

Organ of the Science Fiction
Association

NOVEMBER 1937

NOVAE TERRAE

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NEW WORLD

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Association

NOVAE TERRAE --- July 1927 --- NEW WORLDS

VOLUME 2 No. 3

CONTENTS

Editorial.....	3
Photochemistry.....	4
by "Plantagenet"	
Science-Fiction Plays.....	6
by Douglas W. F. Mayer	
Should Science-Fiction Have a Moral?....	9
by Albert Griffiths	
Review of Assorted Rays.....	10
by L. R. Smith	
Rationalism and Youth.....	13
by Eric F. Russell	
Reviews in a Nutshell.....	14
The Science-Fiction Association.....	15
Monthly Report	
Adrift In the Stratosphere.....	19
by D. W. F. Mayer	
This Side of the Atlantic.....	20

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Editorial

There are one or two features of this issue about which comment might be made. First, there is Mr. Plant's article "Photochemistry", which we believe is probably the most purely scientific article appearing in "Novae Terrae" so far. The reception accorded to articles with a definite scientific trend in the past has indicated that articles of this kind are encouraged and there is no reason to doubt that the current one will receive similar treatment.

Secondly, it is hoped that the appearance in the same issue of two articles from the prolific pen of Mr. Mayer, will not lead readers to believe that the number of our writers is limited. The early review of Professor Low's new book opportunely arrived at a time when the issue was just nearing completion and the topical nature of the article indicated early publication. Nevertheless, to revert to the matter of writers, contributions of any description intended for publication in "Novae Terrae" will be gratefully received.

Mr. Francis H. P. Knight of Walsall writes: "As you will issue a journal with a Latin title I have enclosed a Latin translation of part of this letter — *libenter tibi mitto id quod ad "Novas Terras" subscribo, quia multa cum gaudio lego quae de novi libris recensent. Approbo equidem "Divide Terram", librum Galliae lingua scriptum*". The majority of readers, we trust, will need no translation of this, but for those who left their Latin behind them at school the inner meaning will be revealed next month.

PHOTOCHEMISTRY

by
"Plantagenet"

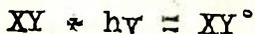
When white light falls on a body, part is reflected, part absorbed, and part maybe, transmitted. Grotthaus established the fact that only the absorbed light could be effective in bringing about chemical action, and this was confirmed by Draper. Bunsen and Roscoe, working on the influence of light on the reaction between hydrogen and chlorine to give hydrogen chloride, found that the amount of photochemical action was proportional to the amount of light energy absorbed, i.e. intensity of absorbed radiation multiplied by the time for which it acted.

In 1912 Einstein enunciated his Law of Photochemical Equivalents, in which he said that when a substance undergoes photochemical reaction, each molecule absorbs one whole molecule of light energy; or each quantum absorbed brings about the activation of one molecule. The quantum is measured by $h\nu$, where 'h' is Planck's Constant and ' ν ' is the frequency of the light absorbed. Thus the higher the frequency of the absorbed light, the greater should be the photochemical action. This is borne out in practice; ultra-violet light, for instance, affects a photographic plate much more in a given time than blue light, say, of lower frequency. When light energy is absorbed by a system one or more phenomena may occur. Absorption of light means absorption of energy, and hence the thermal energy of the system may increase and/or the electrons in the orbits of the atoms or molecules may be raised to higher energy levels; i.e. they are activated.

If sufficient light energy is absorbed by the system, it may raise the electrons in the atoms not only through one or two energy levels, but may even

eject them altogether. This effect is the principle of the photo-electric cell. The electrons may not be ejected, but may be raised to a higher orbit, from which they will return to their normal state with the emission of light of characteristic wavelength, either immediately, when fluorescence is said to occur, or after a time-lag when the phenomenon is known as phosphorescence. The energy may, however, be stored in the atom, and this "activated atom" can now perform chemical reactions which the normal species cannot.

This chemical activation can be represented by the general reaction:



where XY° denotes activation.

