FOREWORD

In this volume, the work of several international designers, as well as a few internationally recognised South African designers, feature as case studies to highlight the business context of design. The emphasis is on the interpretation of a design brief, the design process, the development and production of a product and the commercialisation thereof. These case studies will serve as an invaluable resource for both Design teachers and learners.

Since the implementation of Design as a subject in the FET curriculum, Woolworths has played a vital role in developing learning and teaching support materials, offering support workshops to teachers, making the Design Indaba accessible to teachers and learners and organising an annual design competition for learners in the FET Band. This collaboration between the business sector and the formal education sector is crucial, not only in the development of an innovative and creative design industry in South Africa, but also for developing discerning consumers.

Design can add value to people's lives and make a significant contribution to the South African economy, both formally and informally. With the important commitment of Woolworths to design education in South Africa, this vision can be realised.

Penny Vinjevold
Head: Education, Western Cape

Western Cape Government
Education

WOOLWORTHS EDUCATIONAL PROGRAMMES

DEAR TEACHER

On behalf of Woolworths, it gives me great pleasure to welcome you to the second volume in our Making the Difference Through Design resource guide, which is part of our Making the Difference Through Design Educational Programme.

You might be asking yourself why a retailer is involved in an initiative like this. In addition to being passionate about quality and value, Woolworths is also passionate about design and committed to contributing to education in South Africa through programmes like this, as well as through our contributions to MySchool and our sponsorship of Design Indaba. We believe that the best way to develop Design as a subject in schools is to provide young people with the kind of education that inspires thinking and creativity.

That's why together with our partners – Design Indaba, the Western Cape Education Department and Sappi – we launched the first volume of Making the Difference Through Design in 2006. Then, as now, our aim was to enrich the educational process by providing high school Design teachers with real-life case studies from practising designers. Over the past six years, thousands of youngsters have benefited from this programme. Many have been able to develop their talent, while others have discovered theirs. Even those who have not gone on to pursue careers in design have learned to appreciate the value of design and creative thinking.

While the first volume celebrated home-grown design heroes, this time we wanted to bring a broader perspective into the South African design classroom and are privileged to have contributions from some of world's best design practices as well as South African designers with a global footprint. We've asked our contributors to provide insights into the commercial aspects of their projects as well as the challenges they faced in bringing them to fruition. The commercial side of design is particularly important in a South African context, as we believe that successful designers, as young creative entrepreneurs, can make a significant economic contribution by creating jobs and teaching skills.

Like the first volume, this second volume of Making the Difference Through Design provides a wealth of information and insights to assist teachers in guiding learners to achieve the required outcomes-based learning objectives across the four design disciplines as outlined in the Curriculum and Assessment Policy Statement. The particular discipline addressed is clearly indicated both on the contents page and at the beginning of each case study.

I would like to thank the Education Departments of the Western Cape, Gauteng, and KwaZulu-Natal and our partners for their continuing support, and all our contributors most sincerely for giving unselfishly of their time in sharing their expertise and experience. Together, we will continue to make a difference.

Pieter Twine
General Manager: Loyalty & MySchool

SAPPI SUPPORTS DESIGN

Sappi has been a strong supporter of the design industry for many years and has been involved with design education through various programmes and sponsorships. We are proud to be involved with the Woolworths Making the Difference Through Design programme.

We believe that this resource guide entrenches good guidelines for design students and teachers to further their talents. It also provides a platform for established designers to share valuable insights and design trends. The resource guide showcases design as a career prospect and reflects a belief in design and the roles it plays in the economy. It is a publication that brings together the power of ideas and creativity on paper.

Madelaine Fourie
Communication Manager: Brand Management, Sappi Limited

sappi
Inspired by life

DESIGN INDABA COMMITS TO "MAKING THE DIFFERENCE THROUGH DESIGN"

Design Indaba's association with the Making the Difference Through Design programme is a natural fit. It was the belief that we could make a difference using design that led to the birth of Design Indaba and continues to be the driving force behind all our initiatives.

Interactive Africa, the founding sponsor of Design Indaba, realised that if all South Africans could work together, harnessing their diverse competencies, this would grow our industries and as such, our democracy.

For this reason, every year since 1995, Design Indaba has gathered the world's brightest creative talents, innovators, educators and thought-leaders to participate in an event that inspires and campaigns for a better world through creativity, across multiple disciplines.

The event has seen thousands of people walk through our doors to interact with the world's brightest minds and to be inspired by the endless possibilities of human ingenuity and creativity.

Similarly, Design Indaba Expo offers a unique opportunity to gauge the temperature of South African design industries. It's a platform for showcasing the talents of local designers, emphasising that we are able to take young talent and nurture it to blossom into a new generation of design excellence.

Design Indaba has committed itself not only to positioning South Africa as a creative hub and a destination that inspires and nurtures creativity, but also to a vision that rests on the belief that creativity can fuel an economic revolution in the country.

It is our belief that the creative industries as a sector can and will make a meaningful and measurable contribution to the South African economy. In addition, Design Indaba contributes to education and training through the Design Indaba Trust and other initiatives aimed at skills development and sustainable job creation.

Design Indaba has been a lightning rod for the South African creative industry, and we are exceptionally pleased that its global network, goodwill and intellectual capital has assisted in making this educational project possible.

Ravi Naidoo
Managing Director: Interactive Africa

DESIGN
INDABA

INTRODUCTION

The Curriculum and Assessment Policy Statement (CAPS) defines Design as "a creative problem-solving process and includes the study of both design practice and design theory". It describes the design process as involving "problem identification, planning, research, innovation, conceptualisation, experimentation and critical reflection," and explains that, "This process typically results in new environments, systems, services and products, which may be unique or intended for mass production, or which may be constructed by hand or produced by mechanical and/or electronic means. Design adds value to life by creating products that have a purpose, that are functional and that have aesthetic value. Design products can shape the social, cultural and physical environment to the benefit of the nation".

The true value of the study of design is even greater. As the Curriculum Statement says, "Most importantly, Design equips learners with crucial life skills such as visual literacy, critical and creative thinking, self-discipline, and leadership. It also encourages learners to be resourceful and entrepreneurial, to strategise and to be team players".

The case studies in this resource guide represent all four of the Design Disciplines as defined by the Curriculum Statement:

Visual Communication Design – includes but is not limited to advertising design, animation, digital design, film and video, graphic design, brand communication design, illustration, information design, packaging design and applied photography. Examples of Visual Communication Design products are on- or offline marketing and media campaigns, websites and documentaries, posters and email flyers, packaging and adverts, etc.

Surface Design/Two Dimensional Craft Design – usually refers to two-dimensional work. This could include but is not limited to appliqué, embroidery, beadwork, mural design, stained glass, tapestry, textile design, weaving, 2D ceramics, graffiti, mosaic, gift wrap design, wallpaper design, fibre design and fashion. Any surface design may be developed into a product. Examples of Surface Design products are duvets and curtains, tapestries and carpets, tiles and wallpapers, etc.

Product Design/Three Dimensional Craft Design – usually refers to three-dimensional design. This could include but is not limited to basketry, beadwork, carving and wood turning, ceramics, fashion and costume design, industrial design, jewellery design, paperwork, puppetry, wirework, furniture design and glass blowing. Examples of Product Design products are clothing and crockery, 3D ceramics and jewellery, furniture, appliances and gadgets, etc.
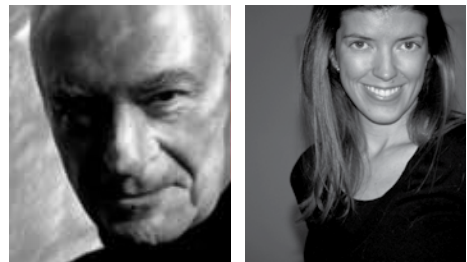
Environmental Design – includes but is not limited to architectural design, urban and landscape design, display, event or exhibition design, interior design, theatre and set design, interior decorating, public sculpture and land art. Examples of Environmental Design products are buildings and bridges, container classrooms and display booths, stages, rooms and public spaces such as parks, etc.

These disciplines are represented throughout this volume by the above symbols. More than one discipline applies to some of the case studies presented. The symbol(s) of the discipline(s) relevant to each case study appear on the first page of the study.

CONTENTS

MASSIMO VIGNELLI

WITH ASSOCIATE

BEATRIZ CIFUENTES-CABALLERO

A NEW CORPORATE IDENTITY FOR WOOLWORTHS

BIOGRAPHY - MASSIMO VIGNELLI
Massimo Vignelli was born in Milan and studied architecture in Milan and Venice. In 1960 he established the Vignelli Office of Design and Architecture in Milan with Lella Vignelli. In 1965 Massimo Vignelli became co-founder and design director of Unimark International Corporation. With Lella Vignelli, he established the offices of Vignelli Associates in 1971, and Vignelli Designs in 1978. His work includes graphic and corporate identity programmes, publication designs, architectural graphics, and exhibition, interior, furniture, and consumer product designs for many leading American and European companies and institutions.

Vignelli has had his work published and exhibited throughout the world and entered in the permanent collections of several museums; notably, the Museum of Modern Art, the Metropolitan Museum of Art, the Brooklyn Museum, and the Cooper-Hewitt Museum in New York; the Musée des Arts Decoratifs in Montreal; and the Die Neue Sammlung in Munich. He has taught and lectured on design in the major cities and universities in the United States and abroad.

He is a past President of the Alliance Graphique Internationale (AGI) and the American Institute of Graphic Arts (AIGA), a Vice President of the Architectural League, and a member of the Industrial Designers Society of America (IDSA).

Among Massimo Vignelli's many awards:
• Gran Premio Triennale di Milano (1964)
• Compasso d'Oro, from (ADI), Italian Association for Industrial Design (1964, 1998)
• Industrial Arts Medal of the American Institute of Architects (AIA) (1973)
• New York Art Directors Club Hall of Fame (1982)
• AIGA Gold Medal (1983)
• The first Presidential Design Award, presented by President Ronald Reagan, for the National Park Service Publications Program (1985)
• The Interior Design Hall of Fame (1988)
• The National Arts Club Gold Medal for Design (1991)
• The Interior Product Designers Fellowship of Excellence (1992)
• New York State Governor's Award for Excellence (1993)
• The Brooklyn Museum Design Award for Lifetime Achievement (1995)
• Honorary Royal Designer for Industry Award, Royal Society of Arts, London (1996)
• The National Lifetime Achievement Award from the National Museum of Design at Cooper-Hewitt, New York (2003)
• The Visionary Award from the Museum of Art and Design, New York (2004)
• Architecture Award from the American Academy of Arts and Letters, New York (2005)

He has also been awarded an Honorary Doctorate in Architecture from the University of Venice, Italy (1994), and Honorary Doctorates in Fine Arts from Parsons School of Design, Pratt Institute, Rhode Island School of Design, Corcoran School of Art, Art Center College of Design and the Rochester Institute of Technology.

**BIOGRAPHY -
BEATRIZ CIFUENTES-CABALLERO**
Born in Granada, Spain, Beatriz Cifuentes-Caballero arrived in New York in 1999 to work for Vignelli Associates, and in 2007 became Vice President of Design. Her work for a wide range of international clients includes book and publication design, corporate identity programmes, product design, architectural graphics, transportation graphics, exhibitions, web design, and jewelry design.

In 2008 she worked with Massimo Vignelli and Yoshiki Waterhouse on the redesign of the New York City Subway Diagram. The following year she won first prize for web design for the website www.richardmeier.com from the Chicago Atheneum. In 2011 she worked with Massimo Vignelli and Yoshiki Waterhouse on the design of The Weekender, the weekends only website of New York's Metropolitan Transportation Authority.

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Woolworths South Africa
Corporate Identity Case Study

August 30th, 2011

WOOLWORTHS

THE BRIEF

At the beginning of 2007 Charmaine Huet, Group Director of Marketing for Woolworths South Africa, sent us a briefing asking for a new Corporate Identity Programme that would "refresh, rejuvenate and modernise the visual identity" of Woolworths.

We were very aware of the market position of Woolworths in South Africa and of their commitment to quality and product integrity. In our previous visits to Cape Town we had had the opportunity of experiencing it ourselves and had been quite impressed. So it was with great pleasure and excitement that we accepted the challenge offered by the initial briefing.

To "refresh, rejuvenate and modernise the visual identity" of Woolworths was a great opportunity, but because of its size, also quite a challenging one. However, knowing that we would be working with a young, dynamic and intelligent executive, supported by equally intelligent and forward-looking top executives, gave us the assurance that we had all the elements for a successful project lined up. Throughout our professional life our experience has been that a bright, good client is the primary condition for a good project. We were charged with enthusiasm and motivated to deliver our best to answer the initial briefing.

We have always been against trendy solutions and feel a moral imperative to design things that will last a long time. We feel a responsibility towards our client, their customers and ourselves, and were determined to offer a design that would express Woolworths high level of integrity in every possible area, from graphics to communications, from packaging to store interiors and store signage.

THE CREATIVE CONCEPT

For us the Woolworths project was a great opportunity to establish a language of communication that could be adopted by everyone inside or outside Woolworths, and to achieve a strong and consistent visual language that could be immediately recognised and appreciated for its honest approach. On

purpose we stayed away from gimmicks and screaming graphics. A very simple logo was the initial step. A black square with a W inside of it. Nothing fancy, but long-lasting and forceful. Black, because everything around it is colour, black because it shows strength, elegance and determination. Its courage well represents that of the company and its determination to serve consumers without deception or cheap seductions. No shadows, no swashes, no highlights: just a flat square with a white W! This is our interpretation of the briefing.

THE DESIGN PROCESS

Achieving a company identification programme of this magnitude requires the development of a visual language which encompasses a grammar of elements such as typefaces, grids, standard formats, and yet has broad enough parameters to allow maximum flexibility within the constraints of the language.

For Woolworths, we established a basic structure of information based on three levels:
• company and department identification,
• product description, and
• company logo as a seal of approval.

These basic elements are applied consistently throughout the entire programme, with precise relationships between them to assure effective perception and impact and consequent retention in consumers' minds. Design is not a whimsical art form but a conscious professional effort to achieve positive responses from the viewer. The elements devised for the Woolworths identity programme have been designed with these principles in mind. In order to ensure its successful implementation and avoid fragmentation, all design work must adhere to the same visual language. Everyone — internal or external designers and consultants working for Woolworths — needs to work according to its rules.

For this reason we designed a programme based on a language that is easy to learn and allows ample latitude for expression. It is also continuously refreshing, rejuvenating and modern - modern because it is above and beyond trends. Today's trends are

the trash of tomorrow. That will never happen to Woolworths image.

CHALLENGES

Designing a corporate identity programme for a company on another continent requires the creation of a visual language that can be further developed by other designers besides you. Fortunately, in a world that is rapidly shrinking, cultural differences tend to shorten distances, and a global language is emerging. The tools used to design are the same all over the world, and consequently the discipline that is used becomes universal.

In designing Woolworths corporate identity, those considerations were of primary importance to us. The structural parameters of typography, grids and graphic structure, along with packaging design and signage, were designed to be used by other designers, which facilitated the programme being implemented according to our plans. Some tutoring was required to train designers in the proper use of the new visual language developed for Woolworths.

Periodic monitoring of the work done by inside and outside designers is necessary, to assure that a proper level of identity and diversity is applied to any product to avoid sameness and increase liveliness throughout the implementation phase. Due to the wide variety and volume of items, a project of this size may take quite some time to fully implement, therefore it becomes absolutely necessary to have a design based on long-lasting-values and to avoid the pitfalls of a trendy approach.

BELOW: The identity of a company is not just a logo arbitrarily applied to every product. The Woolworths identity is created through the combination of three basic elements: Symbol or Signature, Logotype and a Structure lock-up.

BELOW: The use of the Logotype was intended to be a means of identifying the many exisiting and potentially new departments that comprise Woolworths as a large company.
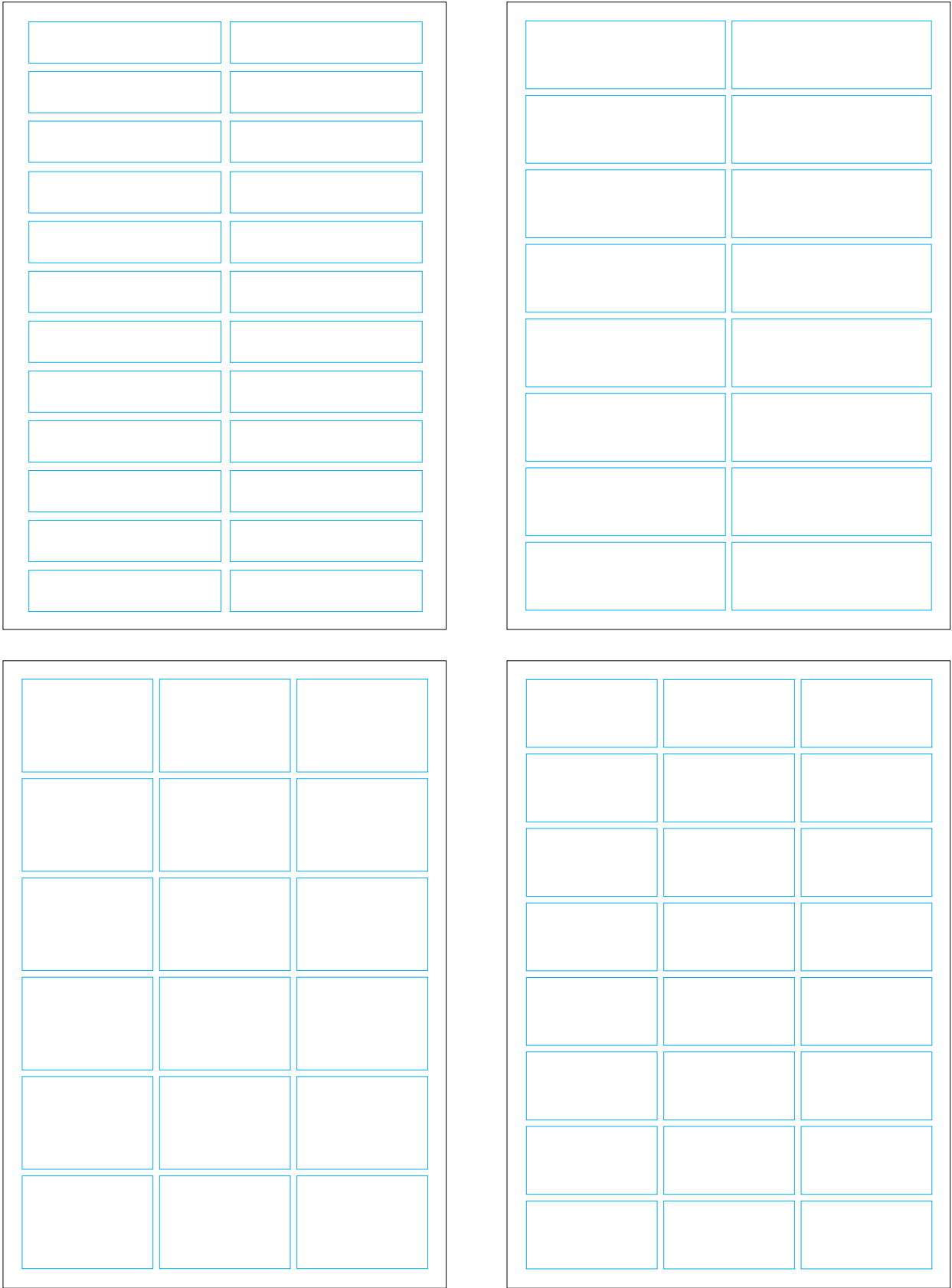
WOOLWORTHS

WOOLWORTHSFOOD

WOOLWORTHSFOOD

WOOLWORTHSHOME

WOOLWORTHSBEAUTY

WOOLWORTHSCAFE

WOOLWORTHSFOOD

STRAWBERRY HEART GUMMIES

BELOW: In graphic design, grids represent the basic structure of layouts. They aid in the organisation of content and provide consistency.

BELOW: Advertising grids were studied for use in all different size publications. A very simple set of rules ensures that every brochure, magazine or ad conveys a consistent image of the company.

Every typographic element has a carefully studied position, size and weight in the layout of covers.

Used together, the structure and typographic elements help to create a consistent image of the company, even through different printed media. Thus the Woolworths brand is recognised at first glance. The choice of bold yet clean imagery combined with minimal typography creates great visual impact.

Clean, simple layouts make the Company Identity stand out without screaming in an otherwise visually cluttered world.
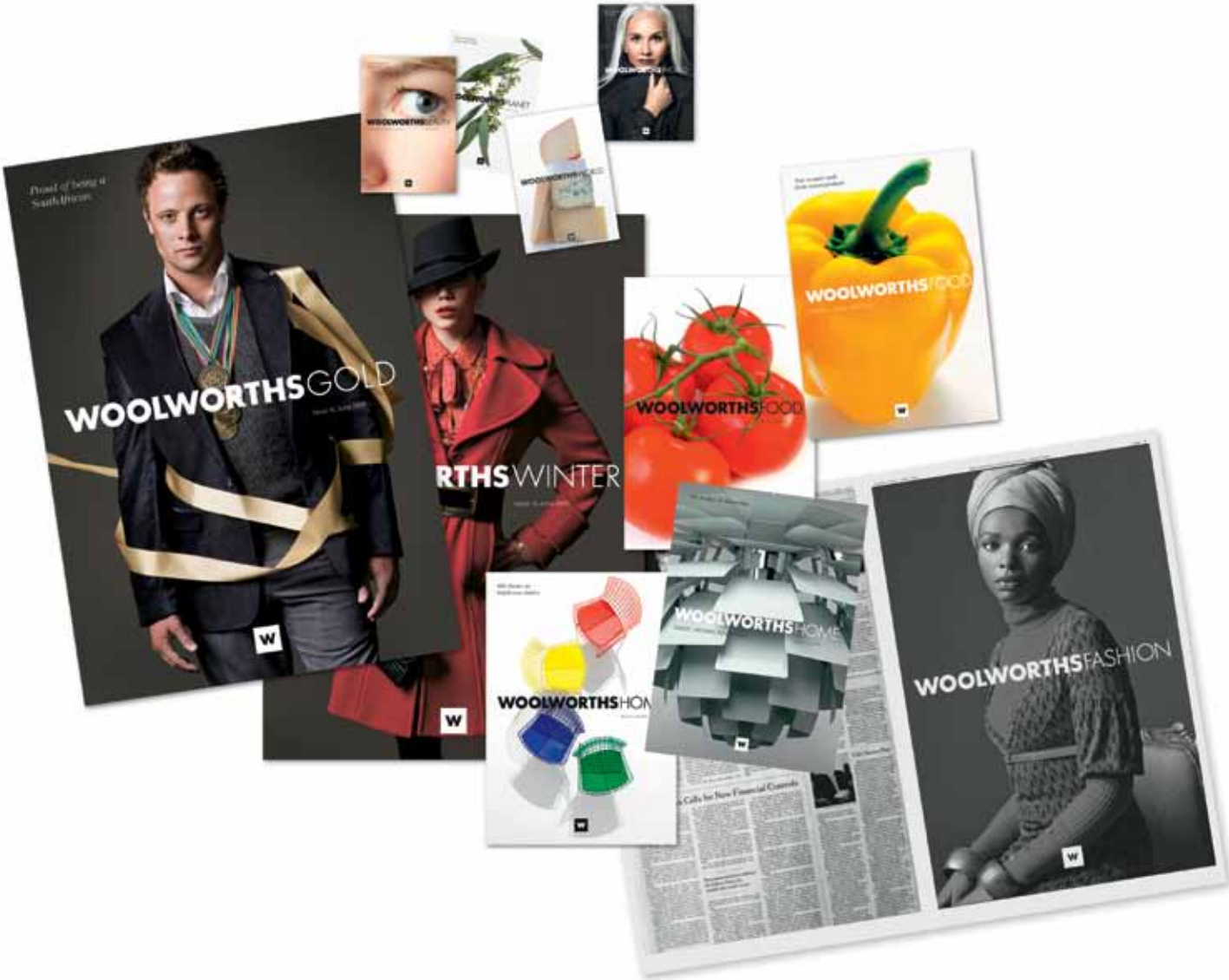
"FOR US THE WOOLWORTHS PROJECT WAS A GREAT OPPORTUNITY TO ESTABLISH A LANGUAGE OF COMMUNICATION THAT COULD BE ADOPTED BY EVERYONE INSIDE OR OUTSIDE WOOLWORTHS, AND TO ACHIEVE A STRONG AND CONSISTENT VISUAL LANGUAGE THAT COULD BE IMMEDIATELY RECOGNISED AND APPRECIATED FOR ITS HONEST APPROACH.

COMMERCIALISATION
In keeping with Woolworths sustainability goals, and in order to minimise waste and costs, Woolworths took a decision to phase in the new brand identity over time. For example, new packaging is designed on an on-going basis for Woolworths, both in terms of new products as well as updating packaging of existing products according to the new identity programme. Permanent signage in stores is updated as new stores are built and existing stores modernised.

Reaction from Woolworths customers has been generally positive and complimentary. Here are a few of the comments posted on social networking sites Facebook and Twitter:

" **Love the re-branding.**"
" **Really like the new Woolworths identity.**"
" **Woolworths changed their image and it looks amazing.**"
" **Simple but iyashaya. Well done.**"

"LOVING THE GREAT NEW LOOK AND BRANDING! SIMPLE, YET EFFECTIVE AND EYE CATCHING! WELL DONE, WOOLIES!

FROST
## ABUNDANT – 11TH INTERNATIONAL VENICE ARCHITECTURAL BIENNALE

BIOGRAPHY

Founded in London in 1994 and now based in Sydney, Frost* is an independent creative agency collaborating with clients around the globe in disciplines as diverse as design, branding, advertising, environmental graphics and digital. Frost* Creative Director and CEO Vince Frost is one of the most influential and awarded designers of our time, and runs his prolific studio on the philosophy that 'anything is possible' and to have fun while you do it. The Frost* team design everything from postage stamps to the built environment, and their client base has included leading Australian brands such as Qantas and the Commonwealth Bank, as well as major international clients such as Woolworths South Africa.

A member of CSD, D&AD, ISTD and the AGI, Vince Frost plays an active role in the world design community, lecturing at colleges and conferences. In the early '90s he became Pentagram London's youngest Associate Director and in 1994 started Frost*Design. Since moving to Sydney, Australia in 2004, Vince continues to work for global clients and win international accolades. Working on a diverse range of projects, from environmental graphics and exhibitions to magazine and book design, corporate identity, advertising and interactive design, Vince's approach is all about coming up with exceptional ideas, based on listening carefully to the needs of each client and coming up with a bespoke solution – making each project the very best it can be.

In 2008 Vince was appointed as one of the Creative Directors for the Australian exhibition at the 11th International Venice Architecture Biennale, co-curating the exhibition and creating the "Abundant" branding and design.

