lodging, I was I,
 And not at all the place that harbored me.
 Do I refuse to follow farther yet
 I' the backwardness, repine if tree and flower,
 Mountain or streamlet were my dwelling place
 Before I gained enlargement, grew mollusc?

Yes, I lodged

I In those successive tenements; perchance
 Taste yet the straitness of them while I stretch

Limb and enjoy new liberty the more.

And some abodes are lost or ruinous;

Some, patched-up and pieced-out, and so
transformed

They still accommodate the traveller

His day of lifetime. O You count the links,

Descry no bar of the unbroken man?

. - why, there's forethought still
Outside o' the series, forging at one end,
While at the other there's - no matter what."

What a collection of ideas we find here!

First comes the statement of the order of man's
evolution which is in accord with the theories of
today's zoologists, except that we would say
77

that birds and insects are not ancestors of
human beings, and that man does not come directly
from the ape, but rather from a creature,
Sivapithecus, the possible common ancestor of man,
the gorilla, orang, and chimpanzee.

He tells of his gladness to accept the idea
of progressive states of existence, and the way
in which some of the types through which he passed
have disappeared, some have remained, with changes,
and some in the identical state. All are
biologically correct. Last, he stops without

trying to state an ultimate cause, in which he is evidently wise, since we generally agree with Sir Isaac Newton that ⁷⁸ "He who looks for final causes is not a truly scientific worker".

A fragment from "Fifine At The Fair", spoken of a butterfly, suggests one detail of evolution in the words:

79

"Undoubtedly I rejoice
That the air comports so well
With a creature that had the choice
Of the land once. Who can tell?"

The line,

80

"Change life, in me shall follow change to match!"

touches on adaptation to environment, in this case the adaptation of man.

There have been various theories concerning heredity since Darwin stated his ideas on natural selection. Let me quote a sentence from an article by Dr. Farr, and follow this by some lines of Browning's which show that in this particular

.....
78 Farr, p. 668

79 Browning, p. 933

80 Ibid., p. 919, "Prince Hohenstiel-Schwangau"

the poets ideas were in advance of the scientists.

81

"De Vries, as a result of his study of the evening primroses, came to the conclusion that new forms of plants and animals arise suddenly and only occasionally, rather than by continued gradual transitions."

82

"A breath of God made manifest in flesh
Subjects the world to change, from time to
time,
Alters the whole conditions of our race
Abruptly, not by unperceived degrees
Nor play of elements already there,
But quite new leaven, leavening the lump,
And liker, so, the natural process."

In striking and characteristic words Browning gives his idea of the development of certain features in man.

83

"When, reading records right, man's instincts
still attest
Promotion comes to Sense because Sense likes
it best;
For bodies sprouted legs, through a desire to
run;

.....
81 Farr, p. 665

82 Browning, p. 911, "Prince Hohenstiel-Schwangau"

83 Ibid., p. 970, "Fifine at the Fair"

While hands, when fain to filch, got fingers
one by one,

And nature, that's ourself, accommodative brings
To bear that, tired of legs which walk, we now
bowed wings

Since of a mind to fly."

Now, a scientist, I think, would say that a body "desires" legs because in a certain environment the possession of legs would enable him to continue life for a longer period, and the progeny of this creature having the most competent legs would themselves live longest. In other words, Browning believes in the theory of acquired characteristics which is still actively debated, and which was first propounded by Lamarck in 1801, as we have previously noted. In regard to this theory Dr. Coulter says, "It is the general belief now that acquired characters are not inherited, such characters meaning those that have been acquired during the lifetime of an individual . . . But some acquired characters may be more far-reaching in their effect, and if the effect includes the reproductive cells, there must be some influence upon inheritance. In any event, whether acquired characters are inherited or not, the theory of Lamarck has an important bearing

upon the later theories, and in modified form (Neo-Lamarckism) has a large group of followers today..

Browning always regarded the universe as the work of God, who ordained it according to a definite and good design:

84

"As firm is my belief, quick sense perceives
the same

Self-vindicating flash illustrate every man

And woman of our mass, and prove, throughout
the plan

No detail but, in place allotted it, was prime

And perfect."

This plan is not one of sameness, but

85

"I find advance i' the main and notably

The Present an improvement on the Past,

And promise for the Future - which shall prove

Only the Present with its rough made smooth."

Also, at a later date, 1878,

86

"Time means amelioration, tardily enough
displayed

Yet a mainly onward moving, never wholly
retrograde.

We know more though we know little, we grow
stronger tho' still weak."

.....
84 Browning, p. 939, "Tifine at the Fair"

85 Ibid., p. 912, "Prince Hohenstiel-Schwangau"

86 Ibid., p. 1129, "La Saisiaz"

The immortality and development of the individual are shown here:

87

"Life is probation, and the earth no goal
But starting-point of man."

Like Tennyson in his later works, Browning looked forward to the ^{upward} ~~upward~~ movement of the human race, though in the former poet I have found many more examples of this interest than I have in the latter. We have sufficient evidence of Browning's ideas in these lines, however, from these words, written in 1864:

88

"Man, for aye removed
From the develop'd brute; a god though in the
germ"

and,

89

"Progress is
The law of life, man is not Man as yet.
But in completed man begins anew
A tendency to God ... For God is glorified in
man."

As we glance back at the attitude of these two poets toward science, we see that both had an

.....
87 Browning.

88 Ibid., p. 501, "Rabbi Ben Ezra"

89 Ibid., p. 62, "Paracelsus"

interest in its various phases throughout their lives; Tennyson an interest that was possibly narrower in its scope than Browning's, but just as genuine, and possibly deeper. Browning had the more rugged temperament. His faith in God was equally strong at all points in his career, and apparently he never felt depressed by the history of human struggle as did Tennyson, for instance in "In Memoriam". He is unique in his consistent cheerfulness. ^{89-A} "He ~~was~~ alone of our great latter-day poets has performed this great pilgrimage of inquiry, and has returned with absolute and happy assurances of hope . . . where Tennyson found food for hopelessness, Browning found the seed, if not the fruit, of hope; where one has been overwhelmed, the other has triumphed." Both poets were accurate in their observations, and if they believed in some points that are now disputed, they could doubtless find scientists today who would uphold their views. Tennyson gives a larger proportion of his direct attention to the matter of evolution, but the number of instances of Browning's interest came as a surprise to me, and may come so to others. It would be

equally appropriate to hold either one in mind
when reading what Browning wrote of himself,

90

"So by help of mine, they may

Confidently lay to heart, and lock in head
our life-long this:

'He there with the brand flamboyant, broad
o'er night's forlorn abyss;

Crowned by prose and verse, and wielding, with
wit's bauble, learning's rod,

Well? Why, he at least believed in soul,
was very sure of God."*

CHAPTER VI - MATTHEW ARNOLD

Let us now turn to a contemporary of Tennyson and Browning, a man who is more widely known for his prose than for his poetry, but who is regarded more and more highly for the quality of his poems. He is a man of much importance from several standpoints. Miss Scudder says ^{90-A} "There is no Victorian poet, perhaps there is no Victorian thinker more significant in position than Matthew Arnold. Agnosticism of thought and feeling, with all its vagueness, finds in him an exquisitely accurate exponent." Matthew Arnold, like the writers we have already studied, was always in touch with the scientific thought of his day and apparently he always accepted the theory of evolution. So convinced was he, indeed, of the theory, that he helped to spread a knowledge of it in England. In speaking of this phase of activity ⁹¹ Mr. Finger says "In a manner of speaking,

.....
90A Scudder, p. 247

91 Finger, p. 11

England then was in one respect in similar position to us now. That is, the theories of evolution were being widely accepted and were causing a general revaluation. There were attempts to forbid the teaching of evolution in schools, to spend hours in Bible reading. Against that Arnold set his face."

