

UFI Sustainable Development Award 2018

IMPLEMENTING SUSTAINABILITY IN EXHIBITION BOOTHS

AND RELATED OPERATIONS



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**DESIGN
DISPLAY** 

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1. BACKGROUND

During my childhood, I spent a lot of time in my parents' two stores (a general dealer and a hardware store), where I developed a fascination with using things for alternative applications to what they were intended for. I would, for example, create "pictures" or "sculptures" using nails, plumbing supplies, off-cut glass, string, waxed cardboard, milk top bottles... whatever I could find lying around.

Jump forward 20 years, and after studying graphic design I immediately moved into exhibition design. I soon realised that my way of thinking and approach in this field was very different to the trends of the time.

I have a very theatrical attitude towards exhibition stands. I believe they are not showrooms but "theatres of selling", and the more a visitor is entertained, the more they relax and are receptive to new ideas. As part of this, I like to do unusual things that will make people smile. So, while exhibition companies in South Africa took a very architectural approach, I was using less sophisticated materials such as raw steel reinforcing rods, galvanized steel sheeting, raw untreated particle board and even cardboard. I quickly became known as the strange and eccentric one in the local industry.

This was long before "green" and "sustainable" were buzz words and recognised aesthetics. In fact I hadn't even realised the sustainable potential in my work. It was only as I learned more about carbon footprints and sustainability in general over the next ten years, that I started to recognise that my natural passion for low-tech methods, using local materials, and repurposing and recycling could be further channeled in that direction. I'd also always taken pleasure in donating goods to charities and underprivileged communities, so that was also an aspect of sustainability that I have continued with.

This all culminated in the shape that Design and Display takes today, as a design studio for exhibition stands as well as retail, interiors, events and theatre set design. We practice sustainability in a number of ways:

A MINIMALIST, LOW-TECH APPROACH

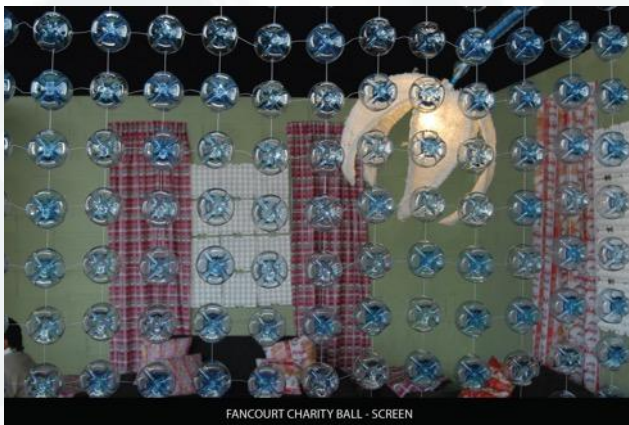
Most of my construction methods are low-tech – using simple technologies with limited tools and machinery. As a result, I don't tend to build big and complicated structures, but rather simple ones made with just a few materials and lots of open spaces. This minimalist approach helps me to reduce my need for building materials and the associated energy and material costs for construction, not to mention the carbon footprint involved in production and transportation.

I have a similarly minimalist approach with lighting, preferring to have fewer lights to create highlights and shadows and drama. The availability of really great LED lighting also means I can effectively reduce my energy consumption.

REPURPOSING WASTE AND MATERIALS

I like to use the “wrong” materials in the “wrong” context. Often this includes using items that are considered junk, which I re-purpose or up-cycle in unexpected ways. It's these kinds of items that I tend to use for décor, design themes and focal points on exhibition stands – so while my structures might be minimalist, I create a feast of visual interest happening within these spaces with these surprising elements.

Possibly because I perceive a different value in these materials, I also strive to make sure that they don't go to landfill when I am done using it. I keep a lot of it for re-use, or I donate it to others who can benefit from them. I'm also mindful of how I use these items in my exhibits, so that they are usable afterwards – for example, avoiding unnecessary drilling and cutting into board and timber, wherever possible.