BELOW: Identity for the 'Abundant Australia' exhibition. The kaleidoscope of moving images and wavering garden of architectural models presented in the physical exhibition inspired the creation of the logo.
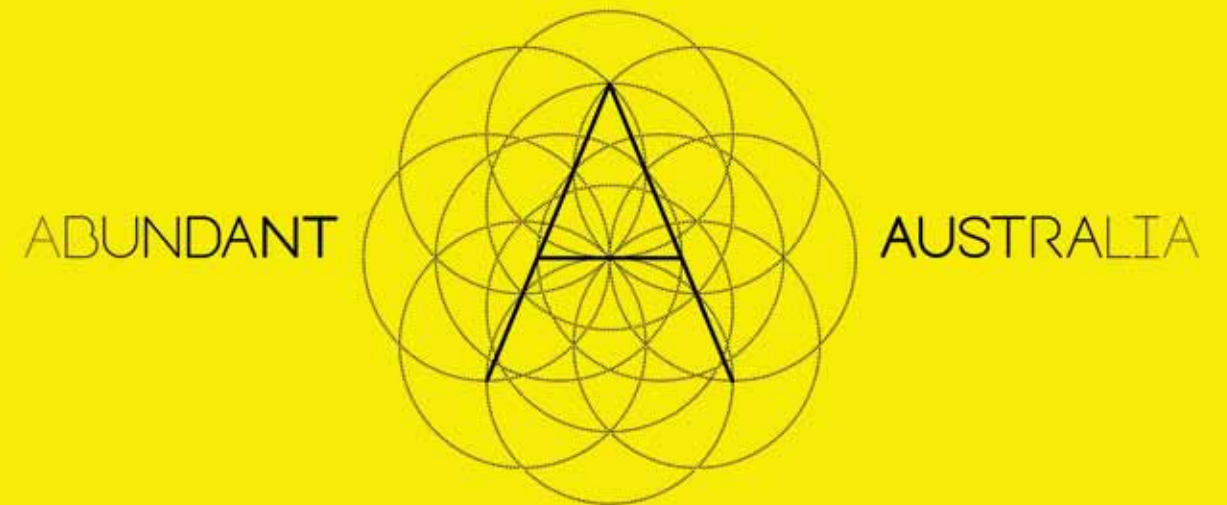
RECENT ACHIEVEMENTS & AWARDS
- Frost Design has won hundreds of international awards for a diverse range of disciplines including identities, publications, magazines, books, environmental graphics and websites.

2011
- ACT Architecture Awards – Inlite Light in Architecture Prize for The Journey ActewAGL Lighting Sculpture (Ossalites)
- Graphis 100 Best in Annual Reports 2011 – 1 gold and 4 silver awards
- 'Best Indian Cuisine Cookbook in the World' for India Cook book – Gourmand Cookbook Award

2010
- ADGA Awards – Futuretainment book, Abundant Exhibition, Woolworths SA Packaging, Sydney Airport Brochure, FUTU

Magazine, State Library Annual Report, State Library Centenary typeface
- NSW National Trust award – City of Sydney Parks signage
- Graphis Design Annual Gold Award – Abundant Australia book, American Express Asia Pacific HQ environmental graphics, Ampersand
- Graphis Poster Annual Platinum Award – Sydney Dance Co. Season 2009
- Graphis Poster Annual Gold Award – Sydney Dance Co. We Unfold
- SEGD "A lot with a little" Award – Wonderland, Sculpture by the Sea
- Art Directors Club Merit Award – Futuretainment

2009
- Art Directors Club, Gold Cube
- Type Directors Club, Certificate of Typographic Excellence

- I.D Annual Design Awards – Interactive Category; Honourable Mention
- I.D Annual Design Awards – Graphics Category; two Honourable Mentions

2008
- D&AD, Honourable Mention
- Creative Hotshop Awards 2008, Frost* Design (the studio) – Finalist
- Graphis - Design Annual 08/09, in published book
- Graphis - Poster Annual 08/09, in published book
- Creative Review - The Annual, in published book
- Art Directors Club, Finalist
- PRINT creativity + commerce, winner
- AGDA, Distinctions and Finalists
- AWARD, Sydney Dance Company brochure 2008 – Finalist

BACKGROUND

The 11th International Architecture Exhibition 'Out There: Architecture Beyond Building', directed by Aaron Betsky, took place in Venice from 14 September to 23 November 2008. The Architecture section of the Biennale was established in 1980, although a few exhibitions have taken place since 1975 within the Art section. The Biennale comprises a curated show and national pavilion representations. Australia's offerings to the Biennale were housed in the two-level Australian Pavilion, designed by Philip Cox. The building, which was opened in 1988, is owned and managed by the Australia Council for the Arts. The exhibition was complemented by a catalogue designed by Frost*, in which architecture historian, Conrad Hamann, overviews Australia's architectural production and settlement in his catalogue essay. Creative directors of the Australian Pavilion at the 2008 Venice Architecture Biennale were architects Neil Durbach, Wendy Lewin and Kerstin Thompson, digital director Gary Warner, and design director Vince Frost. Commissioned by the Australian Institute of Architects, Frost* Design also created the exhibition brand and identity, room brochure and merchandise.

THE BIG IDEA

The Creative Directors' intent was to project an image of Australian architecture that forcefully and joyfully expressed and communicated a sense Australia as an abundantly creative laboratory. For too long Australian architecture had appeared to the international observer as a place devoid of an extremely rich, diverse and sophisticated history. The impression had been that of a handful of practices. The team proposed to engulf the audience in an exuberant cloud of architecture. Vibrant yellow was strongly featured in the exhibition environment as well as on print and marketing collateral, providing a sense of lively "Australianess".

DESIGN PROCESS: EXPRESSION OF INTEREST

Vince joined a team of architects and creatives to pitch for curating and designing the Australian Pavilion at the Venice Biennale 2008. This pitch document outlined the team's creative vision and was supported by a proposed budget

A STUDIO NOT A GALLERY PHYSICAL NOT ACADEMIC SPATIAL NOT FLAT ABUNDANT NOT PIOUS ECLECTIC NOT EXCLUSIVE IMMEDIATE NOT REMOTE INTENSE NOT DILUTED FAST NOT HESITANT

and timeline. The vision was determined through the team's discussions about Australian architecture and how it is viewed internationally, and research into previous incarnations of the Australian pavilion. The team was selected based on their response and aspirations to present a past and present snapshot of Australia's architectural creativity.

ABUNDANT IDENTITY

The identity was integral to keeping the project cohesive and memorable. Informing not only the print collateral, the identity also influenced the physical presence of the exhibition itself. The logo was inspired by the kaleidoscope of moving images proposed for the upper gallery and the delicately wavering garden of architectural models in the lower gallery. The multiple discs reference natural, structural and experimental forms that inform Australia's hybrid architectural practice. The design also responded to Venice Biennale director Aaron Betsky's theme: 'Out there: Architecture Beyond Building'. It was implemented across environmental graphics, promotional brochures, postcards, invitations, and the exhibition catalogue.

CONCEPT DEVELOPMENT

The process of concept development, and indeed the entire project, was highly collaborative. Together, the team identified three distinct spaces that would inform the exhibition experience as visitors travelled

a circular route through the Australian Pavilion. The first was an outdoor meeting and entry space with a distinctive portal built specifically for the exhibition. Visitors would be drawn in through the vibrant use of colour, typography and several unique architectural elements. The upper gallery was intended as an instant contrast to the outdoor space. Imagined as a cool, dark spiral, the gallery projected a vast, luminous array of high resolution images of Australian architecture. The images became a digital palimpsest of our architectural past, from the beginnings of colonial construction to recently completed projects across the nation. Emerging from the dark via a staircase to the lower gallery, visitors were then immersed in an 'overgrown garden' of handmade models. They represented the yet-to-be-built, whether theoretical or pragmatic, from practices large and small across the country. The space which held this abundant collection of creative thought on the future of Australian architecture was optimistically filled with colour and light.

DESIGN DEVELOPMENT & DOCUMENTATION

The Creative Directors continued to meet every fortnight to discuss, refine and allocate work. During this stage, key tasks for the Frost* team included:
• Working with Dulux to create a unique paint colour for the exhibition, which was named 'Abundant';
• Working with the Australian Institute of

BELOW LEFT: Existing two-level Australian Pavilion designed by Philip Cox opened at the Biennale in 1988.

BELOW RIGHT: Drawing by architect Neil Durbach - a page extracted from the Expression of Interest document. The document highlights Frost*Design and the collaborating architects creative vision for the Australian Pavilion and was supported by a proposed budget and project timeline.

BELOW MIDDLE: Models of the Australian Pavilion showcasing the outdoor meeting and entry spaces with a distinctive entrance portal, vibrant use of colour and typography to draw visitors to the area. Emerging from the space on the first level via the staircase to the lower gallery, visitors were then immersed in an 'overgrown garden' of handmade architectural models.

BOTTOM: WE INVITE YOU... Over 300 architects from around Australia were invited to submit models for the exhibition. All entries were to be shipped to Venice for display. The circular invitations represented the parameters for the models – each circle corresponded to the size of the plinths in the exhibition. Each invitation was hand folded by staff in the Frost* studio.
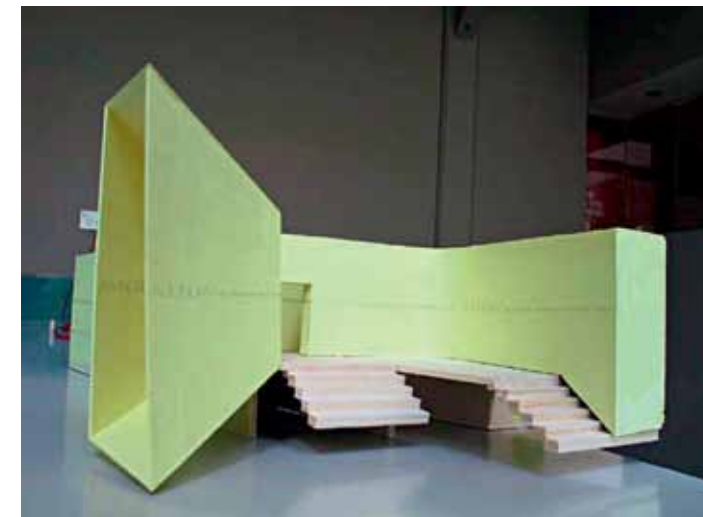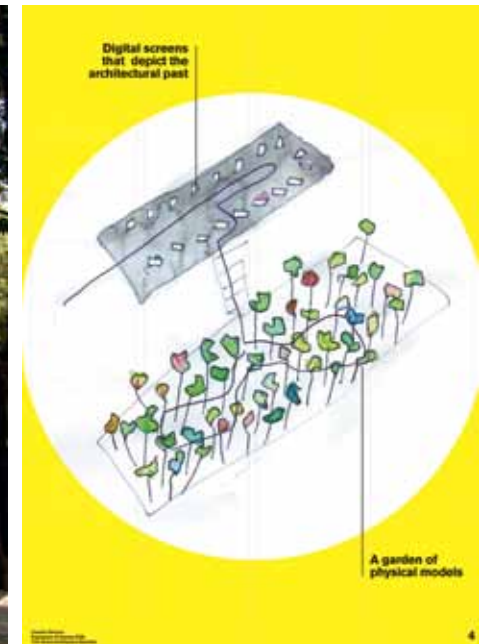
BELOW & RIGHT: Exhibition catalogue created to document each of the models that contributed to the exhibition. As with other collateral created for the exhibition, the catalogue takes on its own experimental form with a curved edge.

BELOW: Room brochure created for visitors to the Biennale

BELOW: Final look of the Australian Pavilion at the Venice Biennale 2008. The uniquely vibrant colour of yellow named 'Abundant' was specially created by Frost* and Dulux for the exhibition.

BOTTOM: 'Overgrown garden' of handmade architectural models curated from practices large and small across Australia. These yet-to-be-built models, whether theoretical or pragmatic, represented the future of Australian architecture.

Architects to coordinate the transport of models to Venice, along with the models, stands, flooring tiles and other locally produced items;

• Developing final design including layout and arrangement of models with the project team;

• Developing fabrication for the model stands, including testing a unique anodizing colour to match the paint colour selected; and

• Exploring the display of images in the upper gallery.

While the exhibition design was being resolved, Frost also developed a range of collateral to be produced to support the exhibition. T-shirts were designed for the volunteers involved in the installation and bags and badges were given out to visitors, ensuring the exhibition had a lively presence beyond the pavilion walls.

A comprehensive catalogue was also produced, documenting each of the models that contributed to the exhibition. Incorporating the multiple discs used in the other collateral, the catalogue takes on its own experimental form with a

curved edge. The catalogue also includes an academic essay which provides an historical context for the models and the future ideas displayed in the exhibition. The catalogue and room brochure not only served as a reference for visitors to the Biennale, but had a lifespan beyond the exhibition.

CONSTRUCTION

The installation and construction of the exhibition was a hands-on, collaborative process that was a rewarding experience for the three lucky Frost staff who travelled to Venice to oversee it. Along with the architectural teams, AIA representatives and a group of Australian volunteers, the team helped to construct the exhibition within and around the existing Australian Pavilion. Many of the models had been shipped straight to Venice, so unpacking them for the first time was both exciting and challenging. Any damage was repaired on site and the models were first arranged in the space just a week before the opening.

The Frost* team also spent hours hand finishing the anodised brooches that were

to be presented as gifts to special guests, whilst soaking up the buzzing energy of Venice as it counted down to the opening of the Biennale.

COMMERCIALISATION

Following the success of the exhibition in Venice, 100 of the models were selected to appear at Object Gallery, Sydney. Recreating the original 'garden of architectural artefacts', the Australian public were given the opportunity to experience a glimpse of the exhibition, guided by a revised catalogue designed by Frost. After Object Gallery, the condensed version of the Abundant Australia exhibition toured to Melbourne, Bangkok and Singapore, through Asialink.

> DRAWING THE CROWDS TO ITS OBSCURE LOCATION 'HANSEL-AND-GRETEL STYLE', THROUGH STRATEGIC FLASHES OF YELLOW LEADING FROM THE MAIN DRAG, THE EXHIBITION WAS ALSO PHENOMENALLY SUCCESSFUL IN TERMS OF THE FROST-DESIGNED 'COLLATERAL'. THE DISTINCTIVE ABUNDANT AUSTRALIA BADGES AND BAGS WERE EVERYWHERE, CLEARLY THE MOST DESIRABLE SOUVENIRS IN THE WHOLE BIENNALE.

— Dr Naomi Stead, Journalist, Architecture Australia

BELOW: Brand identity of the
*2011 Toffie Pop Culture Festival
& Conference* in Cape Town.

PEET PIENAAR& HANNERIE VISSER

THE TOFFIE POP CULTURE FESTIVAL & CONFERENCE

BACKGROUND

In April 2008 internationally acclaimed local designer, conceptual artist and creative director for Daddy Buy Me a Pony, Peet Pienaar, joined forces with former magazine group publisher, Hannerie Visser, to form the independent creative agency The President.

The President is a design and magazine publishing agency with offices in Cape Town, South Africa and Buenos Aires, Argentina. The agency is owned and run by creative director Peet and business director Hannerie.

WHAT WE DO

With our combined experience in cutting edge design, consumer and customer magazine publishing, communications strategy, art direction, packaging, industrial design and event concepts and management, we offer conceptual and strategic design and communications solutions to our clients. We provide design

and innovative communications solutions to a wide range of local and international clients including: Comme de Garçon (Japan), MTV (SA, UK and Argentina), Spier Wines (SA), Afro Coffee (Austria), BOS Ice Tea (SA), Diesel (Argentina) and Boca Juniors (Argentina). We also do a lot of our own projects including the *Toffie Pop* and *Toffie Food Festivals and Conferences*, *Menu magazine*, *Bruce Lee* magazine, and our pop-up shop, *Church*, and secret restaurant, *CHOP*.

Peet, who has won numerous prestigious local and international awards, including the first ever Clio Grand Prix for South Africa in editorial design and three gold One Show awards for design, initially collaborated with Hannerie on the 2006 Spring issue of *VISI* magazine, which won a Gold Ozzie Award at the Folio Awards in 2007. The President won a Pendoring for the *MK Bruce Lee* magazine in 2008 and a Silver Clio in 2009, also for *MK Bruce Lee*, and received a Merit Award at the One Show.

BELOW: The Toffie Pop 2011 flyer was printed in such a way that it doubled as a A1 poster when unfolded.

BELOW: Our interns dressed up as sailors to hand out the Toffie Pop 2011 flyers at design schools and advertising agencies.

BELOW: We used Peet's secret recipe and the team made this chilli sauce on weekends over a period of two months. First the chillies need to be cut and deseeded, then fermented over a period of time and then finally the sauce is made and bottled.

THE BIG IDEA

We wanted to create an affordable and accessible alternative to existing design conferences. We felt that there was a gap in the market in South Africa for a conference that focused on pop culture as a theme, rather than design, so that we could illustrate the importance and influence of design across various disciplines such as magazine and book publishing, music, technology, programming, architecture, fashion, art, etc.

TARGET AUDIENCE

We wanted to create an informal environment (which is why we included the term 'festival' in the name) that would be of interest to a variety of people, from advertising agency creatives to corporates as well as design students. Creating a platform for skills and ideas exchange was very important to us, and including many speakers from southern hemisphere

countries was a non-negotiable. For us it is crucial to look at our fellow southern hemisphere colleagues for inspiration, as we share similar environments, variables and challenges, be it political, economical or social, on a daily basis.

OBJECTIVES OF THE PROJECT

• Creative ideas exchange between continents (South-South is a priority)
• To create an inclusive platform, accessible to the majority of South African youth
• To create a nurturing environment where creativity can be grown into real-life projects for participants
• To create a platform where skills exchange is stimulated
• To have spin-off community projects and workshops that will take the conference to a wider audience
• To create an environment where conference goers can have one-on-one access to speakers through workshops

and "Small talks" sessions
• To be the enabler of a bigger intercontinental exchange in future focusing on southern hemisphere, emerging countries

DESIGN PROCESS

It is important to us that all collateral for the Toffie events is in line with The President's design style and philosophy. This includes everything from marketing material such as posters, magazine and TV ads to the tickets, t-shirts and other merchandise, the speaker introductions on-screen and the pop-up shop.

THE PRODUCTION PROCESS

We always start with the date and venue. The most difficult thing was to find a suitable venue in Cape Town that could handle approximately 1 000 delegates, and that offered enough space to house the exhibitions and market areas as well. It was important to find a venue that was beautiful

and had a lot of character – in other words, not your typical conference/expo type environment.

Once we've confirmed the venue for the specified date, we approach our wish-list of speakers and once they have been confirmed, the next step is marketing the event, selling tickets and getting sponsors on board.

MARKETING

We always start with a road show to most advertising agencies and design schools. The great thing is that all our employees are part of this – even the interns are part of the road show and are required to do presentations.

Flyers are distributed to all the advertising agencies and design schools in Cape Town, Stellenbosch, Pretoria and Johannesburg. The important thing is to create a non-traditional flyer.

For the Toffie Pop Culture Festival in Buenos Aires in 2010, we printed all the information on a postcard and attached a magnifying glass. This forced readers to interact with the event information and made sure they spent enough time reading it all so that they would remember it.

For the Toffie Pop Culture Festival in Cape Town in 2011, we printed the information as part of an A1 poster that ad agency creatives and students would want to put up as decoration in their offices, making sure they would look at our event info every day as a reminder. The flyers were handed out by our team of interns dressed up as sailors to go with the rest of the collateral developed for the event. In addition:

• A1 posters are distributed on lamp poles and at clubs and design schools
• A dedicated PR campaign always forms part of the marketing
• E-mail newsletters go out to our database
• Twitter and Facebook are also an important and ongoing part of the marketing process

BELOW: Our secret restaurant, CHOP. In the second photo you can see the plastic card we served with the steak as the salad and in photo 3 you can see the glow in the dark vodka tonic jellies we made. Each guest received a UV light and pen with UV ink to draw on the table. We served these in the dark.

BELOW: Brand identity of the 2010 Toffie Pop Culture Festival & Conference in Buenos Aires, Argentina.

© PAUL WARD

© PAUL WARD

© PAUL WARD

© PAUL WARD

COMMERCIALISATION

As the main objective of the festival is to create an accessible and affordable event, sponsors are a very important revenue stream. The remainder of the costs are covered by ticket sales. We also use our events as an opportunity to launch some of our other own projects. For example, we launched the third issue of Afro magazine at the Toffie Pop Festival in March 2011. Production-wise Afro is important for us to test different and new printing techniques. This issue, for example, was screen printed on space blanket material.

As part of the marketing build-up to the first Toffie Food Festival, we launched our secret restaurant, CHOP, which has now become a standard weekly pop-up restaurant and travels with us between Cape Town and Buenos Aires. We also launched our own homemade chilli sauce at the first Toffie Food Festival in September 2011; it's now sold through Melissa's Food Shops.

We introduced the first of a series of magazines called Menu at the 2011 Toffie Food Festival. The first issue, called *Menu: Cape Town's 167 best dishes*, was named magazine of the week by Jeremy Leslie's London-based website, magCulture.com. *Menu* will be published on a regular basis and will include a Buenos Aires edition.

INTERNSHIP PROGRAMME

As part of our commitment to sharing skills and knowledge, we have created an intensive intern programme. We accept two to three interns per year. They become part of our staff contingent and are assigned specific tasks such as creating their own magazines as part of their training. We also encourage interns to travel with us to our Buenos Aires office, so that they can fully understand the concept of running a company and creating work for clients in a foreign environment.

"**The design world's answer to cult singer Perry Farrell's infamous alternative '90s music fest, Lollapalooza, the Toffie Pop Culture Festival is a three day whirlwind of exhibitions, workshops, presentations and partying. Curated by Peet Pienaar's design agency The President, and hosted in both Cape Town and Buenos Aires, this annual event returns with an even hipper line up than last year.**"
– Miles Keylock, Mail & Guardian, 17 March 2011

"**Those fancying a peek into the brave new world of design, where design is breaking ground in ways most of us had never imagined, need look no further than the Toffie Pop Culture Festival.**" – Brent Meersman, 24 March 2011

THOSE FANCYING A PEEK INTO THE BRAVE NEW WORLD OF DESIGN, WHERE DESIGN IS BREAKING GROUND IN WAYS MOST OF US HAD NEVER IMAGINED, NEED LOOK NO FURTHER THAN THE TOFFIE POP CULTURE FESTIVAL. **BRENT MEERSMAN**

KIRAN BIR SETHI

EMPOWERING CHILDREN TO DESIGN SOLUTIONS FOR THE WORLD'S GREATEST CHALLENGES

BACKGROUND

Kiran Bir Sethi is a designer who became a teacher, a principal who grew into an education reformer and social entrepreneur. She uses the language of design to develop curriculum innovation and community-based social programmes. For the past several years, Sethi has been employing design thinking to develop solutions to some of the most pressing social problems in India.

After graduating from the National Institute of Design in 1989 with a degree in graphic design, Sethi founded Kiran Sethi Associates, providing freelance graphic and interior design services to corporations and small businesses. During this time, Sethi conceptualised themes and implemented designs for two successful restaurants in Ahmedabad, India. Between 1998 – 2000, Sethi made the career move into education and became the Principal at Eklavya Junior School, Ahmedabad, where as a founding member, she established the school's curriculum, the staff team, systems and values for this new school.

Sethi founded The Riverside School in Ahmedabad, India, in 2001. Riverside School's approach to education is not textbook-driven, but built around a system that employs aspects of design thinking to nurture curious, independent, competent and forward-thinking learners and citizens. It's what Sethi calls a "common sense" approach to learning.

In early 2009, Sethi launched "Design for Giving School Contest" - a national campaign that encouraged schoolchildren across India to participate in a one-week project to change some aspect of life in their own communities. The contest drew the involvement of 32 274 schools across India and hundreds of thousands of school kids. Participants entered as student teams represented through a classroom, grade or school.
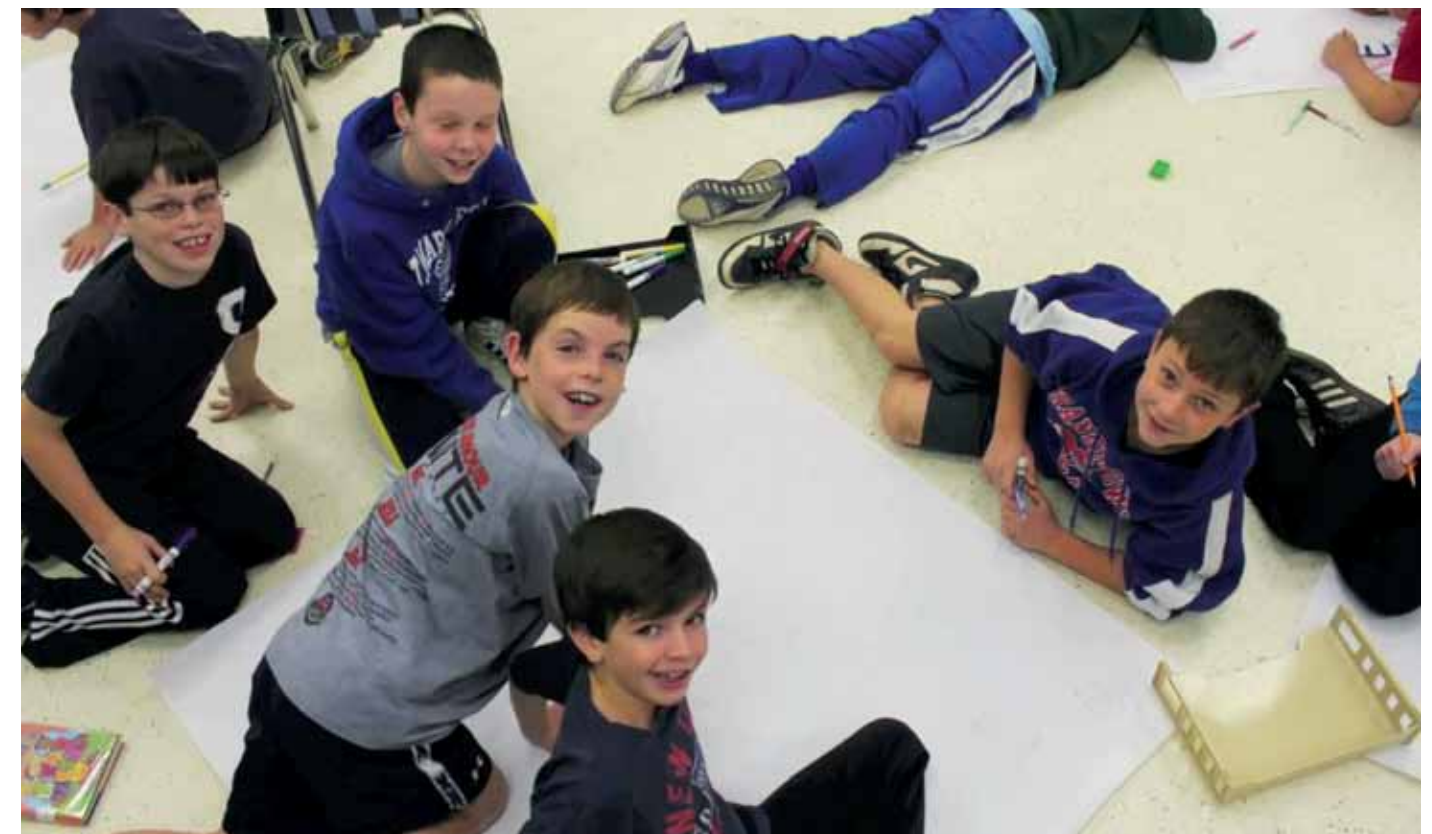
In 2010, the Design for Giving Contest was re-named the Design for Change School Challenge and went global, reaching over 250 000 children in more than 20 countries. In 2011, the impact was even greater; the Design for Change School Challenge was implemented in over 30 countries, inspiring over 300 000 children.