This activated molecule of XY can now undergo secondary changes (which the normal variety could not) which will be summarized for the sake of completeness:

1. Dissociation $XY^{\circ} = X + Y$
2. Double Decomposition $XY^{\circ} + Z = XZ + Y$
3. Isomeric Change $XY^{\circ} = YX$
4. Addition $XY^{\circ} + Z = XYZ$
5. Polymerisation $XY^{\circ} + XY = X_2Y_2$
6. Photosensitisation $XY^{\circ} + Z = XY + Z$
7. Chain reactions

Discussion of some of the above are not likely to be of any great interest and I will merely take cases 1 and 6.

The first class includes the mechanism of the formation of images in photography when silver bromide dissociates into silver and bromine:

later adapted into books. A good example of the latter is "A Message from Mars" by Richard Ganthony. This was first produced in 1899, was made into a film twenty years later, and was finally written in novel form by Lester Lurgan. It tells of a messenger from Mars who is sent to reform Earth's most selfish man.

Perhaps the best known science-fiction play, however, is "R.U.R." by Karel Capek, author of a second science-fiction play "The Macropulos Secret". Details of these two plays will be found in the April issue of "Novae Terrae".

Unlike science-fiction proper, which ~~includes~~ includes a multitudinous variety of satires, sociological themes, fantasies, interplanetary adventures, or "new theory" types, science-fiction plays can be divided into two definite classes -- the play which contains, like the modern work of Wells, an obvious message -- and the play, usually a revue sketch, which is a burlesque of scientific ideas.

Into the first category falls "Fantastic Light", a one act play by Sidney Box. It tells how an ardent pacifist sells a peculiarly poisonous gas to all the nations and then invites one hundred people who work for peace to a conference on board his new auto-ro. Neither he nor his wife go on the flight, and he explains to her that before his chosen few descend the world will be emptied of people and they start again with a clear state. The play ends with the gas already doing its work.

A similar play is "The Last Rib" by Cyril Roberts. An eccentric professor invites three men to his house for the purpose of showing them his latest invention. The men are interested in the wiping out of nations by means of chemical warfare, and to show them the horrors which arise from such ambitions, the professor stages an experiment whereby they are suddenly changed into a "world without women".

In "The Undiscovered Country", by Anthony Merryn, a scientist invents a process by which he can bring the dead to life. His experiments with

animals succeed, but when he restores to life a young woman who has been shipwrecked, he finds that the other world she has experienced is to her a better place, and her one thought is to go back to it. Eventually death takes the upper hand over the scientists's efforts to keep the girl alive, and once more she returns to eternal peace.

Another play in this category is "Thirteen O'Clock" by Anthony Thorne, which deals with social conditions in a super-city of the future, while in "The Sleeping Clergyman" by James Bridie, a young chemist saves the world from a deadly plague. Lovers of scientific fantasy should like "The Last War", in which man is swept from the earth by microbes of his own making.

In the second category there falls such burlesques as "Mechanical Jane" which deals with what occurs when a robot servant runs riot, or "The Indicator" by Dion Titheridge which revolves around a lie-detector. Another burlesque is "X-ray Dialogue" by Ronald Jenas, in which a machine makes it possible to hear what people are thinking, whilst in "Out of Sight" by H. C. Sargent, an invisibility-elixir is employed.

Finally, in "Shooting Stars" by R. Hamilton we have a satirical glimpse of the future, and in "When the Great Big World Stops Turning", a professor ~~he~~ explains that due to a decrease in momentum of the earth, our accustomed speed of living will change!

A New Novel by H. G. Wells: A new novel by H. G. Wells entitled "Brynchild" will be published in the late autumn by Methuen at a price of 7/6. It is not science-fiction but has affinities with his early novels in the Dickensian tradition, such as "Kipps" and ~~Mr~~ "Mr. Polly". The heroine, Brynchild, is the wife of an egoistical author whose success is won at the expense of a literary rival, and largely through the sensation-mongering of a publicity agent. His transfers her affections to the rival, and this situation forms the theme of the novel. -- D.W.F.M.

Should Science-Fiction Have a Moral?by Albert Griffiths

The answer to this question is hard to decide, depending as it does to a great extent upon the individual reader and his conception of science-fiction. This varies enormously with different persons -- a point that needs no great emphasis -- but these variations can, I think, be divided into several classes, each class of reader possessing a different and wholly characteristic conception.

