RESET DEVELOPMENTS

Issue_3

AUTUMN 10

contents

editorial

As always, it's been a busy autumn here at RESET.

We hosted our own exhibition that launched the beginning of our manifesto (a future of the world in 100 objects) at the building centre, London; announced the winners of our first international design competition (the Integrated Habitats Design Competition); continued to run hands-on masterclass CPDs at amazing venues all around London and much more...

Speacial thanks to our feature writers for this addtion - Vera & Lizzi from the Cave Corporative, Sarah Kent, longstanding RESET supporter and Martin from the Good Earth Trust...If you think you have an interesting story for our next issue, get in touch, we'd love to hear from you.

As always, a big thank you to all our supports and volunteers. RESET is a completely volunteer led charity and everyones continued support is gratefully appreciated. And just a warning - RESET has big plans for 2011, so prepare yourself, and don't forget to sign-up to our mailing list so you don't miss out on all of our RESET Developments....

The Integrated Habitats Design Competition

Blanche Cameron

"Human needs and a healthy environment are not opposing claims that must be balanced; instead, they are inexorably linked by chains of cause and effect. We need a healthy environment because we need clean water, clean air, wood, and food from the ocean, plus soil and sunlight to grow crops. We need functioning natural ecosystems."
Jared Diamond

IHDC winners were announced up on the roof top terrace of Allen & Overy's Liverpool Street Offices during the World Green Roof Congress 2010
Photograph: Nikki Linsell

Biodiversity matters - it is the foundation of all life. In 2010, the International Year of Biodiversity, the Integrated Habitats Design Competition was launched, to stimulate holistic built environment design for the UK. This competition - a first for the UK - is a collaborative partnership between RESET, Dusty Gedge the 'content terrorist', international living roofs campaigner and speaker of livingroofs.org, Gary Grant the ecologist, author and masterplanner, and CIRIA. Inspired by the City of Portland, Oregon, in 2007 (www.integratinghabitats.org) and with the support of Natural England and Kier London, the IHDC called for an intra-disciplinary approach to design that considers biodiversity and habitats, water, energy and materials cycles, human needs and comforts, and affordability.

In 2008, DEFRA adopted ecosystem services as the lens through which to view the environment. Brian McDonald, Natural England's green infrastructure specialist, says:

"Natural England wants to ensure green infrastructure is delivered as an integral component in all development and regeneration. The IHDC provides an excellent opportunity to encourage developers, architects and the regeneration sector to illustrate how a development can secure positive gains for the environment, by working with the grain of nature and showing the economic value that natural solutions can provide."

Integrated thinking requires disciplines to work together, so Dusty, Gary and Brian were joined as judges by Simon Birch (Environment Agency), Dr Jean Venables (ex-president, ICE), Paul Shaffer (CIRIA), Martin Hunt (Forum for the Future), Andy Simmonds, (AECB), Dr Karen Haysom (Bat Conservation Trust) and Justin Bere (Bere Architects).

Brian McDonald awarded winning £2,000 first prize to Maria-Cristina Banceanu - a 1st year architecture student at Liverpool University, for her halls of residence incorporating water and energy management with biodiverse habitats inside and outside the buildings. The pioneer of green roofs and rain gardens in the City of Portland, Tom Liptan, presented £1,000 to runners-up David Dobereiner and Paul Jones for their carbon-negative and biodiverse mixed use design. And Team RED's highly commended entry, The Seed Catalogue, received praise for its inventive take on ecological regeneration - grown rather than built - of post-industrial cities.

Five other entries also made it to the final eight, all of which can be viewed on-line (www.ihdc.org.uk) and were all on display at a five-week exhibition at the Building Centre, London in October of this year.

The high quality of entries shed a hopeful light on the future for UK built environment design and RESET welcomes approaches from organisations interested in supporting the IHDC 2011, as it becomes an annual event.

Thanks to the British Library Sound Archive for their natural sound recordings that formed the backdrop , to Natural England, Kier London and CIRIA for their support, and to LendLease for sponsoring the IHDC exhibition reception, to Sustain' magazine, our media partners, and to all those who entered and supported the competition.

Ecological Regeneration in Hull

JUDGES COMMENTS: *"Conceptually a very interesting proposal as long as it is applied in a locally appropriate way to ecosystem services and biodiversity. A powerful and original idea that could really make planning for vacant sites more interesting and engaging. This could really catch on."*

Seed Catalogue, Team RED (Sussanah Hagan, Mark Gaterell, Silvio Cuputo)