Sethi is also the founder of 'aProCh', an initiative aimed at making cities more child friendly, for which she was awarded the Ashoka Fellowship in 2008. In 2009, she was presented with the 'Call to Conscience' award from the King Center at Stanford University for the citizenship/liberation curriculum that Riverside School implements.

Kiran Bir Sethi is also an international speaker and regular participant in international conferences and symposia.

BELOW: Students from Tangvallaskolan, a public school in Sweden were empowered to say "I Can" after participating in the *Design for Change School Challenge.*

BOTTOM: Children from a school in the USA participating in the contest.

BELOW: Curriculum toolkits created in various languages for schools around the world.

BELOW LEFT: The *I Can* book published by Amar Chitra Katha, one of India's leading entertainment and education companies for young audiences. This book celebrates top 20 stories of the *2010 Design for Change School Contest* from India and around the world.

BELOW RIGHT: Toolkit for the *Design for Change* challenge, highlighting the four key processes: Feel, Imagine, Do and Share.

THE BIG IDEA

Design for Change is about using design thinking and skills to promote a sense of citizenship that encourages the thinking and behaviour that supports lifelong personal and community development. In fighting the "don't know, don't care" attitude that is especially prevalent among the youth today, Design for Change motivates children to follow Gandhi's dictum: "Be the change you wish to see in the world".

DFC works on the premise that if you let children believe that they can, then they will. It is independent of age, caste, culture, geography and language as it is fuelled by the power of an idea. DFC believes that since children are the future, they need to be given the tools to design a better future. DFC is building better citizens who are concerned, proactive, aware and responsible. This benefits not only a child but a nation.

DESIGN PROCESS & DEVELOPMENT OF PRODUCT FORM

Design for Change developed a simple design process that enabled children to become drivers of change. The process got children to FEEL (any issue that bothered them), IMAGINE (a way to make it better), DO (implement the act of change) and SHARE (make it visible).

DFC gives its partners around the world 'free' access to all the marketing and promotional creatives and works on the model of sponsorship and partnerships to ensure sustainability. Another key aspect of DFC is creating a curriculum for schools, using the stories as inspirational case studies, where children will become role models for other children.

IMPACT

In 2011, Design for Change reached over 300 000 children in over 30 countries. Children designed solutions and implemented acts of change for over 20 various issues across the world ranging from social evils, environment, education, alcohol, child labour, floods, traffic, discrimination, etc. Not only did DFC impact the children but also the lives of the teachers and the community. The children changed the perception in the minds of the adults
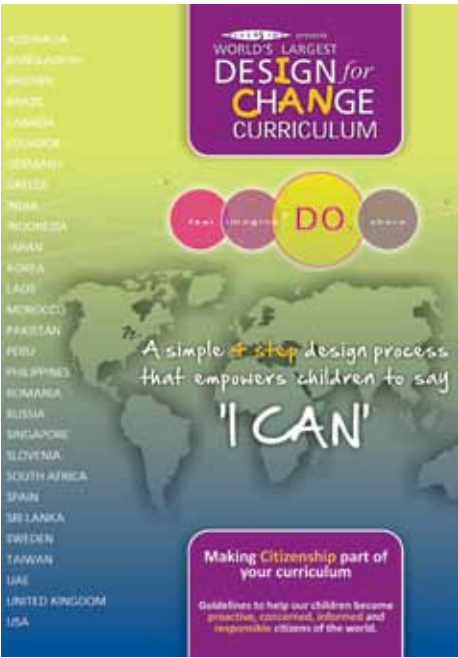
from being 'helpless' to becoming 'drivers of change'.

Research conducted by DFC in partnership with The GoodWork Project at Harvard Graduate School of Education reaffirmed the impact of the design, clearly showing shifts in children's mindsets before and after taking part. They went from being excited to feeling motivated and proud. 92% of teachers felt that their students would want to continue community service. 70% of teachers felt that it taught them ways in which to make real change.

PRODUCTION

A Design for Change toolkit was translated into 15 languages, including Braille, to make it the most inclusive movement of Change. The toolkit includes guidelines, teacher tips, an example of a 'Change story' and inspirations. The style of the toolkit is child friendly and uses colours that are appealing.

A website with content management system was developed to be handed over to each country partner to create and manage DFC in their country. The movement was made an open source idea and all the materials and designs were put online for partners to download. All materials developed by other partners are also put up on website.

Amar Chitra Katha, one of India's leading entertainment and education companies for young audiences, published the *I Can* book, which contains the top 20 Indian, as well as, international stories received for the *2010 Design for Change School Contest*. This was the company's tribute to the power of children, who are walking that extra mile to live what Gandhiji said, "Be the Change you want to see in this world".

COMMERCIALISATION

DFC is an externally funded movement. IDEA cellular (a leading cellular network

of India) has supported the movement as a principle sponsor to run the movement. Various partnerships for prizes, documentation, visibility, printing, logistics, etc. help sustain DFC.

ACKNOWLEDGEMENTS

We would like to thank the d.school Stanford (Institute of Design at Stanford University, USA), IDEO and the National Institute of Design, India, for their support. IDEO (a global design consultancy), d.school Stanford and National Institute of Design - both well-renowned design schools - are all DFC Knowledge Partners and strong supporters of the DFC movement.
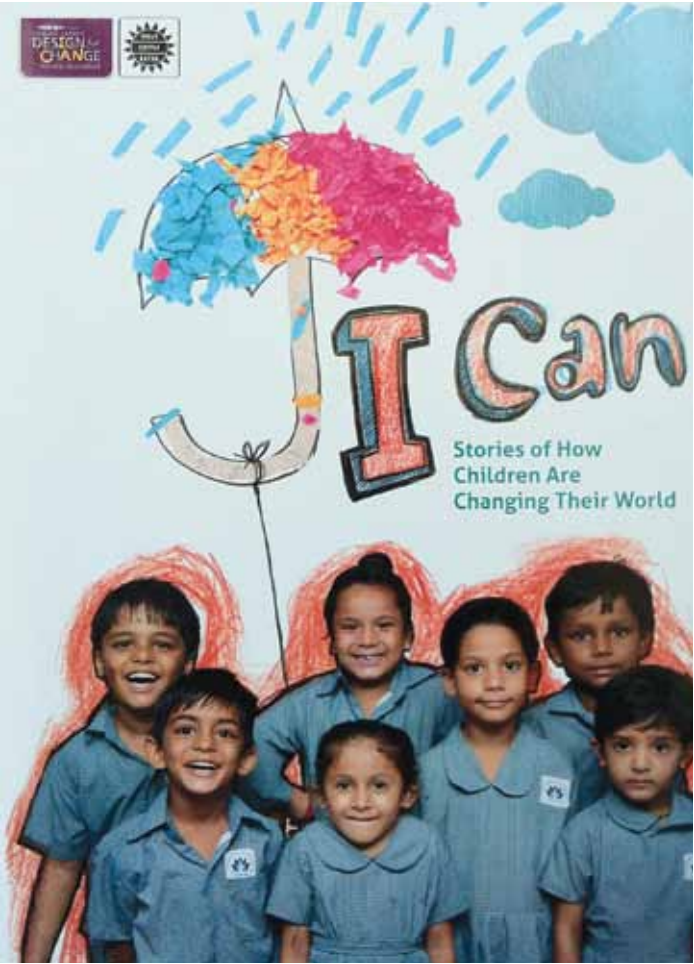
MICHAEL BIERUT

THE LIBRARY INITIATIVE

BIOGRAPHY

Michael Bierut studied graphic design at the University of Cincinnati's College of Design, Architecture, Art and Planning. Prior to joining Pentagram's New York office as a partner in 1990, he was Vice President of graphic design at Vignelli Associates. His clients at Pentagram have included The Council of Fashion Designers of America, The New York Times, The Museum of Arts and Design, United Airlines, The Brooklyn Academy of Music, Harley-Davidson, Princeton University, the Morgan Library and Museum, Saks Fifth Avenue and the New York Jets.

He has won hundreds of design awards and his work is represented in the permanent collections of museums around the world. He has served as president of the New York Chapter of the American Institute of Graphic Arts (AIGA) and as that organisation's national President. He is also a board member of the Architectural League of New York and New Yorkers for Parks. For the last ten years he has been a Senior Critic in the graphic design programme at the Yale School of Art, and a senior faculty fellow at the Yale School of Management. In 2002, Michael Bierut co-founded Design Observer, a blog of design and cultural criticism; today, the site is the largest design publication in the world. In 2008 he was named winner in the Design Mind category of the Cooper-Hewitt National Design Awards.

BELOW: "The doors of learning and culture shall be opened to all"… and the inside has never looked more exciting and entertaining!

BELOW: Murals, illustrations, photographs of children interacting with books etc. were used to fill the otherwise stark space between the children height-friendly bookshelves and high volume ceilings.

BELOW: Some of the original logo concepts for *The Library Initiative*, created by Michael Bierut under the assumption that users are overly familiar with a space such as the library. Michael Bierut later discovered that he couldn't be further from the truth…

THE BIG IDEA

The Library Initiative, a partnership between the Robin Hood Foundation and the New York City Department of Education, was founded in 2001 as a response to the alarming number of New York City public school students reading below grade level. With help from community school districts and the schools themselves, the initiative works to reverse the pattern of low literacy skills and underachievement that plague low-performing schools in high-poverty areas. Sixteen architectural firms were invited to take part in this initiative focusing on creating or remodelling 31 libraries throughout the five boroughs of New York City. From 2001-2005, Pentagram worked on creating coherent, yet flexible graphic solutions for the Library Initiative. This portion of the project included establishing an overarching identity as well as creating signage and environmental graphics for each of the 31 public schools involved with the project.

THE DESIGN PROCESS
THE THOUGHT PROCESS

At first, Michael Bierut underestimated the assignment, thinking it was just a matter of designing a logo. A common logo was indeed necessary to identify the individual libraries and to tie them together in a coordinated programme. This was most important to the donors and public supporters of the project. The students who used each library were likely to be unaware that theirs was part of a bigger programme.

Bierut also assumed that the users would be overly familiar, even jaded, about the library experience, and as a result he placed a high emphasis on novelty and differentiation in his original explorations. (This is a common mistake among designers.) When he realised at last that many in his audience had never been in a library, he reverted to a very simple solution: the word LIBRARY in capital letters, with an exclamation mark substituting for the letter I.

From these initial stages, the project developed far beyond its original brief.

COMMUNICATION

Pentagram worked closely and constantly with students, principals, librarians, teachers, architects, artists, and construction teams throughout the process. It was this contact that transformed the project from a simple branding exercise to something more compelling.

IN THE END, PENTAGRAM REALISED THE CHALLENGE WASN'T TO CREATE A BRAND BUT TO CREATE AN EXPERIENCE.

THE CONCEPT

In the end, Pentagram realised the challenge wasn't to create a brand, but to create an experience. One of the architects pointed out to the team that the libraries were usually in older, high-ceilinged buildings, and the shelves could only be built to a height that children could reach. This meant that almost every library had a continuous empty band of wall surface above the topmost shelf. He suggested that Pentagram develop a mural to fill this space.

The first mural was a series of oversized colour photographs of children from the school, interacting with the library's books. This proved to be a tremendous hit, and murals were commissioned for many of the libraries that came after. No two of these were alike, and the entire series set a new standard for design in New York City public schools.

The consistent use of the 'L!BRARY' identity allowed for exploration while also keeping the project cohesive. This had several advantages, one being that the logo could be rendered in a variety of communications media, even handwriting. Simply insert the exclamation mark: instant branding. Furthermore, each muralist was solving the same 'problem' (fill the space above the shelves to create a unique sense of place), but was encouraged to approach the challenge using his or her unique point of view.

MEASURING SUCCESS

The commissioning organisation, the Robin Hood Foundation, has been tracking performance in the schools where the new libraries have been installed. The results are not yet conclusive, but the assumption has been that in a space that has been designed to value imagination and learning, the students themselves will feel similarly valued.
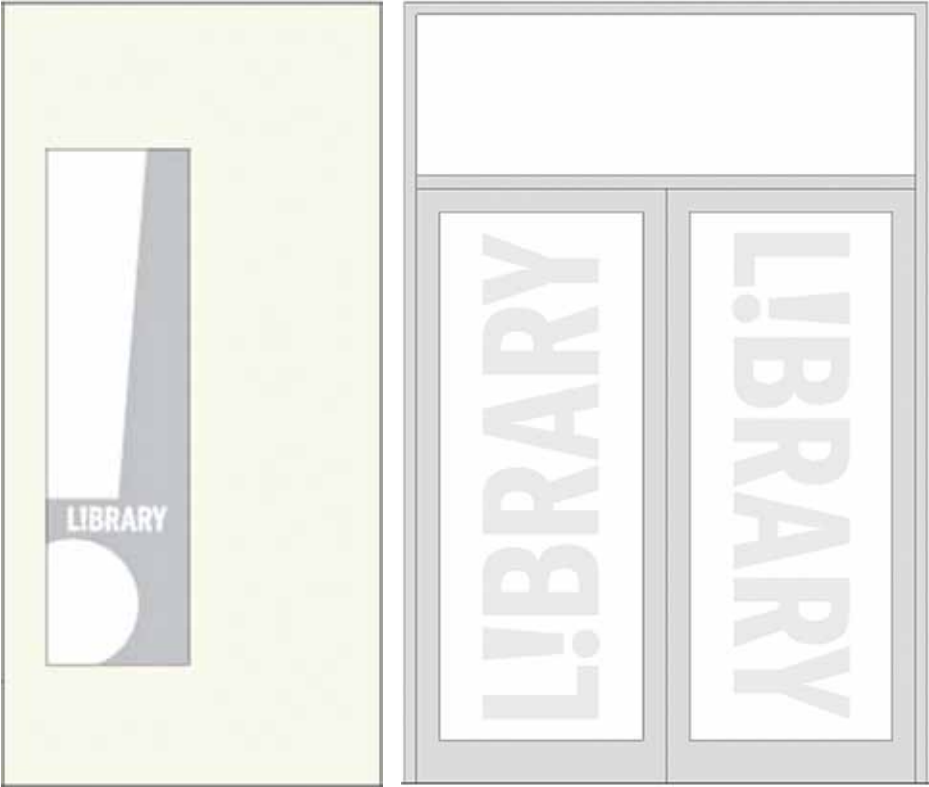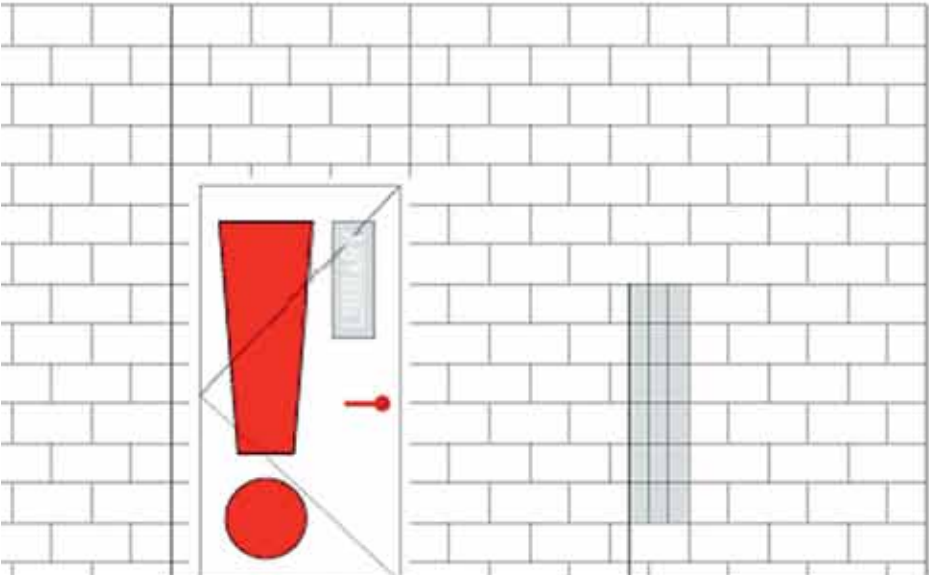
BELOW: After understanding the challenge that many of the audience had never had any previous interaction with public library facilities, Pentagram's design team refocused their energy into creating consistent branding and designing user friendly experiences within the 31 public library spaces.

BELOW: Murals, illustrations, photographs of children interacting with books etc. were used to fill the otherwise stark space between the children height-friendly bookshelves and high volume ceilings.

BELOW: If these walls could talk, what a story they would tell.

PRODUCTION

In collaboration with the Robin Hood Foundation, the architectural firms and school personnel, Pentagram created signage and environmental graphics for the libraries, each tailored to its specific school and student body. The graphics, while cost effective, personalise the state-of-the-art spaces and emphasise the library as a source of words and images. At the same time they complement the imaginative qualities of the architects' spaces and reinforce the library as an inviting sanctuary for learning.

The graphics for many of the libraries make use of student portrait 'friezes'. The designers initially tested this technique in one of the first libraries, but discovered that with each successive application, this playful idea truly came into its own. The designers exuberantly pushed the treatment through various styles and media, ultimately applying it to multiple libraries.

Pentagram's work for the library designed by architect Richard Lewis for P.S. 184, in Brooklyn's East New York neighbourhood, went well beyond designing door and bookshelf signage, by creating a massive mural for the walls above the shelves. Into this high-ceiling space student portraits by photographer Dorothy Kresz have been arranged into a heroically scaled frieze. At the library designed by Tsao & McKown for P.S. 86 in the Bronx, the designers commissioned the illustrator Lynn Pauley to create wild scratchboard portraits of the students that come alive in the modern space. And, at the library designed by Lewis for P.S. 287 in Brooklyn, journalistic pen-and-ink drawings by illustrator Peter Arkle have been assembled into a lively reading group of students discussing their favourite books – complete with quotes taken directly from the children.

As the project became well established, it became possible to invite nearly any artist to contribute work. The final list included well-known designers and illustrators like Christoph Neimann, Maira Kalman, Rafael Esquer, and Stefan Sagmeister.

KEY LEARNING POINTS

The design director for this project, Michael Bierut, often describes it as one that was riddled with mistakes that he learned from. "Designers try to be too clever," he says. "They should focus on the audience rather than on their own egos. Bringing in other people to collaborate leads to a better result, and being generous – with your time, your imagination, and your talent – always pays off."

SPECIAL ACKNOWLEDGMENTS
PROJECT ARCHITECTS:
- 1100 Architect
- Dean/Wolf Architects
- Della Valle + Bernheimer Design
- Gluckman Mayner Architects
- Helfand Myerberg Guggenheimer Architects
- Richard H. Lewis Architect
- Marpillero Pollak Architects
- Ronnette Riley Architect
- The Rockwell Group
- Rogers Marvel Architects
- Weiss/Manfredi Architects
- Tod Williams Billie Tsien & Associates
- Tsao & McKown

ARTISTS, DESIGNERS & ILLUSTRATORS:
- Peter Arkle
- Rafael Esquer
- Maira Kalman
- Dorothy Kresz
- Christoph Neimann
- Lynne Pauley
- Stefan Sagmeister
- Yuko Shimizu
- Tucker Viemeister
- Charles Wilkin

SHY THE SUN

FIREFLY & LADYBUG

👁

PASSION DRIVES THEIR UNCONVENTIONAL AND EXPANSIVE CONCEPTS, WHICH IN TURN TRIGGER THE EXPLORATION OF GROUNDBREAKING TECHNIQUES.

BACKGROUND

Founded in 2007 by Ree Treweek, Jannes Hendrikz and Nina Pfeiffer, Shy the Sun is a South African production company specialising in producing and directing animated commercials.

They have created award-winning commercials for both local and international clients. Their passion drives their unconventional and expansive concepts, which in turn trigger the exploration of groundbreaking techniques. The team specialises in developing a script into a rich concept and then facilitating the production to its final stage. Together with writer and

musician, Markus Wormstorm, Ree and Jannes are also the founding members of the Blackheart Gang, an award winning animation team behind creative genius projects such as The Tale of How.

The project production for both *Ladybug* and *Firefly* (scripts for both were created by Ogilvy Johannesburg for M-Net) was incredibly satisfying as a groundbreaking technical achievement, combining miniature sets, CG (computer generated) animation, and live action, all filmed and presented in stereoscopic 3D, something which had not previously been done in South African filmmaking.

BELOW: Starting point of the production process – set and character design by illustration team at Shy The Sun studio.

BELOW LEFT: Jannes Hendrikz on set with the shoot of live-action boy. This was shot against green-screen and later placed into an animated miniature scene during the post-production process.

BELOW & BOTTOM RIGHT: Sets designed and illustrated were given to skilled set makers who brought the details on page to construction of the miniature sets. The miniatures were assembled on set and then filmed using stills on a Canon 5D, controlled by a robotic arm.

PRODUCT BRIEF

Advertising agency Ogilvy Johannesburg contacted Shy the Sun about two scripts they had developed for M-Net. We really liked the scripts, but realised that going purely CG or a combination of CG and live action would be too expensive for their limited budget, and the last thing we ever want to do is compromise on quality. Since creating the *Bakers Biscuits* spot we wanted to create miniature sets, so we started exploring this option and realised that this would be the ideal way to bring these two pieces to life. Having mentioned the option of making it stereoscopic, we started exploring this possibility and began looking for technical solutions to make it happen. We chose to work with BlackGinger on these projects, not only because we have a great relationship with them, but because of their vast technical knowledge and exceptionally skilled team.

DEVELOPMENT & PRODUCTION

Because this was such a groundbreaking production, a lot of time went into research and development before beginning actual production. This involved research into the best possible techniques of creating the stereoscopic 3D effect, as well as into the animation and VFX techniques needed to combine all the elements of the filming and animating process into one final product at the end.

In order to create the stereoscopic 3D effect, separate images had to be shot for each eye throughout the production. These were later put together in post-production, layered slightly and displaced from each other to create the stereoscopic 3D effect. For the live-action shoot, this was achieved by filming with two RED cameras on a special mirror-rig, designed to place the view of each camera eye-distance apart.

The production process began with character and production design sketched by the illustrators at our studio. The set designs were passed on to the set makers whose skilled craftsmanship brought the detail from our drawings into their construction of the models for the miniature sets. These miniatures were then assembled on set to create the landscape for our characters.

imagin the shutters that are open near the hanging light with beautifully carved designs & illuminated.

this window ledge & design could jut outwards making a sweet overhang for the light to hang from.

Something like this just more exagurated

love this worn wood effect for the house overall!

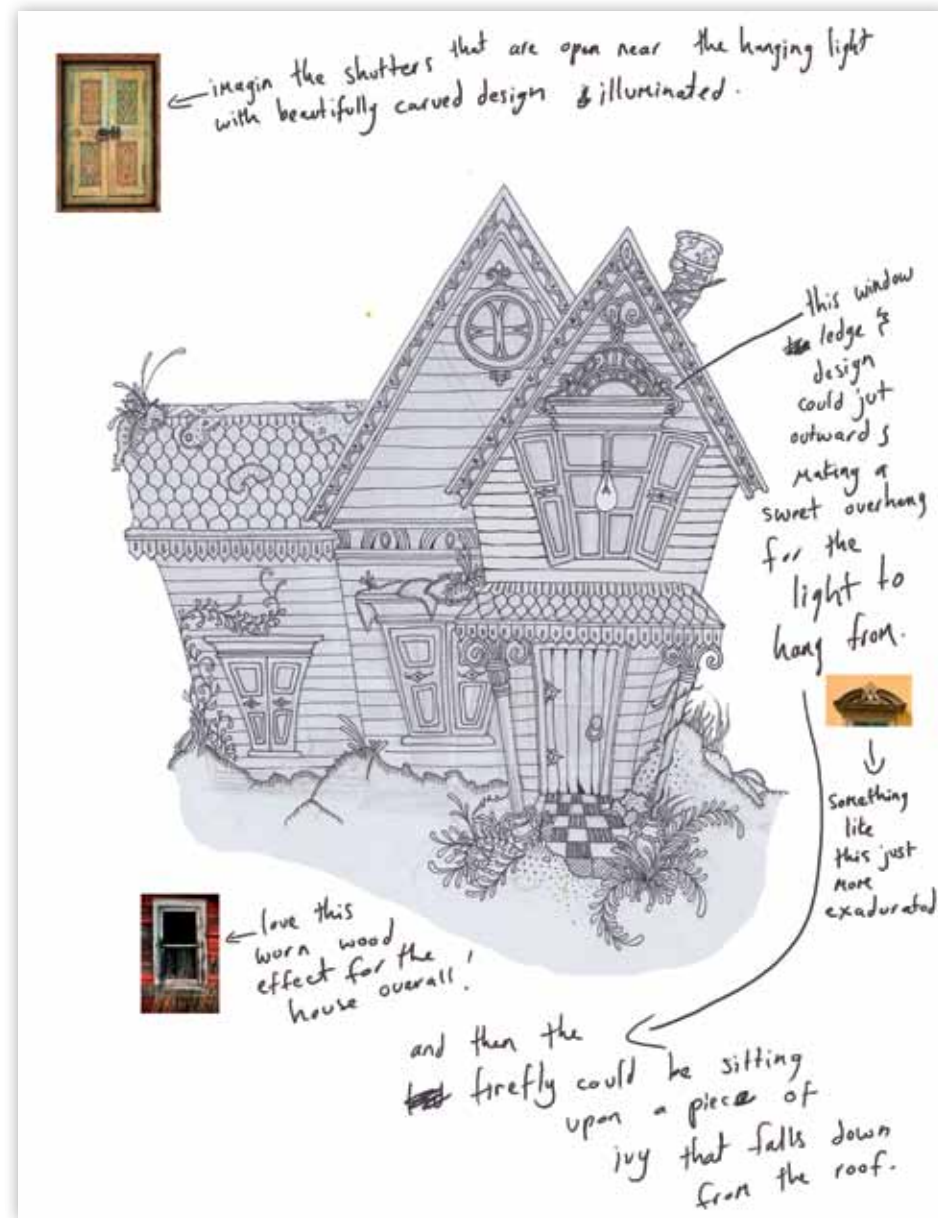*and then the firefly could be sitting upon a piece of ivy that falls down from the roof.*

After the shoot of the miniature set, we moved on to shoot the live-action sequence. We shot this against a green-screen, so that it was easier to place the live-action boy into the miniature scene later in the post-production process.