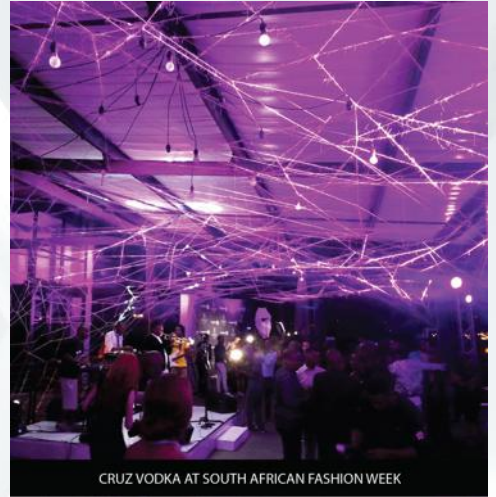
SOURCING LOCAL MATERIALS

I like to play and have fun with different materials which catch my eye, which means I work a lot with local materials, both natural and manmade. The advantage here is that I don't need to import supplies, but can take from my immediate environment. This greatly reduces the carbon footprint of my designs.

A lot of materials are used in their existing state, which means fewer production processes, fewer resources and, again, a lowered carbon footprint



CRUZ VODKA AT SOUTH AFRICAN FASHION WEEK



CRUZ VODKA AT SOUTH AFRICAN FASHION WEEK

EMPLOYMENT AND UP-SKILLING OF PEOPLE

I have, over the years, tended to employ young people who are fresh out of college and I train them up in my methods. Unfortunately they often get poached! This means my skills-sharing is an ongoing process. I also take in students every year, for in-service training. I believe it is important to share skills and educate others, not only so they can learn a trade, but so they can also discover more sustainable methods of working.

For the various projects I work on, I also like to look for opportunities to approach craft groups who are helping their communities, so they can handcraft my designs. For example, when I did the event décor for the Fancourt Charity Ball, I commissioned people living in George (the local town of this event) to create wire lights and lampshades for me. Not only did I pay them for the project, giving them some income, but I first taught them how to create the objects. This gave them new skills which they could continue to use, to further their employment opportunities.



FANCOURT CHARITY BALL - WIRE LIGHTS



FANCOURT CHARITY BALL - LAMPSHADES

DONATIONS

While I like to keep a lot of the materials I work with, for possible re-use in the future (I am a bit of a magpie in this regard), I also donate as many of a stand's components as possible, after an event. These efforts mean a very limited amount of the stands I create become landfill waste.

The benefits that communities receive from donations shouldn't be understated. According to the latest Statistics South Africa survey, in 2015, 30.4 million South Africans were living in poverty.ⁱ

In the following pages I will also mention informal settlements a few times. These are areas where people live in dwellings they have constructed themselves, using bricks, wood, corrugated iron, plastic sheeting – whatever inexpensive materials they can find and use. Many are very primitive and temporary. As of 2014, 13.1% of households in South Africa lived in informal settlements.ⁱⁱ Many of my donations go to informal settlements, where the people can be incredibly innovative in finding ways to use and benefit from the resources they receive.

2. ACTIONS

My entry for the UFI Sustainable Development Awards will unpack three different exhibits I have worked on, which demonstrate my sustainable design principles and practices. In the process I hope to show how these methods and strategies can be employed by anyone, anywhere. No special construction materials or methods are needed. Everything is done in simple ways, using simple objects and resources.

A. Event: WORLD SUMMIT FOR SUSTAINABLE DEVELOPMENT, 2002

Client: South African Department of Arts & Culture

City: Johannesburg

THE BRIEF

The Department of Arts & Culture wanted to showcase examples of indigenous arts and craft from all the various cultures in South Africa on this international platform. The exhibit was named "Beautiful Things". Hearing about my unusual design aesthetic that uses a low-tech approach with lots of natural and typical "waste" materials, they contacted me to design the stand in a way that would not only be an effective exhibit but would also demonstrate sustainable design principles.

