

is traversed by multiple such communities, each with its particular vision of the genre's scope and limits. The project of definition is thus not pointless, but it can never be settled once and for all.

Notes

1. The unlovely portmanteau word “scientifiction,” which was Gernsback’s coinage, did not catch on, being eventually supplanted by the now-common “science fiction” during the 1930s. For a discussion of the consolidation of Gernsbackian conceptions of the field, see Gary Westfahl’s *The Mechanics of Wonder: The Creation of the Idea of Science Fiction* (Liverpool: Liverpool UP, 1999).
2. Some critics have argued that this contrast highlights a significant difference between the American and British SF traditions, with the former being a gadget-driven writing dominated by “gosh-wow” emotion, while the latter is more philosophical and pessimistic. See, for example, Brian Stableford, *Scientific Romance in Britain, 1890-1950* (New York: St. Martin’s, 1985).
3. For a discussion of Merrill’s role as a passionate advocate for speculative fiction, see my essay “The New Wave” in David Seed’s *Companion to Science Fiction* (Malden, MA: Blackwell, 1995), pp. 202–16.
4. Hollinger was one of many critics during the 1980s and 1990s who argued for the convergence of cyberpunk with postmodern literature and culture. See, for example, the essays gathered in Larry McCaffery’s *Storming the Reality Studio: A Casebook of Cyberpunk and Postmodern Fiction* (Durham, NC: Duke UP, 1991).

Editorial: A new sort of magazine

Hugo Gernsback

Another fiction magazine!

At first thought it does seem impossible that there could be room for another fiction magazine in this country. The reader may well wonder, “Aren’t there enough already, with the several hundreds now being published?” True. But this is not “another fiction magazine,” *Amazing Stories* is a *new* kind of fiction magazine! It is entirely new—entirely different—something that has never been done before in this country. Therefore, *Amazing Stories* deserves your attention and interest.

There is the usual fiction magazine, the love story and the sex-appeal type of magazine, the adventure type, and so on, but a magazine of “Scientifiction” is a pioneer in its field in America.

By “scientifiction” I mean the Jules Verne, H. G. Wells, and Edgar Allan Poe type of story—a charming romance intermingled with scientific fact and prophetic vision. For many years stories of this nature were published in the sister magazines of *Amazing Stories*—*Science and Invention* and *Radio News*.

But with the ever increasing demands on us for this sort of story, and more of it, there was only one thing to do—publish a magazine in which the scientific fiction type of story will hold forth exclusively. Toward that end we have laid elaborate plans, sparing neither time nor money.

Edgar Allan Poe may well be called the father of “scientifiction.” It was he who really originated the romance, cleverly weaving into and around the story, a scientific thread. Jules Verne, with his amazing romances, also cleverly interwoven with a scientific thread, came next. A little later came H. G. Wells, whose scientifiction stories, like those of his forerunners, have become famous and immortal.

It must be remembered that we live in an entirely new world. Two hundred years ago, stories of this kind were not possible. Science, through its various branches of mechanics, electricity, astronomy, etc., enters so intimately into all our lives today, and we are so much immersed in this science, that we have become rather prone to take new inventions and discoveries for granted. Our entire mode of living has changed with the present progress, and it is little wonder, therefore, that many fantastic situations—impossible 100 years ago—are brought about today. It is in these situations that the new romancers find their great inspiration.

Not only do these amazing tales make tremendously interesting reading—they are also always instructive. They supply knowledge that we might not otherwise obtain—and they supply it in a very palatable form. For the best of these modern writers of scientific- tion have the knack of imparting knowledge, and even inspiration, without once making us aware that we are being taught.

And not only that! Poe, Verne, Wells, Bellamy, and many others have proved themselves real prophets. Prophecies made in many of their most amazing stories are being realized—and have been realized. Take the fantastic submarine of Jules Verne's most famous story, *Twenty Thousand Leagues Under the Sea* for instance. He predicted the present day submarine almost down to the last bolt! New inventions pictured for us in the scientific- tion of today are not at all impossible of realization tomorrow. Many great science stories destined to be of an historical interest are still to be written, and *Amazing Stories* magazine will be the medium through which such stories will come to you. Posterity will point to them as having blazed a new trail, not only in literature and fiction, but in progress as well.