At the same time, our character designs were fleshed out into CG models, which were later given skeletons, colour and texture, and were brought to life by the team at BlackGinger. The final step in the process was in post-production, combining the miniature sets, live action and CG characters, putting them together in the same space, thereby creating the magic of the final piece.

CHALLENGES

The miniature set posed a problem in that in order to create a stereoscopic 3D effect on such a miniature scale, we had to place the views of the camera one sixteenth of eye distance apart, as this was the scale of the set. We solved this problem by using a Canon 5D on a robotic arm. This was controlled by a specially designed computer programme and took still shots for the left and right eye separately for each frame, before moving and doing

the same throughout an entire motion, essentially becoming a stop-motion shoot.

Discussing the challenges of this project, the team at BlackGinger said, "This production was a great challenge for us. Our 3D team modelled, animated and shaded all the characters using some great rendering techniques to achieve the filmic feel that would match the lighting and styling of the sets. Several layers of atmospherics were also generated, all of which had to be choreographed in the correct special depth to match the stereo plates."

"Our compositing team dealt with the numerous challenges of compositing all the elements together in stereo as well as extending all the sets beyond the foreground trees. This was done using the 3D stereo camera within our compositing software, Nuke, and layering stereo pairs of trees into 3D space. We developed proprietary tools to generate volumetric rays in stereo in Nuke and used the invaluable tools in Ocula to correct many of the stereographic issues we faced."

SPECIAL ACKNOWLEDGEMENTS

Special acknowledgements go to the team at BlackGinger, Director of Photography Johan Horjus, and set builder Steven Saunders and his team. And, of course, to the team at Ogilvy Johannesburg.

BACKGROUND

Roger Horrocks is an environmental photographer based in Cape Town, South Africa. He has contributed editorial articles and imagery to *GQ*, *Sport Diver* magazine, *National Geographic Traveller* and *Conde Nast H&G Travel*, and works as an assistant underwater cameraman for the BBC's Natural History Unit.

Born on the east coast of South Africa, Roger has been free diving and spear fishing in the Indian Ocean since he was six. After graduating from University of Natal with an Honours degree in Philosophy, he worked in the online media and financial services sectors before focusing on environmental photography in 2005.

A believer in the benefits of closed circuit rebreathers for underwater observation and exploration, Roger is Cave and TRIMIX certified on the Evolution Closed Circuit Rebreather to a depth of 100m.

Informing all of Roger's work is his interest in the relationship and interplay between man and his environment. He believes that many of the drivers of the current environmental crisis stem from our modern notion of the self, and that to move towards a more sustainable status quo we need to rethink what it is to be human and to live a good life in the context of the systemic limits of the planet.

In 2007 and 2008, Roger worked as an assistant cameraman on the BBC Nature's Great Events series, which documented the annual sardine run off the east coast of South Africa. This film, The *Great Tide*, won the Golden Palm award at the 2009 Antibes Underwater Film Festival.

In 2009 he teamed up with underwater cinematographer Didier Noirot and Craig and Damon Foster to co-direct and produce a 52-minute documentary about diving with Nile crocodiles in the Okavango Delta, Botswana.

In 2010 Roger was voted Photojournalist of the Year at the Magazine Publishers Associations of South Africa's PICA Awards, for his portfolio series on the underwater world of the Okavango Delta.

Into the Dragon's Lair premiered on Animal Planet in April 2010. The film won the Stelvio National Park Award at the Sondrio International Film Festival on Parks, Italy (2010) and the award for excellence in Underwater Cinematography (as well as an honours award for original music score) at the Blue Ocean Film Festival, USA (2010). It has also been a finalist at the Jackson Hole Film Festival, USA (best presenter, 2011), Emmy Awards (outstanding cinematography, 2011), Wildscreen Panda Awards, U.K. (sound and international people & animals award, 2010), and the Gold Panda Awards, China (2011).

ROGER HORROCKS

INTO THE DRAGON'S LAIR

BELOW: Into uncharted waters… Roger Horrocks and Didier Noirot venture into Okavango Delta in Botswana in search of this prehistoric creature, the Nile crocodile.
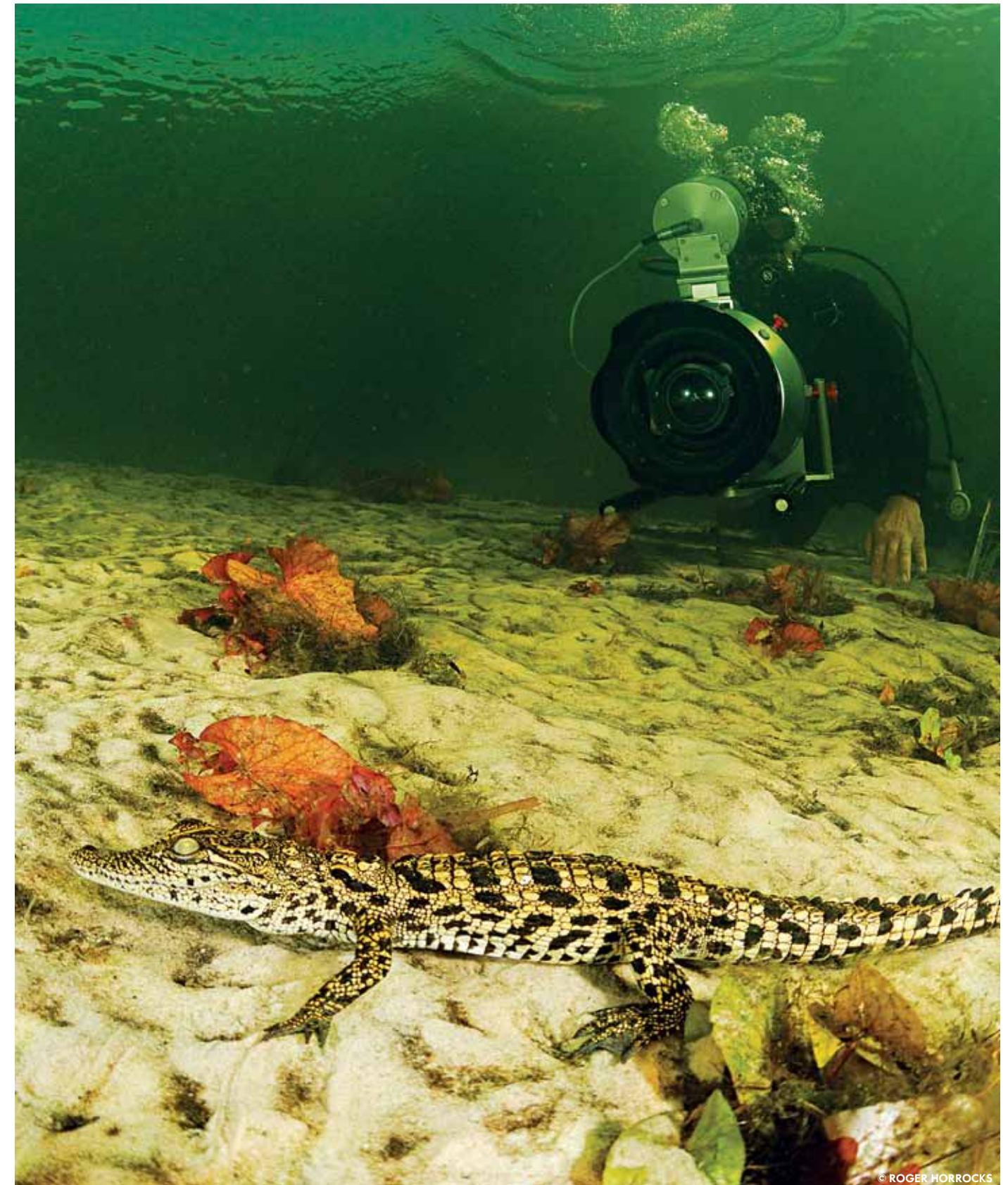
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BELOW: Live to tell the tale… Didier Noirot's theory was that underwater a crocodile would not see a diver as prey. Didier Noirot's confidence was so compelling that both he and Roger Horrocks dived completely unarmed. The average size of an adult Nile crocodile ranges between 5 – 6 metres and weighs from about 225 – 730kg.

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BELOW: Production team of *Into the Dragon's Lair*: Roger Horrocks and Didier Noirot on the cameras, Lauren Foster managed the team's finances and logistics, directors Craig and Damon Foster, with specialist river guide, Greg Thompson (far back).

THE BIG IDEA
THE STARTING POINT
The big idea for the film project came when I joined Didier Noirot on an expedition to the Okavango Delta in Botswana. Didier, who had been one of Jacques Cousteau's underwater cameramen for 12 years, had first dived alone with a Nile crocodile in the Okavango in 2006, and wanted my assistance in getting footage of him filming these reptiles underwater.

On this trip in 2008 we were successful in getting close-up footage of Nile crocodiles underwater, as well as footage of crocodiles and diver. The experience of looking for, and finding, these animals in the dark edges of the papyrus caves (we had no lights on this trip) was one of the most terrifying and exhilarating experiences of my adult life.

Based on this experience, I was convinced that there was the potential to make a 52-minute documentary on the subject of men diving with Nile crocodiles – a film which not only documented the quest but used it as a metaphor for exploring man's relationship with fear and what we call the natural world.

INTERPRETATION OF THE BIG IDEA
Back in South Africa, I met up with South African film-makers Craig and Damon Foster to get their input on the feasibility of turning this experience into a documentary for television. Craig and Damon first received critical international acclaim for their feature on the bushman hunters called *The Last Dance*, and their highly physical and interactive style of documentary making was ideal for documenting this type of subject and experience. In addition, we had

collaborated previously in 2006, trying to get funding for another film, and through that process I had developed a good sense of the kind of stories that fascinated them and what was required to get a film commissioned.

Their reaction when I showed them the first clip of Didier filming a large crocodile underwater was immediate and electric. Within two months they had secured funding from Sophie Vartan at NHU Africa, a production company owned by e-TV, to spend three weeks in the Delta in the winter of 2009 shooting the film. When Didier agreed to be part of the project, the core team was in place, and the idea had now become a film project.

TARGET AUDIENCE
The target audience for a documentary
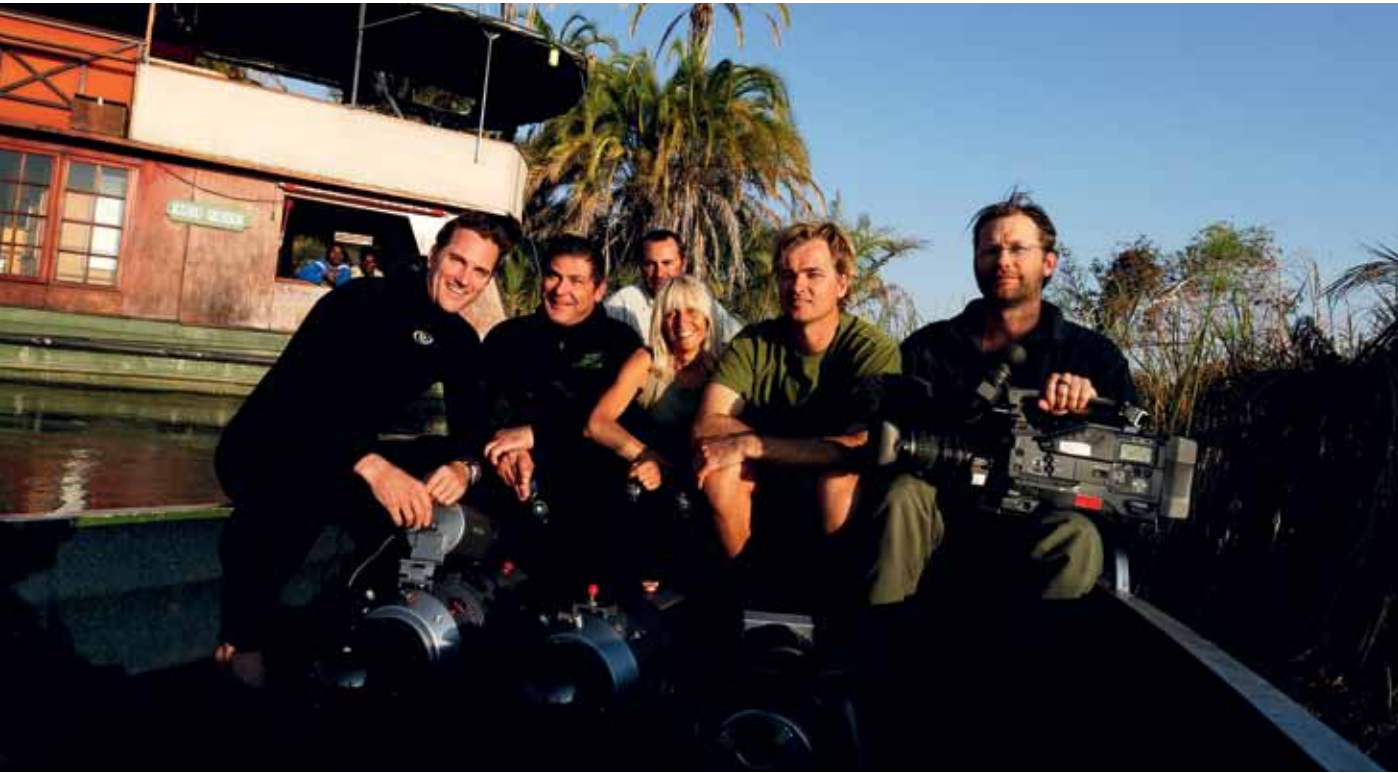
is largely determined by the broadcaster brief; they know their existing audience and how they want that to develop, and their programming choices are made in order to increase ratings and ensure that the show is a good fit for their brand.

For a documentary with adventure and wildlife components, the audience is quite broad, but with a slight male skew and targeted at viewers in the 16-35 age group bracket. Female and older viewers are also part of the audience, but it is important to ensure that there is enough action and danger to keep the core audience hooked. It's also essential not to talk down to the viewers, but rather to take them on the journey with us.

OBJECTIVES AND PURPOSE OF THE FILM
From my personal perspective, I wanted the audience to experience some of the fear and wonder that Didier and I had experienced diving with these prehistoric creatures, and to share the transformation and learnings I felt afterwards.

For the executive producers, the primary purpose was to attract strong ratings and

reviews for the broadcast and strong sales for this and future films.

THE DESIGN PROCESS
CREATIVE CONCEPT
DEVELOPMENT & FINE TUNING
Crafting a documentary film of this nature is very much an iterative process.

Unlike a work of fiction, the challenge with a documentary is that the final story arc and narrative can only be laid down once the shoot has taken place. Going into the three week shoot all we really had was the story arc of a quest – the quest of two men to dive with Nile crocodiles deep in their underground lairs.

With this arc in mind, the shoot process would involve a combination of going after the extraordinary sequences over which we had no real control, and simultaneously shooting the things that we could control, such as interviews, travelling shots and the critical pick-up shots which make film sequences possible.

It is this documentary style of film-making that the Foster brothers really excel at. I have vivid recollections of them waking up every

morning at 04h00, two hours before sunrise, talking through the events of the previous day and planning for the day ahead.

CLIENT COMMUNICATION PROCESS
Sophie Vartan of NHU Africa, the executive producer on the project, was involved in the crafting of the film on a weekly basis. Her key focus would be to ensure that we delivered a film that would appeal to the big distribution channels such as Discovery or National Geographic, hence ensuring its commercial viability.

DEVELOPMENT AND PRODUCTION
SPECIAL TECHNIQUES USED
To shoot as many points of view as possible while the action was taking place, the plan was to have four cameramen operating four cameras, two underwater and two topside. This would enable Craig and Damon to always have two points of view on what was being shown when editing the film, both above and below water. In addition, the topside cameramen had access to a special HD pencil camera in an underwater housing mounted on a pole, which would allow them to get extraordinary wide angle close-ups shots. Aerial shots were captured

BELOW: Searching for signs of the dragon's lair - an underworld cave system made by the crocodiles, hippos and elephants as they move through the papyrus beds.

by attaching the camera to the wing strut of a plane with a special mounting device.

PRODUCT AWARENESS DELIVERY VEHICLES
During the development and production of the film, there was no marketing to outside parties, as the distribution strategy was to sell to one of the big channels.

PLANNING AND MANAGEMENT OF THE PROCESS
The development and production of the film was project managed by Craig and Damon Foster with Lauren Foster managing the budgets and travel logistics to and from the shoot.

MILESTONES AND PROGRESS MEASURES
The process of film-making can be broken down into the following steps:
• Development – Fleshing out the nature of the film project and securing funding
• Preproduction – Organising all the resources needed for the shoot, including cameramen and equipment, and sorting out all travel and logistical requirements for the shoot
• Shooting – The period of time allotted to securing all of the key visual sequences required for your film
• Editing and Rough Cut – Film version of a first draft; your first attempt at laying down what will become the final film, often with a dummy voice over
• Fine Cut – Your second draft, which factors in all the editorial feedback received from the rough cut
• Picture Lock – The point where you agree that there will be no more changes to the sequences, at which point the final music score, voice over and sound effects can be worked on and added to the film
• Online – The final version of a film in the right format and duration for the channel that is going to flight it
• Broadcast and Publicity – The ongoing marketing and flighting of the film, including entering it into film competitions and building online collateral around the film to increase and deepen audience engagement.

CHALLENGES
SHAPING THE STORY
As mentioned before, one of the biggest challenges on this project was shaping the story as it unfolded. This meant that Craig and Damon had to continually balance

the need to capture powerful core scenes with shooting interviews and additional sequences that could be used to 'sew' these powerful core sequences together. Without the requisite variety of core scenes and linking sequences, you can easily spend your entire shooting budget and come away without a film.

LEARNING HOW TO APPROACH AND FILM CROCODILES UNDERWATER
Nile crocodiles are very wary of humans on land, and at the slightest sense of danger they will slip into the water and camouflage themselves in the papyrus reeds. Didier and I had to work out an effective way of approaching the animals on land and then finding them once they had slipped into the water, while at the same time filming the animal and each other. We also had to work out how close we could get while filming without provoking an attack or spooking the animals. We did this through a simple process of trial and error, and built our confidence and understanding up with every encounter.

One of the mistakes we made early on was to come to the surface very quickly after an encounter with a large crocodile underwater. The crocodile followed us to the surface and approached us, as he would any potential prey on the surface. We submerged, and, following a brief standoff, the crocodile backed down and swam away. After this incident we swam some distance from the last place of contact before surfacing and calling for the boat.

MANAGING THE RISK OF INJURY
When working with wild animals in a wild environment there is always the risk of injury. With large predators such as Nile crocodiles, which will actively seek out and attack people, this risk is even greater. Given the pressure to get footage, there is also the added risk of becoming reckless and pushing the boundary too far. As a team we agreed that if anyone felt uncomfortable or had an instinct that things were not right, then we would call off a dive. The one time that I did pressure Didier to dive in water where he did not feel comfortable because of the visibility, he bumped into a hippo underwater. After this I resolved to always respect my own instincts and those of the

team, however irrational they might appear, especially when conditions were marginal.

COMMERCIALISATION
INVESTOR OR SPONSOR FUNDING ATTRACTION FOR THE PRODUCT
TV documentaries can be sold to worldwide channels, or to individual channels in each territory. Often there can be multiple sales for different rights in each territory; the license fee is determined by the value of the slot - how many viewers, their demographic, and the relative wealth of the region. Rights that can be sold include Primary TV, Secondary TV, DVD, non-theatrical, clip, Internet TV and streaming.

NHU Africa, a production company owned by e-TV, were the investors in the film. As such they own the rights to the film in perpetuity. To make their money back and to profit from the film their commercial strategy would be to sell the rights to broadcast or distribute the film to various channels and distribution agencies around the world. It is not uncommon for a film to take many years to earn enough to make it profitable, which is why it is so important for production houses to have a wide range of film products which they are selling at any one time.

NHU Africa were successful in selling the exclusive worldwide rights to *Into the Dragon's Lair* to Animal Planet for two years. When that time period is up, they will continue to look for opportunities to sell the rights to the film.

FINANCIAL IMPACT ON THE ENVIRONMENT
Films that are location- and activity based have the potential to drive tourism to the area. While diving in the Okavango delta with crocodiles is dangerous, it is possible for anyone trained in scuba to do so, and we do expect to see a small growth in this industry over time, as well as in the number of film crews going in to film underwater.

KEY LEARNING POINTS
LOOK FOR OPPORTUNITIES IN UNEXPECTED PLACES
One of the features of the media-rich 21st century is that so much has been done and seen. Yet opportunities still exist. By deciding to dive with Nile crocodiles,

something which the great majority would say is impossible, Didier Noirot opened up a whole new world of exploration, a world that had not been shared through the medium of a documentary before. And the more you look, the more you see.

SEIZE THE OPPORTUNITY WHEN IT ARISES
Big ideas are worth nothing unless actualised. They are also infectious and they spread quickly – if you don't realise them, someone else will. As a corollary to this, don't wait for a big idea to come along before assembling a potential team to execute on the project, do the research and legwork first and build the right relationships, so that when the opportunity does come you are ready to make it happen.

FIND AND BELIEVE IN YOUR VOICE
Regardless of whether a commissioning editor (who funds your film) believes in your project, you have to. Perhaps the hardest thing for me on this project, as the narrator and a character in the film, was to break through my intellectual pretensions and speak honestly and openly about what we were experiencing, knowing full well that this film would be watched by thousands of people. As Craig pointed out again and again, if you speak your truth, it is your truth - people might not like or agree with what you say, but they cannot dispute that it is your truth. The instinct to say what people expect to hear is strong, but when you do access that inner voice it resonates far more strongly with audiences than when you just say things to try and sound impressive.

REMEMBER THAT IT'S JUST A FILM
Theoretical complexities aside, a film is a highly structured representation of a disparate series of events that occur in "reality", rendered to entertain and engage audiences. As such it's an epiphenomenon of what occurs on the shoot. If the shoot has a great energy and the team works well together, this energy will flow through into the film.

STRONG VISUAL SEQUENCES ARE THE FOUNDATION
Given the visual nature of documentaries, a critical success factor is having a few key scenes that you know will blow people away, either because they have never seen

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anything like it before or simply because of the sheer beauty and power of the imagery. You can build an entire film around a few powerful visual sequences. In this film it was the images of a man underwater with a large Nile crocodile that laid the foundation.

YOU CAN NEVER SHOOT ENOUGH PICK-UP SHOTS
Pick-up shots are shots that you shoot in between live sequence shots. They're used to flesh out a sequence in the language of film. Unless you have a good selection of pick-up shots, that great live shot you captured could be unusable. Always remember to shoot more pick-up shots, even if you think you have enough.

CONTROL WHAT YOU CAN CONTROL
Given that there are so many variables that you cannot control on film projects, it makes sense to give full attention to the ones that you can. Having the best team you can possibly afford, equipped with the right equipment, is the basis for a successful project. To try to save on either personnel or equipment is false economy.

PICK YOUR BATTLES
Film projects have an uncanny ability to expose the brittleness of egos. Be prepared to manage egos on a daily basis and be prepared for some serious horse whispering, as shouting at bruised, fragile egos is not effective. The notion of picking your battles is instructive here. Rather put your energy behind winning a few arguments that you really believe in than trying to win them all.

RESEARCH RESOURCES AND SPECIAL ACKNOWLEDGEMENTS
• Greg Thompson – Specialist River Guide
• Kevin Smuts – Music Composer
• Barry Donnelly – Sound Design and Final Mix
• Nicki Ellis – Colourist
• Corrine Le Long – Expedition Medic
• Nanda Van Elst – Production Co-ordinator
• Richard Uren - Additional Photography and Jib Operator
• Mike Holding – AfriScreen, Aerial Pilot
• TJ Jenkins – Afriscreen, Botswana Logistics
• Viv Simson – Executive Producer at Animal Planet

BELOW: The team sometimes risked the dangers of a night dive, a time of the day when most predators of the African wild are most active, in order to have better encounters with the crocodiles.

BOTTOM: Nile crocodiles are very wary of humans on land, and at the slightest sense of danger they will slip into the water and camouflage themselves in the papyrus reeds.

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"BIG IDEAS ARE WORTH NOTHING UNLESS ACTUALISED. THEY ARE ALSO INFECTIOUS AND THEY SPREAD QUICKLY – IF YOU DON'T REALISE THEM, SOMEONE ELSE WILL.

BELOW & BOTTOM: Although crocodiles' longevity is not well established, larger species like the Nile crocodile live longer than most, and may have an average lifespan of 70 - 100 years.

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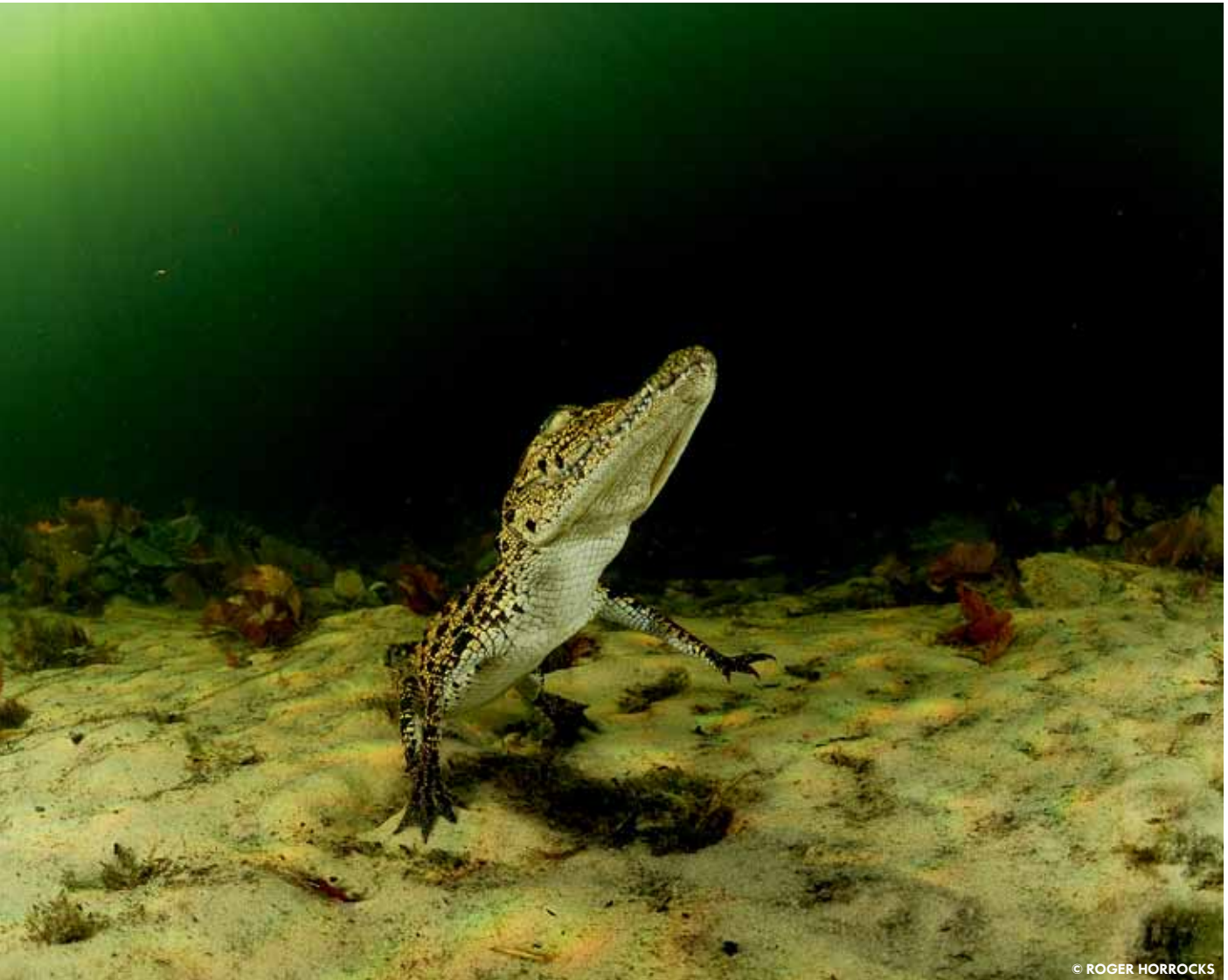
MARC SHILLUM

SOFTKINETIC IDENTITY REFRESH

👁 🛠

As Principal at Method, an international experience design firm focused on the intersection of brand, product, and service design, Marc Shillum works across disciplines to manage brand coherence, uniting behaviours, language, symbols and signifiers into brands capable of existing in today's agile and iterative environment.