THE DESIGN

I came up with an idea inspired by a bird's eye view perspective, such as from a plane window, looking out across vast tracts of our country and all the vibrant, creative diversity it contains. I liked this concept as it supported the need to present an array of different cultures and objects in a unified display, and in an open and inviting way. I called it: "Out of the earth by the people of South Africa."

I created a patchwork landscape of 1.8 m² coloured blocks on the floor, which were filled with earthy materials like different coloured soils and stones, gravel, and coal – much like the different coloured fields you see from the

air. Different cultures and crafts were displayed in these distinct blocks, mostly flat on the ground. At occasional intervals, to add some height, I included small podiums. In keeping with the theme of the exhibit, these were commissioned by local crafters, who used traditional techniques with raw untreated thatching lathes. Visitors could then wander between the “fields” and podiums, looking down.

Some thatching lathes were used with corrugated cardboard, to create dividers around the edge of the venue. Graphics printed on fabric were hung on these. And a small amount of chipboard was used to create a frame in which I spelt the word ‘CRAFT’ using suspended paper plates. The chipboard was stained with a thin coating of watered down PVA paint.



An advantage to this design was that it required very few physical structures. Not only did this minimise the need for materials (both a financial and environmental cost saving), but it was quicker and easier to assemble. This was critical as I needed to create the 1 500 m² exhibition, from conception to completion, in 25 days.

All of the materials used were sourced from Gauteng, except for some porcupine quills and Guinea fowl feathers which I bought from a lady in the Karoo who collects them and sells them.



THE WASTE

Post event, all of the stand items were returned, donated or recycled:

- All of the crafts on display were returned to the Department of Arts & Culture, to go back to the crafters.
- The majority of the earth materials (sand, stones, etc.) were sold back to the supplier, as per an agreement we had to do this. A small amount of sand and gravel was donated to a crèche in Soweto, to use for sandpits and a gravel for driveway, respectively.
- The thatching lathes, contract exhibitors carpeting and chipboard were taken to an informal settlement, where people construct their own homes with whatever low-cost materials – so they were likely used for this purpose.
- The fabric graphics were given to South African crafters that I met at this exhibition, who wanted to use them in the lining of the handbags they make.
- The cardboard discs that spelled out CRAFT, and the small cardboard sign boards next to each craft display, were both recycled. Neither had any lamination, glues or other substances applied to them, to ensure they could be recycled afterwards.



THE OUTCOMES

Economic benefits: This cost of this stand was low, given that most of it was made from items that were loaned for the exhibition, and then returned. The only hard costs were for transport, the timber, the cardboard and fabric prints, and a few sundries.

Environmental benefits: I sourced nearly all of the materials used on the stand from around Gauteng, which meant the travel-related carbon footprint was minimal. Most materials could be re-used and repurposed, so very little waste was produced. What was, was recycled.

Additionally, the construction of the stand was very low-tech, and required very little electricity or resources for drilling and joining items. I also mostly relied on the venue's natural lighting during the day, so only needed a small amount of lighting in the centre of the stand for at night. This helped to keep our electricity requirements down.

Social benefits: I tried to procure everything locally, and supported local crafters by commissioning them to create the thatched podiums for me. Of the few unneeded items after the event, most were donated to people who could derive a clear benefit from them. Very little was recycled, as a last resort to prevent waste going to landfill.

Return on investment: The Department was impressed with the response they received at this event. In fact, they ended up asking me to replicate the "Beautiful Things" exhibit at a 2005 exhibition in Shanghai called Nan Fei Total, and again at the 2012 London Olympics. (See the Addendum for more information and photos of these events.)

Accolades: The Department of Arts & Culture received an invitation from the Smithsonian in Washington DC to take the exhibit there. (Unfortunately, due to budget constraints, they did not take up this offer.)