We who are publishing *Amazing Stories* realize the great responsibility of this undertaking, and will spare no energy in presenting to you, each month, the very best of this sort of literature there is to offer.

Exclusive arrangements have already been made with the copyright holders of the entire voluminous works of *all* of Jules Verne's immortal stories. Many of these stories are not known to the general American public yet. For the first time they will be within easy reach of every reader through *Amazing Stories*. A number of German, French and English stories of this kind by the best writers in their respective countries have already been contracted for, and we hope very shortly to be able to enlarge the magazine and in that way present always more material to our readers.

How good this magazine will be in the future is up to you. Read *Amazing Stories*—get your friends to read it and then write us what you think of it. We will welcome constructive criticism—for only in this way will we know how to satisfy you.

Preface to *The Scientific Romances*

H. G. Wells

Mr. Knopf has asked me to write a preface to this collection of my fantastic stories. They are put in chronological order, but let me say here right at the beginning of the book, that for anyone who does not as yet know anything of my work it will probably be more agreeable to begin with *The Invisible Man* or *The War of the Worlds*. *The Time Machine* is a little bit stiff about the fourth dimension and *The Island of Dr. Moreau* rather painful.

These tales have been compared with the work of Jules Verne and there was a disposition on the part of literary journalists at one time to call me the English Jules Verne. As a matter of fact there is no literary resemblance whatever between the anticipatory inventions of the great Frenchman and these fantasies. His work dealt almost always with actual possibilities of invention and discovery, and he made some remarkable forecasts. The interest he invoked was a practical one; he wrote and believed and told that this or that thing could be done, which was not at that time done. He helped his reader to imagine it done and to realise what fun, excitement or mischief would ensue. Many of his inventions have "come true." But these stories of mine collected here do not pretend to deal with possible things; they are exercises of the imagination in a quite different field. They belong to a class of writing which includes the *Golden Ass of Apuleius*, the *True Histories of Lucian*, *Peter Schlemil* and the story of *Frankenstein*. It includes too some admirable inventions by Mr. David Garnett, *Lady into Fox* for instance. They are all fantasies; they do not aim to project a serious possibility; they aim indeed only at the same amount of conviction as one gets in a good gripping dream. They have to hold the reader to the end by art and illusion and not by proof and argument, and the moment he closes the cover and reflects he wakes up to their impossibility.

In all this type of story the living interest lies in their non-fantastic elements and not in the invention itself. They are appeals for human sympathy quite as much as any "sympathetic" novel, and the fantastic element, the strange property or the strange world, is used only to throw up and intensify our natural reactions of wonder, fear or perplexity. The invention is nothing in itself and when this kind of thing is attempted by clumsy writers who do not understand this elementary principle nothing could be conceived more silly and extravagant. Anyone can invent human beings inside out or worlds like dumbbells or

a gravitation that repels. The thing that makes such imaginations interesting is their translation into commonplace terms and a rigid exclusion of other marvels from the story. Then it becomes human. "How would you feel and what might not happen to you," is the typical question, if for instance pigs could fly and one came rocketing over a hedge at you. How would you feel and what might not happen to you if suddenly you were changed into an ass and couldn't tell anyone about it? Or if you became invisible? But no one would think twice about the answer if hedges and houses also began to fly, or if people changed into lions, tigers, cats and dogs left and right, or if everyone could vanish anyhow. Nothing remains interesting where anything may happen.