Before joining Method, Marc founded the Brand Development practice at R/GA, on his future vision that brands and identity have become interface. The practice created the award-winning *Nokia viNe and Barnes & Noble NOOK*, as well as brand innovation for *Nike, HBO, Chanel, Aston Martin, American Eagle, Hewlett Packard, CoPart* and *L'Oreal*. Marc has been extensively awarded as a designer, writer, creative director, and strategist. He's been a frequent judge for industry awards such as the Jay Chiat planning awards, One Show Design and Cannes International Advertising Festival, and has spoken and contributed to articles for the *South by Southwest (SXSW) Interactive, Design Week, Creative Review, Fast Company, Eye magazine*, and the *AIGA*.

Marc is a Fellow of the Royal Society of the Arts and has worked at the forefront of many industries. His career has spanned five international advertising agencies, four international newspapers, and three international design companies. He has helped shape some of the world's most prestigious brands including: *Nike, Nokia, Sony PlayStation, Coca Cola, Levi's, Honda, BBC, The Guardian* and *Vitra*.

Marc has a deep understanding of how businesses can achieve brand success and believes as brands have to become increasingly agile, defining them becomes less about absolutes and more about patterns, less about adherence to singular messages and more about the coherence of multiple messages. Identity becomes interface and so iterative, and so brands become the constantly shifting relationship between customer and the company.

Recent Achievements & Awards 2012:
• Design Week Awards, Shortlist, Identity Design, SoftKinetic
• Rebrand 100, Distinction, SoftKinetic

2010:
• Jay Chiat Strategy Awards, Silver, Barnes & Noble NOOK
• Jay Chiat Strategy Awards, Bronze Nokia viNe
• Cannes Bronze Lion, Barnes & Noble NOOK
• One Show Gold, Barnes & Noble NOOK
• One Show Silver, Barnes & Noble NOOK

• Webby, Best Use of GPS, Nokia viNE
• Webby, Best Experimental & Innovation
• 365: AIGA Annual Design Competitions 30

2009:
• Cannes Gold Lion, Nokia viNe
• Creative Review Best In Book, Nokia viNe

2006:
• Campaign Silver, Levi's Midsummer
• Campaign Silver Best International Press Campaign, Levi's Feel
• BTAA (British Television Advertising Awards) Diploma Best 60 Seconds Or Less, Levi's Anti-Fit Ice Cream Van
• Cannes Silver Lion, Levi's Midsummer
• BTAA Bronze Clothing, Levi's Midsummer
• BTAA Bronze Best 60 Seconds Or Less, Levi's Midsummer
• BTAA Bronze Best Cinema Ad, Levi's Midsummer
• BTAA Bronze European, Levi's Midsummer
• M&M (Media and Marketing Global) Award for Best Use of Television, Levi's Midsummer

❝ IDENTITY BECOMES INTERFACE AND SO ITERATIVE, AND SO BRANDS BECOME THE CONSTANTLY SHIFTING RELATIONSHIP BETWEEN CUSTOMER AND THE COMPANY.

BELOW: The new brand identity of *SoftKinetic* represents the three core properties of the company as one holistic brand to a larger, international audience of consumers, technology companies and potential partners and clients.

THE BRIEF

SoftKinetic asked Method to rebrand their three core properties into a single homogenous brand: SoftKinetic, the developer of natural gestural interfaces; Optrima, the 3D camera manufacturer; and SoftKinetic Studios, the premier gesture-based interactive entertainment development studio. SoftKinetic's goal for this rebranding activity was to introduce SoftKinetic as a holistic brand to a larger, international audience of consumers, technology companies and potential partners and clients. In order to meet a trade show deadline, this identity refresh had to be completed and launched in less than four weeks.

THE CONCEPT
INVITE INTERACTION

Method began by challenging SoftKinetic: "To be the leading gesture interaction platform, SoftKinetic must act at a category level, rather than by segmented product. Your strength is in being the affordable, end-to-end, customisable 'white label' platform. To own the category and transform the way people interact with the digital world, through natural gesture-based interfaces, you need a gesturally defined brand – so you need a gesturally defined identity."

The resulting identity is a connected language, a wordmark, texture and frame. Together they are used statically to indicate gesture. But, more importantly, through motion the identity becomes an expression of the brand: Kinetic through optical pattern, Soft through malleability. The SoftKinetic logo is awareness and seeing, is light itself. The identity inspires gesture.

SoftKinetic's slogan claims 'The interface is you'; this implies the identity is also you.

TARGET AUDIENCE

The overall target audience were tinkerers and visionaries who believe in affordable, customisable, gesture-based platforms that could be 'white labelled'. The identity needed to appeal to both consumers and businesses – game developers, the interactive marketing community, and the R&D departments of large companies.

Business customers are technology companies (consumer electronics),

advertising companies or marketing department of corporations, game equipment manufacturers (OEMs), telecommunication companies, game developers and retailers. Demographically the consumer customer would be male, 14-40, avid gamer, technophile, console user, subscriber to on-demand services and heavy media user.

DESIGN PROCESS

In searching for a symbol or logo for a gestural interface, the accepted view was to use the human form to describe gesture. This literal mirroring describes what we should do in front of the interface or camera. But it doesn't actually invite gesture. It's a painting and a metaphor, static in its description. If we turn more towards the detection of gesture, the eye of the aware machine, we make that magic temporarily visible. In this way Method was able to invite interaction, rather than just describing it.

CLIENT COMMUNICATION

The design process involved a visual designer, design technologist and collaboration with the client's R&D studios. As the client was based in Belgium and the work was largely created in San Francisco, Method used its global reach to collaborate between its New York, London and San Francisco offices. Virgile Delporte, SoftKinetic's VP Marketing and Business Development, commissioned the project and was the main client. Virgile was a key member of the collaborative design team, taking sole responsibility for refining the brand architecture within the short timeframe allowed for the project.

CREATIVE DEVELOPMENT

Method looked at many solutions that could respond to gesture. One of these, a simple recutting of the SoftKinetic wordmark, revealed a 45° angle in the upper case K. Extruded, that 45° angle formed a responsive grid or lens that could capture movement.

BRAND ATTRIBUTES

A set of attributes was created against which to measure the success of a final identity. These were:
• **Mouldable:** We must inspire gesture, we must be tactile and visceral, we must be

the clay in the hand of the user. We are a white label, we take on the identity of those who play and create with us.
• **Aware**: We are an eye and a mind onto the world of the user, and so we are aware, in the sense that human beings are aware of each other; artificial intelligence is aware of input.
• **Responsive:** To transform the way people interact with the digital world, you must respond to their interaction, because we are aware.
• **Utilitarian:** You have competitive tiered investment levels. The brand is multi-accessible, multi-layered and modular, but the experience is supported at every level. Because the brand will be accessed by technologists, marketers and business leaders, you must appear as a tool to be expressed through and not an expression in itself.

DESIGN DEVELOPMENT

Although Cinder (a free, open source C++ library for creative coding) was considered, due to the tight timeline the final identity was created within Trapcode Form, a series of experiments with inputs formed nearly 1 000 unique static logos. (Trapcode form is a particle plug-in for Adobe After Effects which can quickly render particle-based systems and gives a large amount of control to visual fine tuning.) Using code to create form has a distinct advantage: it is both true (i.e., responsive) and fast. The initial investment in this approach paid off as the same code produced the responsive grid of the gestural identity.

THE DEVELOPMENT PROCESS

Programmatically creating static forms is an inexact science, but it seemed to make sense that a gestural company would make a responsive identity first and then crystallize it down to a static form.

MARKETING STRATEGY

First we needed to create momentum around the identity internally at SoftKinetic. A larger push on the identity is expected in 2012. The major vehicle for introducing this new identity was as an experience at trade shows. The full screen demo created hype at events; the next iteration will be gesturally controllable.

IMPACT

The major impact to the immediate environment was to create new bonds between the vertical disciplines of design, and unite client R&D with agency developers to form a long-lasting relationship.

MEASURING SUCCESS

As with any identity refresh there are largely two audiences:
• An internal audience that looks to see if the new brand represents the vision they have of their own company.
• An external audience, where recall and relevance to the category are the most important factors.

In addition to winning awards at Design Week and Rebrand 100, since the launch of the new identity, SoftKinetic has had great success representing their brand and their products and has been critically acclaimed by media outlets including Engadget, TechCrunch, and VentureBeat.

PRODUCTION
PROCESS

The new SoftKinetic identity was completed in a very short time frame – just three weeks for a project that can take up to a year. Once both the client and Method committed themselves to these special working circumstances, we began three short phases of work. In some sense, this was an agile brand process, that is to say, the plan was to develop a few key elements which could be launched in the first phase of what would become an ongoing relationship.

PHASE 1, ANALYSIS

The process began with a short competitor review, site analysis, and an overall asset evaluation. The strategic presentation on brand positioning was given after just one week.

PHASE 2, PLANNING

This was followed by a thematic presentation where artefacts were organised around themes that correlated to the strategic need. Three themes were presented in total: 'Alive', 'Interaction', and 'Interconnection'. 'Interaction' was the clear strategic winner.

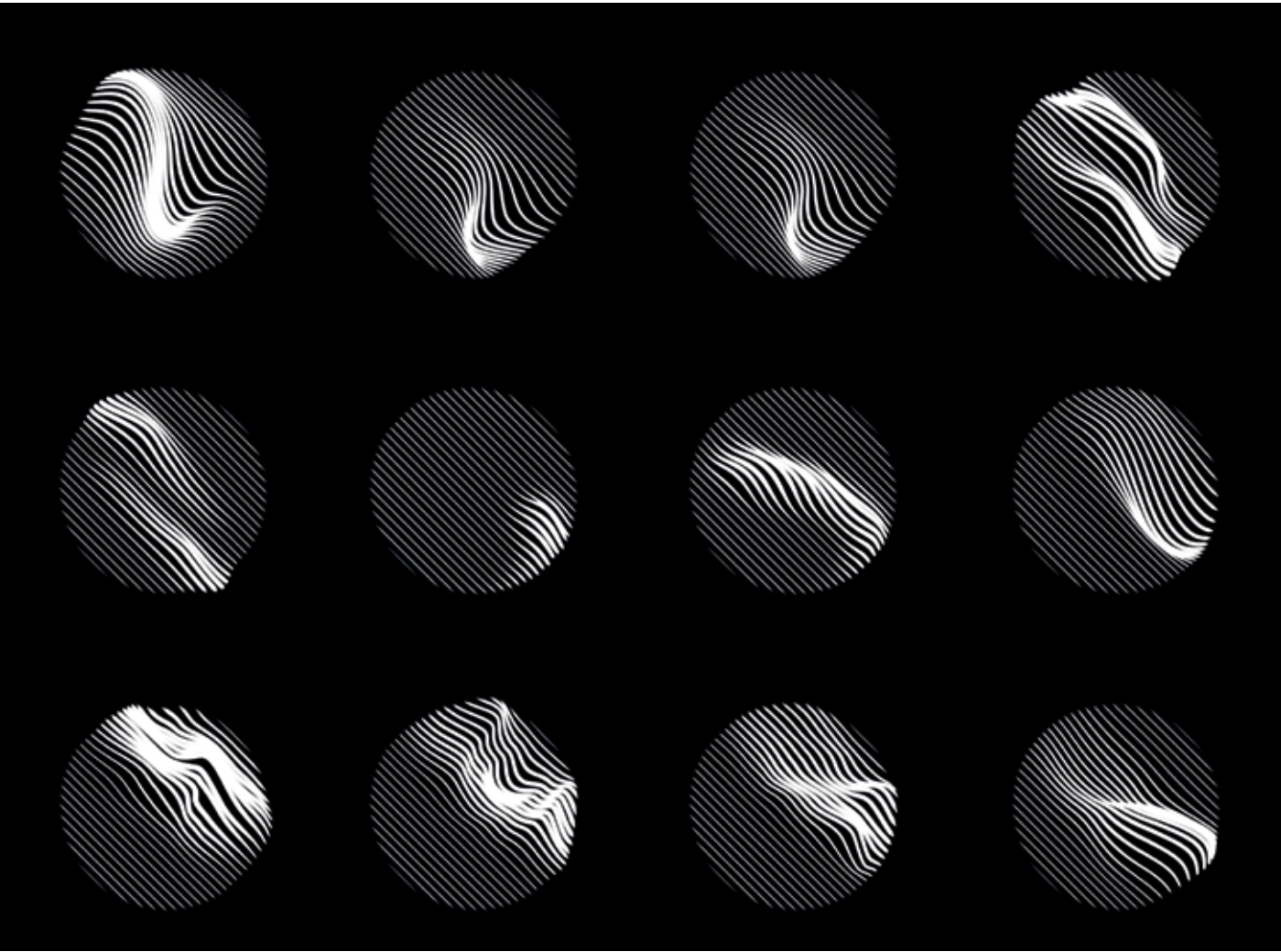

PHASE 3, IMPLEMENTATION

The identity was applied to a dynamic surface for the trade show, along with corporate stationery and a re-skin of the existing website.

Due to the short time frame, the redesign of SoftKinetic identity was prioritised and was ready for implementation by trade show deadline. Meanwhile, all other elements were being realised after the first deadline.

MILESTONES

Our direct client took on the role of finalising the brand architecture and organising major stakeholders towards a common belief. Once a naming strategy had

been agreed, work began on a wordmark, symbol and a set of behaviours that created the vision around the centralised brand. Unfortunately there wasn't time to redesign the website to incorporate the responsive form. But part of the agile process means that we can organically revisit elements of the brand system.

Work was due to begin the following year on a functioning identity that responds to gesture through the existing SoftKinetic hardware and software, acting both as an identity and a demonstration of the power of the custom platform.

HIGHLIGHTS AND CHALLENGES

• Finding a client that would take on something innovative within such a short time frame was amazing; full credit goes to Virgile and his team.

• The sheer logistics of agreeing naming, wordmark, and symbol in such a short time period should never be overlooked.
• Seeing the excitement of the client when the Designer/Coder showed them the responsive system for the first time was unforgettable.
• Being invited back to prototype the responsive identity of SoftKinetic's platform is the cherry on the cake.

COMMERCIALISATION

An identity can rarely be quantified to show actual financial return on investment, yet the consolidated effort to organise the company around a singular holistic brand, affects recall, top of mind and the general health of the business's internal culture.
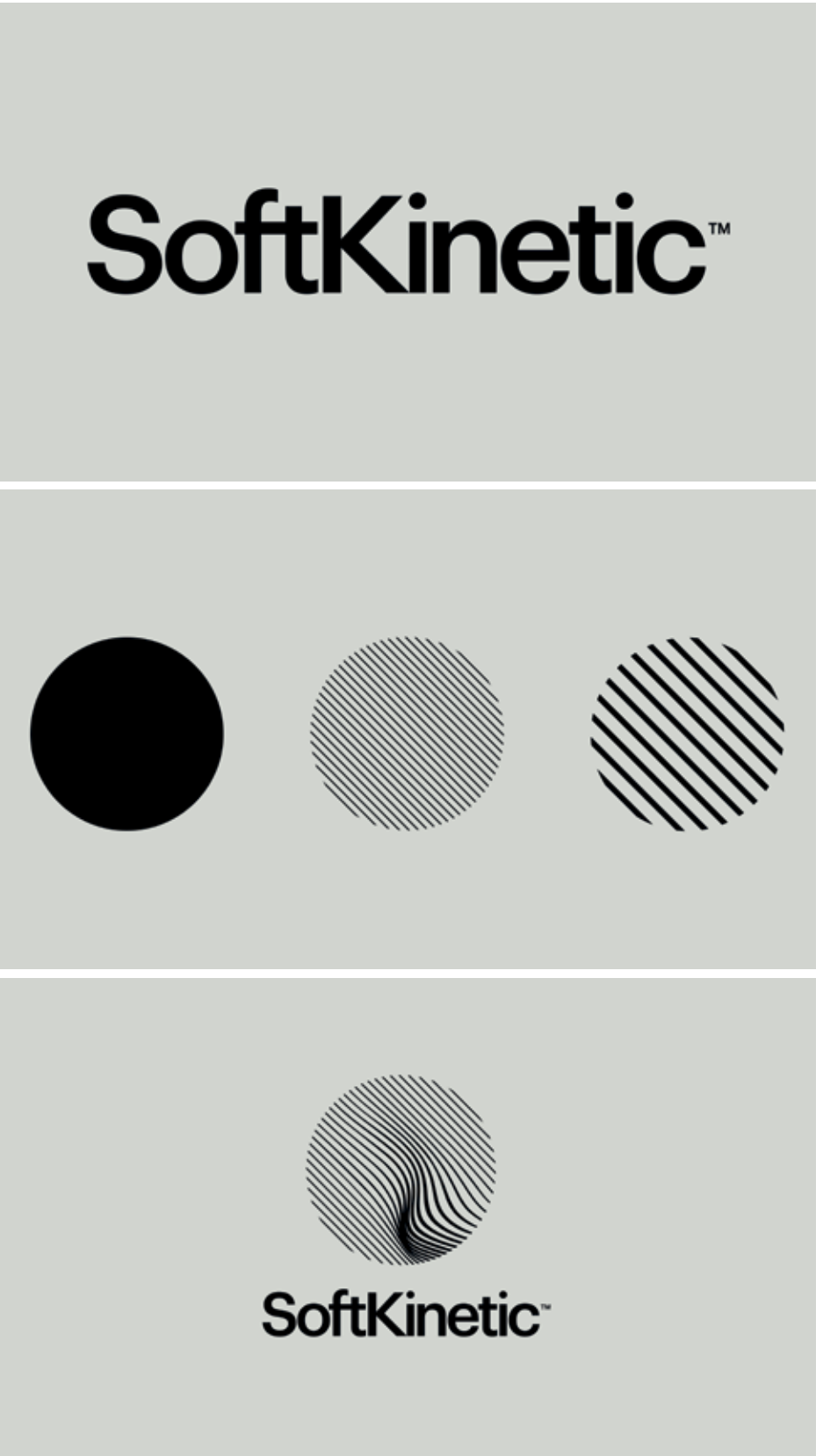
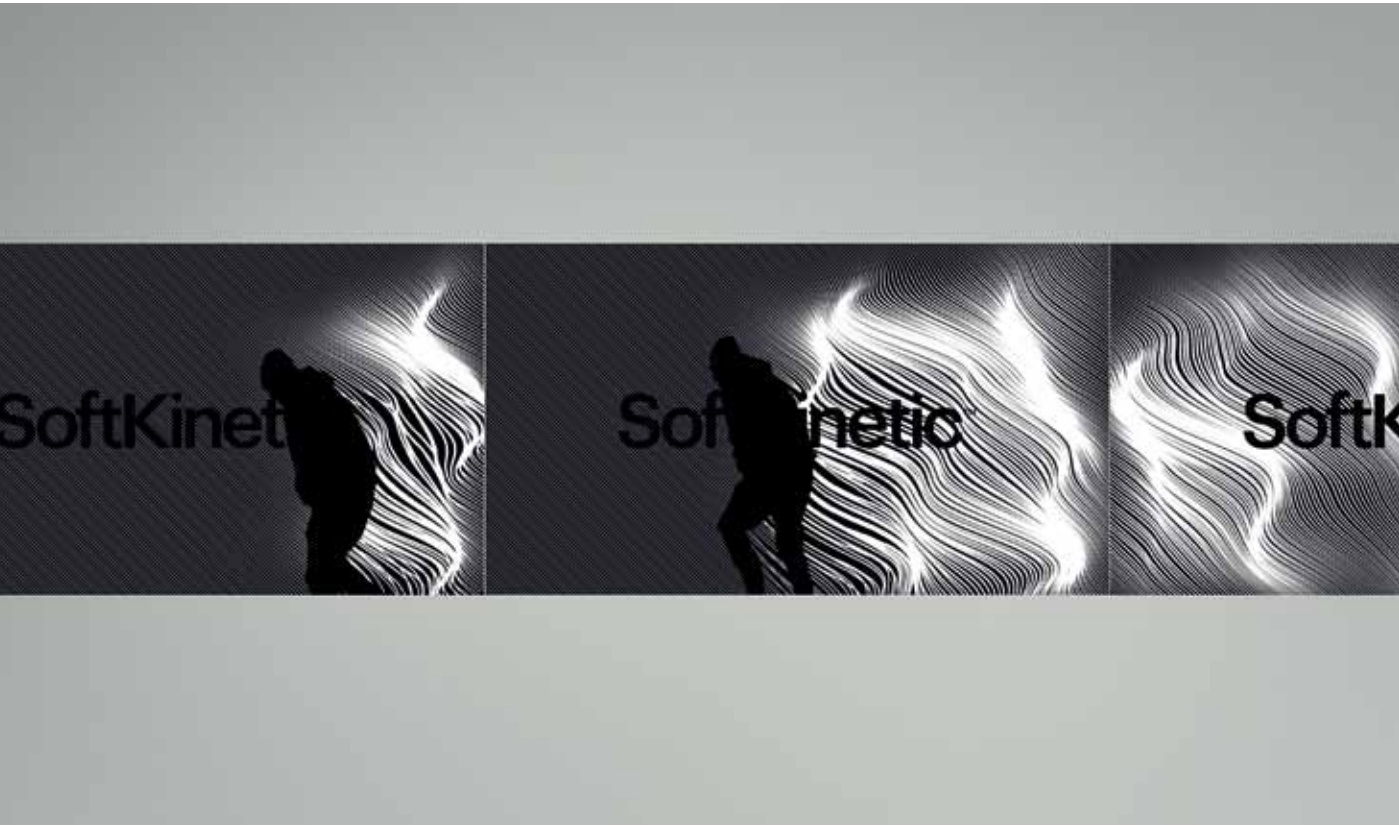## KEY LEARNING POINTS

• If it seems undoable, try.

• Brands are agile, don't try to finish everything in one go.
• Passion goes a long way.
• Anything is possible.

BELOW: Artist's impression
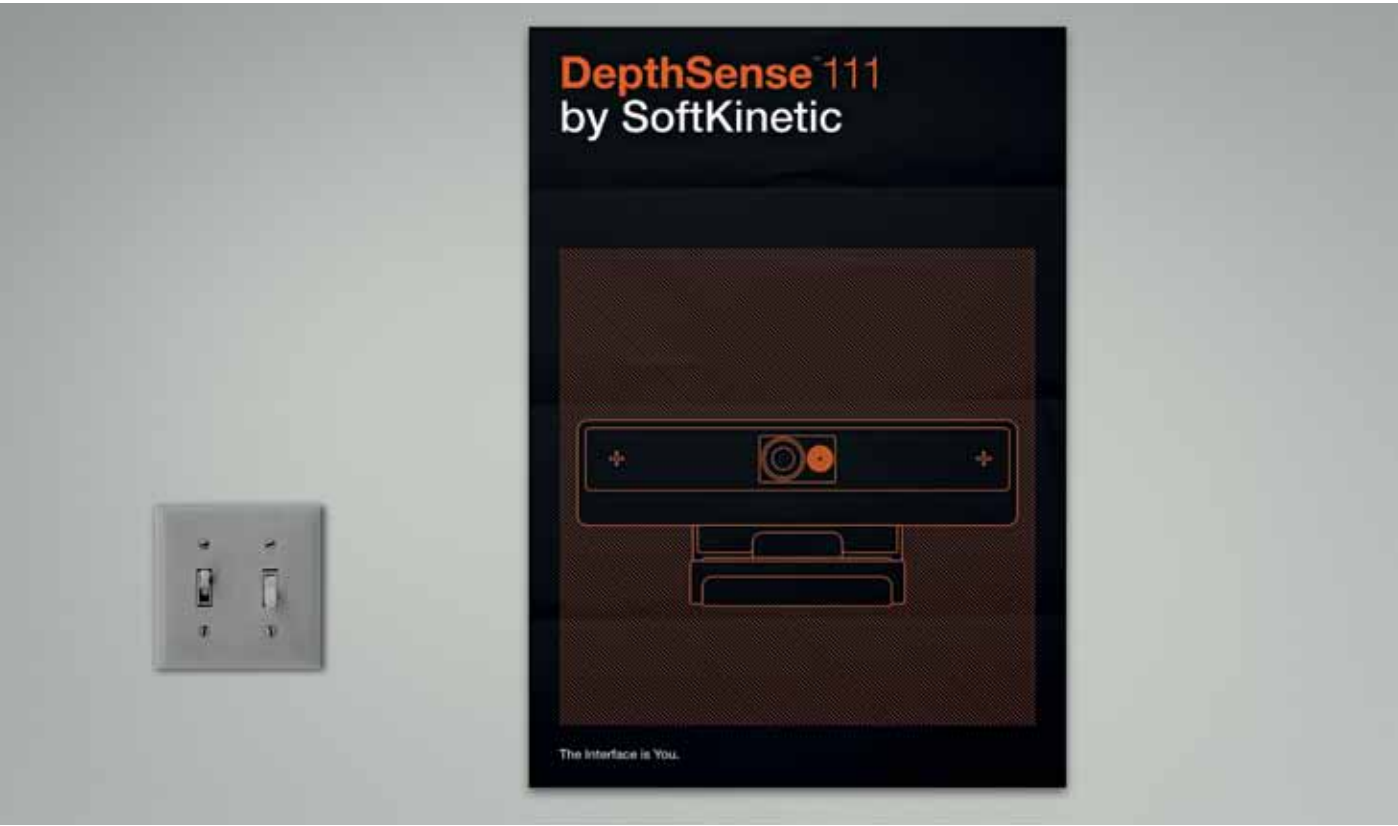of the new brand identity
applied to a dynamic surface
at the trade show, highlighting
the audience interaction as
movement is detected in front
of the surface.

BELOW: Additional elements
designed for implementation
at the trade show along with
printed corporate stationery,
audience triggered
interactive displays, etc.

