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Report on first TRUCE conference, community building  
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## Report on first TRUCE conference, community building and thematic activities

For photographs from some of these events, please see the gallery at

<http://www.truce-project.eu/gallery.html>.

### 1. First TRUCE conference

The first TRUCE-sponsored meeting (which served as the first “official” TRUCE conference) was a workshop on speculative fiction (“Unconventional Computing in 2070”), held as a satellite event to the European Conference on Artificial Life (ECAL), Taormina, Italy, Monday Sept. 2, 2013.

This event grew from a long-standing collaboration between the TRUCE coordinator and Comma Press, a small independent publisher in Manchester, UK. Comma has developed and refined the “science into fiction” model, whereby scientists inspire authors to write short stories, and then supply scientific afterwords to accompany each story in a collection. Comma Press has a *strong track record* in producing such collections: *Litmus* was described as “An inspiring tribute to inquiring minds” (*Guardian*), and the *Financial Times* called *Bio-Punk* “Fascinating reading” (Amos contributed to both collections).

Prior to the event, we issued the following call for participation:

“Artificial life is becoming increasingly important, not just to scientists, but to the wider global community. The growing challenges we face (energy, the environment, a changing demographic profile, to name but a few) will require inherently *inter-disciplinary* strategies. Artificial life and unconventional computing technologies will play an important role in addressing these issues.

In this *unconventional workshop*, we will create a vision for what the world *might* look like more than fifty years from now, when artificial life is embedded in our everyday existence. Our aim is to spark a wider debate about the applicability and relevance of unconventional computing techniques, and to imagine a long-term picture of how they may come to influence our lives.

We offer a ***unique opportunity*** for scientists to collaborate with short story writers to create a published collection of *speculative fiction* based on the theme of “Unconventional Computing in 2070”. Scientists will work with authors to draft short stories with a “UCOMP” theme, and provide an afterword to each story, describing the scientific background to the fictional work.

Scientists will be required to “pitch” their ideas (based on their own research) prior to the workshop, and then the authors will each select at least one as the basis for their story (or stories). These will be drafted during July and August, then authors and scientists will come together in Sicily to refine the stories and draft the afterwords.

***All stories and afterwords will be collected together in a published volume.***

Because of the nature of the workshop, places will be strictly limited to no more than **10 scientists.**”

In order to apply to participate, you should write one or two paragraphs describing a *research idea that you think may have a significant impact on life in the future*. Please ensure that your summary is understandable by the general lay-person, and thus contains a minimum of technical language. You should try to capture the essence of the *idea*, so that the authors can then construct a fictional vision around it.”

The following authors/editors signed up to the first round of writing:

**Ra Page** is the founder and Managing Editor of **Comma Press**, an independent UK publishing house specialising in short fiction. He is also the founder of Literature Northwest, a support agency for independent publishers in the region, and runs Comma Film, an on-going film adaptation project that regularly commissions filmmakers and animators to adapt short literary texts (poems and short stories). He is co-editor of *The New Uncanny* (winner of the Shirley Jackson Award, 2008) and editor of *Litmus: Short Stories from Modern Science*, voted one of 2011's books of the year by *The Observer*, and *Bio-Punk: Stories from the Far Side of Research*, amongst other anthologies. He previously worked as a journalist and has been a producer, co-writer and co-director on a number of short film projects.

**Adam Marek** is an award-winning short story writer. He won the 2011 Arts Foundation Short Story Fellowship, and was shortlisted for the inaugural Sunday Times EFG Short Story Award. His first story collection *Instruction Manual for Swallowing* (Comma, 2007) was nominated for the Frank O'Connor Prize. His stories have appeared in many magazines, including: *Prospect* and *The Sunday Times Magazine*, and in many anthologies including *Lemistry*, *Litmus* and *The New Uncanny* from Comma Press, *The New Hero* from Stoneskin Press, and *The Best British Short Stories 2011*. His second collection, *The Stone Thrower*, was published earlier this year. To subscribe to Adam's blog, Twitter and Facebook updates, visit [www.adammarek.co.uk](http://www.adammarek.co.uk).

**Annie Kirby** is a storyteller, short story writer, novelist and writing tutor. Her stories have appeared in various anthologies, including Comma Press's *Bracket* and *Bio-Punk*. Her Asham Award winning short story "The Wing" was published in *Don't Know A Good Thing* (Bloomsbury) and adapted for audio download by Spoken Ink. Her stories have been selected for new writer showcases including Radio 4's *Writers to Watch* and the *Portsmouth 2012 Bookfest* anthology. She lives in Portsmouth and has recently completed her first novel.

