



# Tales of Innovation and Imagination

Selected Stories from the 2003  
Clarke-Bradbury International  
Science Fiction Competition

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2003 Clarke-Bradbury International Science Fiction Competition

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**Foreword**

We live in the midst of a revolutionary social experiment. For centuries, the nations and religions of Europe have persecuted each other, fought each other, invaded each other. Now, after the disastrous struggles of the Second World War, when at one time it seemed as if we would all sink under a new barbarism, we are seeking to unite into one community. War will be no longer possible between us.

Undoubtedly, this new wish to unite is based upon economic factors. But behind such factors stand the invention of nuclear fission and the terrible strength of nuclear weapons. It seems that we need a giant with a cudgel to bring us to order. We are confessedly a bit of a rough lot. A rough lot, yes, yet idealists also. Dreamers.

One of science fiction's perennial speculations concerns whether or not we can improve morally and spiritually. However, in the present - and most of these stories are echoes of the present - we have to get by as best we can, struggling with our own limitations, and overcoming them. But imagination is unlimited. We are always inventing new things, in our heads or in actuality. A certain cussedness about us means that often we invent the very things we fear most, as was the case with nuclear bombs. As Mark Twain once remarked of Adam, Adam was only human. "He didn't want the apple for the apple's sake, he wanted it because it was forbidden."

To return to the European Community, it can exist only because of the new technologies. We can communicate with distant friends almost instantaneously where, only a generation ago, a letter would take days, a trunk call was the forerunner of the text message. We can fly cheaply, drive on Autobahnen, travel by TGV. We belong to the speediest and most talkative generation ever.

As a young man in a distant war, I operated a line instrument called a Fullerphone. It was a loathesome little buzzing instrument, now as extinct as the trunk call. The Fullerphone sent and received Morse code. I was expert at Morse and could send and read messages real fast. But that required training. Nowadays we have cell-phones, computers, emailers which we operate almost instinctively. It's true that the art of Morse code has been lost, but you can't have everything!

What are we going to need when we venture into space, real space? Real space begins even beyond the region our winning story talks about, beyond the Kuiper Belt. We shall require stronger materials and faster propellants for the craft, maybe ion drives. And what of the human occupants of such ships?

Back in the 1950s, even before the last Fullerphone became extinct, James Blish was talking of anti-agathics ("far and away the most complicated molecules ever found in nature") to ward off death. Blish sailed whole cities across the galaxy with 'spindizzy' drives, and they travelled at what he called transphotic speeds...

Something else we will need. The spirit of adventure, embodied in so many SF tales. I would guess that the ships on which those bold adventurers travel to other planets of other stars will be a product of Western technology, for such has been our style over centuries. Little cockleshell galleons set out from Thames and Tiber to circumnavigate the round globe, whereas no Chinese junk, no dahabeah, ever sailed to Western shores.

It is the West which has set the pace for technological development. Science fiction is the strange song it sings as it goes. I imagine that such will always be the case - at least until the Chinese take over...

BRIAN ALDISS

## Introduction

The European Space Agency (ESA) recently carried out a review of science fiction (SF) writings, artwork and films to ascertain whether any of the concepts and technologies mentioned in this SF literature could be used for spacecraft and missions. There was the possibility that older, overlooked ideas might be now feasible with today's huge advances in space and other technologies and materials that were simply not available at the time when many SF works were written in the 1920-50s. The enormous public interest in this study stimulated the idea of a science fiction essay competition.

In November 2002, ESA's Technology Transfer and Promotion Office launched the Clarke-Bradbury International Science Fiction Competition as a way to involve young people in thinking about space and become more interested in science and technology in general and in space activities in particular. The competition, organised on ESA's behalf by the Maison d'Ailleurs, the OURS Foundation and MoonFront, was endorsed by two of the most well-known and best-selling SF authors – Arthur C. Clarke and Ray Bradbury – and was aimed at young people who were asked to write a short story which utilised technology in some way.

The main aims of the competition were to promote innovative ideas for future space technologies; recognise and pursue viable space technologies found in science fiction; provide a link between young writers and the space community; encourage young people to read and write science fiction; and share the ingenuity and creativity of young minds with the general public.

The science fiction stories were supposed to relate to technologies in some way. For example, imaginative use of embedded sensors or wearable computers, advanced methods of propulsion or launching, new types of materials for spacecraft structures or new kinds of designs for future space habitats, terra-forming, or medical applications on long-duration space flight and so on.

The competition was named the Clarke-Bradbury International Science Fiction Competition in honour of two of the greatest science fiction writers of all time – Arthur C. Clarke and Ray Bradbury. Both Clarke and Bradbury have fascinated the minds of millions of young and old people around the planet for years and inspired space scientists and explorers with their extraordinary stories.

Arthur C. Clarke has noted that “any sufficiently advanced technology is indistinguishable from magic” and that the only way of discovering the limits of the possible is to venture a little way past them into the impossible. In his endorsement of the competition, Sir Arthur wrote, "I want to congratulate you on the initiative to launch a science fiction writing competition. I hope it will attract many entries, and inspire more and more young people to take to writing science fiction. Today's youth take for granted the marvels of modern technology many of which were envisioned in the science fiction of my youth (and some in my own stories!). Please keep me informed of your progress. All good wishes."