Although Arnold ceased writing poetry long before his prose was finished, this was not because he lacked a high regard for the form type of composition, for he wrote, ^{91-A} "More and more mankind will discover that we have to turn to poetry to interpret life for us, to console us, to sustain us; without poetry all sciences will appear incomplete; and most of what now passes with us for religion and philosophy will be replaced by poetry." He felt a deep regard for classical and medieval standards. His own poems are exquisite in their way - ^{91B} "like gray shadows cast along some temple - floor shadowy alike in clean purity of outline, and in dim uncertainty of content". To read them is ^{91-C} 9 "rather like looking at some piece of

.....
91A Whiting, p. 36

91B Scudder, p. 247

91C Dawson, p. 336

statuary - cool, proud, pure; the lines are gracious and symmetrical indeed, but very definite and requiring no help from the casual spectator to interpret what is beautiful in them."

There seems to be but little change in Arnold's attitude toward life as shown in his poems. They often begin with a doubt, and end with a question. IN "In Utrunæque Præ^atus," which appeared in 1849, he suggests the idea that the universe was created either with or without a unified plan, and the latter idea seems to him the more impressive.

92

"If, in the silent mind of One all-pure,
at first imagined lay

The sacred world, and by procession sure
From those still deeps, in form and color drest,
Seasons alternating, and night and day,
The long-mused thought to north, south, east,
and west

Took then its all-seen way;

But, if the wild unfathered mass no birth

In divine seats hath known;

In the blank, echoing solitude, if earth,

Rocking her obscure body to and fro,

Ceases not from all time to heave and groan,

Unfruitful oft, and at her happiest throe
Forms, what she forms, alone;

.....

Oh, what a spasm shakes the dreamer's heart!
I, too, but seem."

This idea of a travail which may be
purposeless, after all, appears again in 1852 in
"Empedocles on Etna", but here more constructively.

93

"All things the world which fill
Of but one stuff are spun,
That we who rail are still,
With what we rail at, one;
One with the o'er-labored Power that through
the breadth and length
Of earth, and air, and sea,
In men, and plants, and stones
Hath toil perpetually,
And travails, pants, and moans,
Fain would do all things well, but sometimes
fails in strength."

The struggle for existence which troubled
Tennyson in his earlier days, was in Arnold's mind
when he wrote in 1849 the ironically called, "In
Harmony with Nature", in which he affirms:

.....
93 Arnold, p. 453

94

"Nature is cruel, man is sick of blood;
 Nature is stubborn, man would fain adore;
 Nature is fickle, man hath need of rest;
 Nature forgives no debt, and fears no grave;
 Man would be mild and with safe conscience blest.
 Man must begin, know this, where Nature ends;
 Nature and man can never be fast friends.
 Fool, if thou canst not pass her, rest her slave!"

The mind of man cannot comprehend the vast
 plan of the universe.

95

"Hither and thither spins
 The wind-borne, mirroring soul;
 A thousand glimpses wins,
 And never sees a whole.
 Looks once, and drives elsewhere, and leaves
 its last employ."

Not only is it impossible for man to understand the things he sees, but also it may be impossible to any higher power, Arnold suggests:

96

"Fools! That in man's brief term
 He cannot all things view,
 Affords no ground to affirm

.....
 94 Arnold, p. 5

95 Ibid., p. 446, "Empedocles on Mtna"

96 Ibid., p. 455

That there are gods who do;

Nor does being weary prove that he has where
to rest."

In the quotations given here and throughout Arnold's poetry there is no direct statement about evolution, yet we feel in much of his work a melancholy that resulted doubtless from his own nature, but in part, also, from the scientific theories which he considered true, but terrible. The few lines of "Despondency" give us a glimpse of this tragic state of mind:

97

"The thoughts that rain their steady glow
Like stars on life's cold sea,
Which others know, or say they know, -
They never shone for me.

"Thoughts light, like gleams, my spirits' sky,
But they will not remain.
They light me once, they hurry by,
And never come again."

We feel no assumption of human dominance in such lines as these of "Empedocles":

98

"We mortals are no kings
For each of whom to sway

.....
97 Arnold, p. 224

98 Ibid., p. 449

A new-made world upsprings,

Meant merely for his play:

No, we are strangers here; the world is from of
old."

All of Arnold's poems were published by 1867, and most of them were written in the forties, so they are products of a particularly troubled time.

99

"Wandering between two worlds, one dead,

The other powerless to be born,

With nowhere yet to rest my head,

Like these, on earth, I wait forlorn.

.

"Years hence, perchance, may dawn an age,

More fortunate, alas! than we,

Which without hardness will be sage,

And gay without frivolity.

Sons of the world, oh! speed those years;

But while we wait, allow our tears!"

He looks back pensively to the feelings of earlier years in "Dover Beach" (1867).

100

"The Sea of Faith

Was once, too, at the full, and round earth's
shore

.....
99 Arnold, p. 321, "Stanzas from the Grande Chartreuse"
100 Ibid., pp. 226, 227

Lay like the folds of a bright girdle furled.
 But now I only hear
 Its melancholy, long, withdrawing roar,
 Retreating, to the breath
 Of the night-wind, down the vast edges drear
 And naked shingles of the world.

.....

And we are here as on a darkling plain
 Swept with confused alarms of struggle and
 flight,
 Where ignorant armies clash by night."

Yet Arnold is not altogether despondent.
 He has a stoical appreciation of man's importance
 in this world:

101

"I say: Fear not! Life still
 Leaves human effort scope.
 But, since life teams with ill,
 Nurse no extravagant hope;
 Because thou must not dream, thou needs't
 not then despair!"

This is rather negative optimism. More
 positive is this stanza from "Revolutions".

102

"One day, thou say'st, there will at last
 appear

.....
 101 Arnold, p. 457, "Empedocles on Etna"
 102 Ibid., p. 254

The word, the order, which God meant should
be.

Ah! we shall know that well when it comes
near;

The band will quit man's heart, he will
breath free."

Even the immortality of the soul is considered
possible, in "A Wish" (1867).

103

"Then willing let my spirit go

To work or wait elsewhere or here!"

These poems, and in fact almost all of
Arnold's were written between 1849 and 1867. As
we saw in the first chapter, there were several
theories of evolution even before 1859; also we
find that ^{103-A} "after leaving Oxford, Arnold came
in sharp contact with the wave of scientific
Agnosticism which was sweeping over England. He
was never overwhelmed by it ... yet we may trace
throughout his work the effect of the movement, in
play with other forces ... Arnold reflects for us
with singular truthfulness the composite and
conflicting tendencies which marked the second
third of the century."

It is evident that throughout his poetry the
influence of evolutionary ideas is felt, although

.....
103 Arnold, p. 267

103A Scudder, p. 251

we find no definite statement of particular scientific details.

It is regrettable that at a comparatively early age Arnold stopped writing poetry. He said that this was made necessary by his increasing duties in educational work. Miss Scudder feels that there is a deeper reason. ^{103-B} "But, alas! his principles (tranquility and self-sufficient strength) worked themselves out to an inevitable conclusion. From agitation and emotion he sought to escape to the untroubled calm of self-poise ... Arnold achieved his desire; and the end was science. Control had done its work; he had repressed his poetry out of existence."

