

The Power of 8: Encouraging Collaborative DIY Futures

Chris Hand, Edinburgh Napier University. c.hand@napier.ac.uk

Anab Jain, Superflux

Tessy Britton, Thriving Too & University of Chichester

Graham Burnett, Permaculture Association & Spiralseed Publishing

Darryl Chen, Tomorrow's Thoughts Today

Christopher Collett

Sanjiv Sharma, Institute of Biomedical Engineering, Imperial College, London

Charlie Tims, Make Nubs

Liam Young, Tomorrow's Thoughts Today

Abstract

"The Power of 8" was an experimental futures project, collaboratively driven by an *ad hoc* team of eight people from different walks of life. The aim was to explore new pathways for creating democratic futures by building a public discourse around the aspirations of ordinary people. The team of eight comprised a Designer/Speculator, an Educator, an Interaction Designer, a Permaculturist, a Policy Researcher, an Urbanist, a retired Civil Servant, and a Biomedical Scientist.

Through a series of three intensive workshops, and later a wider public engagement phase, we adopted a narrative approach to building a collective view, representing possible futures of Brentford in London, England. This paper describes the strategies we used – including maps, montage and storytelling – to develop concepts, visualise proposals and materialise 'future artefacts' during the project.

Keywords

Design fiction; co-creation; participatory design; future; interdisciplinary; speculative design.

Introduction

"The Power of 8" was an experimental, collaborative futures project conducted over a period of six months in 2009, in and around London, England. Its aim was to explore new pathways for creating democratic futures by building a public discourse around the aspirations of ordinary people. Through an open call for participation an *ad hoc*, multi-disciplinary team was brought together specifically for the project. There was also a public engagement phase in the middle of the project, and a final exhibition.

This paper is structured as follows. After briefly discussing some aspects of design fiction and storytelling we present a rationale for the project, followed by a detailed description of the processes followed and the strategies of materialisation which we employed. We then briefly describe the speculative outcomes and "future artefacts" resulting from the project, followed by a discussion of our processes and techniques.

Using Design Fiction

Increasingly, our concepts of past, present and future are being forced to revise themselves. Just as the past, in social and psychological terms, became a casualty of Hiroshima and the nuclear age, so in its turn the future is ceasing to exist, devoured by the all-voracious present...

(Ballard, 1995; p4)

Ballard's prognosis from 1995 is echoed in Stephen Kovats' recent comment that the success of the Apollo 11 mission marked "the beginning of the end of the Future" (Kovats, 2010). A growing view is that "The Future" in the popular imaginary is no longer what it used to be. Once the technological determinism of the late 20th century had delivered on its greatest promise – putting a man on the Moon – it was perhaps inevitable that we would begin a transition towards a different relationship with futurity.

Creating design proposals and scenarios, particularly when working on speculative, "futures" projects, clearly has much in common with the creation of fiction. Storytelling and creating "artefacts from the future" are increasingly found in the designer's toolbox; meanwhile Science Fiction "does not merely anticipate but actively shapes technological futures through its effect on the collective imagination" (Dourish & Bell, forthcoming). These parallel readings of Design and Fiction have led to proposals for Design Fiction (Bleecker 2009; Sterling, 2009) as a new form of hybrid practice, or even that beyond Design and Futurism lies "something we might call speculative culture" (Bruce Sterling, quoted in Anon, 2009).

But as with any hybridization of practice, we must be selective and critical of the techniques we import, mindful of the dangers of superficially adopting methods from other fields without understanding their grounding in their originating disciplines. Before moving on to discuss the techniques and processes used the project, we briefly examine some issues which arise when bringing together fiction and design.

As a form of entertainment, Science Fiction's audiences expect an emotional pay-off at the end of a story. In talking to Syd Mead – industrial designer and futurist involved in the visual design of *Blade Runner*, *Tron* and *Aliens* – Alex Steffen of *Worldchanging* relates how he asked:

"what would it take to make a movie of *Bladerunner's* imaginative power, set in a positive future?" He paused for a second and said he thought it'd be very difficult, that catharsis is so important to people, and people are so terrified of the future, that you'd need some completely new vision of what the future will look like to even set the scene for a new narrative... and that is obviously no mean feat.

(Steffen, 2008)

But *catharsis*, the "cleansing" or resolution of the audience's emotions, isn't necessarily a given. Playwright Bertolt Brecht eschewed it as a technique pandering to the bourgeois, in the hope that leaving audiences with unresolved emotions would then lead them to social action – "Brecht wove together a montage that was aimed at conflict rather than resolution" (Highmore, 2002; p23).

While there might sometimes be a strong distinction between utopia and dystopia in a literary setting, everyday lived experience tends to be far more ambiguous, ambivalent and open to interpretation. As a technique, montage, "whereby no single perspective or mode of presentation is ultimately privileged" (*ibid.*), is a useful tool in capturing and presenting visions of the future, made up from fragments of the past and present.

The Future is made from the past. Even technological and scientific extrapolations are based on extending existing trends into the future. Similarly, although Science Fiction narratives may initially appear to be focused on the future, “more often than not they are actually concerned with issues contemporaneous to their production” (Clear, 2009; p9) and so they offer their contemporary audiences an opportunity to reflect on both their current situations and their hopes for the future.

A fictional world produced by an author according to a singular, imagined vision and narrative will be coherent and consistent, driven by their individual approach to the material and to the creative process. In contrast, building a collaborative vision with input from a range of people involves dealing with conflicting aims and viewpoints, both in the process and in the outcomes. In dealing with this we had to consider: How do we design collaborative futures? How can we use ‘conflict’ for creative ends? How do we move towards a unified vision?