**Julian Gough** was born in London and grew up in Ireland. He now lives in Berlin. He won the BBC National Short Story Prize in 2007 with 'The Orphan and the Mob', which later became the prologue for *Jude: Level 1*, a novel short-listed for the 2008 Wodehouse Prize for Comic Fiction. Julian's first novel, *Juno and Juliet*, was published in 2001, followed by *Jude* in Ireland in 2007. *Jude* in London, his most recent novel, was published in 2011 and was short-listed for the *Bollinger Everyman Wodehouse Prize*. In 2010, *Salmon Poetry* released his first poetry collection, *Free Sex Chocolate*. Julian Gough has also written columns and opinion pieces for various newspapers and magazines, including the *Guardian*, *Prospect Magazine* and *A Public Space*.

**K.J. Orr** was born in London. She has won awards for her short fiction and plays. Her stories have been published by *The Sunday Times Magazine*, *The White Review* and *Comma Press*, among others, and appear in several anthologies. In 2012 her story, 'The Inland Sea', was published in a special limited edition by *Daunt Books*. Her work has been shortlisted for the *BBC National Short Story Award* (2011), and broadcast on *Radio 4*. She is currently completing her first collection of stories.

[Robin Yassin-Kassab](#) is the author of *The Road From Damascus*, a novel published by Hamish Hamilton. He co-edits and writes essays for the *Critical Muslim*, a quarterly magazine that looks like a book. His book reviews and political analysis have appeared in the *Guardian*, the *Times*, the *New Statesman*, the *National*, *al-Jazeera* and elsewhere.

[Stuart Evers](#) was born in Macclesfield, Cheshire in 1976. His first book, *Ten Stories About Smoking* was published by Picador in 2011 and won The London Book Award. His short fiction has appeared in *Prospect*, *The Best British Short Stories 2012* and *3:AM*, and he regularly writes about books for *The Guardian*, *The Independent*, *The New Statesman* and *Time Out*. He at one point read with musical accompaniment from *Fighting Kites*. *If This is Home* – his debut novel – was published by Picador in July 2012.

[Zoe Lambert](#)'s first collection, *The War Tour* was published by Comma in 2011. A graduate of the UAE Creative Writing MA, she is currently a lecturer in Creative Writing at the University of Bolton, and has previously published stories in *Bracket*, *Ellipsis 2*, and *Litmus* (all Comma Press).

We received 22 ideas in total, of which 7 were selected (one per author). These were as follows:

Author	Scientist	Topic
Julian Gough	German Terrazas	"Brain Computing"
KJ Orr	Tom Ray	"The Idea of a Branching Future"
Stuart Evers	D.P. Falahat	"Nanotech and Neuroscience"
Annie Kirby	Seth Bullock	"Trails"
Adam Marek	Susan Stepney	"Gardening Skyscrapers"
Robin Yassin-Kassab	Lenka Pitonakova	"Life with Robotic Swarms"
Zoe Lambert	Andy Phillipides	"Bio-Inspired Collective Intelligence"

Authors then worked with scientists, ahead of the meeting, to develop draft ideas, which were then further refined – in person – at the meeting. TRUCE sponsored attendance of the authors at ECAL, and covered their travel and accommodation costs. The scientists were all attending ECAL anyway, so there were no extra costs involved for them.

At the end of the meeting, each pairing took turns to present their ideas, and some authors read an excerpt from their story.

Susan Stepney later reported on her blog that:

"There was some preliminary contact between authors and scientists via Skype, then we all met up at the workshop for in-depth discussions. The author-scientist pairs scattered around the conference venue for most of the day, sitting in little coffee-fueled huddles, talking through the story ideas, and the underlying science. One attendee said "that's the longest I've ever talked to someone who isn't my wife continuously on a single subject!"

In the late afternoon, we all got back together and presented the current status of our ideas.

Not *all* of them turned out to be dystopias, fortunately, but authors tend to want an interesting plot, which usually means things going wrong! But that's fine: we can give warnings of futures that we don't want to happen.