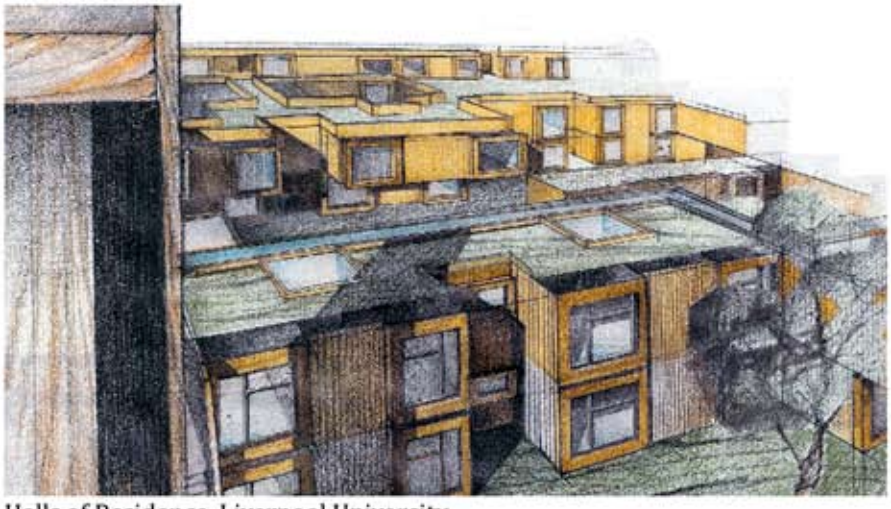
Highly Commended

Mixed-use Social Housing on the Tyne

JUDGES' COMMENTS: *"Transforming an old brownfield site, this team effort addresses the issues of biodiversity in urban developments whilst also addressing the needs of the human animal! An impressive proposal which shows how biodiversity could be introduced into even the most urban areas by deliberately creating interconnected multi-level networks of wildlife habitat. Perhaps could have been more ambitious with the vegetation, which could be more natural?"*

Matripolis, Paul Jones & David Dobereiner

2nd Prize Winner



Halls of Residence, Liverpool University

JUDGES' COMMENTS: *"An impressive combination of clever site planning with attention to detail. This entrant really did interface with the brief giving attention to local species of plants and biodiversity issues. There is practical integration of energy efficiency, water conservation and biodiversity features. This approach did not however compromise the wider of issues of sustainability addressed in the scheme. The judges were charmed by the thoughtful inclusion of space for bats and birds."*

Edge Hill Halls, Maria-Cristina Banceau

Overall Winner

Roof top veg
Photograph: Sarah Kent

Roof Top Farming in New York

Sarah Kent

In a verdant flush of life Brooklyn's urban warehouse skyline is sprouting edible greens and becoming home to a growing number of chickens and agriculturalists ▶

New York is becoming a focus for urban agriculture. Deliveries of organic vegetables are biked to popular restaurants just a couple of blocks from the farm cutting out "food miles" and all but eliminating the carbon cost of quality produce. It's proof that the global millions of city rooftop hectares can be made productive given a bit of drive and imagination. So how did this particular agrarian revolution get started?

I recently visited a number of living roof and city agriculture projects in New York including allotments on a flyover, fruit and vegetable gardens in corners of Harlem, and the Chelsea Highline, an ambitious landscaping project carried by a disused overhead railway that winds through Manhattan's city streets. The project at the top of my list though was Brooklyn's Eagle Street Rooftop Farm that has established research connections with the NY Botanical Gardens who kindly gave me an introduction to some of the key people behind the operation.

Brooklyn is known for its film industry, a hungry beast that devours great chunks of the grid power supply to feed insatiable lighting rigs on vast sound stages. Company owners Gina and Tony Argento, in collaboration with living roof designer Lisa Goode and Growing Chefs founder Annie Novak, have taken the opportunity to utilize the roof space on their sound stages. In addition to growing veg, Broadway Stages are partnering with The New York State Energy Research and Development Authority in a roof top solar PV project that will initially supply around 32% of the company's energy demand – the equivalent of supplying approximately 120 family homes.

The 6000 ft^2 roof top farm has been designed within the maximum loading set by a structural engineer, avoiding costly adaptation of the existing roof structure. Annie Novak explains that the comparatively shallow soil does tend to limit the size of each plant but the nutrient content and taste are more concentrated. Soil is replenished from the farm's own composter and a fertilizer boost is supplied by chickens in a mobile coop that can be moved over the field enabling an even distribution of chicken dung – agricultural rocket fuel!

Annie Novak with the mobile chicken coop
Photograph: Sarah Kent

Irrigation is a major challenge due to higher than average evaporation rates as the farm's thin soil is exposed to winds and New York's extreme summer air temperatures (over 350 C on the day of my visit). However, it is hoped that by increasing the number of urban rooftop farms and other living roofs the cumulative effects of evapotranspiration, the process by which plants "sweat" out excess water drawn in trough the roots, will gradually reduce the heat island effect. Eventually a rainwater harvesting system will replace most of the mains water used on the farm.

Eagle Street Rooftop Farm is run by interns and seasonal volunteers so if you fancy a spell volunteering on an NY City roof top contact www.rooftopfarms.org

On top of the pop-up Dalston Roof Gardens in Hackney
Photograph: Nikki Linsell

RESET Training Developments

Blanche Cameron

Our cities face a challenge – adapting to a changing 21st century. RESET is therefore leading the way in the education of ecosystem services to provide solutions for the built environment that focus on meeting a whole range of needs across the board. ▶

A Renewable Energy Future for London?