Recently designers such as Dunne & Raby, Lebbeus Woods and Auger-Loizeau have embraced these ideas to create props and artefacts, scenarios and experiences that were closer to home – projects that wanted to step out of the science fiction genre to create a discipline of their own, and to encourage debate on the different possible futures that may happen. Design Fiction aims to impact our current-day concepts by enabling designers to think of directions in which our collective future is shaped, while also acting as an accessible tool through which we can engage members of society in a dialogue about their individual hopes and fears.

Rationale

This project arose from previous experience of working on speculative projects around emerging technologies, with one aim being to focus on how we imagine and materialise our collective future. Whereas the media projects and propagates apocalyptic futures relating to climate change, financial collapse, war and so on, individuals have their own aspirations and hopes for the future which contrast starkly with this, both in terms of optimism and scale. What happens when these views collide, and how do we resolve the contradiction between top-down dystopian views coming from our culture, and the actual desires of individuals?

From this question came “The Power of 8”, an experimental project by an *ad hoc* team of eight people from different walks of life, aiming to imagine a collective, democratic future by building a public discourse around the aspirations of ordinary people.

Apart from the core group of eight people, another important aspect was a public engagement phase which sought contribution of themes, issues and ideas from a community in West London, via an open weekend, an on-going exhibition, and a project blog. Although a range of speculative design proposals were produced by the core team, the primary purpose of this was to materialise the issues highlighted by all participants, and to present possible futures and emerging technologies in a way that facilitates open debate about their desirability and how we might relate to them.

The project was originally envisaged as an experiment in multi-disciplinary, participatory, speculative design and public engagement.

Project Process

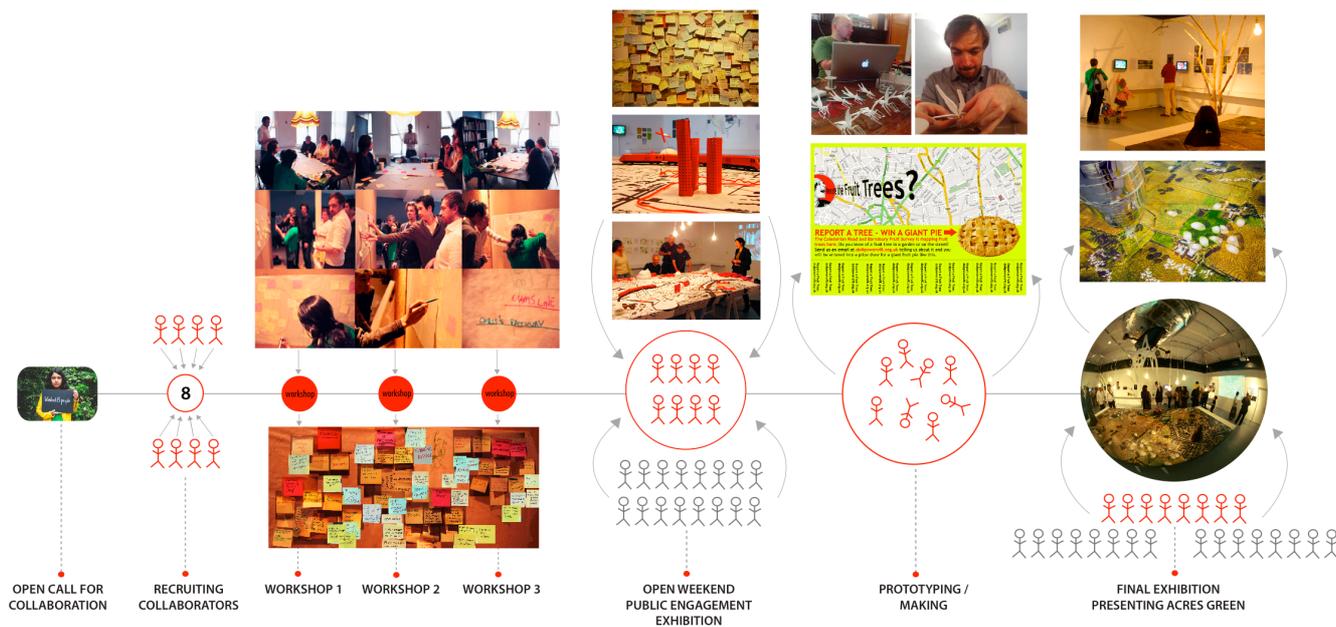


Figure 1: 'Power of 8' Process Map

Figure 1 shows a process map for the project, which unfolded in and around London from April to October 2009. It began with an open call for participation made by video,¹ email, a project blog, and targeted letters (Figure 2) sent to neighbours, acquaintances, local councillors and members of parliament. The call resulted in a team of eight people from different backgrounds, meeting in their spare time to work in intensive workshops, building a collective discussion about their hopes and fears for the future. The initial outcomes from this discussion were then opened up through an exhibition and open weekend, which invited contributions from the public in and around a gallery in Brentford, West London.

This public engagement phase led us to focus on specific issues resulting in a range of scenarios realized through prototypes, films and installations. As the project ended the final outcomes were exhibited for three weeks in the same gallery, alongside process documentation.

The team of eight comprised a Designer/Speculator, an Educator, an Interaction Designer, a Permaculturist, a Policy Researcher, an Urbanist, a retired Civil Servant, and a Biomedical Scientist. Of course, reducing each person to a single title hides their multi-disciplinarity and the many other skills and experience they were bringing to the table, including social innovation, philosophy, futurology, and a lot of teaching and writing, along with other specialisms which exist in the fuzzy overlaps. Finally, as volunteers coming to the project, everyone clearly had an interest in how we see and talk about the future, and in engaging with this through Design.