We have, first of all, the class of reader who has, really, no clear conception of what he reads. He merely reads science-fiction because it is to him, a refreshingly new type of fiction -- something more appealing than anything he has tried before. Into this class comes the person who reads science-fiction purely for the enjoyment he obtains, just in the same way as an avid devourer of "Westerns" or "Thrillers" reads the literature of his choice.

Then we have, perhaps unfortunately, numerous "juveniles". The reasons why these juveniles read science-fiction are somewhat complex. Most of them are in a transitional stage in their choice of literature, for they are beginning to outgrow the pure adventure type of fiction upon which they have so far been fed, the type of writing exemplified by Stevenson, Henty, Ballantyne and others whose names immediately present themselves. But they are not in a position to appreciate (due to outlook, etc.) adult literature written by, say, Huxley, Holtby, Sinclair Lewis, Robert Graves and other modern authors. So, in their search for a suitable literature they come across science-fiction and are perhaps attracted by it.

Into another class come the "casuals" who read

analogous in type since it only controlled the action of gravity; and Murray Leinster in "Proxima Centauri" contented himself with a plain 'force' ray. Unfortunately the smoke-screen is a thin one unless it can be explained how a magnetic or comparable field, which is a purely static condition of space can be compared to a ray, which is in the ultimate, a path along which energy moves. We turn to the master salesman, Mr. Campbell, and are contented with explanations we can't see round. The Arcot series produced a magnetic and gravitational ray, "The Mightiest Machine" a space ship pushed about by momentum waves. The latter took a mathematical hypothesis and called it fact, which is poor scientific practice but such good fictional practice that it must be mentioned, although outside the scope of this article.

Radio power is the dream of modern technicians, and so such beams as the 'di-thurnian' rays of Gawain Edwards' story "The Return from Jupiter" for transmission of electrical power are quite welcome. Too tame for the Campbell, of course, he must tap the sun for power. The idea of a ray for this purpose which rescued "The Derelicts of Ganymede" he produced again, this time with explanation, for "The Mightiest Machine".

The X-ray is often brought forward to support various rays for seeing through walls as in "The Eye of Allah" by C. D. Willard, the combination of scollidge and alpha rays for X-raying the Earth for "The Metal World" of Ed Earl Ropp, or the D ray of H. J. Kostkos's "Sleep Scourge". These are condemned on the grounds of most unraylike behaviour. Not even E. E. Smith in "Sky-lark Three" asked us to believe that his fourth order forces sent back pictures of distant scenes without explaining that they acted as a television sender with the wires and bits of glass and ebonite removed.

Beam transport of matter is another

pet, as used by Jack Williamson in "The Moor Era" and other authors of the sensational school. The idea is that material objects, even human bodies, can be split up into energy, the energy sent in a ray to a distant spot and there integrated back into its original shape. It is supposed to save the trouble and complication of a space ship. I think it more plausible to have the characters walk from planet to planet.

"Brigands of the Moon" by Ray Cummings gave us three very super X-rays, and one good idea, that of the Benson curve light. He did not say how it was done but I suggest that it is worthy of an attempt at explanation for any author who wants his characters to ray each other round corners.

The dregs of our cup may be classed as "ridiculous rays". The slimming ray and others of "Why the Heavens Fell" by E. T. Stooks we can commend since ridiculousness was their intention. The least endurable of all rays are perhaps the soul transferring ray used by "The Soul Master" by Will Smith and R. J. Robbins, and the 3.5 centimetre radio waves that destroyed the time sense of the world of life in "The End of Time" by Wallace West. There are others, but the subject is a most unpleasant one, and we will leave it.

This series may have been found wearisome to any ardent follower, but that is all to the good, for it brings home the essential point that scientific fiction is cursed with too many unbelievable rays. Personally, I am very fond of rays, but I am even fonder of logic, and the former cannot be endured without the latter. By all means let us have now rays, but let them be the product of careful extrapolation rather than a frantic desire for extravagance.

.....

Though perhaps outside the normal scope of "Novae Terrae", we are glad of the opportunity of reproducing the following letter of Eric Frank Russell's appearing in the August issue of the "Literary Guide", since it will doubtless prove of interest to readers:

RATIONALISM AND

YOUTH

Liverpool, June 24, 1937.