B. Event: CLIMATE CHANGE RESPONSE EXPO AT COP17, 2011

Client: South African Department of Arts & Culture

City: Durban

THE BRIEF

The Department of Arts & Culture had a selection of beautiful handcrafted items, like lampshades, chairs, pots, bowls and sculptures, which they wanted to display at the COP17 Climate Change Response Expo. As the event was about promoting climate change mitigation and adaption, the stand also needed to be a sustainability showcase.

THE DESIGN

The structure I decided to create was made from MDF (medium density fibre board), which I sourced from a local Durban contractor, who was also responsible for assembling it onsite for me. I requested he do it in such a way as to minimise any marks or damage to the board. It was free of edging and holes (except for the boards that the hired lights were inset into), and I kept its surface raw and unfinished, excluding small areas that I stained with a thin black water-based wood stain to create contrast and highlight the items on display.

The rest of the display was made with items that would typically be referred to as waste – quirky collected junk like polystyrene fruit trays, cardboard egg trays, take-away boxes, straws, scraps and paper, and the like. Some of these I already had in my possession (I keep unusual items I think I can potentially use), while the rest were collected for me, by school children from a local Durban school. I used these pieces to create texture and interest behind the display items.

A small amount of printing was done on fabric. The prints were suspended and positioned using nothing other than raw sisal string and nails.

The carpeting was supplied by the organisers with the space. They donated them after the event, to various charities in Durban.



THE WASTE

Post event, all of the stand items were returned, donated or recycled:

- All of the Department's items were returned to them, and the hired lighting was returned to the supplier for re-use.
- Many of the almost-as-good-as-new MDF pieces and collected junk were donated to Umcebo Design, an organisation born out of a long history of working with marginalised people of varying abilities. Umcebo is founded on the idea that art and craft can be elevated to a new level of creativity by using waste materials, and, at the same time, generate valuable income for participants. Their crafters hand-make made-to-order décor items. They also run workshops with school children and local communities, where they emphasise the importance of re-purposing discarded materials and recycling.
<https://www.umcebodesign.co.za/>
- Some of the MDF that Umcebo Design did not take went to an informal settlement near the Durban contractor's factory. It was likely used for constructing or repairing homes, or to make temporary furnishings like tables or beds.
- The waste items that Umcebo Designs could not use were recycled, where possible.



CLIMATE CHANGE RESPONSE EXPO AT COP17 (2011)

THE OUTCOMES

Economic benefits: Aside from the shell of the stand and minimal graphic printing, all other stand materials were salvaged waste items.

Environmental benefits: All of the stand materials and parts – excluding the MDF which I bought new – were rented or up-cycled. And because I was able to find ways for the stand materials to be re-used and re-purposed afterwards, I would estimate that 98% of the stand was diverted from landfill.

Social benefits: I believe this stand benefited a few different members of the local Durban community in different ways:

- In requesting the school children to collect waste for the stand, I like to think I may have helped them to look at their world and waste a little differently, while also getting them involved in and aware of an international climate change event. There was also a financial reward incentive.
- I enjoy working with Umcebo Design, given the work they do that is along my lines: up-cycling waste into beautiful items, and reaching out to their local community to spread their environmental message.
- Additionally, people in informal settlements have very little and can be incredibly creative. I am sure whatever materials they received they put to good, innovative use.

Return on investment: The client was very happy with their award-winning stand and the effect it had on visitors to the show, who were highly entertained when they recognised the various waste materials displayed in such an upmarket and stylish way.

Accolades: This stand won the Best Green Stand Award for its category – an achievement that was all the more special given that there were over 100 exhibitors at this event who had also created sustainable exhibition stands.



CLIMATE CHANGE RESPONSE EXPO AT COP17 (2011)

C. Event: TOURISM INDABA, 2012

Client: Gauteng Tourism Authority

City: Durban

THE BRIEF

Gauteng Tourism Authority wanted to promote tourism in the province, and showcase a number of SME (Small and Medium Enterprise) businesses from the tourism industry. I motivated to them to go for an ultra-sustainable stand design, given the important role that tourism can play in sustainable development for the region.