¹ Superflux, "The Power of 8 - Call for Collaborators". Online video, 26 April 2009. <http://vimeo.com/4337513>



Figure 2: Letter Writing Campaign

With such a broad range of backgrounds and viewpoints in the team, it was always going to be a challenge to bring these together in a coherent way. Through three intensive one-day workshops we experimented with ways to give each of our individual aspirations a space to grow, while coming to terms with the conflicts and contradictions that spin out of such an effort (Figure 3). Almost like a design studio, we made our process visual from the start of workshop 1, beginning with a blank canvas and one question: “How would we like our neighbourhood to be in the future?” As a starting point we collaged images, keywords, drawings and presented our ideas through the spoken word.

Although the images may appear to depict a typical group design session, these kinds of design-led processes were new to many of the collaborators, which entailed building trust and answering questions at every stage as they were unsure of what they were getting into. Thus despite an initial aim to be “democratic”, at times the designer played the role of facilitator in order to guide the workshop along the lines of a typical design process. Even so, things didn’t always proceed in this way and what resulted was often a hybrid, improvised process.

Whereas participants in a design workshop would usually know why they were there, or what they wanted, we found there were many unknowns, and the building of trust turned out to be a crucial aspect in our process. As participants got to know each other better, there was also increased understanding of the (potentially conflicting) ideologies and values associated with their own practice.



Figure 3: Scenes from Workshops

The aim of the second Workshop was to select key themes, and begin to think of ways in which we could make our ideas tangible. From “bikes that never crash”, to “invisible buildings” the team came up with a range of fun and thought-provoking ideas. We mapped these ideas under our key themes and gave them a spatial boundary, as if they existed in a town or a suburb. Each of us then drew our own pathway or trajectory through this ‘town’ marking ideas along the trajectory that appealed to us.

But how were we to traverse this map and find the common threads that would connect us? As each of us scanned through this wall of ideas, frowns and disagreements surfaced: “That’s not my future, I don’t want a Taiwanese noodle shop on my street!” We struggled as we realized that ‘my street’ of the future, had indeed become ‘our street of the future’. How do individual identities of the participants not get affected by such a collaboration? How do we move towards a unified group identity in achieving a vision, a world – or is this even possible? While keeping in mind that such a process would have to embrace conflict, we hoped that this project would eventually raise the right questions and had the intended impact on each of the collaborators and their respective audience.

As we way made our journeys through this map of the future, one of the team commented that the process had become “a kind of post-psychogeography where the *dérive* is reverse-engineered. Instead of drifting aimlessly through unknown cityscapes, we have plotted a route through a psychogeographic territory of our own making... with yet unexpected consequences.”

Building consensus from such a broad range of viewpoints and ideas would be very challenging, so instead we sought to find common ground through storytelling. Starting with present-day stories from each participant, we took this method forward into dealing with the future. After each participant had mapped out a trajectory they wanted to follow they went away and wrote stories about this journey.

Each participant brought sketches, trajectories and stories to the third workshop (Figure 4 - Figure 7) and these continued to be refined and developed over a period of time, coinciding with an open weekend (see below) which saw ideas crystallised and reflected in the concerns of the wider public.

Ultimately all of the trajectories were combined into a large, complex schematic map – the “tube map of convergence” – which identified points of connection (Figure 8). Two examples of trajectories and stories are presented below.

Example One: Path

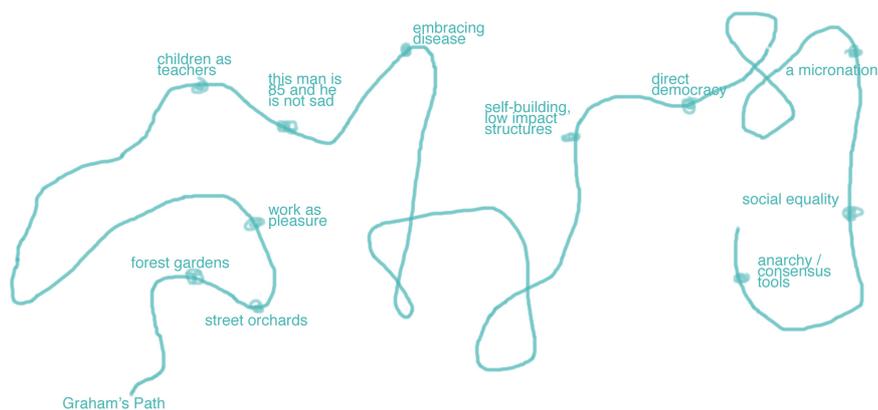


Figure 4: Example One - Path



Figure 5: Example One - Sketch

Example One: Story

“Private fossil fuel powered transport all but phased out – streets now free for bicycles and food growing. Edible forest gardens and urban orchards, raised beds and pots of herbs everywhere.

Work and play – edges blurred; sharing the harvest, caring for children and each other, re-skilling and doing what needs to be done. Learning, cooking, playing, working and deciding together through consensus. “Chop wood, carry water” - the Zen path to enlightenment!

Street kiosks and cafes, bars and salons in the street orchard clearings, humble designs self built from local materials – wood, straw bale, adobe; cob benches for the cooler evenings. Trade as an excuse for conviviality and community rather than making money. Market places that nurture the soul rather than chill the heart.

