Welcome to CLOSEUP
Message from the Rector
Message from Helen Hamlyn
Innovation for people
Improving lives
10 projects for 2009
Research partners 2009
Research associates 2009
10 European industry partners
10 European research associates
10 not-for-profit partners
10 design firms launched
10 designs for production
10 research publications
Research associates 2000-2008
Research partners 2000-2008
10 YEARS OF EUROPEAN DESIGN PROJECTS
BY THE HELEN HAMLYN RESEARCH ASSOCIATES AT THE ROYAL COLLEGE OF ART 1999-2009
The CLOSEUP exhibition explores ten years of European design projects by the Helen Hamlyn Research Associates at the Royal College of Art (1999-2009), as well as showcasing 10 new projects for 2009.

Show: 25 September-6 October 2009
Open daily 10am-6pm
Admission free
Lower Galleries, Royal College of Art

Symposium: Helen Hamlyn Research Associates 2009
24 September 2009 4pm-6pm,
Lecture Theatre 1, Royal College of Art

CLOSEUP is supported by the European Commission Representation in the UK to mark the European Year of Creativity and Innovation 2009.

The Helen Hamlyn Centre acknowledges the additional support of:
Embassy of Sweden
Embassy of Denmark
Embassy of the Kingdom of the Netherlands
Austrian Cultural Forum
Finnish Institute in London
Italian Cultural Institute
Polish Cultural Institute

Exhibition curation: Rama Gheerawo and Jeremy Myerson
Exhibition design: Matthew Harrison and Cian Plumbe, Studiohead
European map exhibit: Clara Gaggero, Filip Krjna and Adrian Westaway
Exhibition coordination and graphics: Margaret Durkan

CLOSEUP is part of the RCA’s contribution to the London Design Festival 2009
I am delighted to welcome you to the CLOSEUP exhibition and symposium at the Royal College of Art, London, which takes place as part of the European Commission’s European Year of Creativity and Innovation 2009.

CLOSEUP charts ten years of the Helen Hamlyn Research Associates at the Royal College of Art. In the European context, this programme of engagement between new design graduates and industry must be unique.

Where else could you find an Irish designer working with an Austrian furniture company, or an Anglo-Italian creative team partnering with a global multinational, or a Danish graphic artist collaborating with the National Health Service?

Over the past decade, young designers and progressive companies representing several EU member states have worked together on projects that are very close to the ideals of the European Union – innovation, creativity, social progress and social inclusion.

In their subject matter, these projects reflect urgent priorities in European social policy such as safer healthcare, better transport and more support for older people – all addressed through an innovative design approach to user need. In their process, these projects embrace the spirit of cross-border collaboration and co-creation that underpins Europe’s knowledge-led economy.

It is important too that CLOSEUP takes place as part of the London Design Festival. London is a creative capital within the EU, the place where Europe’s best young artists and designers and most innovative companies can make common cause and work together.

It is entirely fitting that my first public duty as the incoming Rector of the Royal College of Art should be to preside over the opening of CLOSEUP, the tenth anniversary show of the Helen Hamlyn Research Associates at the RCA.

Over the past decade the Helen Hamlyn Centre has become a central feature of life at the College and its dynamic Research Associates programme has emerged as the engine room for interactions with our studio-based design departments.

Every year the Helen Hamlyn Centre has teamed ten or more handpicked design graduates of the College with external partners from business, government and the third sector. The programme has won plaudits for its pioneering approach to collaboration with industry and its commitment to a people-centred design agenda.

Between 1999 and 2009, around 100 RCA graduates have worked with 75 partners on the Helen Hamlyn Research Associates programme – this is clearly a scheme that has been successfully scaled up.

CLOSEUP chronicles the highlights over the ten years, showcasing not just past projects, products and publications but also this year’s crop of design studies – ten in all. The unit of ten emerges as an organising element within the exhibition, which features in particular the partnerships between designers and companies of different member states of the European Union.

My thanks go to the European Commission Representation in the UK for supporting this event and also to the seven European embassies and cultural institutes that have additionally sponsored CLOSEUP; to our 2009 industry partners who have provided an abundance of creative opportunity for our graduates over the past year; and, above all, to the Helen Hamlyn Trust for its continuing generosity in helping the Royal College to sustain a socially responsible approach to design. We hope you enjoy CLOSEUP.
The tenth show and symposium of the Helen Hamlyn Research Associates at the Royal College of Art is a milestone achievement in the history of the Helen Hamlyn Centre, which my charitable trust established at the College a decade ago.

Right from the start, one of our key objectives was to create a platform for young design graduates of the RCA to address key social challenges in partnership with industry. The Helen Hamlyn Research Associates scheme has proved itself to be an effective way to meet this goal. With this event we mark the completion of the 100th collaborative project on the programme, which reflects its durability and relevance to the world of business.

Looking back, none of this could have been achieved without the foundations laid by the DesignAge programme between 1991 and 1998, directed by Roger Coleman, which preceded the Helen Hamlyn Centre. DesignAge was about action research and practical outcomes, and the research associates have followed in that tradition.

Our first cohort of research associates, who took up their roles in October 1999, addressed design for ageing, rethinking the workplace and innovation in healthcare. The class of 2009 have built on this beginning, and projects by successive cohorts of research associates, to tackle the big issues of today – how to keep older and disabled people active and engaged, and how to make our health service safer, better and more centred around the needs of the individual.

I am particularly pleased to see the growing emphasis on design for patient safety on the programme. So much needs to be done in this area in the years ahead. I am also pleased that the CLOSEUP exhibition, has been designated by the European Commission as an official event in the European Year of Creativity and Innovation.

There has indeed been a great deal of creativity and innovation on the programme over the past decade. I wish the research associates of 2009 every success at this event and for their future careers.
The Helen Hamlyn Research Associates are part of a global movement in design. Royal College of Art graduates have not only worked with organisations all over the world but they have themselves been drawn from many different countries, including those in North America and Asia Pacific.

However it is the European context that has been most influential in giving the Research Associates programme its distinctive character. In recent times, while the USA and Japan have pioneered the practice of universal design, based largely on persuading policymakers to give disabled and older people better access to the built environment, Europe has developed a more holistic line – known as design for all or inclusive design.

Indeed the European Union today could be said to be all about embracing a diversity of culture and ability, and maximizing the economic contribution of all people in society, so creating a strong fit with inclusive design. Given this background, the choice of the CLOSEUP show and symposium as a key event in the European Year of Creativity and Innovation makes sense.

There was something unique in the post-war European consensus that arose in the decades after 1945 that helped to shape such an approach. After all the sacrifices of war, there was an expectation of social and political justice – and an end to conflict. The establishment of various welfare systems across Europe, including our own National Health Service, and the subsequent process of European trade unification and enlargement, tapped into this mood.

The ideals of social fairness and equality underpinning both approaches are broadly similar. But the European way has depended less on the stick of legislation to achieve social inclusion and more on the carrot of business opportunity – thus enabling professional designers to intervene in society on the basis of widening a range of commercial markets rather than simply pursuing a moral campaign.

When Maria Benktzon came to the RCA to talk to our research associates a couple of years ago, she produced a simple handwritten catchphrase – ‘Innovation for People’. In a sense it summarises the European design ideal: we couldn’t have put it better ourselves.

The Swedish tradition of design, involving an unbroken connection to craft and nature, has been a special inspiration to us and we enjoy close links with Swedish inclusive design pioneers like Maria Benktzon of Ergonomi Design Gruppen, who has done so much to align social utility with style and aesthetics.

At the Helen Hamlyn Centre, we are particularly pleased that the CLOSEUP exhibition is being co-hosted by the Embassy of Sweden in the UK – Sweden holds the Presidency of the EU in 2009. Within the European context I have talked about, the role of Scandinavia’s design for all movement has been particularly instructive, bringing a human and essentially democratic face to the business of design.
One of the most important objectives of the Helen Hamlyn Research Associates programme over the past decade has also been one of the most high-minded. Alongside ambitions to give RCA graduates a first foothold in the client world and help businesses to innovate, we have also sought to create designs that help to improve the world in some way.

This year’s Research Associates – eleven designers from five departments of the Royal College of Art – have really taken this philosophy to heart, evolving their projects in the context of a people-centred approach with the aim to improve lives. Each project addresses a critical issue, defining the people who are most affected by it and using design as a creative tool to outline solutions.

‘Giving our graduates a first foothold in the client world’

In this, the tenth year of the programme, we have seen the term ‘user-centred’ become ‘people-centred’ as potential beneficiaries of our research move from being passive test subjects to more active participants in the work. Observing doctors, nurses, office workers, older drivers, visually-impaired youngsters or rural farmers – and spending time in places such as hospitals, workplaces, care homes, youth centres or developing world communities – has given our research associates genuine insight into what works and what doesn’t in the real world.