This, then, is a poet who always admits the importance of science, who stands mid-way in both time and thought between an age of unquestioning faith and an age of scientific poise which may or may not be of help to religion. Arnold is almost always in a state of doubt as to the plan of the universe, and only his faith in the dignity of man prevents his sinking into complete despondency.

CHAPTER VII - ARTHUR HUGH CLOUGH

Arthur Hugh Clough, a friend of Matthew Arnold, is similar in thought to the latter, but apparently Clough had the more comfortable faith at some periods in his life. Here, again, we find no direct mention of the theories of evolution yet it will repay us to make a study of his poems, because as his biographer, Mr. Whibley, says,
104

"A true child of his century, he suffered more deeply than any of his contemporaries, from the prevailing heart-sickness, and his poems are memorable not merely for their intrinsic worth, but because they form a curious chapter in the history of English thoughts and creeds.

In the first part of "Easter Day", written in 1849, Clough, like Arnold giveves for the loss of an old faith:

105

"Eat, drink, and die, for we are souls bereaved:

Of all the creatures under heaven's wide cope

.....
104 Clough, p. XXIV

105 Ibid., p. 102

We are most helpless, who had once most hope,
And most beliefless, that had most believed."

There is a tone of scepticism and bitterness
in these lines from the earlier part of "Dipsychus":

106

"And almost everyone when age,
Disease, or sorrows strike him,
Inclines to think there is a God,
Or something very like Him."

107

"This world is very odd we see,
We do not comprehend it;
But in one fact we all agree,
God won't and we can't mend it."

And later

108

"Religion, if indeed it be in vain
To expect to find in this more modern time
That which the old world styled in old-world
phrase
Walking with God. It seems His newer will
We should not think of Him at all, but trudge
it,
And of the world He has assigned us make
What best we can."

.....
106 Clough, p. 121

107 Ibid., p. 132

108 Ibid., p. 143

In "Fragment of the Mystery of the Fall" we have the suggestion of evolution, not, it is true, of all nature, but of the human soul. Possibly the scientific thought of the day suggested the comparison to Clough:

109

"That which we were we could no more remain
 Than in the moist provocative vernal mould
 A seed its suckers close and rest a seed;
 We were to grow. Necessity on us lay
 This way or that to move; necessity, too,
 Not to be overcareful this or that,
 So only move we should."

The idea of the struggle for existence is found in "At Rome", followed by a statement in a belief in a more stable condition to follow:

110

"Ah Nature, if indeed thy will
 Thou own'st it, it shall not be ill!...
 Where processes, with pain and fear,
 Disgust and horror wrought, appear
 The quick mutations of a dance,
 Wherein retiring but to advance,
 Life, in brief interpause of death,

.....
 109 Clough, p. 43

110 Ibid., p. 446

One moment sitting taking breath,
 Forth comes again as glad as e'er,
 In some new figure full as fair,
 Where what has scarcely ceased to be,
 Instinct with newer birth we see -
 What dies, already, look you, lives;
 So too of more to come anon,
 Of permanent existence sure,
 Brief intermediate breaks endure."

The almost insignificant part played by any individual is suggested in "Dipsychus":

111

"But I must slave, a meagre coral-worm,
 To build beneath the tide with excrement
 What one day will be island, or be reef,
 And will feed men or wreck them."

Clough went through a long period of doubt, but there are many of his poems which show glimpses of hope, as these words from the last part of "Easter Day":

112

"Joy with grief mixes, with despondence hope.
 Hope conquers cowardice, joy grief:
 Or at least, faith unbelief."

.....
 111 Clough, p. 147

112 Ibid., p. 105

Last of all, let me quote all of a short poem, "With Whom Is No Variableness, Neither Shadow of Turning", which is beautiful and noble enough to satisfy the most critical, and close to the spirit of the 19th century scientists.

113

"It fortifies my soul to know

That, though I perish, Truth is so:

That howsoe'er I stray and range

Whate'er I do, Thou dost not change.

I steadier step when I recall

That, if I slip, Thou dost not fall."

CHAPTER VIII - DANTE GABRIEL ROSSETTI

Dante Gabriel Rossetti is a poet whose passion for beauty reminds one of Browning, but he lacks Browning's intense interest in man's soul and his poems have few allusions to science.

His brother, William M. Rossetti tells us,
114

"He was ... superstitious in grain and anti-scientific to the core". Most of his poems are romantic and sensuous, but he is not ignorant of the thought of his day nor indifferent to it.

In "The Cloud Confines" we discover a reference to the struggle for existence rather similar to the expression of other poets we have noticed.

115

"What of the heart of hate
That beats in the breast, O Time? -
Red strife from thy furthest prime,
And anguish of fierce debate;

.....
114 Rossetti, p. XII, v. 1

115 Ibid., v. 2, pl 255

War that shatters her slain,
 And peace that grinds them as grain,
 And eyes fixed ever in vain
 On the pitiless eyes of Fate.
 'Still we say as we go, -
 'Strange to think by the way,
 Whatever there is to know,
 That shall we know one day, '0

The variableness and decay of the world are spoken of in the sonnet, "On Refusal of Aid Between Nations".

116

"Not that the earth is changing, O my God!
 Nor that the seasons totter in their walk, -
 * * * * *
 Not therefore are we certain that the rod
 Weighs in thine hand to smite thy world ...
 parcelled
 But because Man is ~~scattered~~ out in men ...
 By this we know
 That the earth falls asunder, being old."

The vivid words of "Retro Me Sathana!" show Rossetti's fatalistic attitude toward the universe.

117

"Even as, heavy-curved
 Stooping against the wind, a charioteer

.....
 116 Rossetti, v. 1, p. 289

117 Ibid., v. 2, p. 218

Is snatched from out his chariot by the hair,
 So shall Time be; and as the void car, hurled
 Abroad by reinless steeds, even so the world;
 Yea, even as chariot-dust upon the air,
 It shall be sought and not found anywhere."

Although Rossetti felt the world was old and purposeless, he felt also that man at present is not in his highest possible condition, and that his course may extend over a vast length of time to come. There is a development of this idea in the sonnet sequence, "The Choice".

118

"Eat thou and drink; to-morrow thou shalt die.

.

"Watch thou and fear; to-morrow thou shalt die.

.

"Think thou and act; to-morrow thou shalt die.

Outstretched in the sun's warmth upon the shore,

Thou say'st: 'Man's measured path is all gone
 o'er.

Up all his years, steeply, with strain and sigh,

Man clomb until he touched the truth; and I

Even I, am he whom it was destined for.'

How should this be? Art thou then so much
 more

Then they who sowed, that thou should'st reap
 thereby?

Nay, come up hither. From this wave-washed
mound

Unto the furthest flood-brim look with me;

Then reach on with thy thought till it
bedrown'd.

Miles and miles distant though the last line
be,

And though thy soul sail leagues and leagues
beyond -

Still, leagues beyond those leagues, there is
more sea."

As Rossetti grew older he became more and more despondent. The cause may have been his disposition, or the pleasure-seeking life of his early days, or something else we cannot trace. Throughout his poems are religious allusions, most of them pictorial in content. That he disliked speculation on God is evident from these lines:

119

"Let lore of all Theology

Be to the soul what it can be;

But know, - the Power that fashions man

Measured not out thy little span

For thee to take the meting rod

In turn, and so approve on God

Thy science of Theometry.

To God at best, to Chance at worse,
Give thanks for good things, last as first."