London faces its own 'age of austerity' in terms of resources and energy supply. On 8th October, engineers, architects and planners came together to debate the potential future for London's renewable energy supply in an enthusiastic discussion. At the heart of the debate was the question of on-site, off-site or off-shore?

Introducing the context, Ashley Bateson, Partner at Hoare Lea Engineering, discussed the current policy framework and direction for integrated renewable energy development, with case studies from Hoare Lea's own work. Giovanni Festa, Director at WSP and designer of Strata SE1, London's latest tall building, then highlighted the constraints and advantages of integrating renewable enrgy into such a prominent building.

Dave Linsley-Hood, renewable energy consultant and trainer from the Centre for Alternative Technology, gave an overview of technologies and their potential - and practical – applications. And Guy Shrubsole from PIRC delivered the UK's first ever report on the economic value of our offshore energy potential.

RESET is grateful to Eversheds for offering us this space for the event. RESET looks forward to having them back soon to continue the conversation, as the energy debate really takes hold.

UK Passivhaus: an expert introduction

At Hackney City Farm in July, RESET held a masterclass discussion on Passivhaus design – what it means, how it is applied and the skills and knowledge needed to implement it. For the first time in one sitting, Mark Siddall from Devereux Architects, Justin Bere of Bere Architects and Bob Prewett of Prewett Bizley presented their work and discussed the approaches needed to take these design decisions forward.

A presentation from RESET Trustee Henrietta Lynch also clarified the challenges that the UK construction industry faces to implement Passivhaus design. The skills and knowledge gaps, relevant understanding from developers and built environment professionals and an appropriate regulatory framework all need attention if the UK is to implement its zero carbon construction targets for all new buildings by 2016 (2011 in forward-thinking Wales!).

Participants - largely although not exclusively from architectural backgrounds – enjoyed the passion and clarity with which these issues were discussed. But most importantly saw developments that exemplified low energy design approaches where minimising energy demand means better buildings.

Given the response to this event, RESET will be running regular introductions to Passivhaus, working in assoication with the Passivhaus Trust and others pioneering this approach.

Living Roofs & Ecosystem Services

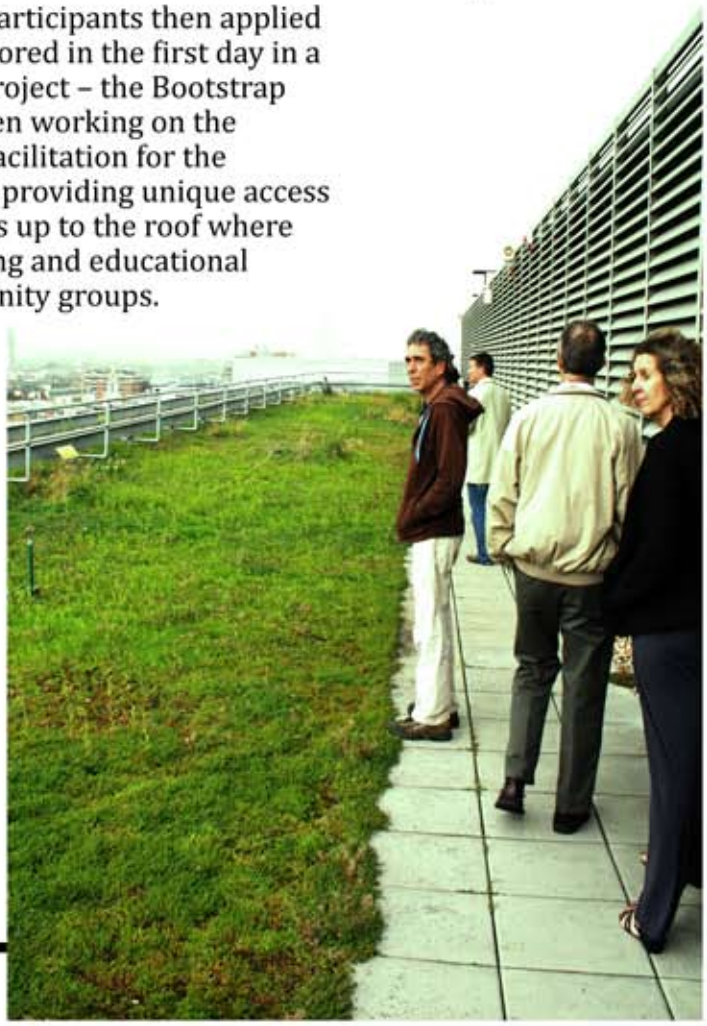
In Germany, ecological engineers are showing the way when it comes to relating building design to natural systems and processes. By incorporating soil, water and planting, the building's performance is improved and a range of services are provided for free: cooling, humidifying and filtering the air on the way into and around the building, collecting and cleaning the water, reducing noise, improving thermal performance, attenuating storm water, reducing the effects of the urban heat island, providing biodiverse habitats and green spaces for people – all free services offered by nature and known as ecosystem services.