Sitting in the wood panelled bar – fine local ales and cider or the best quality Cuban rums and Normandy Calvados?? Decisions, decisions! But who cares as the old Cuban guys tell their stories, jokes and songs, memories in their aching joints and bones, pioneers from when the oil first ran dry now showing us how to thrive, so many seasons now since we reconnected with the earth. One day maybe I'll visit Cuba, travelling in the great solar powered airships isn't so fast, but they tell me the bars in the flying hotels are pretty cool nowadays. Slow lives well lived, slow travel well savoured.

Hard to believe we once let remote, corrupt politicians run our lives. Hard to believe there was once a thing called Capitalism...”

Example Two: Path

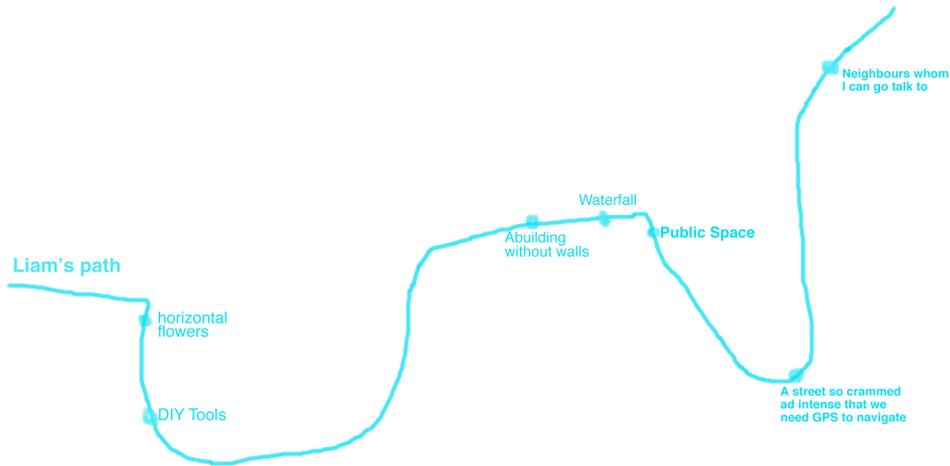


Figure 6: Example Two - Path



Figure 7: Example Two - Sketch

Example Two: Story

“The city is remade as a strange dense and enchanted jungle. Swarms of hybridised biotech creatures fly about the city as mechanical fireflies, and scurry around our feet, filling the air with a new chorus of animal sounds.

Swarms come together as clouds to make enclosures or create shade and then break apart again when they are not needed. We can turn the elements of this landscape on and off. Traditional buildings in the city dissolve as this new nature allows for all the functions they carried out to be located in the landscape or as prosthetics within the body.

We navigate this dense, technologically augmented nature with GPS and wireless as streets as we know them become redundant. This 'other' nature however is open to be

more open process, with local people imagining alternatives to the existing urban fabric themselves.

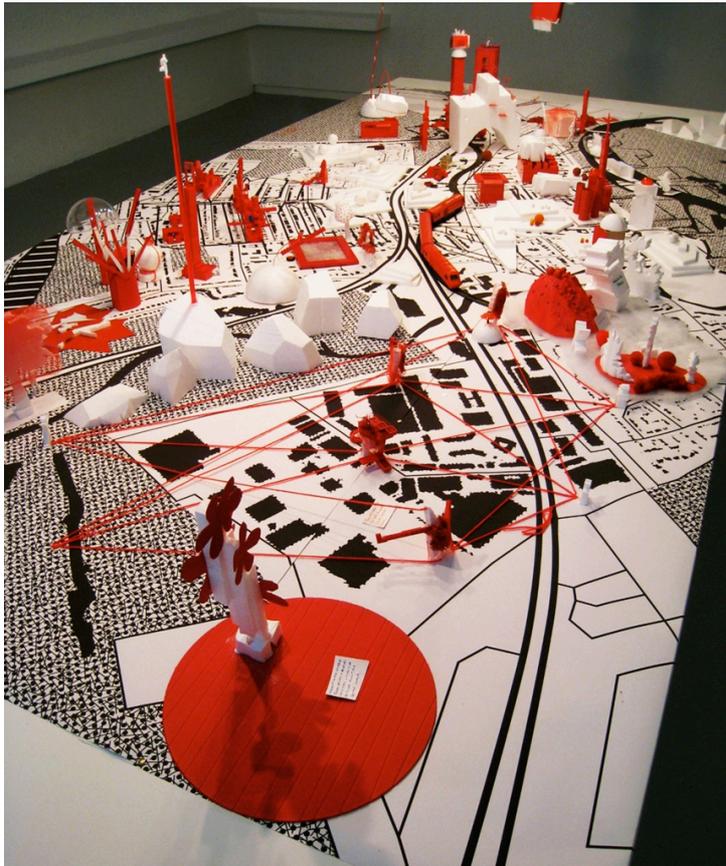


Figure 9: Results from Open Weekend

The map, the public engagement workshops and our own narratives highlighted concerns around climate change, local production of food, the dwindling populations of honey bees, and their impact on agriculture and the economy, alongside a deep-seated nostalgia for a 'green' world. Buried amidst this, the team sensed a hope that 'fantastic technological innovations might still triumph and save us from doom'.

Scenarios and Outcomes

Scenarios and proposals crystallized around the fictional town of "Acres Green", where people balance a pragmatic requirement to live closer to nature with their natural human impulses to subvert and control it. We set about creating four near-future scenarios, linked by the idea of an alternate, augmented ecosystem, which illustrate this ambiguity between the natural and the technological.