THE DESIGN

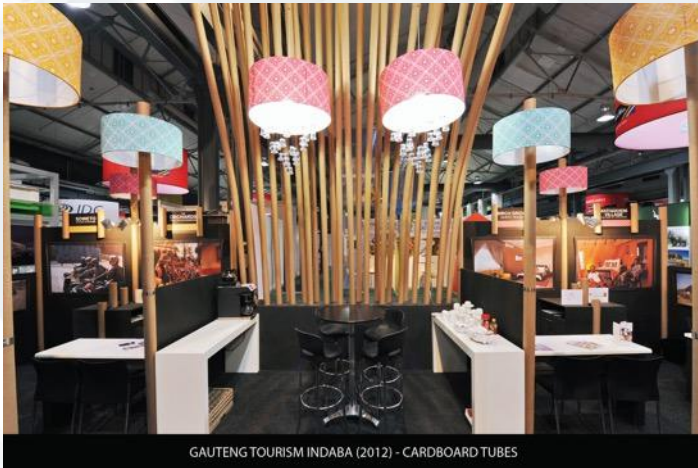
The stand structure was essentially made from three materials: unfinished MDF (medium density fibre board), recyclable cardboard tubes and steel brackets. With these items, I effectively developed my own system to build the entire stand. It is a very low-tech approach, and it created a soft, pleasing and unexpected visual impact.

Most of the stand walling was MDF which I sprayed with a black water-based stain, as spraying uses much less product than traditional application methods. Cardboard tubes were connected to the walls with the steel brackets that I designed and manufactured for this purpose. Some especially long cardboard tubes (up to 6m long) towered up and around the perimeter of the stand, curving in gently to represent elephant tusks. The curve was achieved by spraying the cardboard with water to soften it slightly, so I could bend it and let it dry into its new shape. The overall effect was “African splendour”.

I made the lampshades, after creating our own fabric print for them. The graphics were printed on fabrics and hung on the MDF walling.

All of the lighting, the carpets and most of the furniture were hired from the exhibition organiser. The only exception were a few desks which I made out of MDF, which I also lightly stained black.

Aside from the cardboard tubes which I made in Johannesburg, all other materials were sourced from Durban.



THE WASTE

Again, post event, all of the stand items were returned, donated or recycled:

- The hire items were returned to the suppliers. Most of the lampshades went to the Gauteng Tourism Authority to use in their offices, while I kept the remaining ones to use at other events.
- I have kept the steel brackets which I still use today.
- The graphics were given to the various individual SME exhibitors and to the client, to re-use in their office décor and marketing efforts.
- The MDF walling went to an informal settlement, where it most likely was used to build or repair homes, or create furnishings.
- The cardboard tubes went to Umcebo Design, to create handcrafts. They recycled what they could not use.
- The desks I made were happily received by Umcebo and also a local crèche, to use at their facilities.



THE OUTCOMES

Economic benefits: The materials used for this stand were fairly inexpensive, and some of the costs that were invested into it produced goods that could be used beyond the exhibition – such as the lampshades which were then used at the client’s offices.

Environmental benefits: As for the previous projects, I mostly used local suppliers to keep our travel-related carbon footprint low. (The only exception were the cardboard tubes which came from Johannesburg.) I also managed to divert most of the stand waste from landfill, through re-use or recycling initiatives.

Social benefits: Clear benefits were gained by the crèche who received desks that their children could use, while the informal settlement inhabitants will have been able to use the large pieces of MDF in versatile and useful ways in their homes. Again, Umbeco Designs is also very creative and was able to use the materials I gave them to create their crafts – which helps to support the livelihoods of their crafters.

Return on investment: The client was delighted to win two awards at this event, including the coveted best overall stand at this event.

Accolades: We won the Best Pavilion and Best overall Stand Awards.