Like Arnold, Rossetti reached no affirmative state of mind, and in one of his last fragments he expresses the wish;

120

"Would God I knew there were a God to thank
When thanks rise in me!"

CHAPTER IX - CHARLES ALGERNON SWINBURNE

In the poems of Charles Algernon Swinburne, all of which were published after 1859, we find no direct references to the theory of evolution, but we infer from many of his works that he was cognizant of it, and in "The Commonweal" he bears testimony to his admiration for Darwin. Speaking of England he asks,

121

"Did not her breasts who reared us rear
Him who took heaven in hand and weighed
Bright world with world in balance laid?
What Newton's might could not make clear
Hath Darwin's might not made?"

One of the greatest passions of Swinburne's life was the love of liberty, and many of his poems are devoted to its encouragement. In contemplating this he sees a development.

122

"The moving god that hides
Time in its timeless tides

.....
121 Swinburne, p. 273

122 Ibid., p. 146. "On the Eve of Revolution"

Wherein time deaf seems live eternity
 That breaks and makes again
 Much mightier things than man,
 Doth it not hear change coming, or not see?"

The most extensive speculations on the world's beginning are found in "The Hymn of Man", and this poem is of interest not only because of its ideas on creation but also because of its novel suggestion of God as having originated after the beginning of the world - of his being not really a creator at all.

123

"In the grey beginnings of years, in the twilight
 of things that began,

The word of the earth in the ears of the world,
 was it God? was it man?

.
 Before the growth was the grower, and the seed
 ere the plant was sown.

But what was the seed of the sower? and the
 grain of him, whence was it grown?

Foot after foot ye go back and travail and make
 yourselves mad;

Blind feet that feel for the track where
 highway is none to be had.

Therefore the God that ye make you is grievous,
 and gives not aid,

Because it is but for your sake that the God
 of your making is made.

Thou and I and he are not Gods made men for a span;

But God, if a God there be, is the substance of men which is man.

Our lives are as pulses or pores of his manifold body and breath;

As waves of his sea on the shores where birth is the beacon of death.

We men, the multiform features of man, what-soever we be,

Recreate him of whom we are creatures, and all we only are he.

For each man of all men is God, but God is the fruit of the whole;

Indivisible spirit and blood, indiscernible body from soul...

He is servant with change for lord.

.

Men perish, but man shall endure; lives die, but the life is not dead.

He hath sight of the secrets of season, the roots of the years and the fruits;

.

He can see through the years flowing round him the law laying under the years.

.

Glory to Man in the highest! for Man is master of things."

The poem "Genesis" contains much the same matter, speculation of the world.

124

"Or anything called God or man drew breath".

Again in "Hertha", his favorite among his poems, we feel this cosmic consciousness, and we feel certain that Swinburne had in mind some infinite Force, at least, when he wrote:

125

"I am that which began
 Out of me the years roll;
 Out of me God and man;
 I am equal and whole;

God Changes, and man, and the form of them
 bodily; I am the soul.

.

All forms of all faces,
 All works of all hands
 In unsearchable places
 Of time-stricken lands,

All death and all life, and all reigns and
 all ruins, drop through me.

Since Swinburne thinks of God as finite, it is not surprising that at times he refers to a series of Gods conceived by man as, for instance, in "The Last Oracle";

126

"God by God goes out, discrowned and disanoined,

.....
 124 Swinburne, p. 178

125 Ibid., p. 164

126 Ibid., p. 221

But the soul stands fast that gave them shape
and speech.

.

In thy lips the speech of man whence Gods were
fashioned."

The essence of God is given again as,

127

"The pure spirit of man that men call God,

To the high soul of things that is

Made of men's heavenlier hopes and mightier
memories."

During his earlier years Swinburne refers
to God, or the Gods, as merciless. ¹²⁸ In one of
the poems to Victor Hugo this appears, and again
in "Anactoria", where he says,

129

"were I made as he

Who hath made all things to break them one by
one,

If my feet trod upon the stars and sun

And souls of men as his have always trod,

God knows I might be crueller than God.

For who shall change with prayers or
thanksgivings

The mystery of the cruelty of things?

Or say what God above all gods and years,

.....
127 Swinburne, p. 160, "Blessed Among Women"

128 Ibid., p. 64

129 Ibid., p. 33

With offering of blood-sacrifice of tears, ...
 Feeds the mute melancholy last of heaven."

The word "Death" haunts Swinburne's poems, from beginning almost to the end. He was of a melancholy turn of mind, and such understanding as he had of evolution apparently deepened this feeling of the futility of the universe. Many pages from "The Garden of Proserpine", "A Lamentation", "A Forsaken Garden", and "Felise" might be quoted to show his hopeless attitude. Perhaps it is epitomized in some lines from "Illicet" as well as anywhere:

130

"We are born with travail and strong crying,
 And from the birthday to the dying
 The likeness of our life is thus,

 They find no fruit of things they cherish;
 The goodness of a man shall perish,
 It shall be one thing with his sin."

The most cheerful, or the least depressing of these passages is the melodious stanza from "The Garden of Proserpine":

131

"From too much love of living,

.....
 130 Swinburne, p. 39

131 Ibid., p. 72

From hope and fear set free,
 We thank with brief thanksgiving
 Whatever gods may be
 That no life lives forever;
 That dead men rise up never;
 That even the weariest river
 Winds somewhere safe to sea."

Not always, however, was Swinburne's spirit so melancholy. For example, in "Siena" he expresses hopes of a time when his dear dreams of freedom shall be realized, and,

132

"the seasons bring to birth
 A perfect people, and all the powers
 Be with them that bear fruit on earth;
 Till the inner heart of man be one
 With freedom, and the sovereign sun;
 And Time, in likeness of a guide,
 Lead the Republic as a bride
 Up to God's side."

Neither the present nor a vision of the
 future moved this poet; ^{132-A} "to Swinburne the
 present has neither sacredness nor charm.

.....
 132 Swinburne, p. 196
 132A Scudder, p. 279

Acknowledging no sphere but that of the senses and the passions, unable to ignore the dreams of heaven or to escape knowledge that there exists in the world a gospel of renunciation sad and stern,
 132-B
 Swinburne finds life bitter to the core ... the denial of a celestial future darkens every page of Swinburne."

Swinburne admits the existence of some happiness even in his own day.

133

"What ever a man of the sons of men
 Shall say to his heart of the lords above,
 They have shown man verily, once and again,
 Marvellous mercies and infinite love."

Toward the end of his life he wrote,

134

"Light is more than darkness now, faith than fear and hope than hate."

We see, then, that as Swinburne grew older he developed a feeling of greater tranquility and faith and he hoped, at least for a time when looking on man "any near or far-off sun" would

135

"Salute him risen and sunlike-souled,
 Free, boundless, fearless, perfect, one."

.....
 132B Scudder, p. 323

133 Swinburne, p. 28, "Les Noyades"

134 Ibid., p. 565, "Twilight of the Lords"

135 Ibid., p. 219, "Epilogue"

It is hard to say what effect the theory of evolution had on Swinburne's mind but we are sure he was aware of the theory and possibly it made his attitude toward life more pessimistic than it would otherwise have been. He is a poet who lives not because of the influence he had on the thought of his generation, but because of his gift of rhythm and choice of words. ^{135-A} "It is in

virtue of his metrical genius that we must rank him among those who have helped to develop modern English poetry. Also, we must make a study of him because like others of the poets of art he ^{135-B}

"marks a distinct phase in the progress of spiritual imagination. Without them a stage in the struggle of the soul would remain unrecorded, a line of solution untried."