On the 9th and 10th September, Gary Grant and Dusty Gedge – the UK's foremost educators, campaigners and policy instigators on living roofs and ecosystem services – led a masterclass in London for adapting our cities for the future we face. Day 1 also included an inspiring presentation from Michael Pawlyn of Exploration, looking at biomimicry, an approach to design that draws on natural systems and processes. Since Eversheds, the international law firm, was our host for the day, we were also lucky to visit their living roof designed by Dusty Gedge, with a grand view over our capital city that holds one fifth of the UK's population.

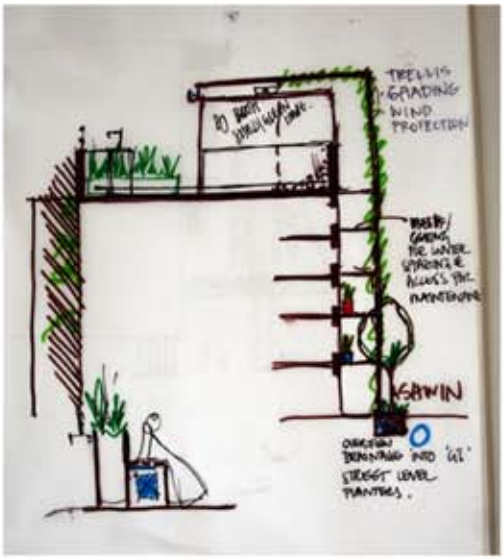
Day 2, based at Levitt Bernstein in Dalston, participants then applied the ecosystem services design approach explored in the first day in a practical design workshop, based on a real project – the Bootstrap Company's Dalston Roof Park. RESET has been working on the community consultation and assisting with facilitation for the project, with Bootstrap's Sam Aldenton, thus providing unique access to an interesting space. Sam took participants up to the roof where he has been promoting roof level food growing and educational projects with young people and local community groups.

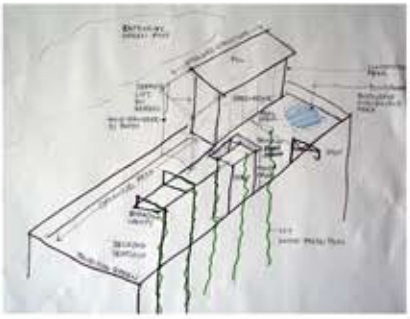
The session produced some great ideas on how the Dalston Roof Park could incorporate ecosystem services, including space for natural habitats, food growing, rain water harvesting, renewable energy generation into its development. Thanks are due to SusCon Gateway to Construction, Eversheds and Levitt Bernstein for supporting this crucial training event.

RESET will be running a core curriculum in ecosystem services training in 2011. Get in touch if you would be interested in learning more about this holistic and comprehensive approach to built environment design and adaptation.



On top of the roof of Eversheds
Photograph: Nikki Linsell





From top to bottom:
Busy working away during a RESET workshop; sketch proposals for the development of Bootstrap's Roof; Existing roof with solar panels
Photographs: Nikki Linsell

A RESET tour of...

NIKKI LINSELL

Earlier this year RESET had the honour of a tour of Shoreditch Trusts Waterhouse development.

Shoreditch Trust is a charitable regeneration organisation with an approach based on recognising the inherent value of local communities and developing strong partnerships that deliver long term social, economic and environmental benefits. The Trust has developed a highly commended sustainability strategy through a range of social enterprise projects including Waterhouse Restaurant and Acorn House Restaurant.

The Waterhouse Restaurant uses water from the adjacent Regent's Canal as a passive energy source. The design uses the canal water as a heat source and heat sink, delivering heating and cooling to the restaurant via a heat pump. In summer, the space is conditioned using chilled cooling sails suspended from the ceiling. Cold water generated by the heat pump is passed through the 'cooling sails', which provide radiant cooling overhead. Under floor heating is used in winter. Further cooling and heating is provided by the fresh air displacement ventilation system, which supplies conditioned air at low level through panels made of woven wicker. The energy efficient system reduces the power demand substantially for heating, cooling and ventilation.

www.shoreditchtrust.org.uk

View from the terrace of the Waterhouse restaurant
Photograph: Nikki Linsell

Sustainable Communities: the new Catchphrase

'Sustainable communities' has become a government catchphrase in recent years. With the new coalition government's position that "it is time for a fundamental shift of power from Westminster to people," and the launch of the "Big Society" agenda, there now seems a focus on empowering communities. Nonetheless, this shift has actually been evident at community level for a while, as more and more pro-active groups emerge, influencing and leading change around issues as broad as climate change, education, food, transport and health. From Transition Towns to Climate Action Networks, climate camps to urban agriculture, communities are taking the bull by the horns.