The ten projects from 2009 are divided into three themes, mirroring the three core research preoccupations of the Helen Hamlyn Centre. Design for Patient Safety has extended its focus from hospital wards to look at the care home environment. Projects include new designs to combat hospital infections, innovations in surgical instruments, new guidelines for the packaging and labelling of single-use medical devices and, critically, ideas to improve eating and drinking for people with dementia in care homes.

Workplace Design investigates furniture systems that are better suited to the changing needs of today’s knowledge workers – and addresses the lighting of commercial interiors such as shops and offices that are blandly over-illuminated to the detriment of human health and wellbeing.

Inclusive Design has a technology bias: one of two mobile communication projects looks at the needs of older people, the other addresses visual impairment; a third project investigates connectivity and the electric car with the older driver in mind; and a fourth project departs from the age-ability paradigm in developed countries to design better access to energy in rural India. Collectively, these projects not only pursue the now well-defined relationship between inclusive design and social equality, but also in some cases (such as the lighting, electric car and Indian energy studies) seek to make connections between inclusive and sustainable design.

The programme as a whole tries to influence design thinking at a higher level, engaging in the debate about the role of the designer in society while simultaneously probing some of society’s most pressing needs. This is something our research partners tell us they find valuable and we hope that you, like them, find value in the ideas enshrined in this publication.
PROJECTS FOR 2009

This year’s selection of projects has teamed new RCA graduates from all over Europe with partners from all over the world. The work addresses three core research themes: inclusive design, workplace design and design for patient safety.
Yusuf Muhammad
**Alternative view: developing smartphones with low vision communities**
Research In Motion, maker of the BlackBerry® smartphones

Filip Krnja
**Connected car: sustainable and inclusive mobility**
Think, Norwegian Design Council, Research Council of Norway

Arthur Schmitt
**Switching on: creating energy solutions for India**
Legrand

Clara Gaggero and Adrian Westaway
**Out of the box: access to mobile communications for older people**
Samsung

Catherine Greene
**Space for thought: designing for knowledge workers**
Bene

Claudia Dutson
**Light volumes, dark matters: patterns for sustainable lighting**
Megaman Charity Trust Fund

Gregor Timlin
**Eating, design and dementia: improving dining in care homes**
Bupa

Sarah Gottlieb
**One shot: design guidelines for single-use medical devices**
National Patient Safety Agency

Karina Torlei
**Cutting edge: advancing surgical practice through design**
DePuy

Grace Davey
**Design Bugs Out: improving patient safety on hospital wards**
UK Design Council, NHS Purchasing and Supply Agency, Department of Health
**bene**

Bene of Austria is one of Europe’s leading office furniture and environment companies. It is convinced that there is a clear connection between the design of working environments, corporate culture and business success. Bene’s concepts, products and services put this philosophy into practice. With 81 sites in 32 countries and 1,518 employees worldwide, Bene offers its customers regional access to all of its services.

www.bene.com

---

**Bupa**

Bupa is a global health and care organisation. Bupa Care Homes provide some 35,000 beds principally in the UK but also in Spain, New Zealand and Australia for older people in need of care and refuge. Bupa endeavours to provide the highest possible standards of care in all its markets. Its collaboration with the RCA reflects its commitment to provide leadership in the design and provision of dementia care.

www.bupa.co.uk

---

**DePuy**

DePuy International is an operating company of Johnson & Johnson. With an annual turnover in excess of $50 billion, Johnson & Johnson is the world’s most broadly based manufacturer of healthcare products, servicing in excess of 150 countries in pharmaceutical, consumer, medical device and diagnostic markets. DePuy has established itself as a global leader in the design, development and manufacture of orthopaedic systems.

www.depuy.com

---

**Design Council**

The Design Council is the UK’s national strategic body for design. Funded by the British government, it promotes the use of design throughout the UK’s businesses and public services. It does this by demonstrating that design can play a vital role in strengthening our economy and improving our society.

www.designcouncil.org.uk

---

**Department of Health**

The Department of Health exists to improve the health and wellbeing of people in England. It provides health and social care policy, guidance and publications for the NHS and social care professionals.

www.dh.gov.uk

---

**Norwegian Design Council**

The Norwegian Design Council promotes the use of design as a strategic tool for innovation, in order to achieve greater creation of value in Norwegian trade and industry. Its Innovation for All programme promotes Design for All as a practice and as an effective business tool for innovation. The Think project is part of this programme.

www.norskdesign.no
**Legrand** is the global specialist in products and systems for electrical installations and information networks where people live and work. Its comprehensive offering of solutions for use in commercial, industrial and residential markets makes it a benchmark for suppliers worldwide. Present in more than 70 countries, Legrand reported sales of 4.2 billion in 2008; sales in emerging markets have represented 29% of the global turnover. [www.legrandelectric.com](http://www.legrandelectric.com)

**Megaman Charity Trust Fund** was established in February 2008. Its main purpose is to support programmes and projects specialising in education and environmental protection. Megaman is one of the world’s leading manufacturers of CFLs (compact fluorescent lamps) and integral LED lamps for general lighting. It is probably best known for its pioneering work on CFLs and LEDs that enable the replacement of less efficient light sources in a wide range of applications. [www.megamanuk.com](http://www.megamanuk.com)

**The National Patient Safety Agency** (NPSA) is the lead agency in contributing to safer patient care by informing, supporting and influencing the health sector. The NPSA is involved in a series of initiatives to facilitate safer design in several areas of healthcare. The project with the RCA Helen Hamlyn Centre is the latest in a series of studies on design guidelines for patient safety. [www.npsa.nhs.uk](http://www.npsa.nhs.uk)

**NHS Purchasing and Supply Agency** (PASA) is an executive agency of the Department of Health. It works to ensure that the NHS in England makes the most effective use of its resources by getting the best possible value for money when purchasing goods and services. [www.pasa.nhs.uk](http://www.pasa.nhs.uk)

**The Research Council of Norway** (IT Funk Programme) IT Funk is a R&D-funding programme in the Research Council of Norway. The purpose of IT Funk is to contribute to making information and communication technology (ICT) accessible to all, including disabled people. IT Funk targets businesses and institutions that research, develop, produce and distribute ICT-based products and services of importance for accessibility in society. [www.itfunk.org](http://www.itfunk.org)

**Research In Motion** (RIM) is a leading designer, manufacturer and marketer of innovative wireless solutions for the worldwide mobile communications market. RIM provides platforms and solutions for seamless access to information. It is best known for the BlackBerry® handheld communication device. RIM was founded in 1984 and is based in Waterloo, Ontario. It has offices in North America, Europe and Asia Pacific. [www.rim.com](http://www.rim.com)

**Samsung** Electronics leads the global market in high-tech electronics manufacturing and digital media. Through innovative, reliable products and services, talented people, a responsible approach to business and global citizenship, and collaboration with our partners and customers, Samsung is taking the world in imaginative new directions. [www.samsung.com](http://www.samsung.com)

**Think** is the car company of the 21st century. Its vision is to provide carefree, carbon-free mobility. It puts sustainable mobility and sophisticated technology at the heart of its thinking. Think combines new technology and Nordic design to produce practical and modern vehicles – emission free and three times as energy efficient as the cars used today. [www.thinkev.com](http://www.thinkev.com)
Grace Davey
Grace studied Engineering at Bristol University, where she spent a year in industry at Ove Arup. Her desire to utilise her engineering skills in a more tangible way to solve problems led her to the RCA where she completed a Masters in Industrial Design Engineering and received a bursary from the Royal Commission of 1851. Awards include Imperial Young Innovator of the Year and finalist in the Imperial College New Business Challenge. The focus of her work is currently on design for healthcare.
grace.davey@network.rca.ac.uk

Claudia Dutson
Claudia Dutson graduated from the Royal College of Art with an MA in Architecture in 2008. She has worked as a freelance researcher for a book by Jane Withers and Ilse Crawford on water, due to be published in 2010. Before the RCA, she studied Architecture at the University of East London, and part of her final project was published in a book, Material Matters.
claudia.dutson@rca.ac.uk

Clara Gaggero
Clara Gaggero graduated from Politecnico Torino in Italy, where she studied Industrial Design (2003 MA Hons). She then moved to Berlin where she founded a fashion label and worked for a design studio before coming to the RCA and studying Industrial Design Engineering, graduating in 2007 and winning several awards. Since then, she has worked for Ross Lovegrove and the BBC, tutored at Goldsmiths College and become a founder member of the design collective Vitamins.
clera.gaggero@googlemail.co.uk

Sarah Gottlieb
Originally from Denmark, Sarah Gottlieb moved to London to study graphic design, culminating in an MA at the Royal College of Art in 2008. She works as an independent graphic designer with Household, a collective she set up with George Wu. In 2009 she featured as a speaker at the Form of the Book at St Brides Library, London, and as a contributor to the reading room for the exhibition Form of Inquiry in Lausanne, Switzerland.
info@sarahgottlieb.dk