So, the authors get some futuristic scientific ideas for their stories. What do the scientists get out of the process? Well, some of my work is with biologists, building simulations of complex systems, which requires me to understand quite a bit of their science, which means I ask a lot of questions. One thing they say is "I like working with computer scientists, because they ask such *different* questions." Different questions are good: they make you think about things from different angles, giving a different view on the problem.

And I can now say, I like working with authors, for exactly the same reason."

<http://susan-stepney.blogspot.co.uk/2013/09/truce-at-ecal.html>adam

Author Adam Marek, on his blog, said that

"Will buildings grow in trees in 2070? My scientist thinks they will. I say *my* scientist, because all of us writers attending the [artificial life conference in Sicily](#) got one. Mine was Professor Susan Stepney, a computer scientist at the University of York, and she's working on an incredible project to grow buildings from seed.

Yes, buildings (that we live and work in), grown from seed (like trees do). Pretty amazing, huh? All of the science talked about at the conference was incredible, and yet, these were all very credible people. After a day of sharing stories about swarms of robots with group intelligence, computer-brain interfaces, downloadable experiences, and autonomous insect robot assassins, I felt like I'd been given a special sneak preview of the world 60 years from now. And we were given amazing cakes too.

The whole reason that I and the other writers: [KJ Orr](#), [Julian Gough](#), [Robin Yassin-Kassab](#), [Annie Kirby](#), [Stuart Evers](#) and [Zoe Lambert](#), were invited to this truly mind-blowing conference was to write stories for a new [Comma Press](#) anthology.

This will be the latest in their series of science-inspired short story anthologies that includes [When it Changed](#), [Litmus](#) and [Biopunk](#). The project is a Comma Press and [TRUCE](#) (Training and Research in Unconventional Computing in Europe) partnership.

The commission began a few months back, when [Ra Page](#), the anthology's editor, sent us all a list of scientists willing to participate and a short description of their vision for the the year 2070, extrapolated from their current research in unconventional computing and artificial life. We each picked the scientist whose ideas most rocked our world – and this was a difficult task, as all of the scientists' ideas had huge potential as kick-off points for stories.

The next step was for us all to speak with our scientists on Skype, to interrogate their ideas and try to wrap our heads around the science. As with the other Comma anthologies, the idea is to write a story firmly grounded in real science. No time travel. No faster-than-light warp drives.

Last weekend, we all went to Sicily to meet up with our scientists and attend a unique workshop, which TRUCE describes thusly:

In this *unconventional workshop*, we will create a vision for what the world *might* look like more than fifty years from now, when artificial life is embedded in our everyday existence. Our aim is to

spark a wider debate about the applicability and relevance of unconventional computing techniques, and to imagine a long-term picture of how they may come to influence our lives.

The workshop was part of [ECAL 2013](#) (the 12th European Conference on Artificial Life), attended by a couple of hundred scientists who are creating some of the far-out whizzy doodads we saw in science fiction movies as kids, as well as a whole bunch of stuff that's never been imagined before.

And that's one of the aims of this collaborative writer-scientist project. In Ra's introduction to the workshop, he talked about (adapting a quote from [The Prestige](#)) how in the time of Jules Verne and HG Wells, *man's reach exceeded his grasp*. We wanted to explore the new worlds we were discovering but lacked the technology to do so.

Then, in the *Jurassic Park* era, the science fiction was about how *man's reach exceeded his nerve* – the 'just because we can, doesn't mean we should' era of cautionary tales.

But now, with the rate of technological development racing forwards so fast, we are entering an age where *man's reach exceeds his imagination*. We're on the cusp of being able to do things for which we don't yet have a conceptual framework (ie it didn't ever feature in *Star Trek*). So our task as writers is to imagine this future and how this new technology will affect people. What will happen to the human drama when collectively conscious nanobots and organically grown buildings are thrown into the mix?

Right now, we're all in the early stages of drafting our stories. The book is scheduled for publication in 2014. I'll post news of the release date on here nearer the time. Thanks to Ra Page at Comma Press, and Martyn Amos and Daphne Lai at TRUCE for an unforgettable few days."

<http://www.adammarek.co.uk/will-buildings-grow-on-trees-in-2070/>.

We have just issued a *second* call for participation (deadline: Dec. 12, 2013), with a new set of eight confirmed authors:

<http://www.truce-project.eu/2nd-call-truce-speculative-fiction-collection.html>.

More than half of the authors (8/15) are women.