The scenarios are illustrated only very briefly here, but in practice each of these was realized through a broad range of video, artefacts, images, animations, installations and stories, presented in the final exhibition and through the project web site.²

² The Power of 8. Project website www.powerof8.org.uk

Prosthetic Trees and Feral Economies

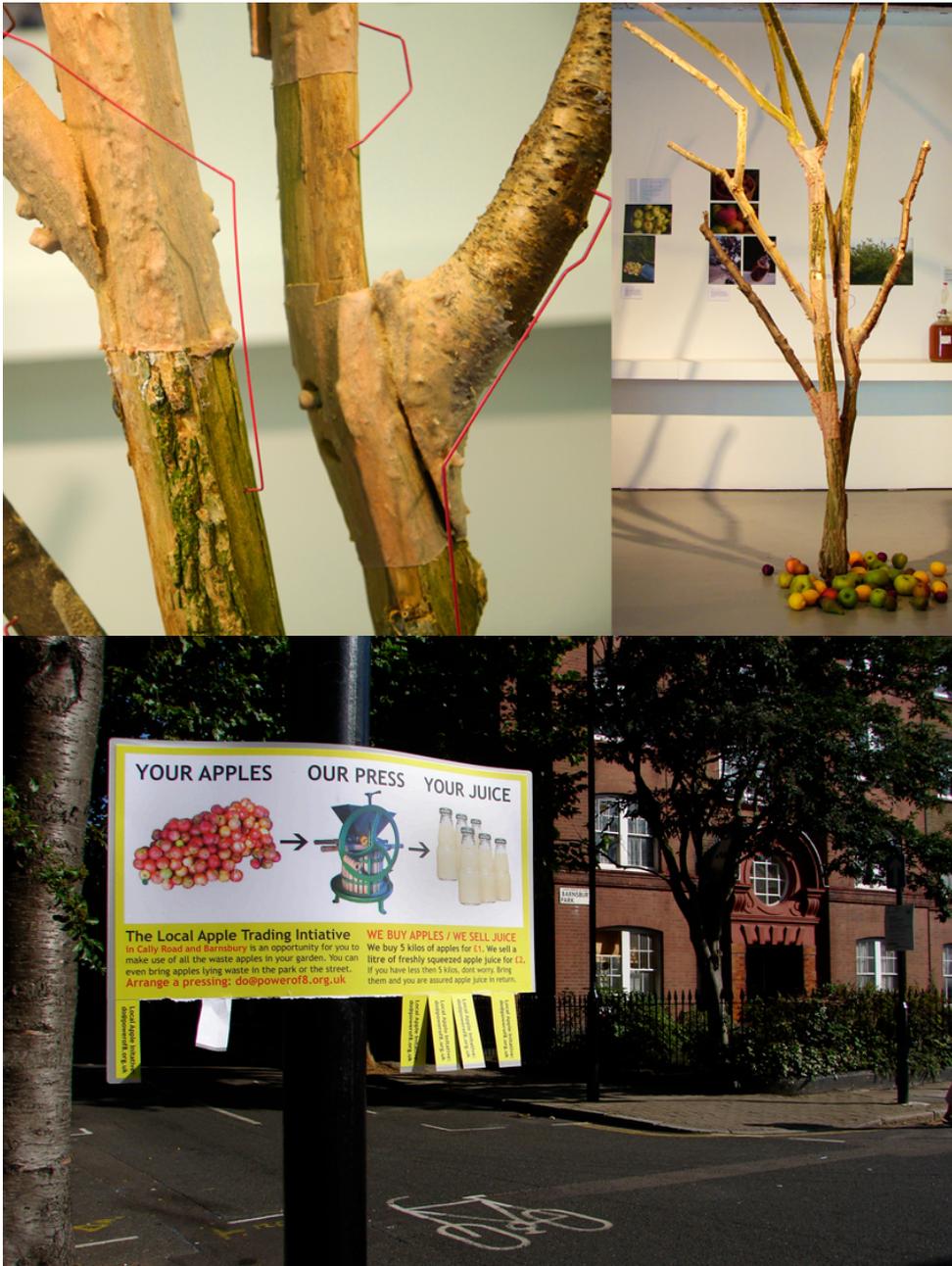


Figure 10: Tree Prosthesis and Feral Cider

Super-local food production takes on a new importance and bio-engineered prostheses allow single trees to produce multiple fruit crops in city streets. New micro-economies emerge, typified by enterprises such as a pan-city feral cider business.