Catherine Greene
Catherine graduated from the National College of Art and Design in Dublin with a degree in Textile Design (2004). Moving to London, she worked as a project manager before following this up with an MA in Design Products from the Royal College of Art (2007). Since then she has worked at the Helen Hamlyn Centre on two different workplace projects. Catherine also works as a freelance designer.
catherine.greene@rca.ac.uk

Filip Krnja
Filip Krnja obtained a Masters in Mechanical Engineering at the ETH Zurich and in Vehicle Design at the Royal College of Art, graduating in 2008. In between he worked in Japan for the design studios of Mitsubishi Motors and Mercedes-Benz. Today he resides in London, crossing boundaries and creating design for the vehicle, film, TV and games industries.
contact@filipkrnja.com
Yusuf Muhammad
Yusuf Muhammad graduated from the University of Nottingham where he studied Mechanical Design, Materials and Manufacturing Engineering. After working at Russell Casting in Leicester, he studied Industrial Design Engineering at the Royal College of Art, graduating in 2008. He was recently awarded first prize in the Toyota iQ Design Challenge 2009.
yusuf.muhammad@network.rca.ac.uk

Arthur Schmitt
Arthur graduated from the RCA and Imperial College in 2008 with a Masters in Industrial Design Engineering. This helped combine his creativity with the technical skills acquired during a French ENSAM engineering degree. Arthur specialises in ‘creative design thinking’. He is passionate about building the world of tomorrow and is highly conscious of the social responsibility of designers.
tart2000design@googlemail.com

Gregor Timlin
Gregor Timlin is a graduate of the Dublin Institute of Technology where he studied Furniture Design (2004 BA Hons). After working at Spendlove Furniture in Ireland, he studied product design at the Royal College of Art (2006-08). He is a member of the design collective Propwork. In 2004 he was awarded the DIT Gold Medal for academic achievement.
gregor.timlin@network.rca.ac.uk

Karina Torlei
Karina Torlei graduated in Industrial Design Engineering from the RCA in 2008. Her first degree was in Product Design Engineering (BEng) from Swinburne University, Melbourne. Before the RCA, Karina spent three years with Tomra Systems in Norway. She later worked for designer Ross Lovegrove. Karina is one of the founders of Artica Technologies, a company set up to commercialise a low energy cooling technology.
karina.torlei@network.rca.ac.uk

Adrian Westaway
Adrian completed his first Masters in Electronic and Communications Engineering at the University of Bristol. While studying Industrial Design Engineering at the RCA (2005/07), his projects included Magic Light, patented and in development with InnovationRCA. In 2007 Adrian was named as the first ever James Dyson Innovation Fellow at the RCA. He is also founder of the design collective Vitamins and involved in a televised project to help people in need around the world.
adrianwestaway@gmail.com
Images illustrate how the Sense Profile concept could work onscreen. Sliders allow adjustments to sound and vision to be made.

This is a conceptual design only, not a real product.
Smartphones are mobile phones that offer advanced capabilities. They are becoming more widespread and offer such features as email capability, music players, web browsing and fast data transfer. However they typically rely on the user having good vision to access even their most basic features. There is also a growing trend towards touch-screen devices, which offer little or no feedback to indicate when an onscreen icon is pressed. This has implications for the 161 million people worldwide who are visually impaired.

The research strategy involved comparing and contrasting the behaviour and attitudes of blind and visually impaired people at opposite ends of the age spectrum. The under 25s are typically at the front end of new technology take-up and the over 65s represent a relatively untapped market. The rationale was to understand what both groups wanted from their phones and what was common to both.

A ‘day in the life’ observation of three individuals from each age group captured insights. This was followed by group workshops. What emerged was a framework of needs for each age group. Both wanted connectivity, though the over 65s wanted to be able to readily switch off. The younger group desired a device that could change to suit their mood or mode of use, could be easily located and was desirable – but not to thieves. The older people wanted to lose unused functions and get the most from those functions they did use. Everyone engaged in the research wanted a mainstream device that was not specific to blind people.

This design project aimed to study how people with low vision use mobiles in order to create new designs based on their communication needs and aspirations. The idea was to look at how smartphones could adapt to new forms of interaction that include rather than exclude low vision communities. Although visually impaired people formed the lead user group, the intention was also to develop solutions applicable to the mainstream.

Most people with low vision can actually see something. Only a small minority see total darkness. The design concepts developed aim to utilise the sight that people do have and supplement this with other sensory input. Sight, Sound and Touch formed the broad headings under which solutions were grouped. The first, entitled Sense Profile, comprised an Audio Slider, Visual Slider and Tactile Slider on the phone screen. Moving the Visual Slider up, for example, progressively makes the font size bigger, icons larger and contrast greater, removing the need to change multiple settings from within a complicated menu structure. This allows the smartphone to adapt to an individual’s needs at the touch of a button.

Voice Design sketches out ways in which voice interaction can be more interactive, human and customisable. Service Design looks at how the phone might connect to the laptop, a device that many visually impaired people already use, to control settings, software and get online help on a larger screen that has been modified with talking software. Form Design suggests how the shape of the phone might change for ‘eyes-free’ navigation and use.

All these ideas aim to make the digital experience more inclusive of visual impairment, but importantly, they also represent new ways for fully sighted people to interact with smartphones.
Interactive persona sheet for an older driver (below) showing daily routines, aspirations and preferences; the connected car (opposite) uses windows for digital display.
Despite the transition to the digital age, the layout of car cockpits has not changed significantly for decades. As a result, the driving experience remains essentially unchanged and as new communication devices emerge and information flow increases, the current set-up struggles to cope. Electric vehicles will play a growing role in future transport and provide an opportunity to move beyond the design paradigm dictated by the combustion engine, which dominated the last century, to rethink what the car could be in this century.

This project, building on the ambitions of Norwegian car company Think, set out to explore how communication technology could move the electric vehicle to the forefront of city mobility. By developing the idea of the ‘connected car’, seamless digital interaction between driver and vehicle can be enabled and, in turn, connect to lifestyle and aspiration. The study looked at the vehicle in the context of the urban environment, taking account of the challenges we currently face with an ageing driving population, slower city speeds and carbon pollution.

The study investigated the potential of the vehicle to become a mobile information interface, offering services that go beyond social networking or route planning to enable seamless digital connectivity between the car, home, workplace, family, friends and the city. Central to this was exploring the true needs of urban driving and looking at how sustainable mobility offered by electric cars could lead to more inclusive mobility solutions for everyone. Fifteen people between the ages of 24 and 82 were interviewed and observed going about their daily routines. They were asked to respond to a series of images, questions and provocations designed to give insight into their mobility requirements and attitudes to digital connectivity. The project probed the extremes, from car-phobics to those utterly dependent on their vehicles. An interactive persona sheet was developed around each individual, giving a snapshot of their lifestyle and needs.

‘The connected car seamlessly integrates driver, vehicle and city’

These persona sheets provided rich inspiration for a series of design concepts in which the car adapts to serve the drivers and passengers of tomorrow – across the spread of ages, functional abilities and personal preferences. A flexible interior provides opportunities for customisation: older people can access larger, higher contrast cockpit dials whilst those living in small city apartments can achieve more privacy, using the vehicle as an extension of the home.

There is better, more secure storage within the vehicle for everyone. A digitally connected parked car might switch on to provide street lighting for passers by, act as a wi-fi hotspot, advertise local shops or even point a lost tourist in the right direction. It might also be preheated and defrosted from your home.

A digitally connected car on the road might communicate with other vehicles, letting other people know its location and estimated time of arrival. To reduce visual clutter, the interface adapts to different situations and drivers, displaying information only when required.

Key ideas from the project are presented in a short movie that animates the design concepts, showing how the electric vehicle can move us closer to Think’s vision of carbon-free – and carefree – city travel for all ages.
Hook Plug-Light concept (above) shows lighting use in rural communities; (opposite) research participant in Indian field study
Access to reliable energy has far-reaching effects for social inclusion, with low-income communities most at risk across the world. In developing countries, safe and affordable energy services can be a powerful tool for improving basic education or health services whilst giving the individual a chance for entrepreneurship and income generation. For example, with a light, a fruit vendor can sell later into the night; with a dehydrator, a tomato farmer can make sun-dried tomatoes, a year-long, high value product.

Seventy per cent of people in the developing world still have no access to electricity in their homes, health clinics or schools. India supports over 17.5 per cent of the world’s population and has more people without adequate access to energy than any other country. Despite extensive government spending on large-scale electrification projects, half of all Indian households in lower income communities lack access to the grid. This project sought to understand local needs and create scenarios and solutions that allow these communities better access to energy and more control over their powered environments.

To address the issues that people face, two main field trips were conducted. The first was to an ‘off grid’ hippie commune in Wales and the second was an in-depth, three week tour of India to speak to energy experts and policy makers and undertake grassroots observational research in cities, slums and villages.