For the writer of fantastic stories to help the reader to play the game properly, he must help him in every possible unobtrusive way to *domesticate* the impossible hypothesis. He must trick him into an unwary concession to some plausible assumption and get on with his story while the illusion holds. And that is where there was a certain slight novelty in my stories when first they appeared. Hitherto, except in exploration fantasies, the fantastic element was brought in by magic. Frankenstein even, used some jiggery-pokery magic to animate his artificial monster. There was trouble about the thing's soul. But by the end of last century it had become difficult to squeeze even a momentary belief out of magic any longer. It occurred to me that instead of the usual interview with the devil or a magician, an ingenious use of scientific patter might with advantage be substituted. That was no great discovery. I simply brought the fetish stuff up to date, and made it as near actual theory as possible.

As soon as the magic trick has been done the whole business of the fantasy writer is to keep everything else human and real. Touches of prosaic detail are imperative and a rigorous adherence to the hypothesis. Any *extra* fantasy outside the cardinal assumption immediately gives a touch of irresponsible silliness to the invention. So soon as the hypothesis is launched the whole interest becomes the interest of looking at human feelings and human ways, from the new angle that has been acquired. One can keep the story within the bounds of a few individual experiences as Chamisso does in *Peter Schlemil*, or one can expand it to a broad criticism of human institutions and limitations as in *Gulliver's Travels*. My early, profound and lifelong admiration for Swift, appears again and again in this collection, and it is particularly evident in a predisposition to make the stories reflect upon contemporary political and social discussions. It is an incurable habit with literary critics to lament some lost artistry and innocence in my early work and to accuse me of having become polemical in my later years. That habit is of such old standing that the late Mr. Zangwill in a review in 1895 complained that my first book, *The Time Machine*, concerned itself with "our present discontents." *The Time Machine* is indeed quite as philosophical and polemical and critical of life and so forth, as *Men like Gods* written twenty-eight years later. No more and no less. I have never been able to get away from life in the mass and life in general as distinguished from life in the individual experience, in any book I have ever written. I differ from contemporary criticism in finding them inseparable.

For some years I produced one or more of these "scientific fantasies," as they were called, every year. In my student days we were much exercised by talk about a possible fourth dimension of space; the fairly obvious idea that events could be presented in a rigid four dimensional space time framework had occurred to me, and this is used as the magic trick for a glimpse of the future that ran counter to the placid assumption of that time that Evolution was a pro-human force making things better and better for mankind. *The Island of Dr. Moreau* is an exercise in youthful blasphemy. Now and then, though I rarely admit it, the universe projects itself towards me in a hideous grimace. It grimaced that time, and I did my best to express my vision of the aimless torture in creation. *The War of the Worlds* like *The Time Machine* was another assault on human self-satisfaction.

All these three books are consciously grim, under the influence of Swift's tradition. But I am neither a pessimist nor an optimist at bottom. This is an entirely indifferent world in which wilful wisdom seems to have a perfectly fair chance. It is after all rather cheap to get force of presentation by loading the scales on the sinister side. Horror stories are easier to write than gay and exalting stories. In *The First Men in the Moon* I tried an improvement on Jules Verne's shot, in order to look at mankind from a distance and burlesque the effects of specialization. Verne never landed on the moon because he never knew of radio and of the possibility of sending back a message. So it was his shot that came back. But equipped with radio, which had just come out then, I was able to land and even see something of the planet.

The two later books are distinctly on the optimistic side. *The Food of the Gods* is a fantasia on the change of scale in human affairs. Everybody nowadays realises that change of scale; we see the whole world in disorder through it; but in 1904 it was not a very prevalent idea. I had hit upon it while working out the possibilities of the near future in a book of speculations called *Anticipations* (1901). The last story is Utopian. The world is gassed and cleaned up morally by the benevolent tail of a comet.

Men like Gods, written seventeen years after *In the Days of the Comet*, and not included in this volume, was almost the last of my scientific fantasies. It did not horrify or frighten, was not much of a success, and by that time I had tired of talking in playful parables to a world engaged in destroying itself. I was becoming too convinced of the strong probability of very strenuous and painful human experiences in the near future to play about with them much more. But I did two other sarcastic fantasies, not included here, *Mr. Blettsworthy on Rampole Island* and *The Autocracy of Mr. Parham*, in which there is I think a certain gay bitterness, before I desisted altogether.