New Synthetic Pollinators: The Beamer Bees

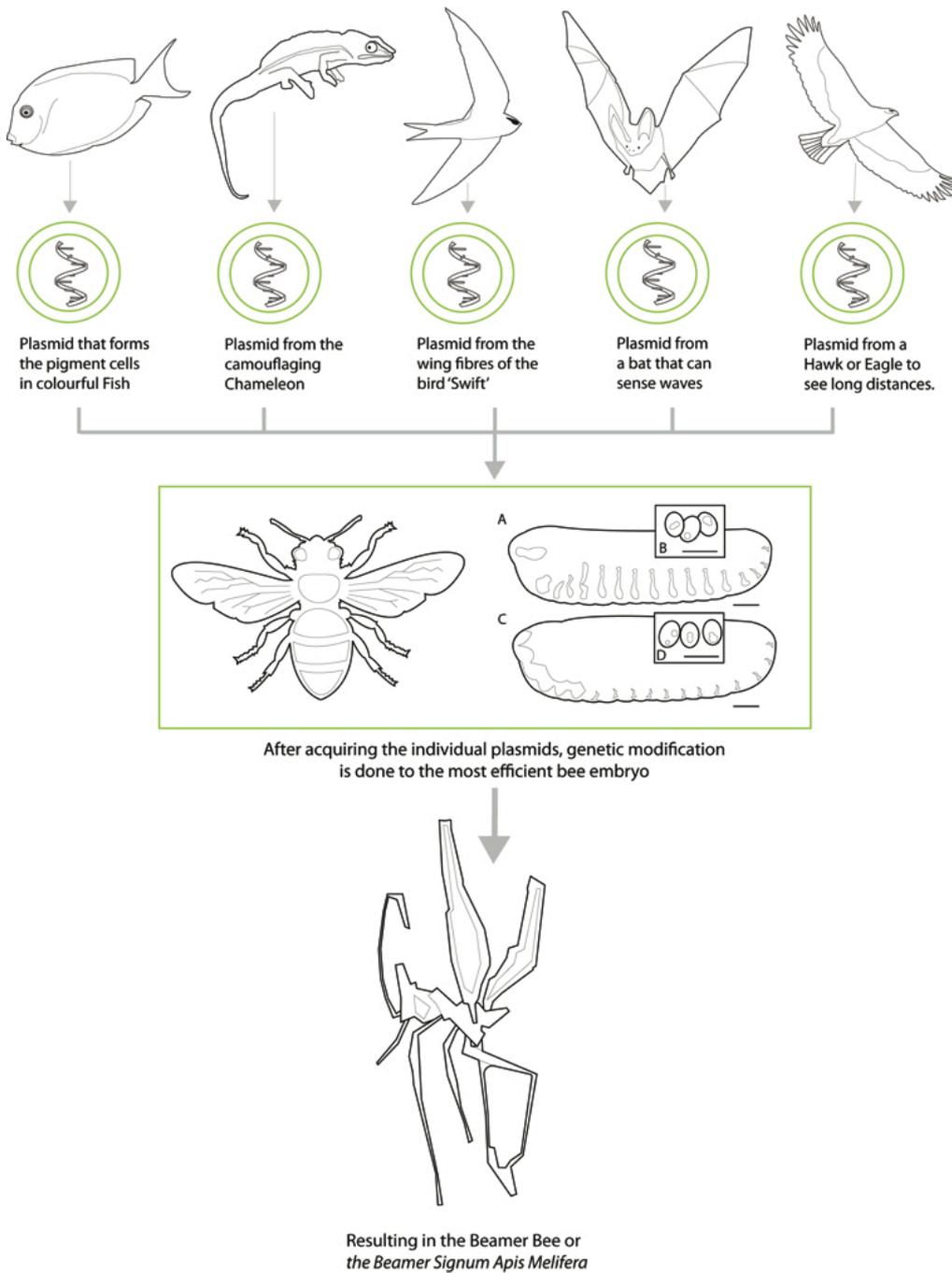


Figure 11: Bioengineering of the Beamer Bees

The Beamer Bee, or Beamer *Signum Apis Melifera*, is a new synthetic breed engineered by a community of biologists and hired bio-hackers to service under-pollinated trees, plants and vegetables due to the disappearance of honeybees. Whereas many species are thought to be disoriented by electromagnetic smog, Beamer Bees thrive in this environment and can even be called to areas where they are needed for pollination using a radio device known as a Bugle.



Figure 12: Young girl keeps a glowing bee as a bedside pet

Since Beamer Bees can glow like fireflies, their evening dances around radio antennae have become a popular spectacle in Acres Green. In many ways they are symbolic of this community, and people have become fond and proud of them.



Figure 13: Bees in Acres Green

Manufactured Microclimates: The Living Hills

These artificial hills are built from blocks of a wax-like material which enables an efficient means of storing heat by capturing temperature change as it starts to melt. The blocks are easy enough for local people to assemble or disassemble, and so these structures evolve over time and even move around the landscape according to local needs. As community residents built them taller every year, they become a locus for creative exchanges, produce markets, bird-watchers and clandestine meetings.



Figure 14: Aerial view of living hills and flocking clouds in Acres Green

Manufactured Microclimates: Flocking Clouds

Controlled by embedded robotics, the flocking clouds move freely around Acres Green, their large surface condensing water particles, as with fog catchers. When they come together in tessellations this water is released to form rain.

While many find the clouds attractive or reassuring, local youths have been known to hack them and empty the rain-filled clouds onto passers-by.