In Wales, people lived an alternative lifestyle as a commune in teepees, huts or yurts with each individual responsible for his own energy. They used solar panels or wind turbines to power lights, radios, DVD players, sound systems or laptops. Everyone, even the children, were really aware of the electricity they were using. In India, rolling blackouts were a fact of daily life, caused by insufficient generation capacity and inadequate transmission infrastructure. Access to energy emerged as a major factor in social exclusion.

Field trips to Indian villages showed that electricity can be accessed for as little as four hours per day, yet there was a strong willingness amongst villagers to pay for quality energy to sustain and grow their businesses. More than half of India’s GDP is based on rural enterprise. The rural research was supplemented by interviews conducted in the Dharavi slum in Mumbai – this is the biggest slum in Asia and home to one million people.

Four generic personas – a rural farmer, village-based entrepreneur, suburban worker and slum worker – were outlined from this research to drive the generation of a series of design concepts for India. Creative ideas were then mapped and graded according to how easily they could be implemented and their potential to improve life, and narrowed further in discussion with project sponsor Legrand.

‘Access to energy is a major factor in social exclusion’

Concepts range from a Hook Plug-Light that enables light fixtures to be hung anywhere to a micro-metering system that enables small communities to manage their energy use better. Interestingly, such ideas could in time become more relevant to the developed world. As the price of energy rises and fossil fuels become scarce, energy poverty is expected to increase dramatically everywhere. Concepts arising from this study could therefore have relevance for both extremes of the energy spectrum.
Interactive hardcover book concept (left) houses mobile phone and replaces throwaway manual; (above) smart cards for digital interaction with phone.
For many people, the joy of a new mobile phone can be quickly lost as they take the device out of the box, try to learn to use it and struggle with the manual. Although 85 per cent of people report difficulties in setting up their phone, older people can have a particularly frustrating experience as they apply analogue modes of learning to the digital experience, looking in the box for help that simply is not there.

This design study aimed to investigate and find solutions to the increasing divide between European elders and digital technology. As the number of people over the age of 60 now exceeds the number of teenagers in the UK, this age group is becoming a powerful market segment. A central premise of the project was that the problem did not lie with the user and was not necessarily the fault of the device – learning to operate and use the technology was the main barrier.

‘Older people can have a particularly frustrating experience’

An initial workshop in a bingo club in London defined the primary focus group as 60-80 year olds who are mobile, travel outside their local area and are curious about technology. Single older people and couples in the UK were then visited in their homes and asked about current problems with technology. Workshops to capture the diverse aspirations of European elders were held in Oslo in Norway and in rural Italy where different methods of learning were explored. Early concepts and prototypes were then tested with the original user group in London for feedback and iterative improvement.

The research indicated that product design alone does not make a mobile phone easier to use. Phones with big buttons, large screens and easy-to-read fonts all currently exist. The area with real potential for design intervention was redesigning the ‘out-of-box’ experience, rather than modifying the phone itself. This area is currently underexplored by industry but can have the biggest impact for consumers of all ages.

Two main concepts resulted from the study. The first turns the throwaway manual into a hardcover book that is designed to be kept on a shelf and referred to throughout the life of the phone. Many older people often asked friends or family to talk them through the phone set-up, so the pages of the book mimic this process using a conversational tone that is devoid of technological jargon and acronyms.

Turning the pages reveals step-by-step advice with graphical and text-based instructions pointing to the actual device and accessories encased within the book, minimising chances for error. The book then takes the user through other phone functions using the same process.

The second idea is based around a pack of cards that digitally interact with the phone to add and use basic functions. You choose a function you want, and tap the relevant card onto the phone to access that function. The cards act as shortcuts enabling users to tangibly explore the contacts and functions inside the phone without getting lost in complex menus. The reverse of each card clearly explains how to access each function using the menu, so as the user becomes more comfortable with the phone they will be able to use it without the cards.

Together these ideas present a novel way of enhancing mobile phone set up and use, and could have far-reaching implications for the way devices are packaged and presented to the customer in the future.
Concept settings for knowledge workers (clockwise from top left): Digital Portal, Quiet Zone, GardenWorks and Adaptable Table
As the world of work changes from an industrial economy to a knowledge-led one, the design of the office environment is struggling to keep pace. The traditional office derived its template from the factory floor, but time-and-motion within a supervised hierarchy is no longer relevant for much of the work we do today. Known as knowledge work, this type of work depends on applying theoretical knowledge and learning in a culture of collaboration and initiative. As such, it requires a much more flexible approach.

Today’s knowledge workers are more mobile, better educated and often older, having acquired their knowledge over a long career. Four out of ten European workers can be considered a knowledge worker, but not enough is known about the kind of workspaces that best support knowledge work. This project, in partnership with Bene, a leading European manufacturer of office furniture, set out to explore new design thinking in this area.

In order to design for knowledge workers, it was first necessary to learn more about them. Through an initial literature search and interviews with a variety of knowledge workers at different levels of age and experience, we identified four key typologies. Each of these typologies interact with the office in a different way: the ‘Anchor’ is desk based; the ‘Connector’ moves around within the building; the ‘Gatherer’ makes journeys away from the office but always returns; and the ‘Navigator’ is rarely in the office at all, working for the organisation at arm’s length.

Through site visits, including the BBC in London, a further 12 in-depth interviews and key meetings with facilities and human resources managers, we were able to get a better insight into the needs of the four knowledge worker typologies.

‘The knowledge economy requires a new workspace’

For the Anchor, comfort remains the most important issue; for the Connector, more adaptable types of furniture are needed; the Gatherer wants more choice and control of his or her environment; and the Navigator requires a more welcoming alternative to the standard hot-desk provided on the occasions they visit the building. All share a concern over concentration – although the findings support the view that there cannot be one ‘standard’ design for all knowledge workers.

Concept products have been developed in response to these needs. Themed Partitions create hideaway spaces for quiet concentration; Project Wall provides an impromptu workshop space where you are allowed to make a mess; Speaker Box is a small cave-like room designed for one-to-one video calls to roaming Navigators. These concepts and others are illustrated in the context of a fictional office layout in a short animated film. In the film we follow each group through their workspace. We watch as they demonstrate how these products could be used. The layout has also been designed to accommodate the four typologies, demonstrating the overlapping use of space as each of the characters pass through and conveying the different settings they need for different activities during the working day.

The project will be used to inform Bene’s future product development and marketing strategy. The study will be disseminated this autumn at the Vienna Design Festival on 8 October and at the WorkTech London conference at the British Library on 23 November 2009. Although knowledge workers today operate in ways increasingly independent of location, the study asserts the office building as the magnet that continually draws them back, fleshing out typical players in the knowledge economy and the workspaces they will require in the future.
Exploring the qualities of artificial light: concept model (left) for the workplace; (below) research into retail space
There is more to light than enabling us to see. Light affects our mood and has an impact on our biology. In the commercial workplace, our offices, shops and showrooms tend to be lit in an indiscriminate way that is all about the quantity of light. Little or no attention is paid to the qualities of artificial light and their effect on the productivity and stress levels of the individual. Not only is this mechanical approach—which is enshrined in UK lighting codes that specify minimum levels of illumination—unsustainable, it is also detrimental to the wellbeing of workers.

‘Little attention is paid to the qualities of artificial light’

This project, supported by the charitable trust of the lighting company Megaman, set out to investigate an alternative approach to how commercial interiors are lit and make the argument for a more sustainable and inclusive lighting agenda. The research was broadly divided into two streams: perception and application. Under perception, cultural ideas of light were investigated using language and linguistics as a research tool; and physiological and behavioural issues of light were looked at through scientific and medical publications and attending conferences.

The application phase of the project entailed study of the lighting codes, the building of a simple spectroscope to analyse the spectral content of light sources, a workshop with University of Brighton students and a series of expert consultations. User research was carried out in three London offices: at Arup, where ‘blue-enriched’ white light had been installed to test circadian lighting patterns; at Building Design Partnership, where ambient light levels had been reduced; and at CB Richard Ellis, where no special lighting intervention had been made.

Three guiding concepts emerged from the early phases of the study: topography – how light interacts with surfaces such as floors and ceilings; skiagraphy – the degree to which light is allowed through or shaded out; and choreography – how the hue and colour temperature of light contribute to a person’s sense of comfort or time. These principles informed the later phases of the study – such as a series of lighting experiments at full scale with user participation – reinforcing the view that light not only reveals the characteristics of architecture but architecture reveals the qualities of light.

What has emerged from the project is that brighter is not always better in lighting. Bright light can be useful at different times to synchronise the body clock but most commercial interiors do not change their lighting over the course of the day. This undynamic aspect is not only unappealing visually, but it is actively damaging to human health. Employees who are not in good health or a good mood are hardly likely to be at their most economically productive.