The Autocracy of Mr. Parham is all about dictators, and dictators are all about us, but it has never struggled through to a really cheap edition. Work of this sort gets so stupidly reviewed nowadays that it has little chance of being properly read. People are simply warned that there are ideas in my books and advised not to read them, and so a fatal suspicion has wrapped about the later ones. "Ware stimulants!" It is no good my saying that they are quite as easy to read as the earlier ones and much more timely.

It becomes a bore doing imaginative books that do not touch imaginations, and at length one stops even planning them. I think I am better employed now nearer reality, trying to make a working analysis of our deepening social perplexities in such labors as *The Work*, *Wealth and Happiness of Mankind* and *After Democracy*. The world in the presence of cataclysmal realities has no need for fresh cataclysmal fantasies. That game is over. Who wants the invented humors of Mr. Parham in Whitehall, when day by day we can watch Mr. Hitler in Germany? What human invention can pit itself against the fantastic fun of the Fates? I am wrong in grumbling at reviewers. Reality had taken a leaf from my book and set itself to supersede me.

On the writing of speculative fiction

Robert A. Heinlein

"There are nine-and-sixty ways

Of constructing tribal lays

And every single one of them is right!"

—Rudyard Kipling

There are at least two principal ways to write speculative fiction—write about people, or write about gadgets. There are other ways; consider Stapleton's *Last and First Men*, recall S. Fowler Wright's *The World Below*. But the gadget story and the human-interest story comprise most of the field. Most science fiction stories are a mixture of the two types, but we will speak as if they were distinct—at which point I will chuck the gadget story aside, dust off my hands, and confine myself to the human-interest story, that being the sort of story I myself write. I have nothing against the gadget story—I read it and enjoy it—it's just not my pidgin. I am told that this is a how-to-do-it symposium; I'll stick to what I know how to do.

The editor suggested that I write on "Science Fiction in the Slicks." I shan't do so because it is not a separate subject. Several years ago Will F. Jenkins said to me, "I'll let you in on a secret, Bob. *Any* story—science fiction, or otherwise—if it is well written, can be sold to the slicks." Will himself has proved this, so have many other writers—Wyllie, Wells, Cloete, Doyle, Ertz, Noyes, many others. You may protest that these writers were able to sell science fiction to the high-pay markets because they were already well-known writers. It just ain't so, pal; on the contrary they are well-known writers because they are skilled at their trade. When they have a science fiction story to write, they turn out a well-written story and it sells to a high-pay market. An editor of a successful magazine will bounce a poorly-written story from a "name" writer just as quickly as one from an unknown. Perhaps he will write a long letter of explanation and suggestion, knowing as he does that writers are as touchy as white leghorns, but he will bounce it. At most, prominence of the author's name might decide a borderline case.

A short story stands a much better chance with the slicks if it is not more than 5000 words long. A human-interest story stands a better chance with the slicks than a gadget

story, because the human-interest story usually appeals to a wider audience than does a gadget story. But this does not rule out the gadget story. Consider "The Note on Danger B" in a recent *Saturday Evening Post* and Wylie's "The Blunder," which appeared last year in *Collier's*.

Let us consider what a story is and how to write one. (Correction: how I write one—remember Mr. Kipling's comment!)

A story is an account which is not necessarily true but which is interesting to read.

There are three main plots for the human interest story: boy-meets-girl, The Little Tailor, and the man-who-learned-better. Credit the last category to L. Ron Hubbard; I had thought for years that there were but two plots—he pointed out to me the third type.