As another young Rationalist of thirty-two years of age, I suggest that Mr. John Rowland has completely missed the real motive behind Archbishop Cant's "Recall to Religion". This appeal is not a thing-in-itself, and must be examined as a focal point of surrounding circumstances.

The age-old alliance between religion and reaction has come into full view of the public, particularly in that parade popularly known as "The Baldwin-Lang Mammoth Circus". Every effort is being made to achieve some semblance of national solidarity, it being an ancient truism that the bigger the mob the greater the coercion upon the individual. War looms upon the horizon; war for which old men will take the blame -- and the profits; war which young men will have the "patriotic privilege" of fighting, and, if they survive, of paying for afterward. The temper of modern youth is not calculated to make the elders of our kraal feel at ease. "No conscription of lives without confiscation of property and wealth" is a motto of youth very displeasing to "patriots" who happen to be well over military age. There are, thank goodness, definite indications that another generation will refuse to be plunged into the blood-tub unaccompanied by their doddering predecessors. Hence Archbishop Cant's pious and somewhat fearful vapourings.

Eric F. Russell

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Reviews --- In a Nutshell

compiled by
D.R. Smith and Editors

Ratings: Very good, good, fairly good, very fair, fair, readable, poor.

ASTOUNDING STORIES JULY 1937

Cover and Illustrations: The cover is impressive and better than Wesso's last month, though Wesso's black and white illustrations remain unbeaten.

SEEKER OF TOMORROW by Eric Frank Russell and Leslie J. Johnson FAIRLY GOOD

Excepting the serial, upon which judgement is deferred, this is the best of the stories in this issue.

STERILE PLANET by Nat Schachner READABLE
 Very obtrusive human interest and complete lack of realism are in good keeping ~~and~~ with the scientific standard of the story.

DAWN-WORLD ECHOES by Raymond Z. Gallun VERY FAIR
 General opinion seems to show evidence of non-committal approval.

ZERO AS A LIMIT by Robert Moore READABLE
 Hekum; science zero; "Beta diminishes to nothing, you see....."

THE GREAT ONES by Leslie F. Stone VERY FAIR
 Again general non-committal mild approval. Miss Stone appears to have a giantism complex.

EINLEILL by R. R. Winterbotham FAIR
 Rather lacking in point, and incidentally in science.

QUICKSILVER UNLIMITED by Harry Walton VERY FAIR
 Rather neat and capably handled.

INTERPLANETARY DIVIDENDS (non-fiction) by John J.

Campbell, Jr. is perhaps the best in the series so far while FUSIBLE ALLOYS (non-fiction) by Willy Loy is rather too reminiscent of text-book style.

CHARLES ATLAS is getting fatter; he should take some exercise.

THE SCIENCE FICTION ASSOCIATION -- Monthly Report

CHANGE OF ADDRESS: The Headquarters of the SFA have recently been moved to 5, Florist Street, Leeds, 2, and all communications should now be made to this address.

NEW MEMBERS: We are glad to welcome the following new members: F. J. Ackerman (Hollywood); A. Chapman, Groydon; Miss F. Fairchild, (Los Angeles); R. Fishwick, (Ellesmere Port); S. Hallett, (Wolverhampton); J. Heitt, (Hollywood); R. J. Hodgkins, (Los Angeles); K. E. F. von Lutz, (Beverly Hills); T. J. Morgan, (Newcastle); A. Salmond, (Glasgow); V. Smith, (Los Angeles); R. Test, (Los Angeles); T. C. Foy, (Manchester); A. Wilson, (Shotts); D. de Worenin, (Bulawayo); and T. B. Yerkes (Los Angeles).
Also: J. H. Gilnour, (Leeds); F. Mollen, (Leeds); E. Moss, (Leeds); J. Moss, (Leeds); E. Rose, (Leeds); A. G. Snowdon, (Horsforth); R. Taylor (Walsall); G. Thompson, (Leeds); ~~W. J. Watts~~; J. Watts, (Hull);

LOS ANGELES BRANCH: We have great pleasure in announcing the formation of the first non-British branch of the Association, in Los Angeles, California. The branch has ten Association members under the Chairmanship of Russell J. Hodgkins. We sincerely hope the branch will enjoy a successful and active future.