This study will now go into a second year to conduct further research and test the core hypothesis with low-energy light sources in a further variety of ways. At the end of the first year, research findings have been crystallised in a light box installation of mini-workspaces at 1:20 scale exploring the different qualities of light and giving people the opportunity to change the ambience. At the end of the second year, a major publication will be produced that challenges current practice in commercial lighting, embodied in the lighting code for the industry and based on engineering measures rather than people’s real needs.
Care worker assists elderly resident with lightweight prototype ‘high assist’ plate, which separates food to enhance the experience of eating.
Around 700,000 people in the UK have dementia, over a third of which live in care homes. Eating and drinking within the care home environment becomes an even more critical issue when a resident is affected by dementia. The ability to eat and drink with dignity and independence is often taken for granted, yet is a key indicator of quality of life for care home residents. This project set out to improve the experience by designing tools to help maintain eating skills for longer and by creating environments that address the challenges of advanced ageing.

Many products specified in care homes are often appropriated from other sectors, making them ill-suited to the care home setting. To improve design in this environment, it was important to understand it from both a resident and care worker perspective. Immersive research methods were adopted to identify key issues involving residents with dementia.

The designer visited several care homes to interview and observe residents, and attended Bupa care staff training to understand the needs of care workers, whose experiences were thoroughly explored in further interviews. Best practice and emerging theories in dementia care were researched to establish which elements of the environment would have the most importance if redesigned. Existing care products were audited to discover what was accepted or rejected in care homes.

After the initial stages of research, the project focused on two key areas: tableware and the table setting. The design solutions were consolidated into three groups: low, medium and high assistance. A low assistance cup and plate compensate for poor vision, using colour to ensure the food contrasts with the plate, and that the plate edge is visible against the table. Handles have also been designed to accommodate people with osteoarthritis.

‘Care residents with dementia deserve to eat with dignity’

The medium assistance, high-lipped plate helps people with limited dexterity to keep food on the plate, and a removable microwavable outer layer keeps food warm for longer. The cup replaces stigmatising double-handled cups by removing the handles altogether and replacing them with a layer of neoprene. The high assistance plate is shaped for care workers to hold close to residents who can no longer feed themselves. This ensures they can see and smell what they are eating, promoting an experience that is about their needs and not the task of feeding. The cup opens and closes easily in the hand, avoiding spillage.

A specially designed table, light and tablecloth work together to promote a better eating experience for residents. The table is designed to accommodate wheelchairs so that all residents can get close enough to their food to eat. The light can be adjusted for different visual acuities, some residents needing three times as much light to see properly. The tablecloth can be placed and removed easily, encouraging carers to reset the table before each meal. This encourages anticipation and appetite for residents with memory difficulties.

By making many small design changes the quality of dining can be improved, affording people with dementia the dignity and respect they deserve. This project will now go into a second year with Bupa’s support to extend the research methodology to other aspects of the care home environment.
Labelling on all surfaces

Issues:
• Medical devices need to be accurately selected. Many boxes only have information on one or two surfaces, limiting orientation when being stored. Blank surfaces cannot be readily identified.

Recommendations:
• Provide critical information on more than one packaging surface. For three dimensional packaging provide critical information in the same field of vision on at least three non-opposing surfaces.
Thousands of single-use, small-scale medical devices such as catheters, dressings, syringes and surgical sutures are used in hospitals every day. However, the design of their packaging and labelling can often lead to misuse and mis-selection by medical staff, as key information is not immediately visible. This project set out to work towards clearer information design, evaluating existing problems and solving them through design guidance. The study is supported by the National Patient Safety Agency (NPSA), which informs and influences the health sector on safer patient care.

Between April 2006 to March 2007, 24,207 patient safety incidents involving medical devices were reported to the NPSA’s Reporting and Learning System. This equates to 66 adverse incidents every day. The data suggests that such incidents can often be ascribed to human error.

‘Misuse of medical devices is often due to poor labelling’

The research began with an analysis of labelling and packaging in other industries. There is a wealth of existing knowledge that can potentially improve healthcare products and processes. IKEA, for example, has dealt with multi-language manuals by using only image-based instructions. The application of a coherent colour-coding system has been used to good effect in other sectors.

Meetings were held with manufacturers of Single Use Devices (SUDs) in order to understand their design needs, production methods and financial restrictions. User interviews were held with nurses, matrons and procurement personnel. Personal experiences and preferences were noted, along with a discussion of key issues and problems. After a first draft of the design guidelines was completed, creative workshops were held with NHS staff in order to get their feedback. A similar approach engaged designers in the medical packaging industry.

The research resulted in a series of recommendations for SUD packaging design. The use of colour, space and hierarchy of information are just some examples of the many issues highlighted. Each point is illustrated in a book, with accompanying design recommendations.

Visits to other wards revealed handwritten signs on drawers and shelves indicating what device was stored where. This inspired a shelf-label to be supplied by the manufacturers. The label is to match the design of the medical device, so aiding the selection process and quickly indicating if a device is put back on the wrong shelf.

The design recommendations will undergo final review by a wide range of stakeholders before full dissemination to the medical devices industry in the UK and healthcare procurement groups in the NHS. This work, represented in the exhibition by a proof copy of the book plus a research video and exemplar packs, will join a growing body of similar outputs from the NPSA aimed at improving design for patient safety.
Designers gain first-hand experience of the surgical environment (above); debating the issues at the Forum on the Future of Surgery (opposite)
What is the future of surgery? Advances in technology and materials science, rising patient expectations and concerns by healthcare providers to reduce costs, improve accuracy and eradicate errors are all factors that are driving change in the way surgeons operate.

Against this background, DePuy Johnson and Johnson, a market leader in the design and manufacture of orthopaedic instruments, asked the RCA Helen Hamlyn Centre to set up a research unit dedicated to advancing surgical instrumentation and practice. Over a three year period, this unit has been tasked with looking at how a people-centred design approach can give insight into the future of surgery by looking at surgeon aspiration, patient need and drawing on expert advice.

‘Shaping ideas that will improve practice’

There are different facets to this relationship: developing design concepts that can feed into new products; bringing together experts from various fields to debate and discuss surgery as part of a Forum on the Future of Surgery; understanding the voice of the patient; and creating a body of clinical knowledge that can stimulate new thinking. Research associate Karina Torlei joined the research unit in 2008/09 to work on all areas of activity.

A key part of the work has been to develop new design concepts for knee replacement surgery based on a patient-centred approach. A number of key areas, including the surgical instruments themselves, their packaging and delivery trays for storage and sterilisation, have been successfully addressed using a process of research and development that the Helen Hamlyn Centre has piloted for DePuy.

While the unit has addressed the surgical process from different angles, research methodologies have been common throughout. Interviews have been conducted with all the relevant stakeholders in order to gain a better perspective on surgical procedures and understand current frustrations with instrumentation where both surgeons and the surgical support teams feel that additional improvements are needed.

The methodology has also entailed first-hand observation of surgery by the designers, who go on a journey of critical examination of procedures in the operating theatre as well as other locations within the hospital. Analysis of video footage taken during these observations has yielded further insights into the shortfalls of current instruments. Criteria for design projects have included requirements for device accuracy, intuitiveness, robustness, simplification, pleasure in use, ease of manufacture and assembly – and these projects have been realised through design synthesis, sketching and physical mock-ups.

Alongside specific design projects, the Forum on the Future of Surgery has met twice in 2009 – in February and June. This high-level think-tank – supported by DePuy, convened by the RCA and facilitated by Phillip Joe of Microsoft, who is on secondment to the NHS – has members from the worlds of medicine, science, design, engineering, management, marketing and research.

The inaugural meeting of the Forum mapped out the broad landscape, exploring different aspects of surgical practice including location for surgery, barriers to change, new materials and technologies, and the patient experience. The second Forum focused in-depth on the patient journey, leading participants through an interactive workshop. In tandem, the design project work and the Forum on the Future of Surgery are helping DePuy to shape ideas that will improve clinical practice in the longer term.
Six items of everyday use by doctors and nurses redesigned for improved hygiene (clockwise from left): pulse oximeter; blood pressure cuff; cannula time-tracker; wipe dispenser; curtain clip and intelligent mattress.
Making Britain’s hospitals cleaner and safer has become a top Government priority in recent times. Well-publicised problems with healthcare-associated infections, especially with MRSA and C difficile, have led to calls for action to find new ways to reduce their spread and improve cleaning practice. It was against this background that the Design Bugs Out programme was launched by the Design Council in partnership with the Department of Health and the NHS Purchasing and Supply Agency. Its aim was to bring designers together with clinical specialists, patients and frontline staff to help combat infections by making hospital furniture and equipment easier and quicker to clean.

‘Problems with infections addressed through design’

Research associate Grace Davey worked as part of a specialist patient safety design team at the Helen Hamlyn Centre, which was commissioned to develop designs for six pieces of everyday equipment used by doctors and nurses.