Boy-meets-girl needs no definition. But don't disparage it. It reaches from the *Iliad* to John Taine's *Time Stream*. It's the greatest story of them all and has never been sufficiently exploited in science fiction. To be sure, it appears in most s-f stories, but how often is it dragged in by the hair and how often is it the compelling and necessary element which creates and then solves the problem? It has great variety: boy-fails-to-meet-girl, boy-meets-girl-too-late, boy-meets-too-many-girls, boy-loses-girl, boy-and-girl-re-nounce-love-for-higher-purpose. Not science fiction? Here is a throw-away plot; you can have it free: Elderly man meets very young girl; they discover that they are perfectly adapted to each other, perfectly in love, "soul mates." (Don't ask me how. It's up to you to make the thesis credible. If I'm going to have to write this story, I want to be paid for it.)

Now to make it a science fiction story. Time travel? Okay, what time theory—probable-times, classic theory, or what? Rejuvenation? Is this mating necessary to some greater end? Or vice versa? Or will you transcend the circumstances, as C. L. Moore did in that tragic masterpiece "Bright Illusion"?

I've used it twice as tragedy and shall probably use it again. Go ahead and use it yourself. I did not invent it; it is a great story which has been kicking around for centuries.

The "Little Tailor"—this is an omnibus for all stories about the little guy who becomes a big shot, or vice versa. The tag is from the fairy story. Examples: "Dick Whittington," all the Alger books, *Little Caesar*, *Galactic Patrol* (but not *Grey Lensman*), *Mein Kampf*, David in the Old Testament. It is the Success story, or, in reverse, the story of tragic failure.

The man-who-learned-better; just what it sounds like—the story of a man who has one opinion, point of view, or evaluation at the beginning of the story, then acquires a new opinion or evaluation as a result of having his nose rubbed in some harsh facts. I had been writing this story for years before Hubbard pointed out to me the structure of it. Examples: my *Universe* and *Logic of Empire*, Jack London's *South of the Slot*, Dickens' *A Christmas Carol*.

The definition of a story as something interesting-but-not-necessarily-true is general enough to cover all writers, all stories—even James Joyce, if you find his stuff interesting. (I don't!) For me, a story of the sort I want to write is still further limited to this recipe: a man finds himself in circumstances which create a problem for him. In coping with this

problem, the man is changed in some fashion inside himself. The story is over when the inner change is complete—the external incidents may go on indefinitely.

People changing under stress:

A lonely rich man learns comradeship in a hobo jungle.

A milquetoast gets pushed too far and learns to fight.

A strong man is crippled and has to adjust to it.

A gossip learns to hold her tongue.

A hard-boiled materialist gets acquainted with a ghost.

A shrew is tamed.

This is the story of character, rather than incident. It's not everybody's dish, but for me it has more interest than the most overwhelming pure adventure story. It need not be unadventurous; the stress which produces the change in character can be wildly adventurous, and often is.

But what has all this to do with science fiction? A great deal! Much so-called science fiction is not about human beings and their problems, consisting instead of a fictionalized framework, peopled by cardboard figures, on which is hung an essay about the Glorious Future of Technology. With due respect to Mr. Bellamy, *Looking Backward* is a perfect example of the fictionalized essay. I've done it myself; "Solution Unsatisfactory" is a fictionalized essay, written as such. Knowing that it would have to compete with real story, I used every device I could think of, some of them hardly admissible, to make it look like a story.

Another type of fiction alleged to be science fiction is the story laid in the future, or on another planet, or in another dimension, or such, which could just as well have happened on Fifth Avenue, in 1947. Change the costumes back to now, cut out the pseudo-scientific double-talk and the blaster guns, and it turns out to be straight adventure story, suitable, with appropriate facelifting, to any other pulp magazine on the news stand.

There is another type of honest-to-goodness science fiction story which is not usually regarded as science fiction: the story of people dealing with contemporary science or technology. We do not ordinarily mean this sort of story when we say "science fiction"; what we do mean is the speculative story, the story embodying the notion "Just suppose—", or "What would happen if—". In the speculative science fiction story accepted science and established facts are extrapolated to produce a new situation, a new framework for human action. As a result of this new situation, new *human* problems are created—and our story is about how human beings cope with those new problems.