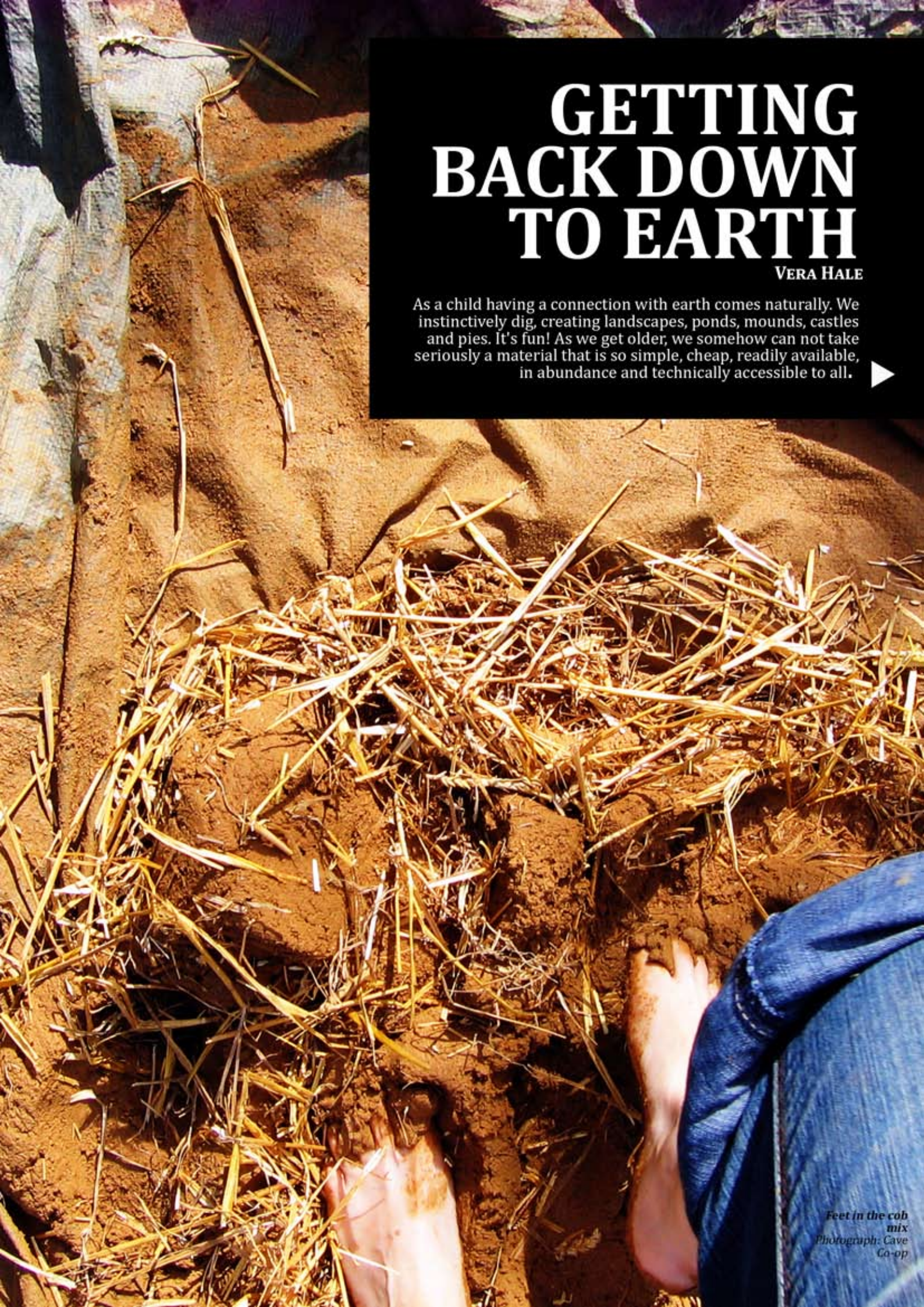
One simple change can have many benefits - and catalyse other changes. The Summerfield Eco-Neighbourhoods project is one such example of the synergies that can be achieved through this kind of integrated thinking and partnerships, where the retro-fitting of existing housing stock with sustainable energy technologies was used as an opportunity to provide training and employment to local young people and local school children ran a radio station promoting greener living.

The integrated approach is an essential part of the movement to "close the loop". Currently, society and life are based on largely linear models of consumption and waste. The principle of closing the loop involves applying a more circular metabolism to our lives: by reducing levels of consumption, waste can be reduced, and increasing the level of reuse, repair and, where no other alternative exists, recycling leads to a further reduction in consumption and waste. **ANNA KERRANE**

GETTING BACK DOWN TO EARTH

VERA HALE

As a child having a connection with earth comes naturally. We instinctively dig, creating landscapes, ponds, mounds, castles and pies. It's fun! As we get older, we somehow can not take seriously a material that is so simple, cheap, readily available, in abundance and technically accessible to all.



Feet in the cob mix
Photograph: Cave Co-op

There are many forms of earth building and in the UK which is mainly described as Clay lump or Cob. This is essentially clay and sand mixed with a fibre to add tensile strength such as; straw, hair, twigs. It can be dug, mixed and built on site with no waste or toxins and with nothing more than a spade, shovel, buckets, water, tarp and a pair of feet (maybe more then just the one pair).