CONFERENCE: Suggestions have recently been made that the SFA should promote a second British Science-

Education Conference, to be held in London towards the end of the year. Members interested should communicate either with Headquarters or with Mr. E. J. Cornall, 17, Burwash Road, Plumstead, London, E. S. E. 10

LIBRARY: The Central Library of science-fiction books will be ready for use in the near future. The system will be as follows:

To become entitled to borrow books, at least one book which the Library does not already possess must be loaned. (In the event of loss of a book by a member, this deposited book will be forfeited. Not more than three books may be borrowed for a period not exceeding two weeks, on the payment of a fee of 6d. per book to cover postage, etc. Surplus money from this source will be used to buy further books. At the end of two weeks the books must be returned to the Librarian, Mr. E. C. Williams, 11 Clowders Road, Catford, London S. E. 6. (a fine of one halfpenny per day over two weeks being imposed at the discretion of the Librarian. Members possessing books they would care to loan should communicate with the Librarian who will be able to supply all would-be borrowers with a list of books in stock, after August 9th. Lists of available books will also be issued from time to time in this section.

An additional library scheme has been proposed by Dr. W. A. Gibson (Bathgate). He suggests that if a dozen or so members would be willing to subscribe a sum of about 5/- per year to a sub-section of the Library, the money subscribed could be used to buy new worth-while science-fiction books which could be borrowed only by subscribers to this section. About ten books per year could be obtained in this manner and this is about equal to the number of good science-fiction books published yearly. If all members who would care to participate in this scheme will communicate with us, should the response be sufficient we will be glad to put it into operation without delay.

BIBLIOGRAPHY: The British Science-Fiction Bibliography will be published on August 16th; to defray the cost of publication a charge of 6d. per copy will be made. SFA members, however, may obtain three copies for 1/-. The ordering of copies in advance would be of great assistance to us. Any person who still has a list of books, etc., or information which will be of value, should let us have the list or information immediately.

AMATEUR SCIENCE STORIES: As announced in TOMORROW, we propose to issue experimentally three issues of a new magazine in September, October and November. AMATEUR SCIENCE STORIES will contain one or more stories selected by a committee (to be appointed later) written by authors who have not had a story printed in a professional magazine. The issues will be priced at 6d. each, or 1/- for all three. Should the experiment prove a success the magazine will be continued indefinitely. We shall be grateful of an opportunity of seeing the works of any members who have tried their hand at authorship.

CORRESPONDENTS WANTED: S. Youd, 244 Desborough Road, Eastleigh, Hants., would like to correspond with any member interested in the literary side of science-fiction.

Anthony Chapman, 7 Lynwood Gardens, Waddon, Croydon wants to hear from those interested in philately and science-fiction.

Thomas C. Toy, 6 Stobart Avenue, Sedgeley Park Road, Manchester would like to hear from anybody interested in chemistry.

CLUB EMBLEM: D. A. Wellheim (New York) recently suggested that the SFA should adopt the "scientific-fiction" emblem of the defunct International Scientific Association. Whilst, however, members agree that a club emblem is required, opinion is divided as to whether we should adopt this emblem, or devise one of our own. We shall therefore be glad to hear from further members on the subject.

BRANCH REPORTS:

Leeds Branch Since the recent change of H.Q. this branch has settled down to a regular sequence of meetings every Saturday at 7 p.m. The usual procedure at such meetings is first to discuss SFA and branch business, and then to discuss various controversial subjects. Such discussions at recent meetings have been on religion, modern art, and "Star-Begotten". Two new members, both previously SFA members, have recently been welcomed into the active life of the branch -- Messrs. P. W. Berry and F. J. F. Dobby. Much work has recently been done by members in the production of the Summer issue of TOMORROW. Special thanks must be made to Mrs. Warnes, the wife of the Chairman, who assisted us in many ways.
Chairman: H. Warnes, 5 Florist Street, Leeds 3.