The story is *not* about the new situation; it is about coping with problems arising out of the new situation.

Let's gather up the bits and define the Simon-pure science fiction story:

1. The conditions must be, in some respect, different from here-and-now, although the difference may lie only in an invention made in the course of the story.
2. The new conditions must be an essential part of the story.
3. The problem itself—the "plot"—must be a *human* problem.

4. The human problem must be one which is created by, or indispensably affected by, the new conditions.

5. And lastly, no established fact shall be violated, and, furthermore, when the story requires that a theory contrary to present accepted theory be used, the new theory should be rendered reasonably plausible and it must include and explain established facts as satisfactorily as the one the author saw fit to junk. It may be far-fetched, it may seem fantastic, but it must *not* be at variance with observed facts, i.e., if you are going to assume that the human race descended from Martians, then you've *got* to explain our apparent close relationship to terrestrial anthropoid apes as well.

Pardon me if I go on about this. I love to read science fiction, but violation of that last requirement gets me riled. Rocketships should not make banked turns on empty space the way airplanes bank their turns on air. Lizards can't crossbreed with humans. The term "space warp" does not mean anything without elaborate explanation.

Not everybody talking about heaven is going there—and there are a lot of people trying to write science fiction who haven't bothered to learn anything about science. Nor is there any excuse for them in these days of public libraries. You owe it to your readers (a) to bone up on the field of science you intend to introduce into your story; (b) unless you yourself are well-versed in that field, you should also persuade some expert in that field to read your story and criticize it before you offer it to an unsuspecting public. Unless you are willing to take this much trouble, please, *please* stick to a contemporary background you are familiar with. Paderewski had to practice; Sonja Henie still works on her school figures; a doctor puts in many weary years before they will let him operate—why should you be exempt from preparatory effort?

The Simon-pure science fiction story—examples of human problems arising out of extrapolations of present science:

Biological warfare ruins the farm lands of the United States; how is Joe Doakes, a used-car dealer, to feed his family?

Interplanetary travel puts us in contact with a race able to read our thoughts; is the testimony of such beings admissible as evidence in a murder trial?

Men reach the Moon; what is the attitude of the Security Council of the United Nations? (Watch out for this one—and hold on to your hats!)

A complete technique for ectogenesis is developed; what is the effect on home, family, morals, religion? (Aldous Huxley left lots of this field unplowed—help yourself.)

And so on. I've limited myself to *my* notions about science fiction, but don't forget Mr. Kipling's comment. In any case it isn't necessary to know how—just go ahead and do it. Write what you like to read. If you have a yen for it, if you get a kick out of "Just imagine—", if you love to think up new worlds, then come on in, the water's fine and there is plenty of room.

But don't write to me to point out how I have violated my own rules in this story or that. I've violated all of them and I would much rather try a new story than defend an old one.

I'm told that these articles are supposed to be some use to the reader. I have a guilty feeling that all of the above may have been more for my amusement than for your edification. Therefore I shall chuck in as a bonus a group of practical, tested rules which, if followed meticulously, will prove rewarding to any writer.

I shall assume that you can type, that you know the accepted commercial format or can be trusted to look it up and follow it, and that you always use new ribbons and clean type. Also, that you can spell and punctuate and can use grammar well enough to get by. These things are merely the word-carpenter's sharp tools. He must add to them these business habits:

1. You must *write*.
2. You must *finish* what you start.
3. You must refrain from rewriting except to editorial order.
4. You must put it on the market.
5. You must keep it on the market until sold.

The above five rules really have more to do with how to write speculative fiction than anything said above them. But they are amazingly hard to follow—which is why there are so few professional writers and so many aspirants, and which is why I am not afraid to give away the racket! But, if you will follow them, it matters not how you write, you will find some editor somewhere, sometime, so unwary or so desperate for copy as to buy the worst old dog you, or I, or anybody else, can throw at him.