Cave are currently working on several cob builds; the Lordship Rec' City Farm in Haringey, two cob barn conversions in France and an eco-village in Malawi. The jobs in France are both self build renovations with extensions, where the project in Malawi is a community project run by the charity Landirani to build an educational facility in the local vernacular. The Landirani Eco-village is an interesting project, where western construction 'ideals' have dis-empowered the Malawian communities by creating a knowledge and skills gap in the present generation, having lost the (more climate and geologically appropriate) building skills of the past. Cave is now investigating, in collaboration with Malawian crafts people, sustainable techniques for the local vernacular.

Because earth building is so accessible it lends itself well for use by self builders or community groups that want to participate in the build of their own projects.

With these kind of projects, participation and education are the corner stone of the experience for the clients. Not only does this save on costs, but the feeling of empowerment and ownership experienced by those involved cannot be valued highly enough.

Why not follow our French cob extravaganza 'Le Petit Givais' on Facebook!

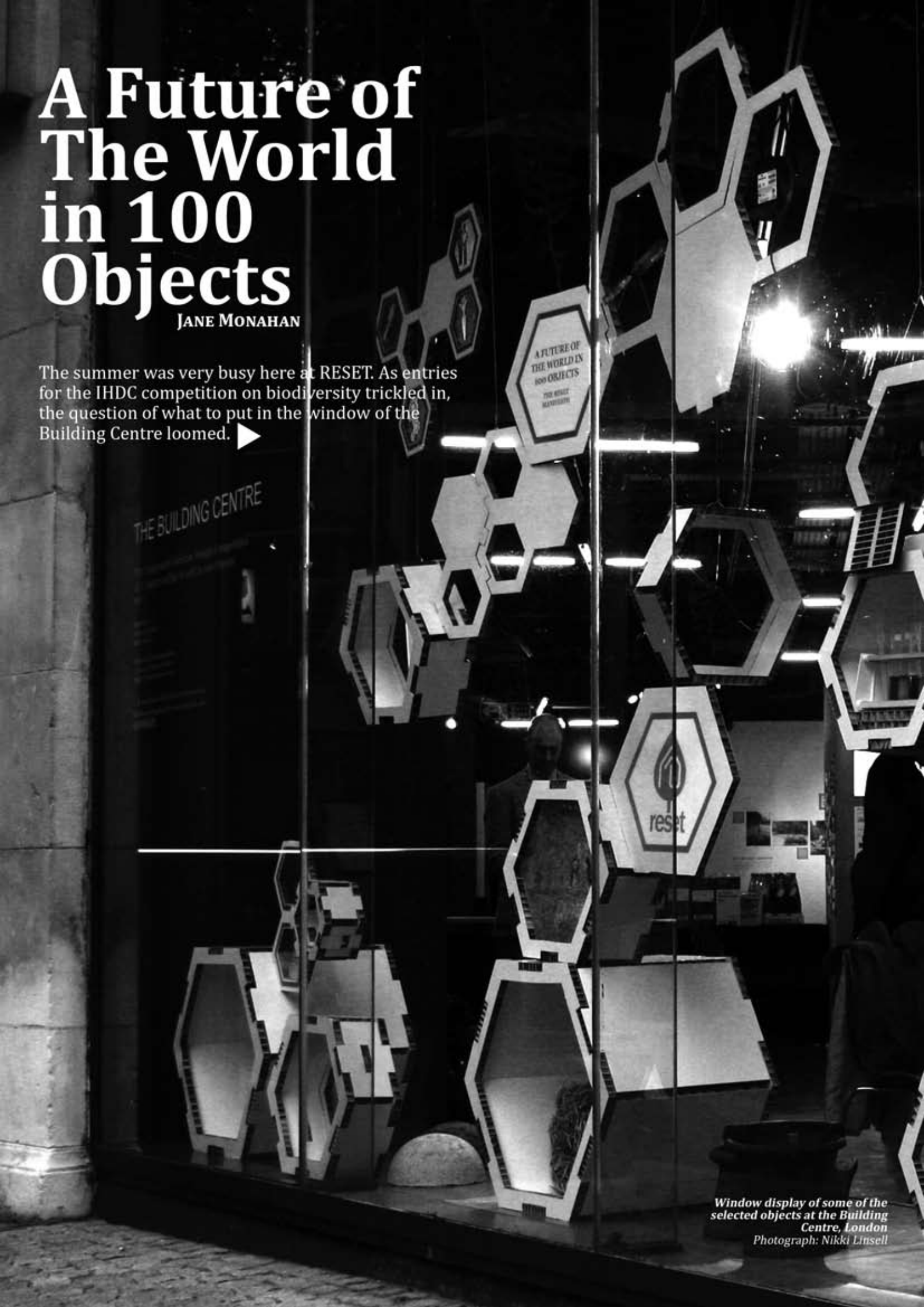
Group cob building
Photograph: Cave Co-op

www.cave.coop

A Future of The World in 100 Objects

Jane Monahan

The summer was very busy here at RESET. As entries for the IHDC competition on biodiversity trickled in, the question of what to put in the window of the Building Centre loomed. ▶