3. CONCLUSION

Overall, I believe my approach to sustainable exhibition stand design addresses all three aspects of sustainability:

- it is economically viable and sustainable;
- it is environmentally responsible through sourcing local materials, using few resources, minimising resource intense processes, and minimising waste production; and
- it creates social benefits for the people from local communities, through employment opportunities, skills development, and donations of useful items.

However, the jury is out if “my way” costs less than traditional stand construction, as I believe in rewarding the crafters and people who custom-make items for me by paying them well. Also, by not relying on cheap and mass-produced imports, I sometimes pay higher rates than others would. But at the same time, I think there is definitely a saving when I use salvaged items, as opposed to having to buy it.

Unfortunately I do not have measured results of the effects of my efforts, in part because these things are hard to measure, and also because my entry is being done retrospectively on events over the years. But I hope I have illustrated the extent of my efforts, and the type of impact I have been able to have through the exhibition stands I create.

I do also believe my work is replicable and scalable, as my ideas can be executed on a large or small scale. The simplicity of my low-tech approach also makes it easy to imitate, as no expensive or complicated technology is required. Just lots of creativity!

4. ADDENDUM

Event: NAN FEI TOTAL, 2005

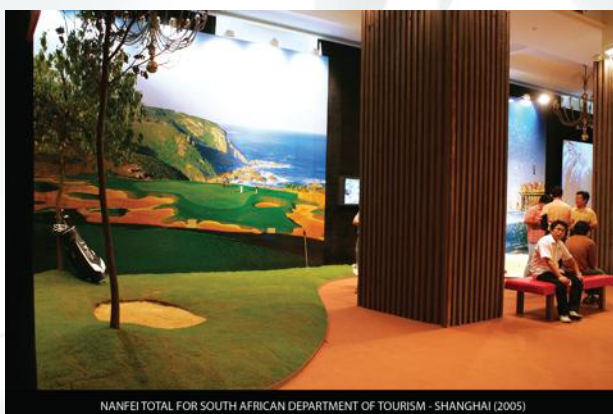
Client: South African Department of Arts & Culture

City: Shanghai

I carried the patchwork concept I used for the Department of Arts & Culture “Beautiful Things” stand at the World Summit for Sustainable Development to this event. Large floor to ceiling fabric graphics were placed behind the floor blocks of the different earths, to create a continuous scene and the illusion of “being there” with minimal construction.



I also brought in a number of traditional South African design elements, such as thatched lathes and corrugated iron (both popular roofing and building materials here) to clad the columns within the space. And I added in hand-crafted chandeliers made from galvanised wire and plastic yoghurt cups.



EVENT: THE EKHAYA VILLAGE AT THE LONDON OLYMPICS, 2012

CLIENT: South African Department of Arts & Culture

CITY: London

This exhibit was a continuation of the “Beautiful Things” theme and concept I created for the Department of Arts & Culture. It was on display in the Ekhaya Village, a pavilion hosted by the South African Departments of Arts & Culture, and Sports and Recreation at the South Bank Centre for the 2012 London Olympics.

This time, instead of soil and earthy products for the floor blocks, I used recycled or recyclable products that are recognisable as every-day items in South Africa. This included things like: match boxes, shredded newspaper, scouring sponges, drinking straws, cardboard egg trays, plastic eating utensils, and more. These are all lightweight and easy to transport, so I was able to keep our travel-related carbon footprint to a minimum.



THE EKHAYA VILLAGE AT THE LONDON OLYMPICS (2012)

I kept those materials that I wanted for re-use, but the rest were given to a UK contact who then distributed them to local UK charities who would be able to use them.

The exhibit was so well received that it was requested to remain on display for the period between the Olympics and Para-Olympics, as well as during both events.