.....
135A Dawson, p. 367

135B Scudder, p. 269

CHAPTER X - WILLIAM MORRIS

William Morris was a man of almost inexhaustible energy and enthusiasm. He created a complete revolution in interior decoration, he was distinguished as an artist, an architect, an illuminator, and an writer of voluminous prose and poetry. That he took an interest in the scientific development of his day is nowhere apparent; perhaps he misunderstood science, and felt it to be a hindrance to the best development of mankind. Yet, although we find no references in his work to evolution, the current theories of this subject probably gave him a wide vision of life, such as we see in parts of "The Earthly Paradise".

136

"Death have we hated, knowing not what it meant;

Life have we loved, through green leaf and
through sere.

Though still the less we knew of its intent;

.....
136 Morris, v. 6, p. 175

The Earth and Heaven, through countless year on
year,

Slow changing, were to us but curtains fair,
Hung round about a little room, where play
Weeping and laughter of man's empty day."

This broad outlook is revealed in the "November" interlude of this same poem, and even more clearly is shown the melancholy which pervades most of Morris's poetry:

137

"Yea, I have looked and seen November there,
The changeless seal of change it seemed to be.
Fair death of things that, living once, were fair;
Bright sign of loneliness too great for me,
Strange image of the dread eternity,
In whose void patience how can these have part,
These outstretched feverish hands, this restless
heart?"

The sadness to be found in what appears to be happiness is seen in the simple words,

138

"And Sorrow laid abed with Spring
Begat an earthly bliss,"

and in these:

.....
137 Morris, p. 5, p. 206

138 Ibid., v. 9, p. 132, "Spring's Bedfellow"

139

"Our eyes gaze for no morning-star,
 No glimmer of the dawn afar,
 Full silent wayfarers we are
 Since ere the noon-tide hope lay dead."

These expressions of sadness are not rare; but fortunately there was one theme which excited all the poet's enthusiasm. That was the Cause - the cause of human equality. In "The Voice of Toil" he encourages his fellowmen to further this work.

140

"Let dead hearts tarry and trade and marry,
 And trembling nurse their dreams of mirth,
 While we the living our lives are giving
 To bring the bright new world to birth.
 "Come, shoulder to shoulder ere Earth grows older!
 The Cause spreads over land and sea;
 Now the world shaketh and fear awaketh,
 And joy at last for thee and me."

He is elated as he thinks of the time when

140A

"all Mine and all Thine shall be Ours, and no
 more shall any man crave

For riches that serve for nothing but to fetter
 a friend for a slave."

.....
 139 Morris, v. p. "Hope Dieth, Love Liveth"
 140 Ibid., v.9, p. 178
 140A Ibid., v. 9, p. 180 "Day is Coming"

The only form of evolution, then, which excites interest in Morris was the evolution of man as a social being. He considers personal immortality a matter of no consequence in comparison with the privilege of helping to establish a new order of brotherhood in the world.

141

"Thy soul and life shall perish,

And thy name as last night wind;

But Earth the deed shall cherish

That thou today shall find.

.

"Then praise the dead that wendeth

Through the daylight and the mirth!

The tale that never endeth

Whose may dwell on earth."

.....
 141 Ibid., v. 9, p. 184, "Earth the Healer, Earth the Keeper"

CHAPTER XI - JAMES THOMSON II

James Thomson, whose "City of Dreadful Night" is a poem almost unrivaled in its pessimism, is an interesting writer to study, and the change in his thoughts is easily traced in his works. These thoughts, says Mr. Dobell, probably were due primarily to the influence of his mother, from whom ¹⁴² "he derived his vein of constitutional melancholy and tendency to emotional extremes" and to the early death of his sweetheart, which intensified and deepened the gloom of his convictions." Yet the rather frequent allusions to evolutionary ideas make us feel that he was partially influenced by the science of his day.

A rather quaint expression of his desire for an understanding of nature is found in one of his "Versicles".

.....
142 Thomson, v. I, p. XIII

144

"Dear Mother Earth, tell us, tell us, tell us!
 What is the meaning of all the things we see? -
 Oh! what a family of puny little fellows,
 Calling me always, Tellus, Tellus, Tellus!
 Eat your bread, drink your wine, snatch at all
 you see;
 But I am very busy, do not bother me."

In "Vane's Story" is a more serious and
 characteristic criticism of scientific investigation:

145

"And if God does subsist and act,
 Though some men cannot learn the fact,
 Who but Himself has made mankind,
 Alike the seers and the blind?
 It may be that for some good cause
 He loves to rest deep-veiled in laws;
 And better likes us who don't ask
 Or seek to get behind the mask,
 Than those our fellow-insect fry
 Who creep and hop and itch and pry
 The Godhead's lice, the swarming fleas
 In Jove's great bed of slumbrous ease."

A passage from the same poem indicates that
 at one time Thomson could feel no certainty in

.....
 144 Thomson, v. 1, p. 279

145 Ibid., v. 1, p. 14

evolution:

146

"The cards are shuffled to and fro,
The hand may vary somewhat so,
The dirty pack's the same we know
Played with long thousand years ago;
Played with and lost with still by Man, -
Fate marked them ere the game began;
I think the only thing that's strange
Is our illusion as to change."

and similarly in "A Voice from the Nile":

147

"The creatures also whom I breed and feed
Perpetually perish and dissolve,
And other creatures like them take their place
To perish in their turn and be no more."

Most of the time, however, he accepted evolution as a fact. In some of his earlier poems he is cheerful in his view of the matter. In 1855 he wrote in "Suggested by Arnold's Stanzas" and here we find a certain belief in evolution in general.

148

"Thus each Form in its turn expires,
No more with all revealed Truth rife, -

.....
146 Thomson, v. 1, p. 26

147 Ibid., v. 2, p. 5

148 Ibid., p. 2, p. 374

What ever at that time inspires
 Some new and nobler form with life,
 Grandeur and vaster to express
 More of its infinite heavenliness."

"The Doom of a City" is similar in form to
 "The City of Dreadful Night", which was written
 thirteen years later. There has been a change in
 the poet during these years. As Mr. Dobell says,
 149

"The author of the earlier poem believes in an
 overruling providence and in the immortality of
 the soul. He strives to reconcile the existence
 of evil with a belief in a benevolent Creator, and
 labours to show that mankind are themselves
 responsible for the miseries they endure. Yet it
 may be perceived, from the inconsistencies and,
 as it were, special pleading of the poem, that
 Thomson was trying to convince himself that he
 believed these doctrines, rather than holding them
 with a firm conviction of their truth." He is
 able to say in his early days,

150

"This glorious Universe shall live for ever;

.....

Ascending slowly by successive stages

.....
 149 Thomson, v. 1, p. 144

150 Ibid., v. 2, p. 142, "Doom of a City"

Of nobler Good and Beauty through the Ages;

.

Our Earth has scarcely ceased to be a child,
Sweet in its grace, but ignorant and wild."

The changes which come to the physical body are described in a way that is rather anticipatory of some of our modern poems.

151

"One part of me shall feed a little worm,
And it a bird on which a man may feed;
One lime the mould, one nourish insect-germ.
One thrill sweet grass, one pulse in bitter
weed;
This swell a fruit, and that evolve in air,
Another trickle to a springlet's lair,
Another paint a daisy on a mead.

.