BACKGROUND

Faith47 is a self-taught artist who draws inspiration from her own existential questions. Her art takes on the form of metaphor – both abstract and definitive in meaning, plucking at our heartstrings as she paints. Faith's images thrive on broken-down cars and old factories, down dusty side roads of lost towns and inner-city alleyways. Her deep affinity with lost spaces allows her to bring attention to the most humble of environments. Her interaction resonates with our fragility and our elusive relationship with dreams, memory and human interaction. Initially recognised for her graffiti and street art work, Faith has quickly established herself internationally, showing in galleries and participating in projects worldwide, from Europe to the Americas and Asia. She remains rooted in South Africa, where the soil is red and her blood feels comfortably and peacefully on edge.

FAITH47
THE FREEDOM CHARTER PROJECT

> ❝ HER DEEP AFFINITY WITH LOST SPACES ALLOWS HER TO BRING ATTENTION TO THE MOST HUMBLE OF ENVIRONMENTS.

© ROWAN PYBUS

THE BIG IDEA
INSPIRATION

I was inspired by the political slogans and stencils I saw while catching trains when I was younger. Slogans like 'mobilize and mourn', and 'the people shall govern' struck me, and this later formed a base inspiration for me in this project.

I read through the 1955 Freedom Charter document and researched its origins and about the immense amount of work and effort that went into putting this document together.

The aims of the document are simple and humble. It struck me as a fundamental intent for universal human rights, a vision of a society which respected equality for all people, and a social structure that looks after all its people, weak and strong. Aware that many of the aims of the charter have still not been met – despite the fact that it formed the backbone of the ANC and the struggle and helped to create a solid foundation for our constitution – I thought it would be a good time to reflect on some of the sentences in the charter and bring them back to life within today's South African environment.

TARGET AUDIENCE

My target audience is non-specific. I place some of the work in high traffic areas (the Mew Way bridge in Khayelitsha, for example) and some of the works in desolate areas (such as an abandoned lot in District 6). The photographs and the internet serve to spread the works well beyond passersby. The target audience is no one and everyone. Anyone.

CONCEPT DEVELOPMENT
THE PURPOSE OF THE PROJECT

The purpose of the project was to work through my own sorrow of seeing such a rich and powerful country stumble in its first steps of becoming independent. Xenophobia, poverty, lack of good healthcare and education are all issues that are in dire need of attention. We all know this but the neo-liberal systems in place only intensify the struggle for the very poor.

There was no illusion that I would be helping people with a project such as this. It was more of a way to express my emotions about what was happening around me. The problems are too complex and complicated to easily summarize and solve, but a few thoughts appearing in the public domain can sometimes arouse inspiration in others.

DEVELOPMENT

I spent two months planning the project, finding locations and raising funds. Getting the locations that I envisioned was a lot of work and organisation. I wasn't always able to find exactly what I wanted, but I was happy with most of the final locations. All the locations were painted within a span of three months.

BELOW: "The People Shall Share in the Country's Wealth" Mew Way, Khayelitsha.

© ROWAN PYBUS

Some locations took a lot more time and energy than others, for instance 'the people shall govern' wall in Johannesburg needed scaffolding and I only had 2 days to paint that wall, which was very demanding. When painting 'The people shall share in the country's wealth' I had to make sure that all the people with hand-painted adverts underneath my chosen space were contacted and reimbursed to repaint their adverts on the other side of the bridge. This was necessary so that they didn't repaint their adverts over my work.

The wall 'Rest, leisure and recreation shall be the right of all' was especially difficult as the area that we painted in was intensely hardcore and violent. In all my time painting in different areas, that is beyond a doubt the most difficult and volatile space I have painted in. When we left there was a guy

being dragged down the street with blood coming out his mouth and some guys beating him with a pole. It took me some time to absorb the depth of the hardships encountered by the people that I met on that day. This wall is a good example of how personal a process the project is for me. Each artwork is not just a photograph, but a very real and often profound experience.

COMMERCIALISATION

The initial idea was to create an exhibition of the photographs in South Africa. I also showed the works in Holland and Switzerland. However, due to lack of funding and my own attention moving in new directions I decided not to show the work in South Africa. Instead, I allowed the internet to spread the works, and to let them speak for themselves on the street.

SPECIAL ACKNOWLEDGEMENTS

I owe a special thanks to Rowan Pybus for taking such great images of the artworks. Also to all the people in the locations who were so open and positive to us being there. The Mayebuyo Centre for allowing me access to their archives of South African political graffiti and original footage of the actual Congress of the People in 1955. The MU gallery in Holland, and also Red Bull who both gave me the funding to make the project possible.

❝ THE PURPOSE OF THE PROJECT WAS TO WORK THROUGH MY OWN SORROW OF SEEING SUCH A RICH AND POWERFUL COUNTRY STUMBLE IN ITS FIRST STEPS OF BECOMING INDEPENDENT.

BELOW: "The People Shall
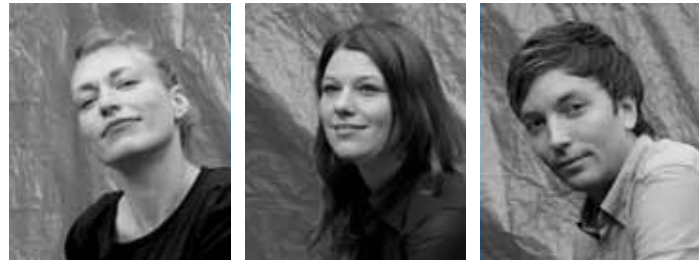Govern" Market Street,
Johannesburg.

BOTTOM: "You bought it for so
much less than it was worth"
Woodstock, Cape Town.

BELOW: "All Shall Be Equal
Before the Law" Cape Town.

BOTTOM: "Rest, Leisure and
Recreation Shall Be the Right of
All" Newtown, Johannesburg.

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TROIKA

ALL THE TIME IN THE WORLD

BACKGROUND

Troika, a multi-disciplinary art and design practice based in London, was formed in 2003 by Eva Rucki, Conny Freyer and Sebastien Noel, who met while studying at the Royal College of Art. With backgrounds in graphics and communication, art, product design and engineering, Troika's approach focuses on merging the arts and design disciplines and their practice is positioned at the junction where art, design, science and architecture intersect.

Known for their experiential artworks, Troika's interests extend beyond the built environment to include installations where storytelling, humour and poetry become part of the spatial experience. By looking at the world around them from a different perspective, they set the scene with original, often humorous, sometimes surreal observations, scenarios and experiences that are notable for their formal simplicity and often touch upon our innate memories of sound, sight and movement.

Troika maintains a strong focus on creative excellence, experimentation and innovation. They are driven by a meticulously crafted working method and cutting-edge technological expertise that is illustrated and reinforced through detailed research and exploration, drawings and prototypes. Their open approach to every new project is supported by the studio's team of craftsmen, architects, engineers, product-

and graphic designers, all of whom are dedicated to working on projects where innovative materials and methods are coupled with on-going research, critical discourse, and a strong technological and environmental understanding.

Troika's work has been exhibited at the Victoria & Albert Museum in London, The Art Institute of Chicago, Tate Britain and the Museum of Modern Art, New York. In 2006 Troika was awarded the Creative Pioneers Award from NESTA, the National Endowment for Science, Technology and the Arts, and in 2010 was selected to create three art installations for the UK Pavilion at the World Expo Shanghai.

Their work is represented in the permanent collections of the Israel Museum in Jerusalem, British Council, The Art Institute of Chicago, Victoria and Albert Museum London and the Museum Of Modern Art in New York. Troika has authored two books to date: Digital by Design, Thames and Hudson, 2008; and Moscow Style, Booth-Clibborn Editions, 2005. In 2009, they won a D&AD Yellow Pencil for their digital sculpture *Cloud* in London Heathrow Terminal 5, and, in 2011, for their kinetic installation *Palindrome* for the V&A London.

In 2009 the project which is the subject of this case study, *All The Time In The World*, was nominated for Design of the Year by the Design Museum, London.

BELOW: Created using a state of-the-art electroluminescent display system designed by Troika, *All the Time in the World* extends the conventional notion of a world clock. Instead of the common practice of displaying the names of capital cities in different time zones, *All the Time in the World* links real time to places with exciting and romantic associations like far away places, exotic wonders and forgotten cultures.

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BELOW LEFT: One electroluminescent module showing the lightweight, flexible feature of acetate and highlighting the ingenuity of the technology.

BELOW RIGHT: Printed electroluminescent modules displaying various texts

BELOW LEFT (A): Firefly matrix displaying the capital letters of the alphabet.

BELOW LEFT MIDDLE (B): Typical 'Number 8' modular font system.

BELOW LEFT MIDDLE (C): From left to right: Typical 'number 8' modular font system; Troika's Firefly modular font system; A 'classic' letter

BELOW RIGHT & BOTTOM: Production (screen-printing) process of electroluminescent technology.

THE BRIEF

Troika was commissioned by Artwise Curators to create *All the Time in the World*; a 22m long electroluminescent wall that marks the entrance to the First and Concorde Galleries lounges at Heathrow's new Terminal 5. It is the first large-scale, modular-font based display using electroluminescent technology.

THE CONCEPT INSPIRATION

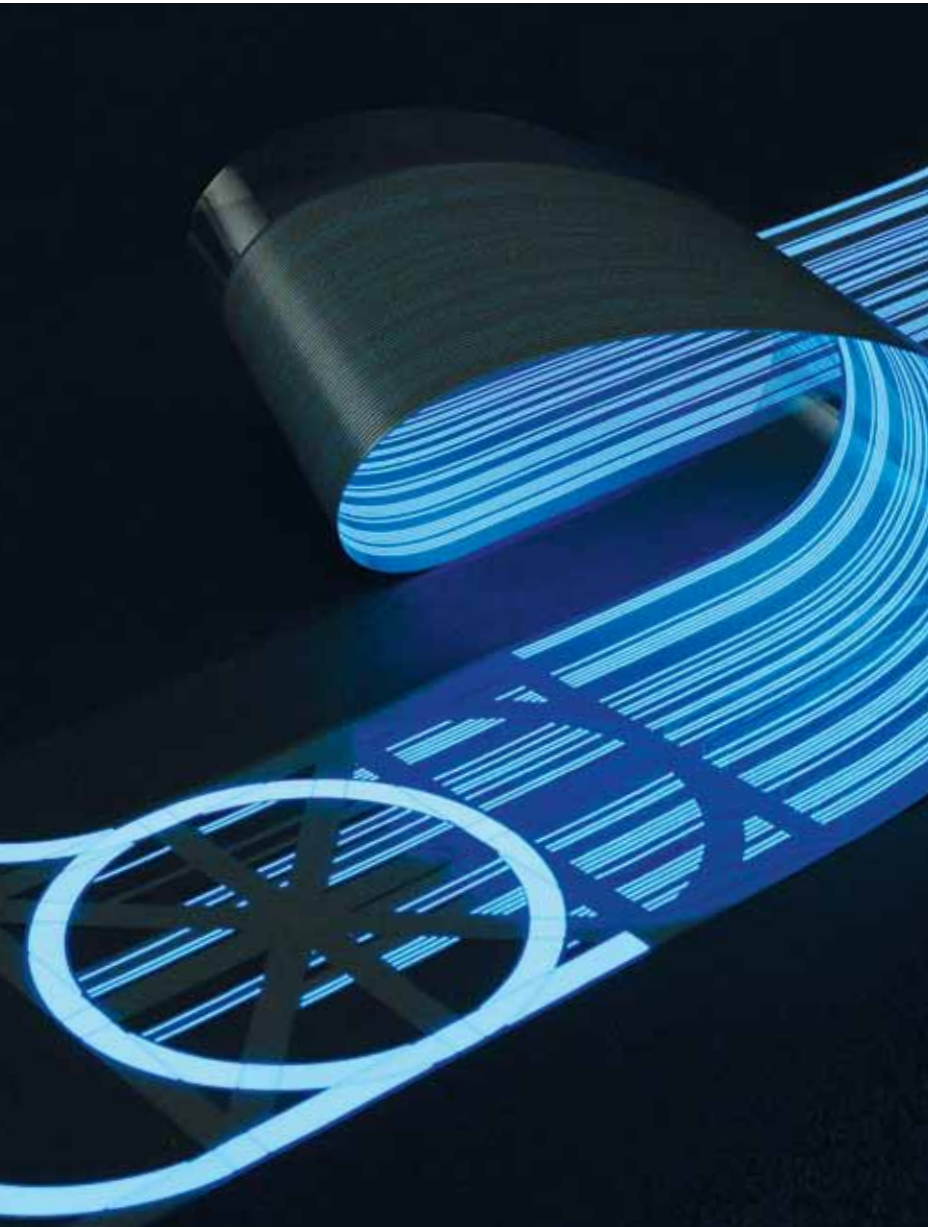One of the early inspirations for the display was looking at the way technology, and in particular display technology, seems to systematically strive for full colour, full size and full resolution. This approach tends to create increasingly uniform designs and frequently leads to over-specified, under efficient solutions, for example, the hundreds of power-hungry plasma screens used to display simple textual information in airports. We wanted to challenge this status quo and show how beautiful, unique and efficient a simple text display can be.

Another inspiration for us was early electronic display elements such as nixie tubes. They have a kind of magic, a strong physicality of matter and light, a character that makes them stand out from more advanced techniques. We wanted to bring these sensual qualities into the equation to create a display system at the crossroads of high and low tech: high tech in its use of emerging printed electronic technologies, low tech in being manually silk screen printed and restricted to text, letters and ciphers.

THE IDEA

All the Time in the World allows passengers, to extend their imagination to far distant locations: to the great natural wonders of the world, its highest mountains, most
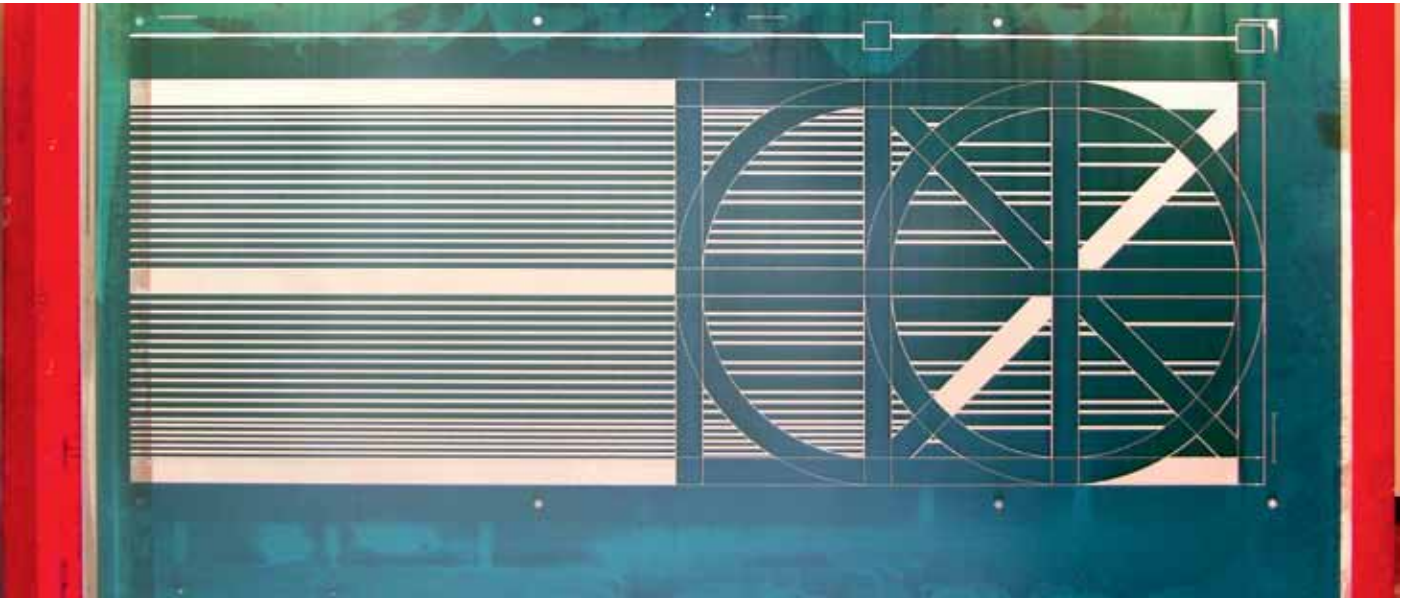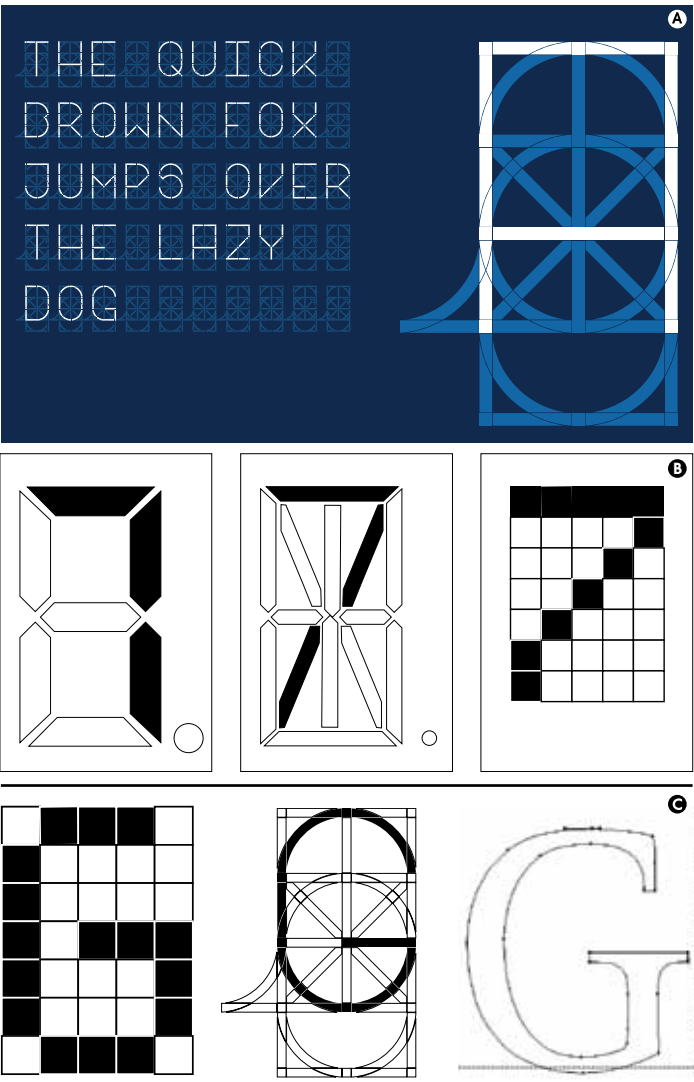
BELOW: Printed electroluminescent modules displaying the letters and numbers in the custom designed 'Firefly' type created by Troika based on the well known 'Number 8' modular font system from digital watches.

beautiful lakes, longest rivers, as well as the tallest buildings, ancient cities, museums with untold treasures, dream islands and exotic deserts. What this does is subvert the purely functional aspect of the traditional world clock into a poetic, fictional tool.

GMT, London's local time, forms the heart of the clock display; places west of London are displayed to the left of the large clock, and places east of London are to its right.

All the Time in the World not only connects the different capitals of the world, but also celebrates:

• Natural wonders: Grand Canyon, Victoria Falls, Great Barrier Reef
• The highest mountains: Mount Whitney, Elbrus, Kilimanjaro, Everest, Fuji
• Forgotten wonders: Tenochititlan, Abu Simbel, Taj Mahal, Ankor Wat
• Museums: Guggenheim, Louvre, Hermitage, Mori Museum
• Modern wonders: Panama Canal, Eiffel Tower, Sydney Opera House

DESIGN PROCESS
Electroluminescent technology is a cutting edge screen-printing process that allows the creation of paper-thin, bendable prints that light up when subjected to an electric current. This paper-thin print can then be 'plugged in' like a lamp. The system uses electroluminescent ink, silk-screened onto flexible, transparent acetate; the ink lights up when subjected to an electric current. This technology was originally used for helicopter landing pads and later for switching 'on' and 'off' parts of advertising and billboards. Our aim was to apply this technology in a different, possibly more sophisticated way, expanding on and redefining its conventional use while pushing its inherent technical and visual qualities.

For *All the Time in the World* Troika developed a new typology of electroluminescent display, called 'Firefly', which relies on a custom-designed, segmented typeface. 'Firefly' was inspired by the well-known 'Number 8' modular font system from digital watches; however, it pushes the aesthetic boundaries of the basic 'Number 8' matrix by introducing a design that uses 63 segments to create more sophisticated and classic letter shapes

that can be animated as if they were hand-written. Upper and lowercase letters, script and numbers can all be displayed.

Each module is printed with the same segmented matrix that can display all the letters of the alphabet and numerals. *All The Time In The World* comprises 100 small 'letter' modules and four large 'clock' modules. The artwork was designed so that each module can be exchanged independently. The display is computer synchronized to change globally when the clocks change according to daylight saving.

Troika's 'Firefly' type is divided up into segments, each individually addressable and able to display up to five different typefaces. There are 67 circuits for each letter. Letters appear by switching on different combinations of the segments within a cell. The letters are animated by switching on these segments, so they look as if they are being hand-drawn by an invisible hand. The result is a unique visual aesthetic developed from the technical challenges as well as the creative process. It would be possible to create even more intricate typefaces, though this would require more complex electronic drivers.

DEVELOPMENT OF PRODUCT / PRODUCTION
Following a long collaboration with Elumin8 Systems Ltd and EL International, as well as beta testing, *All the Time in the World* now stands with 100 'Firefly' character modules arranged in two rows along with 4 giant (1.6m high) modules for the large London GMT clock. Bespoke electronic drivers were engineered to control its 7 000 segments (an amazingly small number considering the crispness and size of the whole display). Despite its size, its power consumption is as low as 700W in total, making it another first for a display of this size.

Aside from its incredible thinness (less than 1 millimetre), the display boasts high aesthetic impact. It is also extremely versatile in terms of the characters displayed (up to five different fonts can be shown in our arrangement). This modular approach also allowed us to animate the letters as if they were handwritten onto the display, a feature that was at the very origin of our research. The resulting display has

unique properties: it doesn't cast light or disturbing shadow on its surroundings, it can be curved, and is extremely competitively priced compared to other display technologies such as LED if only text is required. Based on a vectoral design, its advantages are all the more noticeable in large scale (like *All the Time in the World*) or very small.

COMMERCIALISATION
All The Time In The World was commissioned as a one-off art installation, and is the first time that a display system of this kind has been implemented worldwide. However, the electroluminescent display and 'Firefly' were designed as a modular system so that it is not only easy to exchange any of the existing modules (characters); it also lends itself to future applications using any number of these printed modules in different contexts. It is also interesting to note that the 'Firefly' typeface itself and the technique are transferable to other emerging technologies such as OLED, PLED or E-paper.
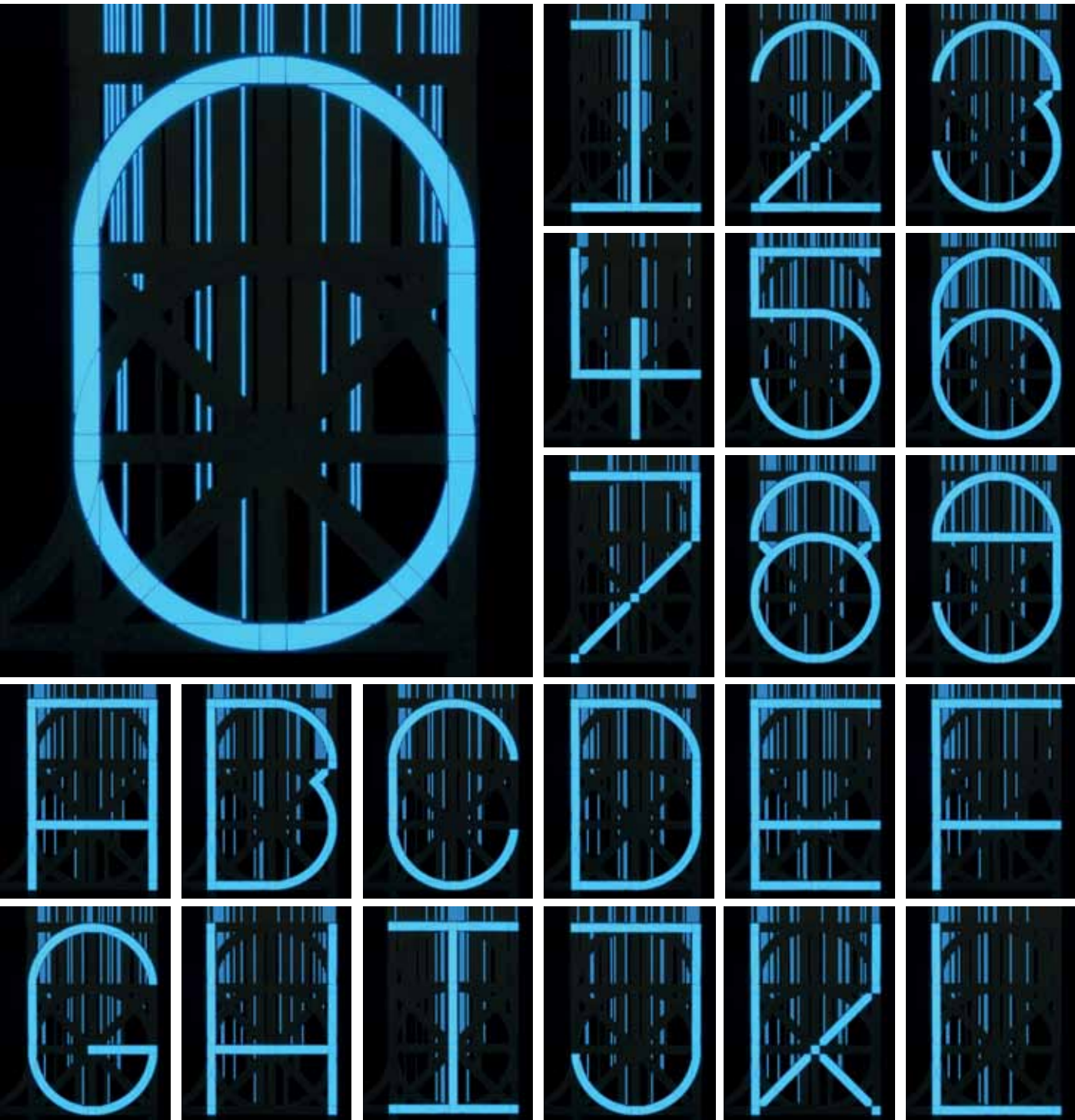
HAND SPRING PUPPET COMPANY

THE STORY OF TALL HORSE

✕

BIOGRAPHY

Handspring Puppet Company is a South African puppet theatre company founded by Adrian Kohler and Basil Jones in 1981, soon after they graduated with Fine Arts degrees from the University of Cape Town's Michaelis School of Fine Art. Says Kohler, "We had two main aims: to produce new children's theatre with puppets that reflected life on the continent on which we lived, and to stake a claim for puppet theatre as a legitimate part of our local theatre vocabulary. We gave ourselves two years to swim or sink."