Extensive research took place in hospital wards across the UK. Interviews were conducted with nurses, patients, cleaners, porters and other healthcare staff to identify the areas that could benefit most from design intervention. Standard hospital procedures were documented and analysed. The researcher also used immersive research techniques, putting herself into the hospital environment to experience the ward from the patient’s point of view.

The project consulted experts in the fields of design, healthcare, microbiology, nursing and patient care to give direction and steer findings. What emerged was a range of items that could have the most potential to reduce patient exposure to infections and improve cleaning practice. Six were selected for redesign.

The first design is a mattress that uses an ‘intelligent’ material to change colour when it becomes contaminated by body fluids. Hospital staff can see a potential infection area at a glance. The second is a cannula, a type of needle used to deliver fluids to a patient intravenously, with a self-timing indicator to tell staff when the line needs to be changed. Many cannulas remain in the patient long after the recommended period, causing infections, as staff have little visual indication of when to change them. The third item is a set of handles that clip onto cubicle curtains. Through a unique design and a magnetic mechanism, they provide an easily sanitised ‘grab-zone’ on the curtains and also keep them firmly closed for patient privacy. The fourth idea is a wipeable, polythene-covered cuff for blood-pressure measurement with magnetic closures, instead of Velcro fastenings that trap debris and are difficult to clean. The fifth prototype is a pulse oximeter for measuring oxygen content in a patient’s bloodstream that clips onto the patient’s finger. The redesign is free of dirt-traps and complicated corners, creating a surface that is easier to clean. The final idea is a patient wipe dispenser that encourages patients to maintain their own cleanliness. It incorporates an integral clip that allows it to be attached anywhere in the bed space of a ward.

The prototypes have been launched by the Design Council in London, and exhibited in ‘showcase’ hospitals and presented at healthcare conferences across the UK where they have been well received. They have the potential to go into production with further development. As David Kester, Chief Executive of the Design Council, explains: ‘Design Bugs Out has demonstrated that a little bit of good design can go a long way to providing simple, practical solutions based on the real needs of patients and hospital staff.’
EUROPEAN INDUSTRY PARTNERS

A decade of collaboration with Royal College of Art designers has drawn some of Europe’s most progressive industrial companies to the programme. Here we introduce ten industry partners from ten different EU member states.
Bene – Austria
Founded in 1790, Bene has been manufacturing office furniture since 1951. Today it ranks sixth in Europe’s office furniture industry. Its head office and factory are located in Waidhofen an der Ybbs in Lower Austria. In 2008/09 Bene collaborated with the RCA on a study looking at the design needs of knowledge workers. [www.bene.com](http://www.bene.com)

Dyson – UK
Founded in 1993 by RCA graduate James Dyson, the company is today a global appliance manufacturer whose main products are vacuum cleaners that use cyclonic separation. Its HQ is in Malmesbury, Wiltshire, UK. Research Associate Bryn Griffiths worked with Dyson Research on a project called Sensory Devices (2000) aimed at the needs of older people. [www.dyson.co.uk](http://www.dyson.co.uk)

ESL Pressalit – Denmark
ESL Industries produces level access shower units for older and less able people in the housing and care home market. In 2006, ESL Industries merged with Pressalit Care headquartered in Denmark to form ESL Pressalit. The company supported an accessible bathing project by Barnaby Barford in 2003. [www.pressalitcare.dk](http://www.pressalitcare.dk)

Hansgrohe – Germany
Europe’s largest manufacturer of showers, with head offices in Schiltach in Germany’s Black Forest. Established in 1901, Hansgrohe has a portfolio of over 15,000 products and collaborated on a two-year project looking at safer showering for older people: Safe & Sensual by Mary Wagstaff (2002/03). [www.hansgrohe.com](http://www.hansgrohe.com)

Kinnarps – Sweden
Kinnarps is Europe’s third largest provider of workspace interior solutions. Its furniture production base is in the Swedish village of Kinnarps. The company employs 2,200 people worldwide and has a turnover of £300 million. It has supported two workplace-related Research Associate projects: Kinder by Pascal Anson (2002) and Work Well by Jeremy Gay (2005). [www.kinnarps.com](http://www.kinnarps.com)

Legrand – France
Based in Limoges in France, Legrand is a world-leading company providing products and systems for electrical installations and information networks. It has offices in over 60 countries and generates 4 billion Euros per year. It sponsored the Switching On project by Arthur Schmitt (2009) looking at energy provision in emerging markets. [www.legrandelectric.com](http://www.legrandelectric.com)

Nokia – Finland
Nokia is a multinational communications corporation with head offices in Keilaniemi, Espoo. The company is focused on driving the transformation and growth of the converging internet and communications industries. It worked with Research Associate Stephanie Chen (2008) looking at new mobile services for older people. [www.nokia.com](http://www.nokia.com)

Philips – The Netherlands
Founded in 1891, Royal Philips Electronics is one of the world’s biggest electronics companies. Philips Design has collaborated on three projects: Glowing Places by Megumi Fujikawa (2004/05), Media Mediators by Toby Kerridge and Andy Law (2004/05) and Offline Etiquette by Cristina Bilsland (2006). [www.design.philips.com](http://www.design.philips.com)

Targetti – Italy
Based in Florence, Targetti is one of Italy’s leading lighting companies. Founded in 1928, the company today produces and markets more than 3,000 lighting fixtures and systems. Targetti has collaborated on two lighting projects related to urban regeneration in the UK: Light Urban Landscape by Harry Dobbs (2002) and Blighted Landscapes by Matt Dearlove (2004). [www.targetti.com](http://www.targetti.com)

Toyota Motor Europe – Belgium
With its head office in Brussels, Belgium, Toyota Motor Europe oversees the wholesale sales and marketing of Toyota and Lexus vehicles, parts and accessories, and Toyota’s European manufacturing and engineering operations. It partnered research associate Paul John-Baptiste (2007) to produce Keep Driving Safely, a poster campaign aimed at older drivers. [www.toyota-europe.com](http://www.toyota-europe.com)
EUROPEAN RESEARCH ASSOCIATES

Over the ten years of the Helen Hamlyn Research Associates, RCA graduates from ten European Union member states have participated in the programme. Here we highlight the contribution of one graduate from each country.
Toke Barter  Denmark
Toke studied interactive media in Denmark followed by interaction design at the RCA. He co-founded Radarstation with Ré Dubhthaigh and together they worked as research associates with the London School of Economics on the innovation study ‘Food for Thought’ (2006). Toke is now based in Copenhagen working on user-driven innovation projects.

Gero Grundmann  Germany
Born in Göttingen, Germany, Gero studied Graphic Design at the Fachhochschule in Hildesheim and the Surrey Institute of Art & Design, UK before joining Communication Art & Design at the RCA. As a Helen Hamlyn Research Associate (2004), he developed a communication campaign with Guide Dogs for the Blind to improve eye health.

Cristina Bilsland  Sweden
Cristina Bilsland studied at Lerums Gymnasieskola, Sweden, before moving to London to study Product Design at Central St Martins and Design Products at the RCA. As a research associate in 2006, she investigated the physical implications of the internet on domestic space with Philips Design, resulting in the publication ‘Offline Etiquette’.

Kirsteen Mackay  UK
Kirsteen Mackay grew up in Scotland and graduated from the Mackintosh School of Architecture in Glasgow before completing a Masters in Architecture & Interiors at the RCA. Her Shared Space project (2000) explored architectural strategies to enhance the social dynamics of office space – with support from property company Jones Lang Lasalle.

Ré Dubhthaigh  Ireland
Irish designer Ré Dubhthaigh has a background in visual communications. After completing a Masters in Interaction Design at the RCA he co-founded Radarstation with Toke Barter. In 2006 they developed a design-based approach to innovation within large organisations, ‘Food for Thought’, a study that still informs Ré’s role as director at Radarstation.

Julie Mathias  France
Julie Mathias graduated with a design MA from France’s Beaux-Arts School in 2002, before coming to study at the RCA. As a research associate, she developed bathroom concepts for older people in her Indulgent Bathing study for Ideal Standard (2005). She established WOKmedia in 2004, based in London with a production studio in Shanghai.

Tomek Rygalik  Poland
Tomek Rygalik grew up in Poland and studied architecture in Lodz before continuing his education as a designer in New York and London, on the RCA’s Design Products course. He spent three years as a Helen Hamlyn Research Associate (2006/08), developing shelving for Heal’s and a bathroom for Ideal Standard based on the needs of older people.

Natascha Frensch  The Netherlands
Holland’s Natascha Frensch graduated in graphic design from the Willem de Kooning Academy, Rotterdam, in 2000 before studying Communication Art & Design at the RCA. She became a research associate in 2003 to continue her Masters project – a typeface for dyslexic children, Read Regular – with the support of the Audi Design Foundation.