With cosmic interchange of parts for all,
Through all the modes of being memberless
Of every element, as may befall.
And if earth's general soul hath consciousness,
Their new life must with strange new joy be
thrilled,
Of perfect law all perfectly fulfilled;
No sin, no fear, no failure, no excess."

This attitude did not last long. He was speaking for himself as well as for Milton in saying,

152

"From writing a great work with patient plan
To justify the ways of God to man,
And show how ill must fade and perish quite:
I wake from day dreams to this real night."

The theme of the struggle for existence so often noted in former poets, also affects Thomson.

153

"All substance lives and struggles evermore
Through countless shapes continually at war,
By countless interactions interknit.

.

I find no hint throughout the Universe
Of good or ill, of blessing or of curse;
I find alone Necessity Supreme.
With infinite Mystery, abysmal, dark,
Unlighted even by the faintest spark
For us the flitting shadows of a dream."

154

"We finish thus; and all our wretched race
Shall finish with its cycle and give place

-
152 Thomson, v. 1, p. 150, "City of Dreadful Night"
153 Ibid., v. 1, p. 156
154 Ibid., v. 1, p. 155

To other beings, with their own time-doom:
 Infinite aeons ere our kind began;
 Infinite aeons after the last man
 Has joined the mammoth in earth's tomb and womb."

Thomson's attitude toward the plan of the universe is passive, fatalistic. Whatever it is, he feels it is beyond man's power to affect it in any way.

155

"Nor do I now with fervour pray
 To cast no shadow in broad day;
 Nor even ask (as I asked once)
 That laws sustaining worlds and suns
 In their eternal path should be
 Suspended, that to pleasure me
 Some flower I love, - now drooping dead,
 Maybe empowered to lift its head.

.

And not a single truth, in brief,
 Is modified by our belief."

The attitude of Thomson toward God parallels his attitude toward science. In 1856 he was able to say,

156

"Cling, cling fast to this dear faith,

.....
 155 Thomson, v. 1, p. 13, "Vane's Story"

156 Ibid., v. 2, p. 318, "Tasso to Leonora"

Rock of life in sea of death;
 Our mazed web of doom is wrought
 Under God's directing thought."

and in the next year he wrote of

157

"the perfect Unity enshrined
 In omnipresence throughout time and space,
 Alike in forming with its full control
 The dust, the stars, the worm, the human soul."

In 1881 Thomson made an "Address on the
 Opening of New Hall of London Secular Society"
 in which he voiced the idea we noted in Swinburne's
 poetry: that God is evolved by man. In these
 stanzas we feel his scorn of those who would try
 to analyze God and his purposes, and remarkable
 references to current scientific methods.

158

"We now dare,

Taught by milleniums of barren prayer,
 Of mutual scorn and hate and bloody strife
 With which these dreams have poisoned our poor
 life,
 To build our temples on another plan,
 Devoting them to God's Creator, Man;

.....
 157 Thomson, v. 2, p. 327, "A Happy Poet"
 158 Ibid., v. 2, p. 100

Not to Man's creator, god.

We gaze into the living world and mark
Infinite mysteries for ever dark:

And if there is a god beyond our thought

(How could he be within its compass brought?)

He will not blame the eyes he made so dim

That they cannot discern a trace of him;

He must approve the pure sincerity

Which, seeing not, declares it cannot see.

He cannot love the blasphemous pretence

Of puny mannikins with purblind sense

To see him thoroughly, to know him well,

His secret purposes, His heaven and hell,

His inmost nature - formulating this

With calmest chemical analysis,

Or vivisecting it, as if it were

Some compound, gas, or dog with brain laid bare

And if we have a life beyond our death,

A life of nobler aims and ampler breath,

What better preparation for such bliss

Than lowest work to make the best of this?"

This calm, agnostic philosophy sometimes
turned to one of complete atheism, as when he
cried:

159

"And now at last authentic word I bring,

Witnessed by every dead and living thing;
 Good tidings of great joy for you, for all:
 There is no God, no Friend with name divine
 Made us and tortures us."

When the existence of God is admitted, He is usually imaged as a despicable character, even in fairly early work.

160

"God wrought six days, and formed the world;
 Then on the seventh His power refurled,
 And felt so happy that He blest
 That Sabbath day above the rest;
 And afterwards, we read, He cursed
 The work He thought so good at first;
 And surely Earth and Heaven evince
 That He has done but little since."

and later,

161

"The vilest thing must be less vile than Thou
 From whom it had its being, God and Lord!
 Creator of all woe and sin! abhorred,
 Malignant and implacable!"

It is the inevitable result of such feelings that gloom pervades all Thomson's mind.

.....
 160 Thomson, v. 1, p. 8, "Vane's Story"
 161 Ibid., v. 1, p. 142, "City of Dreadful Night"

162

"Striving to sing glad songs, I but attain
Wild discords sadder than Grief's saddest."

Any number of quotations would be pertinent in showing the increasing pessimism of Thomson's work, but those already given will indicate clearly enough the trend of his mind - a trend not primarily due to a belief in evolution, but at least conscious of it in its then accepted terms. This feeling of the futility of the changes that occur in the universe is forcibly summed up in the famous passage from "The City of Dreadful Night."

163

"The world rolls round for ever like a mill;
It grinds out death and life and good and ill;
It has no purpose, heart, or mind, or will,
While air of Space and Time's full river flow
The mill must blindly whirl unresting so:
It may be wearing out, but who can know?
Man might know one thing were his sight less
dim;
That it whirls not to suit his petty whim,
That it is quite indifferent to him."

.....
162 Thomson, v. 1, p. 261, "Sonnet"
163 Ibid., v. 1, p. 143

CHAPTER XII - GEORGE MEREDITH

The last poet whom we shall study is George Meredith. He is a writer who shows the influence of the theories of evolution in a larger proportion of his work than any one we have yet considered. The regard in which he held science is clearly indicated in these two stanzas from "The Olive Branch":

164

"On strengthened wing for evermore,
Let Science, swiftly as she can,
Fly seaward on from shore to shore,
And bind the links of man to man;

"And like the fair propitious Dove
Bless future fleets about to launch;
Make every freight a freight of love,
And every ship an Olive Branch."

In his great love of every form of nature, Meredith reminds us of Melampus of whom he wrote:

.....
164 Meredith, v. 24, p. 15

165

"The secrets held by the creatures nearer than
we

To earth he sought, and the link of their life
with ours:

And where alike we are, unlike where, and the
veined

Division, veined parallel, of a blood that
flows

In them, in us, from the source by man
unattained

Save marks he well what the mystical woods
disclose."

When he considered the position of evolution
in the minds of his contemporaries he saw the horror
with which it filled some of them.

166

"This Earth of the beautiful breasts,

Shining up in all colours aflame,

To them had a visage of hags;

A Mother of aches and jests;

Soulless, heading a hunt

Aimless except for the meal."

In another poem he admits the horrors
which are incident to the process of evolution,
yet feels that in viewing it from a larger
standpoint it is a splendid thing.

.....
165 Meredith, v. 25, p. 75

166 Ibid., v. 25, p. 246, "Faith on Trial"

167

"She, judged of shrinking nerves, appears
 A Mother whom no cry can melt;
 But read her past desires and fears,
 The letters on her breast are spelt.

"A slayer, yea, as when she pressed
 Her savage to the slaughter-heaps,
 To sacrifice she prompts her best;
 She reaps them as the sower reaps.

"But read her thought to speed the race
 And stars rush forth of blackest night;
 You chill not at a cold embrace
 To come, nor dread a dubious night."