After seven successful children's puppet theatre productions, some of which toured Southern Africa, Jones and Kohler moved to Johannesburg in 1985 and began their career in adult puppet theatre. They collaborated with some of South Africa's best-known theatre directors, actors and artists. *Woyzek on the Highveld* (1992),

Faustus in Africa (1995) and *Ubu and the Truth Commission* (1997) were three of the six productions in which Handspring collaborated with artist, animator and theatre director, William Kentridge.

Based on the Bunraku tradition of puppetry in Japan, Kohler crafted sophisticated puppets in wood for these productions, with each puppet manipulated by two to three puppeteers who are visible to the audience.

Of their 13 productions from 1995 to 2009, nine toured as far afield as Germany, France, Switzerland, England, Australia, New Zealand, Hong Kong, Colombia, Canada and the USA, making Handspring truly international.

The National Theatre in the UK commissioned Handspring to create the puppets for their production of *War Horse*. The main character is a life-size horse

puppet called Joey, operated by three puppeteers: one working the hind legs and tail, another working the front legs and chest, and a third manipulating the head, ears and neck. The nine horse puppets as well as a puppet goose, two crows, two swallows and six puppet soldiers, were all designed by Adrian Kohler, with Thys Stander designing the cane work. This production opened at the National Theatre in October 2007 and has proved to be the most successful play they have ever produced. It moved to the West End a year later and has garnered a number of prestigious awards for the company including an Olivier Award for design. A second production opened on Broadway in 2011 and won five Tony Awards plus a special Tony for Handspring Puppet Company. Both productions continue to play to capacity houses.

BELOW: Adrian Kohler and Basil Jones operating a sophisticated wooden puppet based on Bunraku, a traditional Japanese style of puppetry.

BOTTOM: The *Woyzek on the Highveld* company from left to right: Louis Sebeko, Basil Jones, William Kentridge (director), Adrian Kohler (back), Tale Motsepe (front) and Busi Zokufa (middle).

BELOW: Rehearsal of *Tall Horse* at the Drama School of the University of Stellenbosch.

BOTTOM: Adrian Kohler's drawing of puppets designed and handcrafted by Malian designer, Yaya Coulibaly.

BELOW: Yaya Coulibaly with Busi Zokufa operating the king and queen of France puppets in performance. These puppets were designed and handcrafted by Yaya Coulibaly.

BOTTOM: Working drawings of a life-size horse puppet called Joey. This puppet was created as the lead character in the multi-award winning theatre production of *War Horse*.

THE BIG IDEA

The featured Handspring Puppet Company production which is the focus of this case study is neither *War Horse* nor a Kentridge collaboration, but a production called *Tall Horse*, which took two years to produce and was performed from 2004 to 2005.

The reasons for this choice are as follows:
• The story, set in 1827, links Africa to Europe.
• This production was a truly international collaboration, bringing together Western and African puppet traditions for the first time. The puppets were made by Adrian Kohler from Handspring as well as by Yaya Coulibaly, head of the Sogolon Marionette Troup of Bamako, Mali, in West Africa. The scriptwriter was American, the choreographer from Benin, and director, lighting designer and music composer all from South Africa.
• Design is said to be a problem-solving activity; linking two puppet companies in a coherent production from the opposite ends of Africa, one English-speaking, the other French-speaking and each with a different puppetry tradition, makes the success of this show all the more remarkable.
• The challenge of designing and constructing a life-size giraffe as the main character verged on the absurd.
• The success of the giraffe's construction and manipulation attracted the attention of the National Theatre of London and convinced them that Handspring would be able to construct the puppets for *War Horse*.

While the main focus of this case study is the conception, building, clothing and performing of two Handspring puppets, one human and the other an animal, some background on how puppet theatre is different from a more conventional design product, like a poster for example, is needed.

A puppet is designed and constructed to fulfil a particular function: it is a character in a theatre performance. It appears in the production, performs, and is packed away when it leaves the stage. No matter how beautifully it is crafted, a puppet is neither ornament nor sculpture in that it is not made to be a static display. It is made to be manipulated in a specific way for a particular performance, often knocked
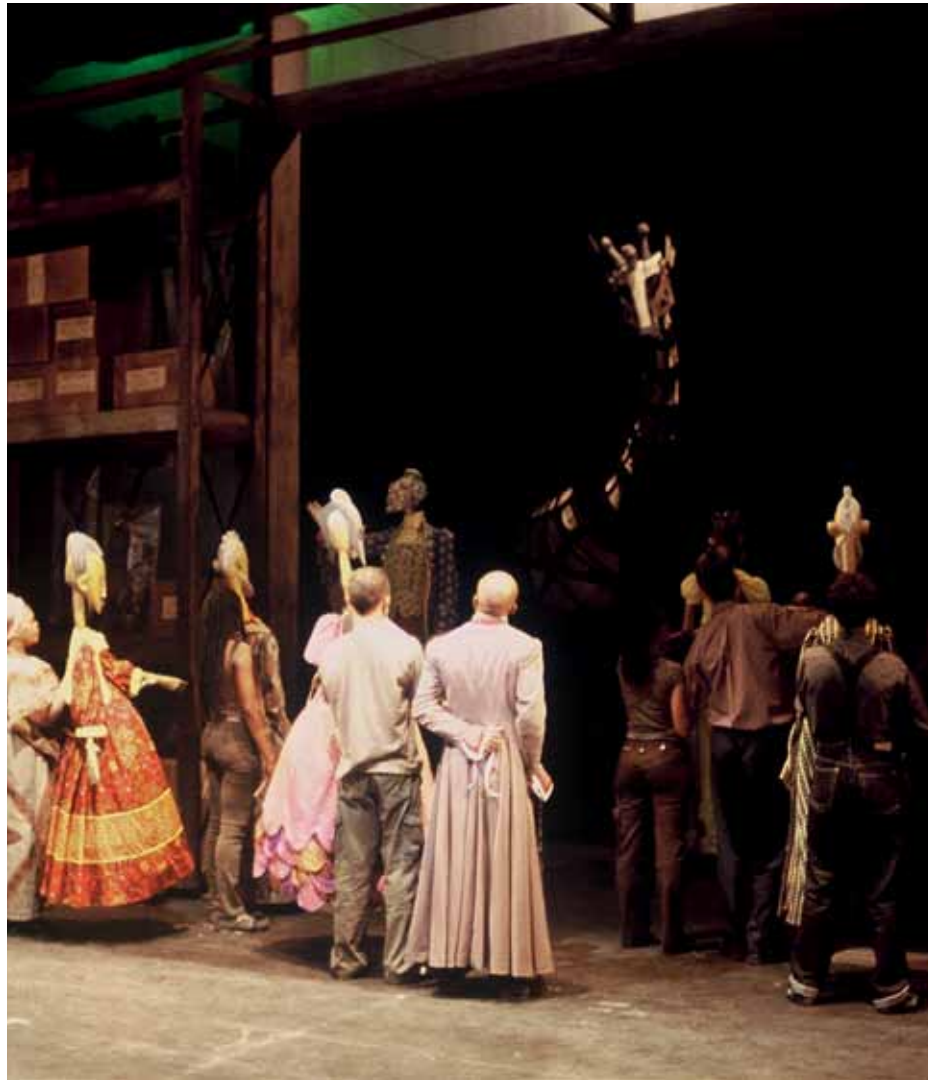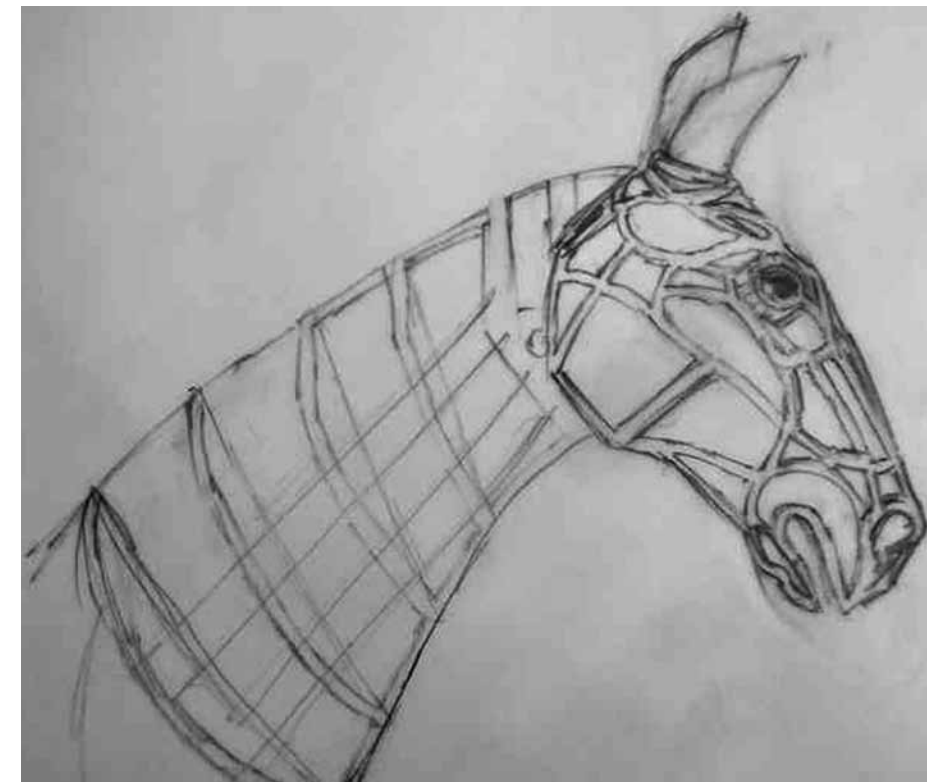
about and perhaps even broken after a long time in the service of the production.

The performance in a theatre is essentially the end product of the design. A live theatre performance only lives in the time frame of the show. The audience experiencing the performance is witness to the piece as the story unfolds in that time frame.

Handspring's puppets are conceived and constructed as one part of a huge theatrical performance which achieves its success as a whole due to the collaboration of many other experts in their respective fields. The production of *Tall Horse* will be used to explain this process.

THE CONCEPT

The initial concept and idea for *Tall Horse* came from Alicia Adams, director of Special Programming and curator of the African Odyssey Festival at the Kennedy Center in Washington, D.C., in the U.S.A. She had seen two of Handspring's previous

BELOW LEFT: The Fashion Designer, manipulated in synchronized manner by three puppeteers in order to achieve the movements demanded by his character.

BELOW BOTTOM : Costume concept drawing of the fashion designer by Adrian Kohler.

BELOW RIGHT: Life-size giraffe in raincoat

AFTER TWO YEARS OF HARD WORK, THE OUTCOME OF A LIVE-THEATRE PRODUCTION LIKE TALL HORSE IS TO SUCCESSFULLY PRESENT THE SHOW TO AN AUDIENCE.

productions as well as the Malian puppets of Yaya Coulibaly. It was her idea to link the two African puppet companies in a project of some kind.

THE STORY
Alicia Adams wanted to tell a story about something beautiful coming out of Africa. She chose the true story of a journey of a giraffe (the Tall Horse of the title) caught in the Sudan to be given as a gift from the Pasha of Egypt to the King of France in 1827. In 1826 the giraffe and her keeper travelled down the Nile, across the Mediterranean, and then the following spring, by road from Marseilles to Paris. During this last stage of her journey she was viewed by tens of thousands of French citizens who had never seen anything quite so lovely and graceful. There are many accounts of this story which was turned into a theatre script especially for the production of *Tall Horse* by a New York-based writer, Khephra Burns.

FUNDING
A project which crosses continents on this scale needs fine organisation and sizeable funding, which the Kennedy Center in Washington agreed to provide. Two years into this international collaborative project, the Kennedy Center's production budgets were slashed and *Tall Horse* seemed doomed to fail, with Alicia Adams having to withdraw from the project. However, a chance meeting between Basil Jones and the CEO of AngloGold Ashanti, which has mining interests in both South Africa and Mali, saved the day. *Tall Horse* could continue, with Handspring as the producers and AngloGold Ashanti as its major funder.

COLLABORATION IN PUPPET DESIGN & CONSTRUCTION
The script determined the list of characters in the play, some of whom were human actors to play alongside some 60 cane and wooden puppets. It was agreed that

the puppet construction would be shared equally between Adrian Kohler (English-speaking and working in Cape Town) and Yaya Coulibaly (French-speaking, living and working thousands of miles away in Bamako, Mali). In addition to the problems of understanding each other linguistically, these puppeteers construct their puppets differently: Kohler plans his designs through extensive drawing, with each part of the puppet precisely planned before he carves, using chisels as his main tools. Coulibaly, however, who carves directly and intuitively into wood without prior drawings, uses the adze, a traditional African carving tool.

Kohler recounts that it felt like nothing short of a miracle when the Malians arrived in Kalk Bay, near Cape Town, on the allocated date to start rehearsing, with 14 huge bundles containing their puppets air freighted from Mali. The puppets, crafted by two designers from different puppet cultures thousands of miles apart, were surprisingly compatible.

COSTUME DESIGN
Adrian Kohler designed the costumes for all the puppets, inspired by the art installations of London-born Nigerian artist, Yinka Shonibari. Shonibari constructs headless European dress dummies based on famous paintings. These he carefully dresses in period costumes using African print fabrics. Ironically, these typically 'West African fabrics' are in fact are designed and printed in Holland and England specifically for the African market.

This exploration of contemporary African identity in relation to Western colonialism inspired Kohler to dress his period puppets for *Tall Horse* in a similar fashion. In addition to sourcing 'African' fabrics, Kohler also designed and printed his own fabrics using wood blocks. This gave the costumes, made by Hazel Maree and Phyllis Midlane,

a hand-made look with an aesthetic particular to the production.

REHEARSALS
The complexity of bringing together all the parts of a theatre production into a whole through rehearsals before the opening night of the show is unfortunately not the scope of this case study. Nor is the recounting of the difficulties of joining South Africans who speak English, with their particular puppetry tradition, with Malians who speak French, with their equally complex puppetry tradition, into a performance that successfully marries the two. But it is worth noting that a rehearsal space is needed for any theatre production and not many theatres can give space to seven weeks of gruelling, daily rehearsals for a production as large and complex as *Tall Horse*. Fortunately, the Drama School of the University of Stellenbosch, where Marthinus Basson, the production's director teaches, provided *Tall Horse* this space in exchange for allowing their drama students to freely observe the process.

PUBLICITY
After two years of hard work, the outcome of a live-theatre production like *Tall Horse* is to successfully present the show to an audience. In addition to the quality expected from a well-known brand name like Handspring, it takes good publicity to bring the audience to the theatre. Again this is not the scope of this text, but worth noting that behind this too, is an advertising campaign using the press, posters, radio, and if possible, a slot on television.

PERFORMANCES OF TALL HORSE
After some two years of planning, design, building and rehearsal, *Tall Horse* opened at the Baxter Theatre in Cape Town in September 2004. During 2004 and 2005, *Tall Horse* was performed in Pretoria and twice in Johannesburg

and Cape Town respectively. In addition, the entire production went to Stuttgart, Germany and toured major centres in the United States, where it opened the prestigious Next Wave festival in New York.

THE DESIGN PROCESS
We have chosen two of the characters from *Tall Horse* for detailed discussion on the design and construction of two puppets by Adrian Kohler: the giraffe and the French Fashion Designer, who, when the giraffe arrives in wet and rainy France, is called in to measure her and design a raincoat for her journey. He makes her a beautiful yellow plastic cape-like raincoat with a fringe around the bottom and tied with a gigantic bow around her neck.

Although the Fashion Designer played a minor role in *Tall Horse*, he is interesting because he is typical of the Bunraku style of puppet used by Handspring. In addition, the description of his design and construction shows the meticulous thought and detail Kohler brings to every puppet he designs, no matter what part it plays in the production.

Kohler first makes numerous free-hand drawings of each of the characters

required by the production to make sure that all the puppets feel unified in design, style and colour. He then makes detailed, life-size construction drawings of each puppet on large sheets of tracing paper.

In researching the puppet designs for *Tall Horse*, Kohler spent two weeks in Yaya Coulibaly's home in Bamako, making drawings of puppets from his vast collection, to get a feel for the look and style of Malian puppets.

While Kohler tends to work more realistically, Malian puppets are simplified, stylised, even at times verging on the abstract. Kohler needed to base his puppet designs on the Malian style so that they would not look out of place in the production.

In researching the costumes, appropriate to the 1820s, (the period in which the production was set), Kohler trawled through historical costume books and looked at paintings from that time to understand the shapes of the clothes, colours, fabrics and design details.

The two main considerations in designing a puppet are firstly, how it should move, and secondly, what it should look like.

BELOW: Pattern of fabric used for the Fashion Designer's costume. This pattern was specially designed and hand printed by Adrian Kholer and a specialised dressmaker.

BELOW LEFT: Adrian Kohler's working drawing of the life size giraffe in *Tall Horse*.

BELOW RIGHT: Adrian Kohler's costume drawings for Yaya Coulibaly's female puppets with hairstyles inspired by the characters' fascination of the graceful elegance of the giraffe

As soon as the puppet appears on stage, the audience must be able to read its character, thoughts and feelings by the way it moves, so the character has to be analysed and designed for the potential movement required of it. While some figures are formal and need to be fairly static, facing the front like a statue, the Fashion Designer is a flamboyant and tempestuous character. He needed flouncing hand movements and the ability to fly in the air as well as to kick his manipulators.

THE FASHION DESIGNER

The Fashion Designer is typical of the Japanese Bunraku-style puppet; he needs three manipulators working in a synchronized manner to move him according to the demands of his character. One puppeteer works the head movements and his right hand, the second puppeteer manipulates his left hand while, the third moves his legs and feet.

A puppet's facial expression cannot change because it is fixed by the carving. Its face, hairstyle and costume are keys to its character as well. The Fashion Designer needed to be flamboyantly dressed with a frock coat that could easily flick around – so the fabric could not be too heavy, and had to be cut wide enough to move easily but still look stylish.

Each detailed plan drawing of a complex puppet like the Fashion Designer can take Kohler up to two days. From these drawings, he carves the head and hands from jelutong, a soft wood imported from Malaysia. A head can take between two and three days to carve; one hand takes about a day. The head of the puppet also needs to be hollowed out, both for fitting the head controls as well as reducing weight. For maximum lightness and strength, the body and joints are made from plywood, fleshed out with carved polystyrene which is then strengthened and sealed by a few layers of brown paper and wood glue.

The whole puppet can take up to two weeks to construct. While Kohler himself always designs and carves the head, hands and body of the puppet, an assistant helps to cut the plywood from the plan drawing and do the papier mâché work on the body. The costume for the Fashion Designer

puppet was cut from Kohler's hand-printed cloth by a specialised dressmaker following Kohler's design. Although based on period frock coats and neck scarves to give an authentic silhouette of a fashionable man of the 1820s, the hand-printed fabric itself is brightly checked in pink, yellow and ochre, matching the bright West African fabrics of Yaya Coulibaly's Malian puppets.

The Fashion Designer's face and head were painted blue as a contrast to the bright pink and yellow checked fabric of the Fashion Designer's costume. It is interesting to note that Kohler generally does not like to paint his puppets at all, but leaves them in raw wood, textured by the cut-marks of the chisel. In *Tall Horse*, however, he needed to marry his style of puppet to the brightly painted heads typical of the Malian puppet tradition.

With so much meticulous detail, it may seem surprising that the eyes of the Fashion Designer and other Handspring puppets are extremely understated. Kohler calls this the 'ambiguous eye'. Faceted black glass, which catches and reflects the theatre lights, is suspended in a dark void where the eye should be. Light flashing from the bead sitting in the eye socket creates the illusion that the puppet is looking directly at each member of the audience no matter

where they sit. Realistic eyes with white pupils stare in one direction only and so limit the expressive potential of the puppet.

THE GIRAFFE

As mentioned above, the most important aspect of establishing the character of the puppet, in addition to how it looks, is how it moves.

As always, Kohler made many naturalistic drawings of a giraffe from all sides to understand the essence of its structure and movement. From there, the shapes were simplified by the necessity of its construction.

In the end, the giraffe was made and assembled in sections: the head and neck attach to a separate body construction which, in turn, is carried by a shoulder brace on the bodies of two puppet manipulators on stilts, which mimic the long legs of the giraffe. In addition to completely synchronising the body movements of the giraffe, the manipulators would also have to work the neck, ears and tail with equally fluid grace, these appendages being the most expressive part of the giraffe.

Before the show started, the two Malian puppeteers who manipulated the giraffe had to sit on a tall box where they first put
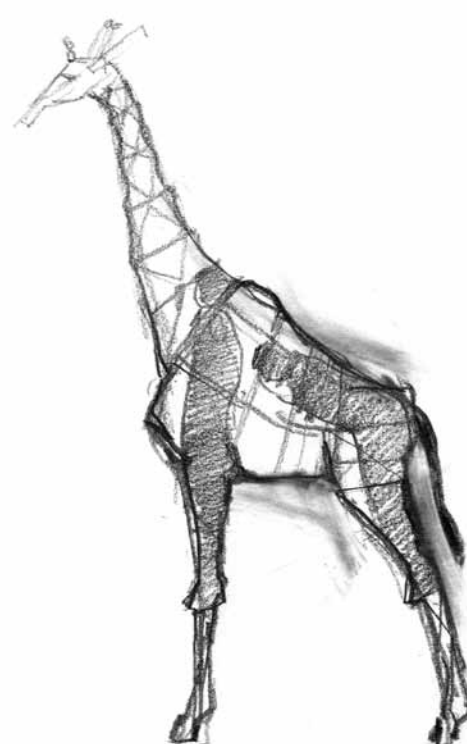
on their stilts. The front leg stilts were one metre in height and the back legs, eighty centimetres. After researching stilts, Kohler chose to use adjustable imported American wall-plasterer's stilts, as their length could be changed as necessary. They also ended in platform-like feet rather than precarious points, better allowing the stilt walker to stand still. Malians were chosen for this role as stilt-walking is a part of the traditional Malian puppet masquerade, so they were more accustomed to this acrobatic activity than their South African counterparts.

Once the two manipulators had their stilts on, the body of the giraffe was attached to their chests and shoulders by a specially designed backpack structure. Lastly, the neck was attached to the front of the body and the join obscured by soft cloth. The manipulator wearing the front legs also worked the steering and tilting of the neck, while the manipulator on the back legs controlled the up-and-down, side-to-side movement of the head, twitched the ears and flicked the tail. The two puppeteers had to stay attached to the giraffe for the duration of the two-hour performance, being able to remove the neck once in a while for a small rest backstage.
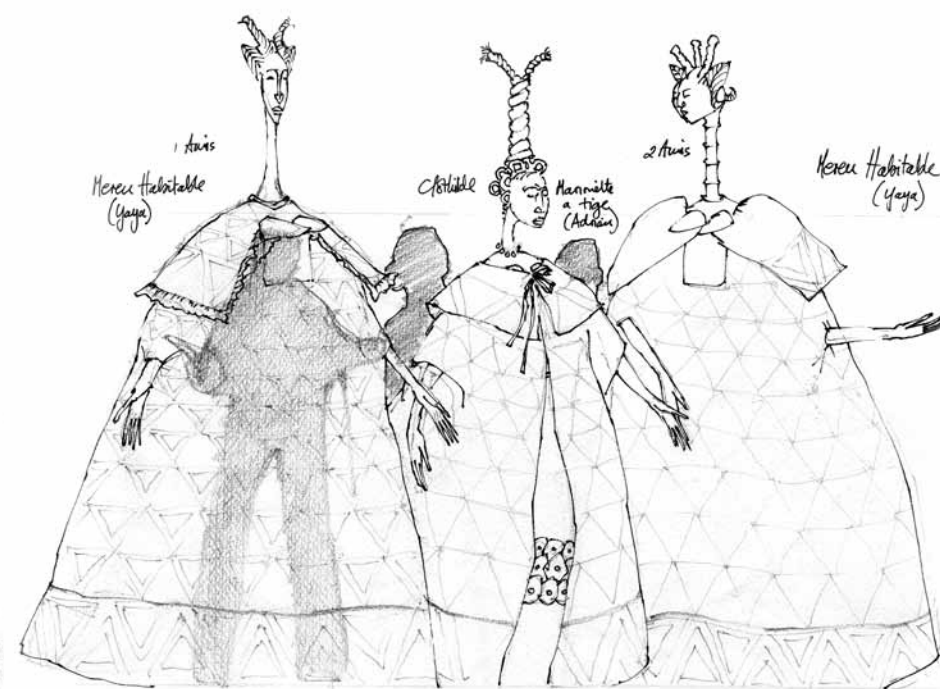
As testimony to the brilliance of Kohler's design, in two years of performing, the stilt-walkers only tripped once. Fortunately this was backstage and the whole giraffe, manipulators and all, toppled over and fell. The buoyancy of the cane structure of her body broke the fall to a gentle bounce and she was able to resume her performance perfectly intact.

DESIGN CHALLENGES

In addition to the challenges of marrying two different puppet traditions and styles, as well as of communication between English-speaking and French-speaking puppeteers, there were practical challenges to the design, particularly of the giraffe.

The biggest design problem to solve was how to make a two metre-long neck light and flexible enough to move with graceful naturalism while balancing a life-like head – which has to be light enough not to cause the neck to collapse – at the top.

After much trial and error, Kohler used long and flexible carbon-fibre rods attached to round cane loops, which he covered in black netting with white silk markings for the head and neck.

The netting and silk also covered the body which was constructed in cane and bent wood. Not only was the structure relatively light, but it also echoed the traditional Malian construction of huge animal puppets which completely conceal the puppeteer in performance.

SPECIAL ACKNOWLEDGEMENTS

Portrait image of Adrian Kohler and Basil Jones by Pieter Hugo. All colour photography by Geoff Grundlingh and all black/white photography by Kufane Coudyzer.

BELOW: The Vine beaded light
was a product inspired by
nature. By incorporating the
African tradition of beading
into the design of the light,
the end product is a modern
interpretation of handcraft and
has a much higher commercial
value than run-of-the-mill
beaded objects.

INK

THE VINE BEADED LIGHT

✗

BACKGROUND

INK is an award-winning, multi-disciplinary design firm, based in Johannesburg, South Africa. Our primary focus is architecture, space planning and interior architecture and design, as well as product design and development. Awards include the QB Award for office interiors 2006 for the Automobile Association, the QB Award for best interiors 2006 for the Concrete House, and the QB Award 2006 for overall excellence in design.

Some of the highlights through the years include 'the Concrete House', an architecture and interior design project which has been featured in many publications such as The Digest of South African Architecture 2007/2008 volume 12; and 10 Years 100 Buildings, Architecture in a Democratic South Africa (Bell Roberts Publishing 2009). Other notable publications include the Andrew Martin Interior Design Review, volume 12 (Andrew Martin International).