Lotta Vaananen  Finland
Finland’s Lotta Vaananen studied at the Lahden Muotoiluinstituutti in Finland and Ravensbourne College of Design and Communication, UK, before joining the RCA Design Products course in 1998. She worked as a Helen Hamlyn Research Associate (2000) with charity Leonard Cheshire, designing furniture for disabled home workers.

Clara Gaggero  Italy
Clara grew up in the mountains of North Italy, studying Industrial Design at the Politecnico di Torino, Italy, and the Institut Supérieur des Beaux Arts Saint Luc, Belgium, before her MA in Industrial Design Engineering at the RCA. She was a research associate in 2009 working with Samsung to design a better ‘set-up’ experience for mobile phone users of all ages.
The Helen Hamlyn Research Associates have not just worked with partners in business and industry. A key feature of the programme has been the involvement of the public and voluntary sectors. Ten UK-based not-for-profit partners are featured here.

**Audi Design Foundation**

The Audi Design Foundation was set up by Audi UK in 1997 with the mission to use design to make a positive impact on people’s lives. From 2002/08, it supported six projects including carbon-fibre crutches, a dyslexia typeface, an adrenaline injector, a scanner camera, an intelligent paint roller and a wayfinding system for visually impaired people. [www.audidesignfoundation.org](http://www.audidesignfoundation.org)

**British Heart Foundation**

Founded in 1961, the British Heart Foundation is a charity organisation that funds research, education, care and awareness campaigns aimed at preventing heart diseases. In 2000/03, it supported three research associate projects: Ellie Ridsdale’s ‘Foot Print’, Barry Menmuir’s ‘Stepping Stone’ and ‘The Heart Friendly Office’ by Mike Bond and Martin Coyne. [www.bhf.org.uk](http://www.bhf.org.uk)
Design Council
With roots going back to 1944, the Design Council is the UK’s national strategic body for design. It promotes the use of design through business and public services in the UK and is registered as a charity. It has supported three research associate project in the areas of homeworking, transport design and hospital cleanliness. www.designcouncil.org.uk

Laura Ashley Foundation
A charity set up in 1986 in memory of Laura Ashley, it aims to ‘seed’ the next generation of innovators and designers through its Fellowship Awards. In 1999/2000, it supported a research associate study to aid rehabilitation for disabled people. Judith Anderson designed the Abilizer wheelchair attachment as the primary outcome. www.lauraashleyfoundation.org.uk

Leonard Cheshire Disability
Leonard Cheshire is a charity that campaigns to change attitudes to disability and provides support for disabled people through a wide range of care services. In 1999/2000, it supported a research associate project to develop new furniture concepts for disabled homeworkers. Finland’s Lotta Vaananen designed the Carousel desk as part of the study. www.lcdisability.org

National Patient Safety Agency
National Patient Safety Agency
The NPSA was created to monitor patient safety incidents, including medication and prescribing errors that are reported in the UK’s National Health Service. Between 2004-9, the NPSA commissioned five research associate projects including a new design for the resuscitation trolley and a series of guidelines for the designers and manufacturers of medical packaging. www.npsa.nhs.uk

Peabody
Peabody Trust
The Peabody Trust is one of London’s largest housing associations. Founded in 1862, the organisation now owns 20,000 homes and aims to tackle poverty by providing good, affordable housing. In 2000/01, it supported Yanki Lee’s ‘Totalscape’ project, looking at architectural strategies to support start-up creative businesses living and working on the same site. www.peabody.org.uk

Thomas Pocklington Trust
Established in 1935, Pocklington is the leading provider of housing, care and support services for people with sight loss in the UK. In 2006/08 it supported a two-year study looking at domestic lighting for low vision communities. This resulted in Chris McGinley’s range of design concepts including the Flip Light and a kit for occupational therapists. www.pocklington-trust.org.uk

Transport for London
Transport for London is the local government body responsible for implementing transport strategy and managing transport services across London. In 2001/02, it supported a research associate study by Marie Lenclos looking at the difficulties parents face taking young children on public transport. The resulting film was called ‘How people do it’. www.tfl.gov.uk

Whizzkidz
Whizzkidz is a UK charity established in 1990 to improve the quality of life of disabled children and young people through the provision of customised mobility equipment. Ben Wilson’s Tilting Trike resulted from a collaborative project in 2001/02, which designed a new pedal-powered tricycle for children without lower body strength. www.whizz-kidz.org.uk
10 DESIGN FIRMS LAUNCHED

The Helen Hamlyn Research Associates programme has been a springboard for RCA graduates to set up their own design firms, many of them in the London area where the College is based. Here we showcase ten entrepreneurial design ventures.

(Clockwise from left): Big Clip magazine rack by Arash and Kelly; operating theatre light by Studiohead; cutaway of Capulet D30 ballet shoe by Sprout Design
Arash and Kelly
Arash Kaynama worked as a research associate with Esselte in 2001, developing stationery objects for home working. He went on to form a business with partner Kelly Sant called Arash and Kelly, designing and selling their own brand of products inspired by everyday stationery items. Their highly successful range includes a giant sticky notepad called Genius Pad and the Big Clip.
www.arashandkelly.com

Blend Studios
After completing a research associate project on domestic air quality with B&Q between 2004/06, Chris Glaister and Duncan Turner set up Blend Studios, a product design and development consultancy rooted in user orientated design. The grab-it oven glove is made of silicon improving hygiene, can stick to shiny surfaces and is designed for a range of hand sizes.
www.blendstudios.co.uk

Bond & Coyne
Mike Bond and Martin Coyne worked with the British Heart Foundation in 2001/02 before forming their own communication consultancy, Bond and Coyne Associates, which uses research as a key part of each project. Outputs include photographic exhibitions for charity War On Want and a national photographic award for documenting poverty around the world.
www.bondandcoyne.co.uk

Brighten the Corners
Frank Philippin founded his consultancy, Brighten the Corners, whilst working as a research associate in 1999/2000, exploring age-friendly typography with the Packaging Solutions Advisory Group. Clients include the British Council, Goethe-Institute and Laurence King Publishing. The six booklets shown in CLOSEUP were designed for the Italian Cultural Institute in 2005/07.
www.brightenthecorners.com

Goodwin Hartshorn
Edward Goodwin and Richard Hartshorn worked jointly on two projects – food packaging with Waitrose and sensor technology with Omron (2002) – before taking their user-centred design partnership into their own firm. They have since designed innovative loudspeakers, medical instruments and domestic appliances. The ‘hygenIQ’ range of splash-free urinals was created for Ideal Standard.
www.goodwin-hartshorn.co.uk

Milk
Jenny Brown was a Research Associate in 2001 when she researched the impact of digital technology on the office. She went on to form a company called Milk which specialises in contemporary architecture and interior design. A central focus includes family homes that can adapt to ever-changing needs and care homes designed for residents with dementia.
www.splashofmilk.com

Quinine Design
Ian Johnston started Quinine Design shortly after working as a research associate in 2000, looking at flexible working with Samas Systems Furniture. Quinine Design helps companies create new experiences. Little Arrow, shown in the exhibition, is a successful retail format developed using people-centred research. It is being implemented across the entire Orange UK estate.
www.quininedesign.com

RAW studio
Nick Rawcliffe worked with Japanese sensor company Omron in 2000/01 to explore future technologies for public transport networks. RAW studio applies his knowledge to products that are designed and made within the UK. The Ribbon Stools are made of sandcast aluminium – a limited edition of 100 stools to promote local manufacturing and help coloured ribbon charities.
www.rawstudio.co.uk

Sprout Design
Sprout Design was founded by Guy Robinson and Robert Brown in 2004 following research associate projects in 2002 and 2003 respectively. Sprout Design provides sustainable and inclusive product development for clients including Virgin Atlantic, WRAP and EH Taylor. The Capulet D30 Ballet shoe innovates in a product sector that has remained unchanged for 200 years.
www.sproutdesign.co.uk

Studiohead
Matthew Harrison and Cian Plumbe were research associates between 2005 and 2008 completing projects for Thorn Lighting, Research in Motion and BT. In 2008 they formed Studiohead and are currently innovating in the field of medical simulation with Imperial College. The lamp displayed is part of a portable operating theatre environment that is high-fidelity and low cost; the project demonstrates their user-centered design approach.
www.studiohead.com
10 Designs for Production

Design to improve people’s lives is a key objective of the Helen Hamlyn Research Associates. Designing for production has therefore been a constant theme. Here we show ten designs for production, created to effect change in the real world.

**Concentrate**
Mark Champkins
Mark Champkins developed a range of designs to help schoolchildren to concentrate in the classroom as part of his research associate project with Mackay Associates in 2003. He then established his own company named Concentrate to take these ideas to market. Products include the Bottlecoolerpenholder and Chairpadbag now being sold online and through UK retailers.

**B&Q Power Tools**
Matthew White
Matthew White’s research associate project for home improvement retailer B&Q (2001) developed a new screwdriver and sander for B&Q’s power tools range, addressing the needs of older users and those with reduced grip. The products went on to become bestsellers in the UK and China – and Matthew worked extensively for B&Q as a design consultant.