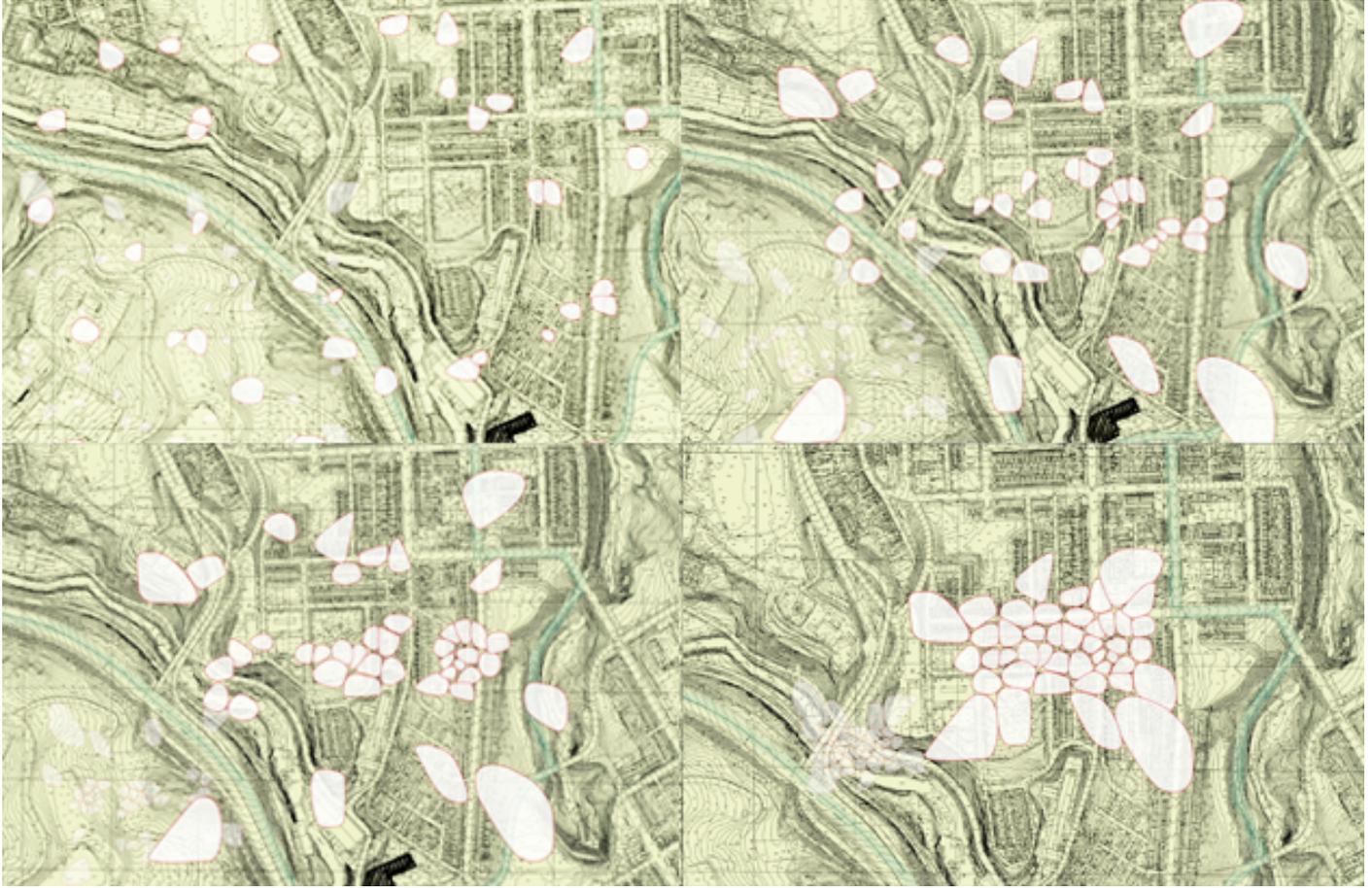


Figure 15: Flocking Clouds Tessellate, Bringing Rain to Where it is Needed



Figure 16: A Single Glowing Cloud provides company on a late night walk home

Discussion

Democracy and Conflict

While the notion of “democratic futures” as a process is a valid aim, in practice a truly democratic process is difficult to implement in this kind of setting, and we acknowledged the need for specific members of the team to facilitate the process at certain times.

Any collaborative design process will produce conflicts in a team and experienced designers recognise this as part of the process, but working with a multi-disciplinary team which includes participants with less experience of this kind of process involves guiding and perhaps educating these participants. Working with the potentially conflicting ethical and moral positions taken by different collaborators was also an important part of the process; with hindsight reconciling the ideologies of, say, permaculture, biotechnology and urbanism is clearly going to require some significant bridge-building, and we considered this to be a crucial, central aspect of the project.

Transformation

The project was a transformative experience for most, if not all, of the team. For some it was their first experience of a design project and exhibition. For those with design experience it was a less common experience to take on a more curatorial or facilitating role. All had to embrace the organic and the messy, and to rise through conflict and tensions. Building trust and fostering relationships was key to a short, intensive project involving people who hadn't worked together before.

All collaborators came away with a new perspective. As one of the team said, “I couldn't really say I wanted fake bees and fake weather. But this helped me feel optimistic that we could actually take action to protect [them]”. Most have also continued to build very actively on ideas and experiences which came directly from the project, resulting in new books, social innovation ventures, research projects and so on. Further partnerships and collaborations have also resulted.

DIY Futures

Although we produced speculative proposals for possible futures, we were using technologies and processes available now to create believable prototypes that are able to engage the public in a direct and stimulating way, aiming to create fictional artefacts which can help suspend disbelief, but could also help to discover real opportunities.

On another level, we were also engaging with emerging and future technologies, on a “DIY” level – in the sense that none of us (excepting our biotechnologist) has any real expertise in these areas.

On both these levels we find inspiration in Adam Greenfield and Nurri Kim's stated ambition for their venture Do Projects³:

“[to] figure out what ‘do-it-yourself’ might mean in an age when new production technologies, informational and logistical networks give the independent amateur producer unprecedented power to reach out and make things happen.”

³ About Do Projects. <http://doprojects.org/about>

Conclusions

The Power of 8 was an experiment that brought together the creative potential of curious people having various expertise, with that of the wider community, those who share in the lived experience of the city and its infrastructure, to produce a collective expression of the future. The project was always conceived of as open, a starting point, and these ideas are now being taken forward, with team members finding new collaborators and spinning out new projects and processes.