The full collection of 15 stories and afterwords will be published by Comma Press (edited by Martyn Amos and Ra Page) in 2014.

## 2. Community building

In order to encourage the participation of early career researchers and students in UCOMP-themed work, we sponsored the *Sixth International Workshop on Nature Inspired Cooperative Strategies for Optimization* (NICSO2013), Canterbury, UK (Sept. 2-4, 2013). In total, 15 students had their conference fee paid by TRUCE, in return for presenting a paper at the meeting.

In order to apply for support, students had to undergo a strict selection process, details of which are at

[http://www.nicso2013.org/scholarships\\_scheme.html](http://www.nicso2013.org/scholarships_scheme.html).

According to the workshop report:

“Following an open call for contributions, 39 paper submissions from 22 (different) countries were received, emphasising the international nature and relevance of the NICSO series. All submitted papers were peer reviewed by at least two members of the Programme Committee from which 26 papers were accepted for publication, hence making an overall acceptance rate of 67%. The subject of the contributions ranged across unconventional computing and nature inspired methods and applications such as Swarm Intelligence, Evolutionary Algorithms, Cellular Automata, Artificial Bee Colony, Dynamic Optimisation, Support Vector Machines, Multi-Agent Systems, Ant Clustering, Evolutionary Design Optimisation, Game Theory and other cooperation models.”

All accepted papers were delivered to the audience in slots of 25 minutes oral presentation with 5 minutes for questions from the attendees, and appeared in proceedings published by the prestigious book series ‘Studies in Computational Intelligence’,

Springer: *Nature Inspired Cooperative Strategies for Optimization* (NICSO 2013), Germán Terrazas, Fernando E. B. Otero and Antonio D. Masegosa Eds. Studies in Computational Intelligence Volume 512, 2014, DOI: 10.1007/ 978-3-319-01691-7.

[http://www.truce-project.eu/uploads/1/8/3/4/18347763/\\_truce-report-nicso\\_2013.pdf](http://www.truce-project.eu/uploads/1/8/3/4/18347763/_truce-report-nicso_2013.pdf)

The book includes a full acknowledgement of the support of TRUCE.

### 3. Thematic activities

At the heart of WP lies the thematic activities; in the original TRUCE proposal we identified six thematic areas of interest: Adaptive Computing, Quantum Computing, Biological Engineering, Bio-Inspired Computing, Unconventional Mathematics and Embodied Computing. Each theme has a small (10K euros) budget, with which theme leaders can organize, in a distributed fashion, events of their choosing (subject to approval).

So far, one theme has organized its event – we seek to spread activities through the duration of the project, so this is entirely appropriate. The Bio-Inspired Computing theme (led by Dr Chrisantha Fernando of QMU, London) organized a “Hackademia” event:

The venue is the "Agatha Christiesque" [Llanfendiog estate](#) by the sea in Snowdonia this winter from 11th to 17th November 2013.

**All accommodation and food for self-catering is kindly provided by TRUCE**, along with a Makerbot Replicator 2 3D printer and a generous equipment fund. There is space for about 12 people. People not traditionally involved in academia are encouraged to also apply to form mixed groups of hackademics.

Topics include, but are not exclusively

- Evolutionary computation and evolutionary robotics
- Artificial creativity and curiosity
- Artificial Life

The idea is that people will work in 3 groups of 4, building real physical systems, analysing them,

with each group writing a scientific paper describing the results, taking turns to do unconventional cooking, going on walks, etc. Theoretical projects are also equally encouraged of-course.

Right now we invite people to submit project proposals that include the following information. Deadline for proposals is 1st June 2013.

Once we have a set of proposals, if there are more than we can accommodate, Dr Fernando will choose the most exciting, realistic and achievable projects.”

<http://www.truce-project.eu/hackademia-retreat-november-2013.html>.

Projects selected included:

- Emotional monitoring for cooperation
- Soft-bodied/3D printed hybrid robots
- Darwinian neurodynamics in 3D printed robots and cuddly toys
- Modification of sensorimotor contingencies
- Monto Carlo search
- Sensorial fabrics for robotics
- A new theory of colour vision

In addition, a film-maker is joining the group to make a short documentary about the whole experiment.

At the time of writing, the retreat is currently underway, so we will report in full at the Year 2 review.

The project has a blog at

<http://trucehackademia.blogspot.co.uk/>.