There is a sonnet by Meredith which is altogether interesting for its view of a part of the evolution of man's body and mind, and the vestial instincts still found in him.

168

"Historic be the survey of our kind,
 And how their brave Society took shape.
 Lion, wolf, vulture, fox, jackal, and ape,
 The strong of limb, the keen of nose we find,
 Who, with some jars in harmony, combined

.....
 167 Meredith, v. 25, p. 224, "Thrush in February"
 168 Ibid., v. 25, p. 271, "Society"

Their primal instincts taming, to escape
 The brawl indecent, and hot passions drape.
 Convenience pricked conscience, that the mind.
 Thus entered they the field of milder beasts,
 Which in some sort of civil order graze,
 And do half-homage to the God of Laws
 But are they still for their old ravenous
 feasts,
 Earth gives the edifice they build no base.
 They spring another flood of fangs and claws."

When looking back over man's predecessors
 Meredith says,

169

"Observe them, and down rearward for a turn,
 Gaze to the primal twistings of the worm.

* * * * *

169A

"Or, where old-eyed oxen chew
 Speculation with the cud,
 Read their pool of vision through,
 Back to hours where mind was mud;
 High the knot, which did untwine
 Timelessly to drowsy suns;
 Seeing Earth a slimy spine,
 Heaven a space for winging tons."

.....
 169 Meredith, v. 26, p. 91, "Foresight and Patience"
 169A Ibid., "The Woods of Westernmain"

Then

170

"Our fleshly road to bacon-fire of brain.

Midway the tameless oceanic brute

Below."

When primitive man was produced he was closely allied to the other animals, and far from attractive.

171

"Gross, with the fumes of incense full,

With parasites tickled, with slaves begirt,

He strutted, a cock, he bellowed, a bull,

He rolled him, a dog, in dirt.

And dog, bull, cock, was he, ganged, horned,
plumed;

Original man, as philosophers vouch;

Carnivorous, cannibal; length-long exhumed,

Frightfully living and armed to devour."

A picture of man in a later state of development shows him to be still a mixture of brute and human but with a smaller proportion of the former, and constantly striving for improvement.

172

"On her great venture, Man,

Earth gazes while her fingers dent the breast

Which is his well of strength, his home of rest,

.....
170 Meredith, v. 26, p. 72, "Youth"

171 Ibid., v. 26, p. 38, "Empty Purse"

172 Ibid., v. 25, p. 92, "Earth and Man"

And fair to scan

His breath of instant thirst

Is warning of a creature matched with strife,

To meet it as a bride, or let fall life

On life's accursed.

"No longer forth he bounds

The lusty animal, afield to roam,

But peering in Earth's entrails, where the
gnome

Strange themes propounds.

173

"(He) has half transferred the battle to his
brain

From bloody ground.

174

"But that the senses still

Usurp the station of their issue mind,

He would have burst the chrysalis of the blind:

As yet he will."

The part of the evolutionary theory which most interests Meredith is the development of the brain in man, which divides him from the lower orders of creation.

175

"Body can exist without brain, and both

.....
173 Meredith, v. 25, p. 94, "Earth and Man"

174 Ibid., v. 25, p. 97

175 Trevelyan, p. 177

brain and body without spirit, for they came first. But the 'spirit' or 'soul' coming last in order of evolution, cannot exist without the other two." So argues Mr. Trevelyan, and apparently this is Meredith's opinion also. Certainly he expresses in many places his realization of the value of brain.

176

"But even as she from grass to corn,
To eagle high from grubbing mole,
Prove in strong brain her noblest born,
The station for the flight of soul."

Sometimes Meredith uses the word Reason as a synonym for the brain. In lines from "A Faith on Trial" he expresses its noble function.

177

"Earth's dearest daughter, the firm
In footing, the stately of stem;
Unshaken though elements lour;
A warrior heart unquelled;
Mirror of Earth, and guide
To the Holies from sense withheld;
Reason, man's germinant fruit.
She wrestles with our old worm
Self in the narrow and wide;

.....
176 Meredith, v. 25, p. 214, "Hard Weather"
177 Ibid., v. 25, p. 253

Relentless quencher of lies,
 With laughter she pierces the brute."

The question sometimes arises in these days,
 Does man still evolve? On this matter Mr.
 178
 Trevelyan states Meredith's ideas. "Man's
 evolution, as he understands it, has ceased in
 these latter days to be an unconscious process of
 vegetable or animal growth; it is even ceasing
 to be a brute struggle between enemies for survival;
 nature's method of evolution for us now, is that
 we should actively use our brains to direct
 organized effort toward ends chosen for the good
 of all."

Since Meredith believed man's physical
 evolution complete, it was natural for him to
 dwell on the importance of Brain, of Reason, of
 Common Sense, especially on their ability to
 prevent man's "slip in relapse".

179

"Sword of Common Sense! -

Our surest gift: the sacred chain

Of man to man ...

Thou guardian issue of the harvest brain!

.

.....
 178 Trevelyan, p. 199

179 Meredith, v. 26, p. 56, "On the Comic Spirit"

But for thy straight finger at the yoke,
 Again to be the lordly paw,
 Naming his appetite, his need,
 Behind a decorative cloak ...
 Restrain, lest we backslide on whence we
 sprang."

Meredith puts less stress on individual phases of evolution, though in several of the forgoing quotations we can see the struggle for existence mentioned, and the survival of the fittest is meant in the lines,

180

"And why the sons of Strength have been
 Her cherished offspring ever; how
 The Spirit served by her is seen
 Through Law; perusing love will show."

It may be asked how Meredith's ideas of evolution affect his philosophy. Mr. Trevelyan
 181
 says, "He is not on the side of religion, or on the side of science, if these words are used in the sense that makes them hostile, one to the other. But the essence of religious feeling and the scientific idea of evolution are merged into one to form his view of life."

.....
 180 Meredith, v. 25, p. 225, "Thrush in February"
 181 Trevelyan, p. 104

The word religion occurs seldom in his poems, yet the spirit of humility and awe, of love for man and nature are everywhere evident. Although he feels this love for man and nature, Meredith has a stern realization of the struggle through which man must pass.

182

"To feel that heaven must we that hell sound through."

This struggle, too, is not a temporary affair, but an unending,

183

"How that it is a warfare but begun;
Unending; with no power to interpose;

.

No solace in defeat, save from the sense
Of strength well spent, which is the strength renewed."

In this struggle of the future man is to have the great role, not for his immediate day but for the race.

184

"To make the plagues afflicting us things past."

It is the thought of future men that here stirs Meredith:

.

.....
182 Meredith, v. 25, p. 71, "Youth in Memory"
183 Ibid., v. 26, p. 203, "Test of Mankind"
184 Ibid., v. 25, p. 196, "Solon"

185

"The young generation! Ah, there is the child
 Of our souls down the Ages! to bleed for it,
 proof
 That souls we have, with our senses filed,
 Our shuttles at thread of woof."

Man's personal immortality will exist, if it
 exist at all, in memories of his service to men.

186

"With us for guides,
 Another step above the animal,
 To views in Alpine thought are they helped on.
 Good if so far we live in them when gone!"

But of immortality as it is generally
 understood, Meredith has no expectation, and
 apparently no desire.

187

"The pine-tree drops its dead;
 They are quiet, as under the sea.
 Overhead, overhead,
 Rushes life in a race,
 As the clouds the clouds chase;
 And we go,
 And we drop like the fruits of the tree,
 Even we,
 Even so."