Window display of some of the selected objects at the Building Centre, London
Photograph: Nikki Linsell

Either we could plant Nikki and Blanche in the window for five weeks or ask RESET's members and supporters to suggest an object and explain in100 words how it will take us to a more ethical, natural and local future. Out of this would emerge a RESET manifesto to illustrate our principles and promote our work. A virtual exhibition on the web could accommodate the overflow and reach out to a much wider audience. 100 objects was not only a good target but rang bells for the title:

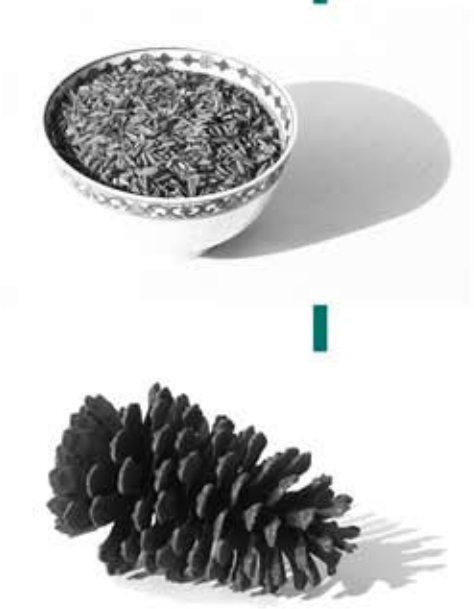
A FUTURE OF THE WORLD IN 100 OBJECTS

The response was enthusiastic and fascinating. Every day was like a birthday with parcels arriving in unexpected forms (the 2m high pre-historic tree fern shipped from Wales), in varying conditions (ceramic stove in 1000 pieces) and with mysterious content (how many uses can there be for clay pipes?). The idea of a hexagonal structure came providentially (from Glasgow actually) and the exhibits fell into place within a honeycomb, neatly symbolising the essence of a biodiverse environment. Teams of specialist workers buzzed in to design, fabricate, transport and build the hexagons and arrange the exhibits.

Thanks to curators and designers Cassandra Dove and Jane Monahan, to Volunteer Design & Build for helping to design the exhibition, to RESET and CAT supporters for helping to build and install it and to Dufaylite Ltd for supplying the cardboard.

www.futureoftheworld.org

From top to bottom: Rice Husk; Pine Cone;