Wheaton Branch The June meeting was held at 8 p.m. on June 16th at the home of Mr. J. B. Jepson, and was attended by seven members. A Constitution was drawn up, on which the activities of the branch are to be based which provided for the internal organisation of the branch and stated that the branch has as its object (a) The promotion of an intelligent interest primarily in scientific fiction and secondarily in science itself (b) The recognition by the general public of the merits and value of good scientific fiction (c) The provision for its members of a supply of contemporary science-fiction of all kinds. It was also decided meetings should be held every three weeks, that a duplicated list of the contents of the library should be issued. The first part of a paper on metals and alloys used in industry today was given by Mr. D. R. Smith.
Chairman: M. K. Hanson, 95, Mere Road, Leicester.

Editorial Note: In connection with the disagreement in Leeds Mr. Gottliffe and his supporters ask us to state: (a) That new members accepted by 9, Brunswick Terrace are official members of the SFA (b) That people at 9, Brunswick Terrace consider themselves at least as well qualified to receive monies on behalf of the SFA as anyone else and that all money taken will be

fully accounted for. (a) That these people consider the expulsions of certain members null and void.

ADRIPT IN THE STRATOSPHERE

by

D.W.F. Mayer

"The line between possibility and imagination is not easy to define. Wild dreams of flying a few centuries ago have become the common-place of travel. Electricity, radio, synthetic chemistry, and the study of the atom have shown us new worlds, more striking than any fiction. To deny the existence of other worlds is even more vain than to conceive their eventual conquest. For knowledge should teach us above all that every fact is a matter of opinion."

Such is the foreword to Professor A. E. Lo's new book "Adrift in the Stratosphere" (Blackie 2/-), which I have just had the privilege of previewing. In this book Professor Lo, Honorary Member of the SFA and President of the British Interplanetary Society, has written a thriller which "takes every advantage of the possibilities suggested to the imagination by science".

It was originally published under the title "Space" as a serial in SCOOPS, and tells of the adventures of three young men who are accidentally shot off in a space machine. They eventually find themselves in touch with Mars, and the hostile though scientifically advanced Martians, try by various startling and ingenious methods to destroy the Space-machine. Escaping, the voyagers have further adventures among the strange ~~inhabitants~~ inhabitants of the "Space Islands", then finally return to Earth.

Although the story is definitely of the adventurous type, it never descends to the level of "cosmic blood-and-thunder" tale, and the reader is constantly introduced to ingenious, yet well-explained,

scientific inventions and ideas. The book is well bound, has an interesting dust cover, and three interior illustrations. All fans who like a dash of adventure in their stories and who want a well-written tale should add an interesting work to their collection by securing a copy of this book. It will also make a welcome Christmas or birthday present to any modern-minded boy between the ages of eleven and sixteen.

THIS SIDE OF THE ATLANTIC ::::::::::::::::::::::::::::::

"Bridge To The Moon" by Simon Dare (Hutchinson 7/6) is less concerned with astronautics than with "youth, its dreams, its eagerness and inexperience contrasted against sophistication and worldliness" and is, in fact a "romantic story of impulsive youth" and not what the title might suggest.....

"Men of Mathematics" by Eric Temple Bell who is a Professor of Mathematics at California Inst. Tech. and who writes science-fiction under the name of John Taine, was recently published by Gollancz at 12/6, and was well received in most quarters being compared with Hogben's "Mathematics for the Million".....

"Wings Over the Atlantic" by A. D. Livine (Lane 3/6) tells of a mad but brilliant scientist attempting to conquer the world. "Lost on Venus" by Burroughs and "The Invisible Plane" by J. F. C. Westernman will appear shortly the former at 7/6 (Methuen), and the latter at 3/6 (Oxford University Press). The first in a series of boys adventure books published by Hodnes -- "World of Tomorrow" -- is "Skyraft" by Chas. Clark dealing with interplanetary adventures in 1966...

"The Metamorphosis" by F. Kafka (Parton Press 3/6) narrates how a man awakes one morning to find himself changed into an insect-like being whose chief recreation lies in walking about the ceiling.....

"Microbes of Power" by A. Wilson (Jenkins 7/6) sounds attractive, but might easily be another "Bridge to the Moon".....