.....
 185 Meredith, v. 26, p. 45, "Empty Purse"
 186 Ibid., v. 26, p. 74, "Youth in Memory"
 187 Ibid., v. 25, p. 240, "Dirge in Woods"

This produces no sense of horror, for

188

"Into the breast that gave the rose,
Shall I with shuddering fall?"

Faith in the world's future progress should be
sufficient

189

"Full lasting is the song, though he,
The singer, passes: lasting too,
For souls not lent in usury,
The rapture of the forward view."

Throughout his life Meredith felt this sort
of rapture and courage.

190

"The spectral enemy lost form;
The traversed wilderness exposed its track,
He felt the far advance in looking back,
Thence trust in his foot forward through the
storm."

The patience and courage needed for man's
further progress are vividly indicated later in
this poem:

191

"No miracle the sprout of wheat from cled,
She knows, nor growth of man in grisly brute;
But he the flower at head and soil at root,

.....
189 Meredith, v. 26, p. 229, "Thrush in February"

190 Ibid., v. 26, p. 202, "Test of Mankind"

191 Ibid., v. 26, p. 206

188 Ibid., v. 25, p. 231, "Earth in Autumn"

Is miracle, guides he the brute to God.
 And that way seems he bound; that way the road,
 With his dark-lantern mind, unled, alone,
 Wearifully through ~~the~~ forest tracks unsown,
 He travels, urged by some internal good."

In "A Hymn to Colour" are lines which show again Meredith's cheerfulness in looking toward a time when all will be better than it now is, though the animals will not be altogether absent.

192

"More gardens will they win than any lost;

The vile plucked out of them, the unlovely
 slain.

Not forfeiting the beast with which they are
 crossed

To stature of the Gods will they attain.

They shall uplift their Earth to meet her Lord,

Themselves the attuning cord!"

Reviewing the poetic work of Meredith briefly now, we see that the theories of evolution influenced him greatly, and permeate a large number of his poems; that he does not dwell on details of the process, but on its main features, particularly its production of a mind in man, and the power of this mind to mould future generations;

that he expects a continuation of strife, rather mental than physical, that he does not look for complete elimination of the animal in man; and last that the "dear Earth" is to be trusted, that the world seems good, and he can say,

193

"By my faith, there is feasting to come,
 Not the less when our Earth we have seen
 Beneath and on surface, her deeds and designs:
 Who gives us the man-loving Nazarene,
 The martyrs, the poets, the corn and the vines.
 By my faith in the head, she has wonders in
 loom;
 Revelations, delights."

CHAPTER XIII - CONCLUSIONS

In looking back over the work of the nine poets we have studied we find that the thought of almost all of them was affected in some degree by the theory of evolution. Of William Morris this was least the case. If he was aware of the theories, he gives no evidence of it, directly or indirectly. Swinburne mentions Darwin, but is not much influenced by his ideas. Rossetti, Thomson, Clough, and Arnold show more clearly that the current ideas in science had helped mould their opinions.

The three poets who give evidence of having been most impressed by Darwin's theories are Meredith, Browning, and Tennyson. Both in the number of allusions and in the large proportion of their poems which contain these allusions we have proof of this statement. Before 1859 a number of poems were published by these men which show a knowledge of some phases of the theory of evolution, particularly the struggle for existence,

and previous to the nineteenth century several poets including Pope, Thomson, and Erasmus Darwin expressed interest in science of several sorts.

Not all the phases of evolution were of equal interest to these men. Inorganic evolution, for instance, is in Tennyson's mind when he writes the lines beginning,

194

"There rolls the deep where grew the tree.

O earth, what changes hast thou seen!

There where the long street roars hath been

The stillness of the central sea."

It is doubtless in the minds of Swinburne and Meredith at times, but it is organic evolution which is of far greater moment to them.

Within the field of organic evolution, the particular phase which has received most attention has been the struggle for existence. This is natural enough; every individual has had a personal struggle of some sort, and a similar experience on an infinitely vast scale cannot but appeal to the imagination. The poet may react to it with shuddering, as Tennyson does in "In Memoriam", or with rugged courage, as do Meredith and Browning in a number of poems, or

with dispassionate eye, as James Thomson does.

The idea of the survival of the fittest appears less frequently, but is closely bound up with theories of inheritance, so we have its effect in these poets chiefly in the expectation of the appearance on earth of a finer type of man. This expectation is particularly noticeable in Meredith, but it has been found in several others, and it is a theory which results in a hopeful attitude toward life.

The poets vary characteristically in their interest in different phases of man's future evolution.. Meredith expects a change in man's physical condition which will improve him without altogether removing his animal characteristics. Meredith, Swinburne, Rossetti, Browning, and Tennyson expect a gradual growth in man's mental and spiritual powers. Morris cares only for man's evolution from a social standpoint, and this sort of a change is of interest to Browning also and in a less degree to Arnold. In Thomson and Clough we find no hope of man's future development from any point of view, yet, had the latter lived longer, he might have used more scientific material, and he might have gained the faith he so greatly desired.

It would be rather dangerous to attempt to prove that the influence of the theory of evolution was the only cause of such philosophy as each poet held at the time of his death. For instance, Rossetti and Thomson were increasingly melancholy during their latter days; they were aware of the scientific ideas of their time; but should we assign these ideas as the sole cause of their pessimism when we know that they were men of irregular lives and incapable of self direction before they died? In connection with all of these men we must remember that they were affected not only by scientific discoveries but by the recently developed higher criticism of the Bible, another manifestation of a renaissance of thought in Europe and England. In addition to these two influences, each man had of course, his own physical and mental characteristics which coloured all he thought on any subject.

Bearing all this in mind there are a few statements we can make with confidence. So far as their general attitude toward life is concerned, Meredith, Browning, Arnold, and Morris remained practically unchanged during their lives; Meredith and Browning serene; Arnold troubled; Morris filled with interest in man's social and aesthetic

welfare. Thomson and Rossetti were alike in their increasing despondency and, to some extent, in their laxity of living. Clough changed but little; his usual melancholy was broken by occasional gleams of faith. Tennyson showed more progression than any other of these poets. In the early years he was decidedly unhappy in his philosophical life; as late as 1886 he showed some vacillation between doubt and faith; but the latter continually gained in strength and was predominant in his last work. Swinburne alone appears to have been made permanently melancholy by a knowledge of the theory, and even in his case the theory may have been less powerful than other forces, such as the materialistic philosophy of some of his associates.

Studying these facts, then, we are inclined to draw the following conclusions:

- I the theories of evolution influenced, directly or indirectly, the majority of the major English poets from 1859 to 1900;
- II these theories broadened the viewpoint of all of these writers;
- III In the case of Thomson and Rossetti who accepted the theories and became increasingly despondent, physical degeneracy was a

concomitant of the mental condition.

- V The majority of the poets were unchanged in their philosophy by Darwinism, or were made more hopeful by it.
- VI The field of poetry was enlarged by the theories, so that the subjects chosen for the poems became far more varied, including all times and all things.
- VII The vocabulary of poetry was amplified; we find in the works of these men such words as "evolution", "evolve", "brute", "red", "fang", "reversion", and "struggle" used more often than in previous poetry, and with a more vivid meaning.
- VIII A more careful study of nature and a greater use of color and motion were found in these poems than in those of preceding centuries, and a less frequent use of supernaturalism.
- IX From the sixties to the nineties there is an increasing sense of calm, due in part to the death of the more doubting poets, and to the growth of faith in some of those, notably Tennyson, who lived.

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