THE EKHAYA VILLAGE AT THE LONDON OLYMPICS (2012)



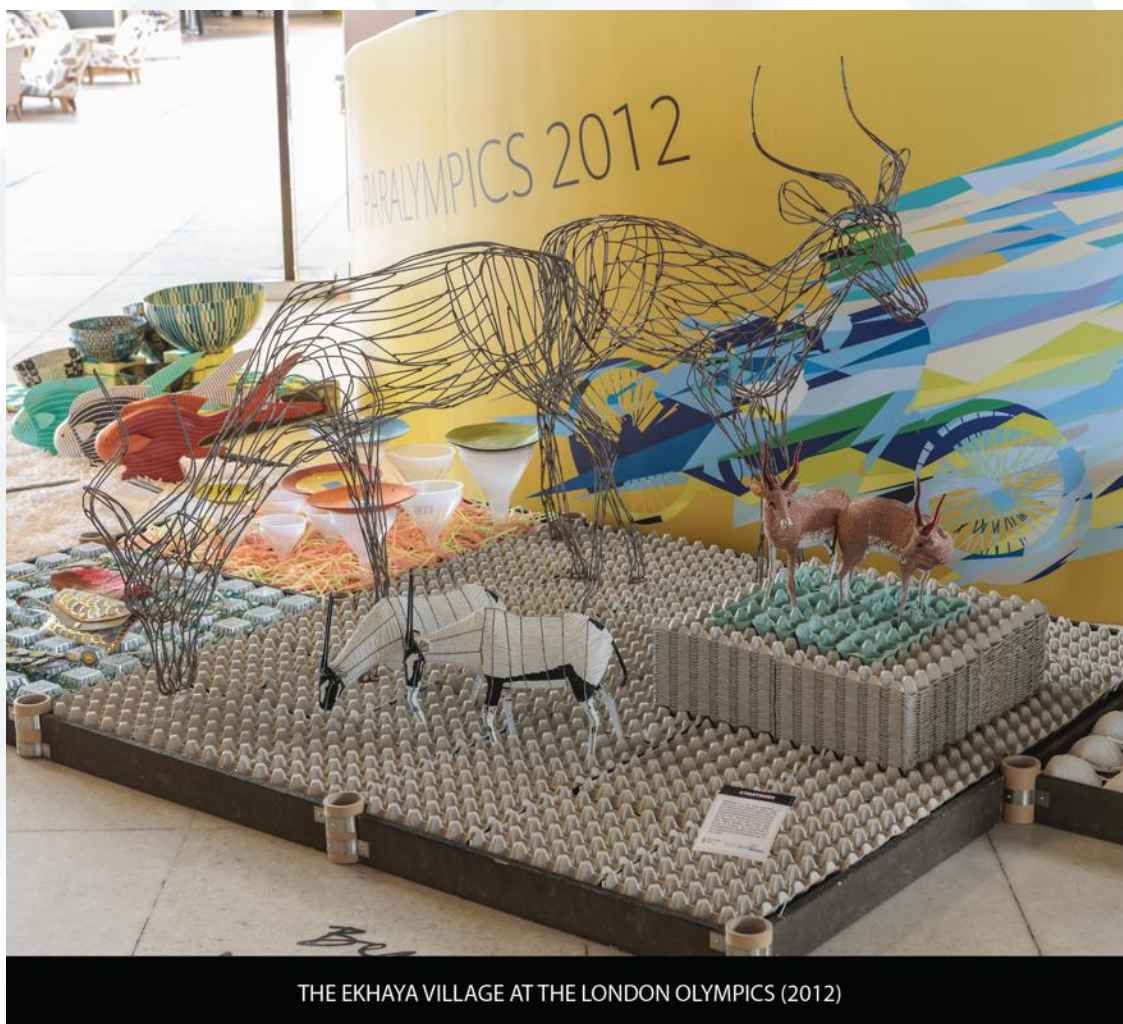
THE EKHAYA VILLAGE AT THE LONDON OLYMPICS (2012)



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THE EKHAYA VILLAGE AT THE LONDON OLYMPICS (2012)

ⁱ <http://www.statssa.gov.za/?p=10334>

ⁱⁱ <http://www.statssa.gov.za/?p=6429>