Ray Bradbury said, "Back when I was twelve years old I was madly in love with L. Frank Baum and the Oz books, along with the novels of Jules Verne and H.G. Wells, and especially the Tarzan books and the John Carter, Warlord of Mars books by Edgar Rice Burroughs. I began to think about becoming a writer at that time. This is a letter to indicate my complete approval of and admiration

for the concept of a Clarke-Bradbury International Science Fiction Competition. I look forward to further developments and will cooperate in every way possible during the next few months. Good luck and best wishes."

Basically the idea was to write an original story using science fiction technologies that could be used for space travel, exploration and settlement. Technology was to be seen as both the inspiration for the story and the focus of its realisation. A maximum length of not more than 2500 words was requested and the story had to be written in English. The competition was open to space and science fiction enthusiasts from all nations between 15 and 30 years of age.

An international jury, comprising both science fiction writers, space technologists and others was assembled to assess the entries in accordance with the following criteria:

- Technology – convincing use of technology in the story
- Imagination – innovative ideas and the ability to think "outside the box"
- Structure – development of storyline, plot, characters
- Skills – clarity of expression, style, degree of realism

Some 120 stories were submitted from 36 different countries in every corner of the globe – Africa, Asia, Australasia, Europe, South America, North America. Stories were received from both younger and older would-be authors. The largest number came from the United States, with significant numbers also from Poland, Spain and the UK. And one-fifth of the entries came from women.

It was very interesting to see the diversity of ideas these often very young writers demonstrated in their entries. Some great stories were submitted, many of which were really imaginative and thoughtful, with a few written as plays, poems, as e-mail exchanges or interviews – and they embraced all aspects of science fiction. Some dealt with teleportation, some with star wars, others covered interstellar travel and the discovery of new planets, colonisation and terraforming, some looked at propulsion systems, communications or medical aspects, while others dealt with the human dimension and relationships on long duration missions. Several were on their way to Mars. Technologies were well-covered too – materials, nanotechnologies, laser mining, hyperdrives, massive guns to shoot satellites into low Earth orbit, space elevators, biospheres, solar sails. Some were narratives, some were essays, others comprised nothing but dialogue between people. It's amazing how much can actually be said in 2500 words! The level and quality of English and standard of writing from those whose native tongue was not English was truly remarkable.

The entries were read and evaluated by an international jury who eventually selected six stories to be awarded prizes. Without exception, the jury members found it extremely difficult to decide which stories should be in the winning group, although, interestingly enough, several of the same stories did crop up on most jury members' lists – though not necessarily in the same order. Although the selection criteria were a guidance, the final choice was personal and subjective. Some jurors pointed out that they selected the stories based on the way technology was used – stories in which technology was the only subject were discarded, as were stories which tried to introduce a myriad of different technologies. Stories with technical or scientific arguments which were obviously wrong or which were inconsistent with boundary conditions were also discarded. Although many entrants found themselves confined by the focus on technology, too many seemed to write lightly

fictionalised descriptions of impact disasters or space journeys to escape an overcrowded Earth. Thus the jury looked for stories which created a sense of drama or difference.

Based on the jury input, the Winner of the Clarke-Bradbury International Science Fiction Essay Competition for 2003 was ultimately chosen by the organisers to be the story *Temporal Spiders – Spatial Webs* by **Lavie Tidhar** – a 26-year-old Israeli who grew up in South Africa and now lives in London. The story is about spider: a ten metre long/wide, roughly circular rock drifting through space listening to and absorbing everything – especially music – and looking for a place to nest and lay his children. These, when born, eat out through the rock of the planet into which spider has burrowed and take wings to establish a web of communications throughout space. This story was chosen because of the quality of writing, the technology idea behind the story and the poetic feel to the text. It was a convincing future technology and a fluently written story. The use of viewpoint was interesting and the way the scenario established itself rather than being just described was stimulating. The impression was given of a vision of a future which is strange, different, and which, refreshingly, consists of more that is actually given in the story. The story was also short and stood on its own with no need for further explanation.

Runners-up were **Rudi Ball** from South Africa for his story *Collectibles*; **Gareth Barlow** also from South Africa for his story *The Canine Intent*; **Wunji Lau** from the USA for his story *Form and Function*; and **Andrew Mays** for his story *Tonight's Episode: the Molina Research Station*. In addition, a Special Mention was given to **Christa Ackermann** from Switzerland (who was only 16 at the time of submitting her entry) for her story *An Encounter – retnuocnE nA*.

This book comprises a selection of the stories submitted for the competition, including the winning entries. The stories are in no particular order (except the winning story at the beginning) and no attempt has been made to group them into like topics. It was difficult to decide which of the stories to leave out, in the interest of size and space available for the book, since the majority of entries submitted were very good. Those chosen reflect different styles of writing, are representative of similar topics, as well as diverse nationalities, and should appeal to a wide range of reader interests.

We hope you find the book and its contents both readable and enjoyable!

David Raitt  
European Space Agency