While it was initially our aim to tell an optimistic story about the future, we wanted this story to bring forth the inherent dilemmas and complexities of any such Endeavour. Bringing an *ad hoc* team together to build a collective vision, to give form to some of our dreams for the future, would invariably result in conflicts and tensions, but it was also a valuable learning experience to work with different people and understand and explore different world-views. Embracing organic, messy processes is necessary and deliberately opposed to the seemingly simple, top-down, deterministic, policy-driven future we are used to being fed.

Although not all the team were involved in the production of each component of the final exhibition, everyone's influence was present. Ultimately none of us feel entirely comfortable with Acres Green, but we can all see our part in it – a bit like the future.

Acknowledgements

We gratefully acknowledge the support of Arts Council England, Waterman's Gallery Brentford and London Design Festival. Many thanks also to Ilze Black, Jon Ardern, Steven Ounanian, Alice Frost, Russell Davies, the DMC Lab at The Bartlett, University College London, Oliviu Lugojan-Ghenciu, Ruchi Khurana, Ian Hawes, Pete Clark, Francois de Merode, Rayna Cooke Ferner, Marianne Cadbury, Emma Harris, Brad Flahive, Emma Smales, and everyone who contributed to the open weekend and the exhibition.

References

- Anon. (2009) Dunne & Raby | Bruce Sterling. *Icon* 078, Dec 2009, pp61-65.
- Ballard, James Graham. (1995) introduction to *Crash*. 1995 re-issue, p4.
- Bleecker, Julian. (2009) *Design Fiction: A Short Essay on Design, Science, Fact and Fiction*. March 2009. <http://www.nearfuturelaboratory.com/2009/03/17/design-fiction-a-short-essay-on-design-science-fact-and-fiction/> Accessed 20 April 2010.
- Clear, Nic. (2009) "A Near Future". *Architectural Design*, 79(5):6-11.
- Dourish, Paul and Bell, Genevieve. (2009) 'Resistance is Futile': *Reading Science Fiction Alongside Ubiquitous Computing*. *Journal of Personal and Ubiquitous Computing*, forthcoming. – Cited in Bleecker 2009.
- Highmore, B. (2002) Questioning Everyday Life. In Highmore, B (ed). *The Everyday Life Reader*. Routledge.
- Kovats, Stephen. (2010) introduction to *Destination Moon* panel at Transmediale 2010. Berlin, Germany, 2-7 February 2010. <http://www.transmediale.de/en/stephen-kovats-introduces-session-destination-moon> Accessed 22 April 2010.
- Milton, Alex and Hughes, Ben. (2005) Claystation - Design Modelling and Creativity. in *Crossing Design Boundaries*, P. Rodgers, L. Broadhurst & D. Hepburn (eds), Taylor and Francis.
- Steffen, Alex. (2008) *Strange and Happy: Science Fiction and the Bright Green Future*. *Worldchanging*, Blog post 17 Feb 2008. <http://www.worldchanging.com/archives/007843.html> Accessed 24 Feb 2010.
- Sterling, Bruce. (2009) Design Fiction. *Interactions* 16(3):20-24.

Author Biographies

Chris Hand

Chris is a lecturer and researcher at Edinburgh Napier University, Scotland, where he leads the masters programmes in Interaction Design and Interdisciplinary Design. He is an associate creative technologist at Superflux, and as a freelance interaction designer has worked for clients including Intel, Dunne & Raby and The Future Laboratory.

Anab Jain

Anab is a designer, TEDFellow and founder of the multidisciplinary design practice Superflux in the UK and India. Her work has been featured in the London Design Festival, MoMA, SIGGRAPH, ISEA and the Tate Modern amongst others. Recent projects include The 5th Dimensional Camera (2010), The Power of 8 (2009) and Energy Autonomous Devices (2008).

Tessy Britton

Tessy is an educator and founder/director of Thriving, a platform for positive change. She is a passionate advocate for young people, and specialises in learning processes, wellbeing, metacognition and emotion. She lectures on the University of Chichester's MA (Ed) programme.

Graham Burnett

Graham is an experienced permaculture practitioner, author, illustrator and member of the board of trustees of the Permaculture Association (Britain). He co-runs introductory permaculture courses, full design courses and specialist courses on vegan-organic gardening and compost toilet building.

Darryl Chen

Darryl is an urbanist and co-founder of the think tank Tomorrow's Thoughts Today. Formerly a lecturer at the Architectural Association, he is now an itinerant practitioner and critic on urbanism for a range of publications, architecture schools and private practices. Projects and writing have appeared in magazines and exhibitions internationally.

Christopher Collett

Chris is a retired civil servant, interested in the writings of the metaphysical writers Rene Guenon, Ananda Coomaraswamy, Gai Eaton and Martin Lings. He is interested in notions of future and wants to explore how one can anticipate it without influencing it.

Sanjiv Sharma

Sanjiv is a scientist at the Institute of Biomedical Engineering, Imperial College, London. He works in the area of bionanotechnology and biosensors, and is interested in developing personal healthcare devices that will enable people to increasingly monitor their health on their own.

Charlie Tims

Charlie is an associate of the think tank Demos and an adviser on public engagement to the European Commission. He co-authored the book 'Anatomy of Youth', and founded Hometaping, an effort to get as many people as possible to record an album of music in one month.

Liam Young

Liam is an architect, curator and co-founder of the think tank Tomorrow's Thoughts Today, a group whose work explores the consequences of fantastic, perverse and underrated urbanisms. He teaches and coordinates award-winning architectural studios at the Architectural Association, The Bartlett and other schools throughout Europe and Asia.