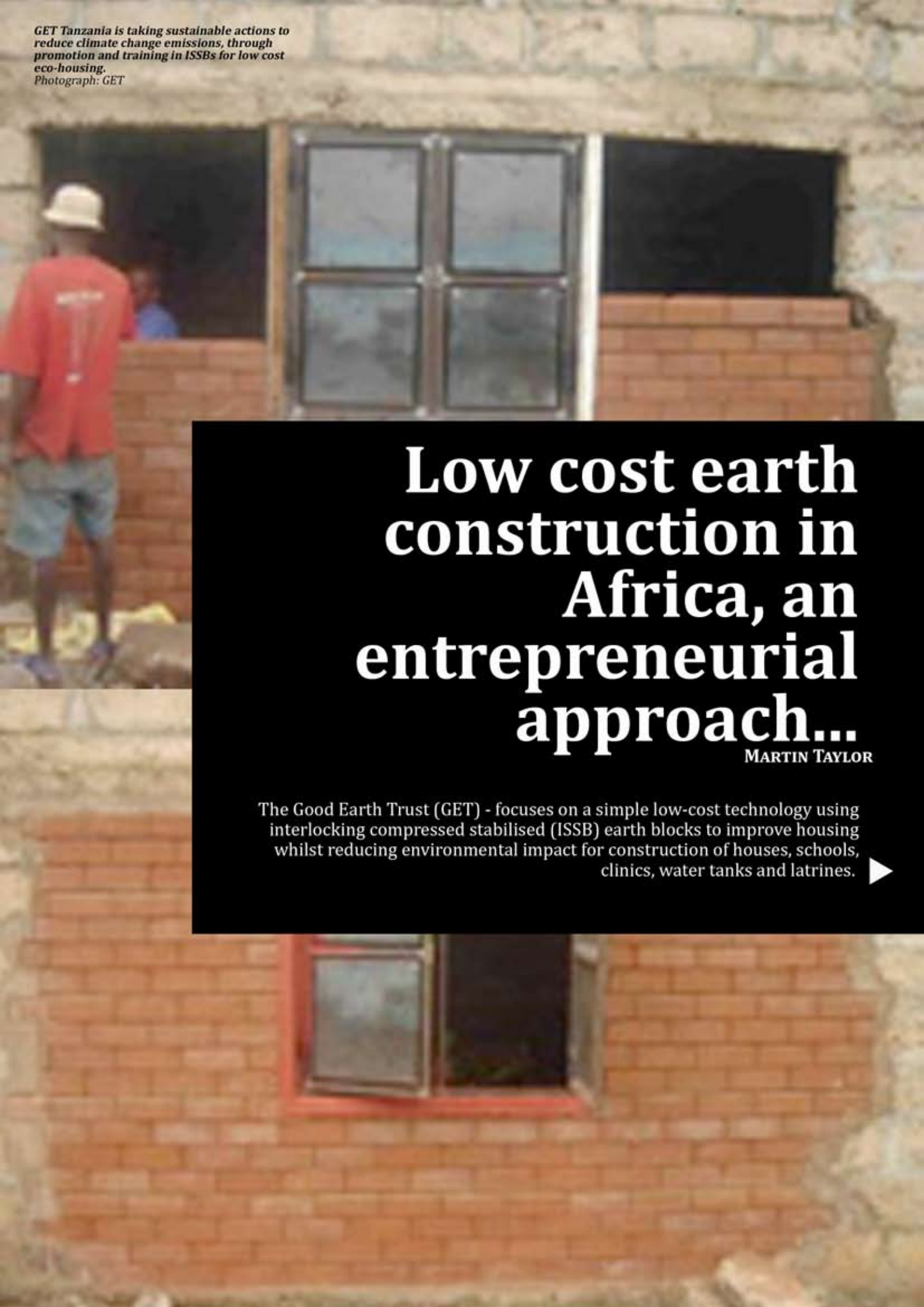
Internships at RESET

CASSANDRA DOVE

During my eight weeks working as an intern with RESET I have been involved in such a wide range of activities it seems absurd that is has all taken place within such a short time-scale. Having been given the role of exhibition co-ordinator for the Integrated Habitats Design Competition and assist in promoting both the competition and the organisation itself. It was great to see such a wide range of entries and be involved in showcasing some innovative projects. I was involved in the graphic and design side of the exhibit as well as the more hands on construction and installation and so it was wonderful to see the finished production when the exhibition was finally unveiled at the opening night.

My overall experience has not only allowed me to obtain an array of new skills but being involved with the organisation and taking part in RESET's training courses, for example, I have been given an insight into the current challenges in the construction industry and yet also a sense of enthusiasm in that organisations like RESET are working towards changing current trends and inspiring architects and other construction professionals to improve our relationship with the environment.

To find out about our latest internship roles at RESET just go to our website: www.reset-development.org/internships



GET Tanzania is taking sustainable actions to reduce climate change emissions, through promotion and training in ISSBs for low cost eco-housing.
Photograph: GET

Low cost earth construction in Africa, an entrepreneurial approach...

Martin Taylor

The Good Earth Trust (GET) - focuses on a simple low-cost technology using interlocking compressed stabilised (ISSB) earth blocks to improve housing whilst reducing environmental impact for construction of houses, schools, clinics, water tanks and latrines.

Training is practical and applied. Blocks integrate into incomplete structures - large marketing opportunity. Dry stacked blocks reduce cement.
Photograph: GET

The Good Earth Trust (GET), (www.goodearthtrust.org.uk) - focuses on a simple low-cost technology using interlocking compressed stabilised (ISSB) earth blocks to improve housing whilst reducing environmental impact for construction of houses, schools, clinics, water tanks and latrines.

In Arusha, Tanzania, we have developed an innovative integrated training model. It provides skills to test soils, produce quality ISSB blocks, good practice construction techniques, and field-based training on live projects. Graduates btain a practical skills portfolio, knowledge of appropriate basic infrastructural needs offering a packaged, sustainable approach for low-cost rural eco-housing.
These include environmental sanitation and sound water management practices.

Entrepreneurs face difficulties to raise the £1,000 to purchase an ISSB block press. The uptake of ISSB technology has been good post-training, especially for those funded by CSR projects. Grace's father received a loan from his hotelier employer. Within 3 months, she has 2 house contracts. However, others cannot raise capital to start-up.

We are looking for support to train and provide basic financing for training and ISSB purchase. We promote this stabilised approach due to the quality of product, use of local talent and materials, provides good value and longevity, greatly improve people's living conditions, support local small-scale business and have significant environmental benefit. The technology has huge potential - it can improve housing for millions of people, savings hundreds of millions of dollars, tens of millions of trees and millions of tonnes of CO2.

Training is practical and applied. Blocks integrate into incomplete structures - large marketing opportunity. Dry stacked blocks reduce cement. We hope this may help raise awareness and promote the work we are doing here with ISSBs and encourage support for young entrepreneurs to get started in the technology.

Read more: UN Habitat / Good Earth Trust ISSB publication:

www.goodearthtrust.org.uk

RESET

www.reset-development.org | info@reset-development.org
Registered Charity: SC038796 | Registered Ltd Company: SC329201

RESET's purpose is to expand the awareness, knowledge, skills and capacity of communities and professionals in the ecological design and resilience of our built environment