THE BIG IDEA
THE STARTING POINT

The catalyst for the idea of 'Vine' was the invitation received from Southern Guild, to participate in an exhibition at the 2009 Johannesburg Art Fair. The exhibition would showcase original ideas and previously unseen design by select South African designers. As a design company, we have always been attracted to the possibility of borrowing from nature to express an idea. Without being too literal, we wanted to translate some of the key observations about nature – abundant, verdant, wilful and vital – into the object of design.

INTERPRETATION OF THE PRODUCT IDEA

The idea was to design a light fitting. The inspiration was nature. The physical interpretation was in the form of beading, a well-documented, centuries-old means of expression and communication in many parts of Africa. We felt that beading would offer the best expression of those attributes of nature we wanted to express. The beader/s would have to work within the parameters of a definite and technical design, yet no two 'Vines' would be identical.

TARGET AUDIENCE

Our primary sales intention is not large volumes, but targeted, project-driven sales to a niche market, usually where there are architects or interior designers involved. One of the lights has recently been sold into an exclusive holiday home in the Waterberg.

OBJECTIVES

The objective was to bring together the idea of the light fitting with the phenomenal skills developed by so many beaders in our cities. The idea was also to showcase beading within a different context, still with commercial value but in a more modern and unusual application which would appeal to a more sophisticated market which would not ordinarily purchase run-of-the-mill beaded objects.

THE DESIGN PROCESS
THOUGHT AND RESEARCH

As mentioned above, as a design team we have always been attracted to the idea of nature in design and have had some success with various projects based on that idea. This approach implies a "handcrafted"

quality or look about a project or product. Where possible in the past, we have used such handcrafted objects in the context of a specific setting or project. Where customising was not an option (because it can be expensive), we have used readily available products from a number of excellent South African designers and manufacturers of handcrafted products, or products with a "handcrafted" look. This particular look has a place in the market, and from our own observations we believe it will continue to appeal to a growing segment of the population.

COMMUNICATION TO TARGET AUDIENCE

The difficulty with single-item custom production is making sure there is a 'home' for it. It is most likely that the single-item custom product will find its 'home' within a very strong design ethic which supports its very existence. That is, it will be most successful as something which is part of a singular and coherent design plan, rather than as a generic solution for all kinds of projects.

Traditionally, design companies do not have budgets to test the market to determine if there is appetite for an idea or a product. As a result, we usually test an idea or product in the following manner:
• On a specific client
• In a public exhibition such as we did with the Vine light. (The exhibition traffic over a period of a few exhibition days helps determine whether one should go ahead with further development or not. In fact, our first customer for the Vine light was an architect who had seen the light fitting at the Art Fair.)
• To fellow designers and architects via e-mail links to our website
• In magazines

CREATIVE CONCEPT DEVELOPMENT

We have to satisfy ourselves that we have the start of a very good idea. We often gauge this by the reaction we see from our existing clients, from exhibition visitors, and from other architects and designers. We then develop one or two prototypes with proper technical specifications. With the Vine light we made sure to address safety and operation issues with a professional lighting company (in this instance, Greencraft Lighting Design in Johannesburg). In addition to safety, we considered ease of operation, for example, hanging the light and changing light bulbs.

SUCCESS MEASURE POINTS

The designed object is typically displayed within a specific setting at the exhibition, designed to showcase the product in the best possible way. For the Vine light, we were able to measure our success by the feedback received from the public at the Art Fair, by specific enquiries from the public about the light and, also importantly, general enquiries about our company. General enquiries about the company in our experience (followed up later with each person who has shown interest) means we can start a conversation not only about the specific object on display, but also about our other capabilities.

DEVELOPING THE PRODUCT RESEARCH ON THE DEVELOPMENT & MANUFACTURING PROCESS

Beaded decorative items, including light fittings, are fairly easy to develop, as beading is well entrenched in South Africa. The challenge lies in the idea behind the product and the quality of beading.

We had previously collaborated with a group of beaders from a community project in Soweto, Gauteng, where a number of beaders were employed for a few weeks to manufacture an assortment of beaded items for a project in the Lowveld. We were quite impressed with their level of skill and the quality of their products. Although there was no assurance of future projects requiring beading expertise, we knew we had found expert beaders for any future ideas.

PRODUCT AWARENESS
DELIVERY VEHICLES

The product has been featured as follows:
• at the Johannesburg Art Fair 2009
• on our website
• in House and Leisure, one of South Africa's leading décor magazines

PRODUCTION
PLANNING & MANAGING THE PROCESS

Production planning has to be precise. There were clear time-, labour- and material cost implications. Managing the process properly was essential in avoiding unnecessary cost and time overruns, as this would have rendered the product too expensive. Due to the nature of the Vine light, more than one person was employed to produce it. There had to be a clear understanding of where production would take place, who would be involved, and what each person's involvement would be.

MILESTONES AND PROGRESS MEASURES

The Vine light is a highly customised, individual product, so progress was measured on a daily basis. This also meant that any mistakes could be spotted and corrected early. In order to do this, it had to be produced somewhere close to our offices, so that monitoring would not become an added, un-recoupable expense, both in terms of cost and time.

CHALLENGES

Our main challenges revolved around developing a standardised approach to producing such a customised item, and ensuring consistent beading quality.

We decided early on to appoint a team leader, who, in discussion with ourselves, took responsibility for standardisation and quality issues. This worked very well, as the team leader was someone with experience and knowledge of beading traditions. The team respected the team leader and we gave him our support.

COMMERCIALISATION

As a design company, we generally have a fairly small appetite for risky, stand-alone product development. For that reason a product such as this is typically developed with a specific project or client in mind and that is where we have to look to recoup the cost of design and development.

In our instance, the product was developed for an exhibition, but it was developed within the framework of an existing design inclination; we had successfully collaborated on the interiors of a holiday home in the Lowveld using beading and other crafts as an integral part of the project. By the time we developed the Vine light, we were aware of an appetite in the design market for quality, locally crafted high-end products and ideas.

KEY LEARNING POINTS
DECIDE EARLY ON SALES EXPECTATIONS

• Differentiate between high-end, low turnover items and items intended for mass sales.
• Any design item which is material- and labour intensive will be expensive, and generally will not be sold in large numbers. It is therefore important to identify the project/s which can offset the cost of making such an item, and make a profit.

COST AND TIME ESTIMATES

• Avoid the temptation to take too long on custom items.
• A cost and time budget becomes very important in this instance, because of the real danger of overruns.

QUALITY ASSURANCE

• Quality assurance is as important for locally produced, handcrafted items as it is for machined items.

PUBLICITY

• Get to know magazine editors and journalists, and ask them to showcase your projects and products where feasible. Negotiate favourable advertising rates.

TRADE SHOWS

• Although expensive, invest in one or two shows every few years if you can. This is the place to make direct contact with the public, especially if you do not have a showroom. Trade shows allow you to have broad-based conversations with potential clients, often beyond the specific items on show.

FRANCIS KÉRÉ

A PRIMARY SCHOOL IN GANDO, BURKINO FASO

BACKGROUND

Diébédo Francis Kéré is an architect from Burkina Faso. The first person from his village to have access to tertiary education abroad, he studied at the Technische Universität Berlin, Germany. While studying, he established Schulbausteine für Gando e.V. (Bricks for the Gando School), to raise funds for his first project, a primary school in his home village. In addition to his architectural practice in Berlin, where he focuses on low-cost and self-build projects, he lectures at the Technische Universität Berlin on housing and urban development, strategies of climatically advantageous building, sustainable utilisation of materials, integration of a local labour force, and local construction techniques.

In addition to his work as an architect and with the help of his association, he continues to provide the people of his homeland with innovative development projects.

Convinced that only those who take part in the development processes will be able to appreciate their results, his motto is "help to self-help".

The school that is the subject of this case study was completed in 2001 and received the Aga Khan Award for Architecture. The jury especially valued the enormous potential of a project that helps the community to develop a healthy sense of pride and hope, at the same time creating a solid base for its development.

Kéré has received numerous other awards, including the Global Award for Sustainable Architecture in 2009 and the BSI Swiss Architectural Award in 2010. His work has also been featured in numerous publications including Design Like You Give a Damn (2006), The Phaidon Atlas of 21st Century World Architecture (2001) and 10x10/3 – 100 Architects 10 Critics (2009). Kéré and his team most recently won the prestigious 2012 Global Holcim Award Gold for their *Secondary School in Gando* project.

BELOW: Exterior and interior of the humble primary school in Gando, Burkino Faso. This was Francis Kéré's first project while studying at the Technische Universität Berlin, Germany, and it remains an object of pride to the community which help to build it.

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BOTTOM LEFT:
Exploded axonometric projection of a section of the school. This is a graphic reference to the assembly of a 3D complex object such as a building.

BOTTOM RIGHT: Climatic scheme diagram indicating direction of airflow through the building.

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THE BIG IDEA

This school, in a remote settlement in the south of Burkina Faso, is the expression of one man's commitment to improving conditions in his village. It also represents the involvement of a whole community in the construction of a building symbolising the first step towards this improvement.

Gando, with a population of 3 000, lies some 20 kilometres west of Tenkodogo and almost 200 kilometres from Ouagadougou, the capital. In 1990 it was one of the towns included in a government development programme aimed at creating local economic centres to help reduce the migratory flow to the country's two major cities, Ouagadougou and Bobo-Dioulasso. As part of this programme, Gando was provided with a primary school, a modest building made in concrete blocks and roofed with corrugated metal sheeting. Within a few years, the building's low quality, combined with the lack of funding for its maintenance, brought it to an advanced state of deterioration. Without extensive repair work it would have had to be abandoned – which would have meant the end of a school in the village.

Convinced that education was the cornerstone of his people's advancement, Kéré, while studying architecture in Berlin, took on the challenge not only of ensuring that his village had a school, but that it would exemplify the building quality that could be achieved by designing in sympathy with the local climate, resources and materials.

THE DESIGN PROCESS

In order to be successful and sustainable, the project needed to adapt to the needs and economic situation of the people as well as to the climatic conditions of the region. This meant, on the one hand, informing the village community and raising their awareness of the merits of traditional construction materials, and, on the other, evolving high-grade planning concepts and architectural solutions using local construction materials and the skills of the local community.

The school was conceived as a line of three 7 x 9 metre volumes, each containing a 50-pupil classroom, separated by patios, on a platform raised 50 centimetres from the ground, and covered by a single roof. Climatic considerations largely determined the building's form, orientation and materials, but the designer was also keen to underline the symbolic meanings of its spaces.

TRADITION INFLUENCES DESIGN

The rural dwellings of this region, as elsewhere in central Burkina Faso, consist of round compounds closed in by walls. Circular and quadrangular one-room

structures are built within each compound and open on to the central open space. The central space can be subdivided into courtyards, house forecourts and circulation alleys. The volumetric and spatial relations of these elements are sometimes so complex that the compound's interior can be more evocative of a whole settlement than a single household.

Granaries are included within each compound, and cattle are sheltered in the compound after sunset. Additional granaries may be placed outside the compound, by the main entrance. Here is also usually found an arbour (known locally as a zandi), comprising wooden poles supporting a cover made of stacked millet or sorghum stalks.

The compound walls are built of sun-dried mud blocks (bancol), although concrete blocks are increasingly used for the quadrangular constructions. These were traditionally covered with flat mud roofs, supported on wooden structures, but single slope low-pitch tin roofs are now current both in mud and concrete wall buildings. The round-plan rooms have conical thatch roofs, as do, in general, the granaries, though these can also appear as large ovoid forms made entirely from straw mats. Granaries are systematically raised above the ground for protection against moisture and pests.
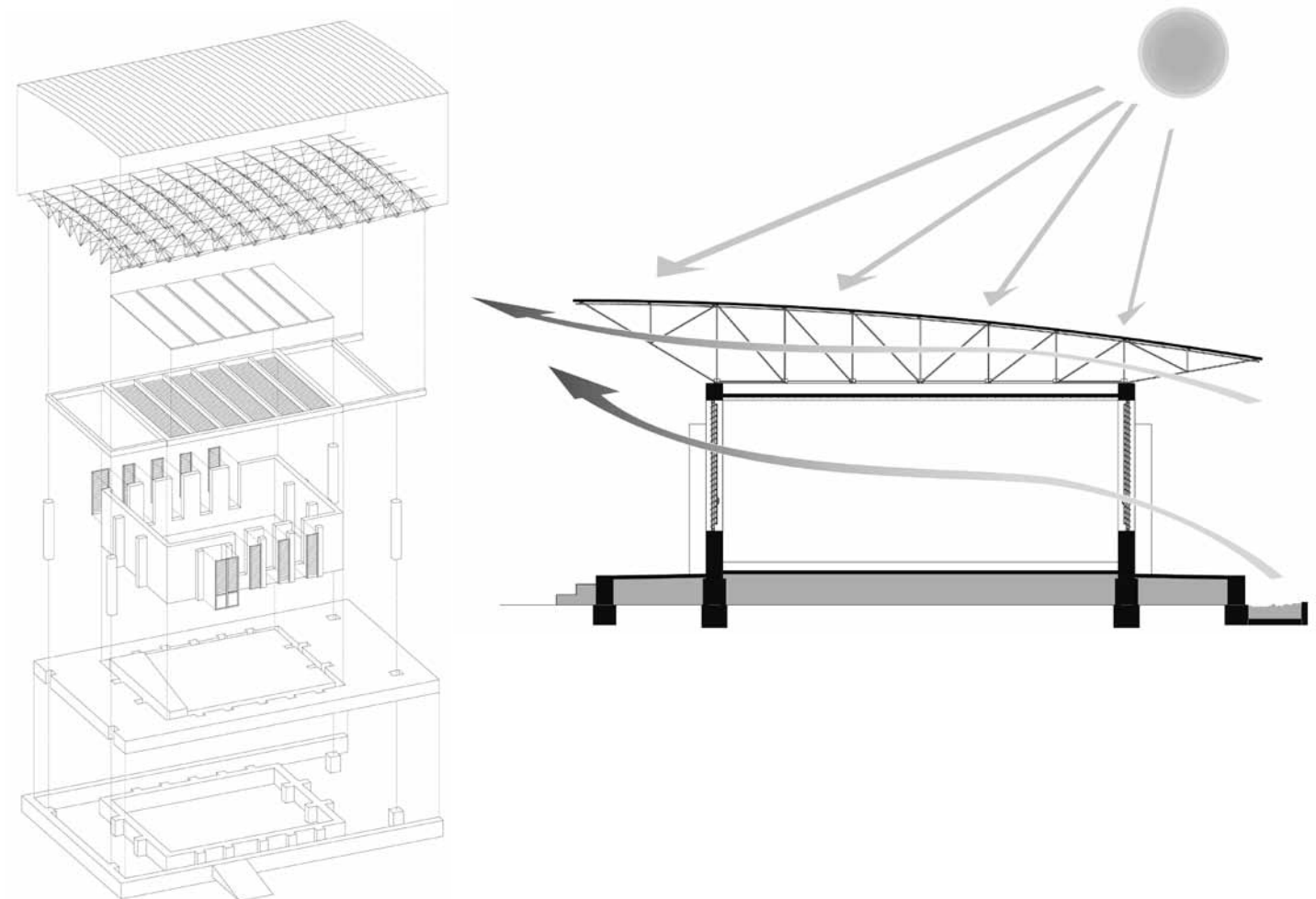
BELOW: Construction of the school took a year to complete, with large amount of help from the men, women and children living in the community. A local government project contributed by providing training facilities in brick making and masonry.

© FRANCIS KÉRÉ

The school sits on a platform raised from the ground like the traditional granaries; the covered patios between the classrooms evoke the zandi, and the roof's steel truss is to recall the filigree effect of treetops. (The form of the roof was also designed to direct rain water into a channel that would run along the building's northern elevation into a pond, where it could be used to irrigate the adjoining vegetable garden.)

Climatic comfort is ensured by the building's orientation, by the nature of the wall materials and by a design that allows the unimpeded flow of air between the roof structure and the ceiling. Cross-ventilation is further enhanced by abundant use of shutters on the northern and southern walls.

DEVELOPMENT
The design of the school was informed by the principles of designing for climatic comfort along with low-cost construction. The idea was to make the most of local materials and the labour potential of the local community as well as making use, in a simplified way, of modern technology.

The basic principle behind the design was to take the traditional clay construction building that had been erected as a temporary measure and to turn it into a permanent building with high climatic

suitability by employing new materials and construction principles. Clay has the great advantages that it is an abundant and very cheap material, and that it is also an integral part of natural life cycles. At the same time the architect wished to produce a design that was both modern and aesthetically appealing.

The basic principle was to place the rooms on a raised foundation and to cover them with a wide overlapping roof that would afford protection to the clay walls. The classrooms themselves were designed as simple rectangular modules. The reinforcing wall elements lend a play of light and shadow to the walls which does more than confer structure and give them a dimensional quality – the reinforcements are beneficial components that create cooling areas of shadow and also act as acoustic buffers, absorbing sound between the classrooms.

The school building has the form of an oblong bar which has been expressly designed to offer maximum protection from the rays of the sun. The ground plan consists of three consecutive rectangular classrooms all under a single roof. Each classroom has space for up to 50 pupils. Between the individual classrooms are open roofed-over areas which provide space for recreation in

the fresh air protected from the sun and rain. The six teachers' houses were planned to demonstrate the advantages of building with local materials and using local skills combined with quality planning and architectural design. They were intended to be sufficiently comfortable and attractive to convince teachers that they could live here in the same conditions as those found in any larger town.

It was envisaged that the houses would be built as evolving units, with one-room modules constructed in phases until a dwelling unit was complete. In practice all the basic rooms of each unit were built at the same time, and the phasing of construction consisted only of leaving for later the erection of yard walls, the construction of outside bathrooms and the paving with rammed earth of the area around the complex.

Landscaping consisted basically of defining a vegetable garden plot and planting trees and shrubs along the side of the school.

CONSTRUCTION
Construction began in October 2000 and was completed in 2001. There was a large amount of help from the local population – including men, women and children – all of whom offered labour to the best of

their abilities. Training in brick making and masonry was provided by a government project, and virtually all the people involved in the construction and project management (including the architect) – aside from the trainers and blacksmiths (who made the doors and shutters) – were from the village itself.

The first stage of the project included the construction of a school building for 120 pupils (although in 2003/4 it was actually serving 182 students), a well and the fencing of the vegetable garden between the school and an informal sports field. The second stage was the construction of the teachers' houses. Ancillary services, including a toilet block and a kitchen, were also built between the school and the teachers' houses.

MATERIALS
Earth for the blocks came from the village itself, and was taken 500 metres from the site. Bricks and floor slabs were cast in hand presses imported from Belgium. Concrete and steel were imported from neighbouring countries. Metal sheeting for roofs was manufactured in Burkina Faso; doors and shutters were the work of blacksmiths in Tenkodogo.

THE SCHOOL
The basic structure of the school comprises load-bearing walls made from compressed earth blocks stabilized with 8% industrial cement, cast in hand presses on the construction site and jointed by an earth mortar. The foundations are of stone and poured concrete; reinforced concrete was used only for the beams that support the ceilings. Stabilized compressed earth was also used for the hexagonal pavement slabs. In the classrooms, the floors are of rammed earth stabilized with cement.

The roof is of corrugated metal sheeting. Tin is the most popular roofing material in the region on account of its sheer durability. But tin roofing causes acoustic problems, besides having an adverse effect on the room temperatures. So the tin roof covering was raised from the building using a lattice truss of reinforcing steel. The sheets are laid over a space frame made of common 16 millimetre reinforcing steel bars tied to the steel or concrete beams that are set in

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BELOW: Construction of no ordinary roof – The adverse effect on the room temperatures created by sheets of highly durable tin roof covering is off-set by raising the covering from the building using lattice truss of steel, which also recalls the filigree effect of treetops. The raised roof allows air to circulate freely and the overhang provides necessary shade to the building.

BELOW: Children of the school monitoring the growth of the vegetable garden. The form of the school's roof was also designed to direct rain water into a channel that would run along the building's northern elevation into a pond, where it could be used to irrigate the vegetable garden.

© FRANCIS KÉRÉ

© FRANCIS KÉRÉ

parallel to the width of the building. Air circulates freely between the roof and ceiling and the roof overhang provides the necessary shade, particularly needed on the south side.

The ceiling is made of compressed earth blocks supported by 12 millimetre steel bars, set some 15 centimetres apart and perpendicular to the concrete beams. At the end of each classroom, as well as above the platform for the blackboard and teacher's desk, there is a 10 centimetre gap between the ceiling blocks, running from wall to wall. This allows light and air to enter, although shutters running the length of the opposite wall also provide ample natural lighting and ventilation control. Other details, such as the rounded edges of the pillars, show concern for the children's safety.

TEACHERS' HOUSES

In the teachers' houses, the walls are made from traditional banco blocks, 40 centimetres thick, on a foundation of cyclopean stone aggregated with concrete. Barrel vaults of stabilised earth brick were used for roofs. The vaults were set in place with the help of wooden forms, each 1.2 metres wide. Only two such forms were necessary for the whole construction. Reinforced concrete curved beams were used to form the vaults' borders. The

walls and exteriors of the vaults were waterproofed by being rendered with a plaster made of earth mixed with concrete and asphalt, an adaptation of a technique already used in more traditional construction. The floors are of rammed earth, those in the interior being later finished with earth with a percentage of grease. Women did a large part of this task, using short-handed tools and working in groups to the rhythm of drums played by young men.

CHALLENGES

Finding financing for the project was the first obstacle to be overcome. Explains Kéré, "Neither the village itself nor individual members of the village community could shoulder this burden. Accordingly, in 1999 the non-profit making association Schulbausteine für Gando e.V. (Bricks for the Gando School) was set up. After some initial difficulties, I found that many pupils in the rich countries of the northern hemisphere greeted my commitment to building the school with enthusiasm, and greatly contributed to its financing with a wide range of different projects. And it didn't take very long before the enthusiasm expressed by these children communicated itself to their parents and a wide range of private sponsors. The financial side was then secured."

A second challenge had to do with the choice of materials. Structural use of wood was rejected for two reasons: first, there is no local tradition of building in wood and so little expertise in carpentry; and second, native hardwood is scarce, and varieties imported from neighbouring countries are of unreliable quality, often not properly dried and susceptible to warping. Perhaps for these reasons, or perhaps because it is less demanding in terms of tools and work precision, metal has long replaced wood for construction in this part of the world. Steel was therefore used for shutters and doors, thus utilising a technology with which the local craftsmen were familiar. Another reason for avoiding wood is that termites are a real threat, to the point that reportedly there is no straw in the local mud blocks because termites feed on them – eventually they nest in the mud walls themselves. Efficient wood treatment was beyond the means of this enterprise, which required a simple, immediate approach.
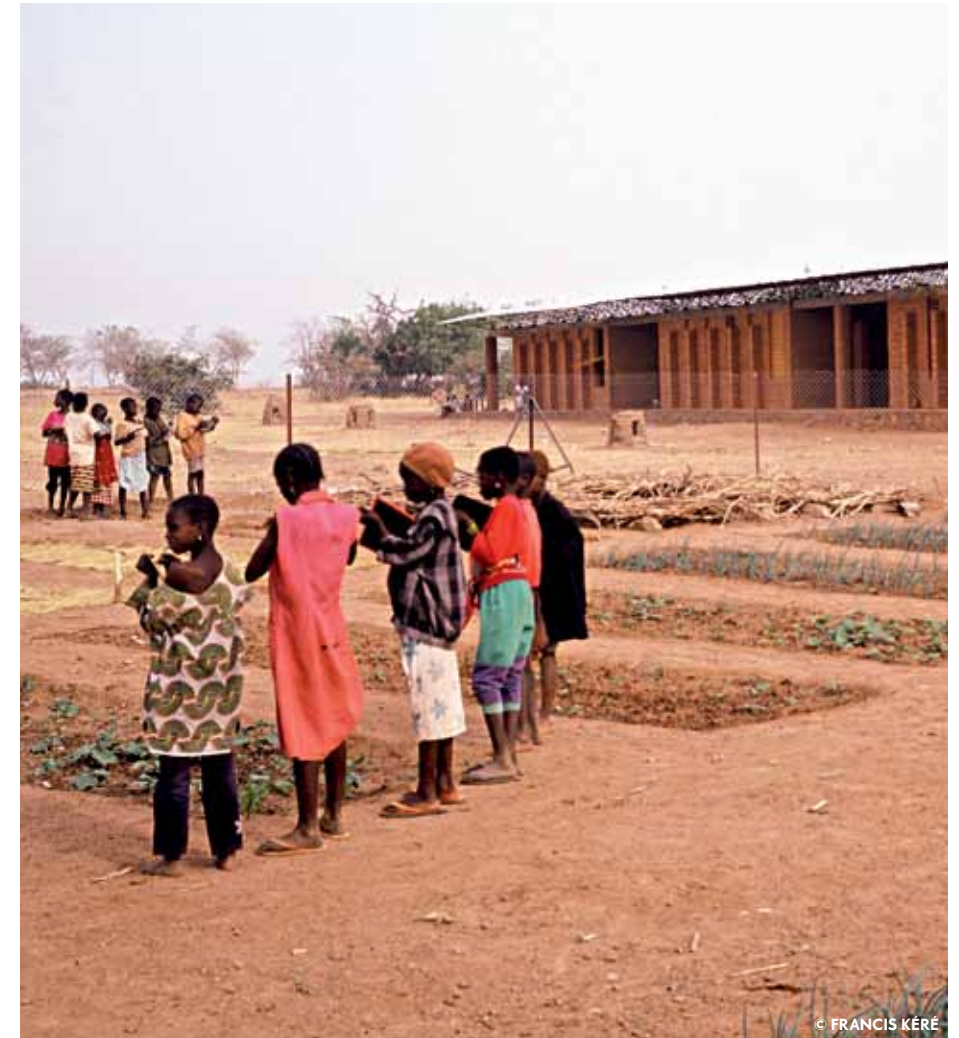
In addition, the choice of a space frame for the roof can be explained for other reasons. First, a conventional I-beam structure would have entailed high transportation costs: at the time of construction the national road was not tarmac, and the track from there to the village was difficult to negotiate. Second, because of their sheer weight, the

elements involved in this kind of structure would have required machinery, such as cranes, which, once again, would have been beyond the means of this project. Instead, the designer devised a process whereby common construction steel bars were cut to predetermined lengths, bent at the middle to form an inverted V (or two legs set apart to sustain the body, as the architect emphatically illustrated) and welded in long modules that could easily be carried to the top of the building and tied to the transverse concrete or steel beams. Steel bars running lengthways were welded to these modules in order to tie them together. All that was necessary was to teach people how to use a hand saw and a small welding machine.

COMMERCIALISATION

The school is an object of pride to the local community. Intended to serve only the children of Gando, it now also serves children from the surrounding area and use by children of the neighbouring villages is increasing. It has been reported that even the Peul, nomadic herders traditionally reluctant to let their children go to school, have let their children attend. This appears as an additional reason for the community's pride. One of the teachers affirmed that he has a better success rate here than in the schools he was in before; possibly because children are more comfortable, they are more attentive.

> THE SCHOOL IS AN OBJECT OF PRIDE TO THE LOCAL COMMUNITY.