**BAA Terminal 5 Wayfinding**
Karen Adcock, Carl Turner, Samson Adjei, Pascal Anson
Four Research Associates from RCA Architecture worked closely with BAA between 2000 and 2002 to explore fresh ideas for wayfinding in the new Terminal 5 at Heathrow Airport, Europe’s largest airport terminal. When Terminal 5 opened in early 2008, many of the design principles expressed in the study could be seen in the £4.3 billion building.

**Envelope Desk**
Peter Fullager and Dan Jones
The Envelope desk gave UK manufacturer Dams International a marketable product for homeworkers, a growing customer segment that was the focus of a project by Peter Fullager and Dan Jones in 2004. Innovations include split-height surfaces to improve ergonomics and better access for power and connection cables. The prototype fed into the company’s product development.
INFO-MOTION
Serge Porcher
This project (2005) radically redesigned the layout of the car cockpit to better reflect the needs of older drivers and utilise advances in screen-based, projection technology. Realised as a full-scale model with a customisable interface designed by Serge Porcher, it paved the way for research partner Visteon to set up its own design studio.

INTERCHANGEABLE
Fiona Scott
This study (2003) looked at how transport interchanges could be better designed to integrate with the area around them and support the people that use them. From enhancing commuter journeys to creating communities, five different concepts were proposed for research partner Scott Brownrigg to integrate in ‘live’ architectural projects around the UK.

KENTISH TOWN ROAD LIGHTING
Harry Dobbs
In 2002 Harry Dobbs conducted an architectural study with partner Targetti, which looked at the role of public lighting in regenerating complex urban areas. The research was developed into a series of designs aimed at regenerating streets and spaces for the London Borough of Camden. They are now being installed in and around Kentish Town Road.

MOBILICITY
Merih Kunur
Mobilicity is a road-based urban transport system that uses driverless, van-sized vehicles to pick up passengers on demand and link together to form road-trains that traverse the city. Created by Merih Kunur in 2004 for Capoco Design’s 25th anniversary, Mobilicity has featured in exhibitions and won awards around the world. An industrial consortium is developing a full-scale working prototype.

OPTARE COMMUNITY VEHICLE
Owen Evans
This research associate project with bus company Optare (2003) explored how the Alero, a 16-seater low-floor vehicle, could be adapted to bring much-needed community services to isolated rural and inner city areas. Designing new interior and exterior elements resulted in a customisable community vehicle that Optare could test market with potential customers.

PATHFINDER
David Sweeney
Pathfinder is an inclusive new system to help visually impaired people find their way around public spaces and buildings using mobile technology. An award-winning innovation devised by David Sweeney in 2008 with the support of the Audi Design Foundation, it has captured the interest of museum and transport operators and is now being developed for the market.
RESEARCH PUBLICATIONS

The Helen Hamlyn Centre at the RCA has been determined to publish the results of its multidisciplinary design research throughout the life of the programme. Ten publications showcasing different collaborations across Europe are presented here.

CIRCLES OF CARE
This publication written by Indri Tulusan, Helen Hamlyn Research Associate 2004, identifies the social network as a complementary healthcare model, sets out a manifesto for change and describes the main opportunities for new services to be created. The 'Circles of Care' project was supported by Orange and Pearson Matthews.

CONNECTIONS
This book explores the implications for digital service providers of supporting greater mobility and independence for older people in rural areas. It captures the results of a project completed in rural Ireland by Merih Kunur and students of RCA Vehicle Design in 2007. Co-authored by Rama Gheerawo, the study was commissioned by Intel.

CAPTURE IT
Based on work by research associates Harriet Harriss and Suzi Winstanley in 2003/05, Capture It contains a number of essays which explore the implications for workplace design as the workforce ages and up to four generations now share the same environment. Contributions include essays from the project partners – Steelcase, IDEO and DEGW.

FOOD FOR THOUGHT
Food for Thought is an exploration into design-led innovation practice in corporate organisations. Written by Ré Dubhthaigh and Toke Barter in 2006, it makes the novel comparison between an in-house innovation support service and the restaurant experience. The project was supported by BOX at the London School of Economics and DEGW.
INFORMATION DESIGN FOR PATIENT SAFETY
The publication was the first in a series commissioned by the National Patient Safety Agency and aimed at designers, specifiers and manufacturers of medical packaging and equipment. Between 2004/09, Thea Swayne, Sally Halls and Sarah Gottlieb all worked on publications giving design guidance.

METRICITY
Paul Clarke’s Metricity study is the result of a two-year research associate study (2006/08) in partnership with the British Council for Offices, the UrbanBuzz initiative and a quartet of London architectural practices. The book articulates alternative measures of urban density, with the aim of making cities more sustainable places to live and work.

POTENTIAL PHARMACIES
This booklet describes the changing relationship between pharmacist and patient, and proposes five potential types of pharmacy that each illustrate a different model of interaction. Written by James King, Helen Hamlyn Research Associate 2007, it was commissioned by Lloydspharmacy to investigate the future of the pharmacy and outline speculative scenarios.

READ REGULAR
This publication describes how Natascha Frensch, Helen Hamlyn Research Associate 2003, developed the Read Regular typeface to help people with dyslexia read and write more effectively. The first part focuses on dyslexia and the second on typography, with guidelines for designing clear information. The project was supported by the Audi Design Foundation.

TRANSITIONS
This booklet describes a collaboration between the Nokia Design Research and Foresight Team and the RCA Helen Hamlyn Centre, looking at the communication needs of an ageing population and the internet-based services that could meet them. It captures the outcomes of a project completed by research associate Stephanie Chen in 2008.

WORK WELL
Work Well documents the research and development of nine inclusive work furniture designs that address an ageing workforce. It outlines three main issues: individual control; flexible working; and maintaining health. The book is the result of a project partnership between Jeremy Gay, Research Associate 2005, and Swedish furniture maker Kinnarps.
RESEARCH ASSOCIATES 2000-2008

2000
Karen Adcock, Architecture & Interiors
Judith Anderson, Industrial Design Engineering
Bryn Griffiths, Industrial Design Engineering
Ian Johnston, Design Products
Kirsteen Mackay, Architecture & Interiors
Frank Philippin, Communication Art & Design
Dan Plant, Industrial Design Engineering
Yuko Tsurumaru, Design Products
Carl Turner, Architecture & Interiors
Lotta Vaananen, Design Products

2001
Karen Adcock, Architecture & Interiors
Pascal Anson, Design Products
Jennifer Brown, Architecture & Interiors
Shaun Hutchinson, Vehicle Design
Helen Jones, Vehicle Design
Arash Kaynama, Design Products
Yanki Lee, Architecture & Interiors
Barry Menmuir, Industrial Design Engineering
Eddie Mundy, Design Products
Tim Parsons, Design Products
Nick Rawcliffe, Industrial Design Engineering
Ellie Ridsdale, Communication Art & Design
Carl Turner, Architecture & Interiors
Matthew White, Industrial Design Engineering

2002
Samson Adjei, Architecture & Interiors
Pascal Anson, Design Products
Mike Bond, Communication Art & Design
Martin Coyne, Communication Art & Design
Harry Dobbs, Architecture & Interiors
Greg Epps, Architecture & Interiors
Edward Goodwin, Industrial Design Engineering
Katherine Gough, Industrial Design Engineering
Richard Hartshorn, Industrial Design Engineering
Marie Lenclos, Communication Art & Design
Guy Robinson, Industrial Design Engineering
Jo Taylor, Communication Art & Design
Mary Wagstaff, Design Products
Ben Wilson, Design Products

2003
Barnaby Barford, Ceramics & Glass
Robert Brown, Industrial Design Engineering
Mark Champkins, Industrial Design Engineering
Greg Epps, Architecture & Interiors
Owen Evans, Vehicle Design
Natascha Frensch, Communication Art & Design
Jac Higgins, Interaction Design
Richard Mawle, Industrial Design Engineering
Fiona Scott, Architecture & Interiors
Indri Tulusan, Interaction Design
Mary Wagstaff, Design Products

2004
Matt Dearlove, Architecture & Interiors
Megumi Fujikawa, Interaction Design
Peter Fullager, Industrial Design Engineering
Katherine Gough, Industrial Design Engineering
Gero Grundmann, Communication Art & Design
Harriet Harriss, Architecture & Interiors
Dan Jones, Industrial Design Engineering
Tobie Kerridge, Interaction Design
Merih Kunur, Vehicle Design
Richard Mawle, Industrial Design Engineering
Chris McGinley, Industrial Design Engineering
Indri Tulusan, Communication Art & Design
Suzi Winstanley, Architecture & Interiors

2005
Jamie Cobb, Design Products
Megumi Fujikawa, Interaction Design
Jeremy Gay, Interaction Design
Michael Golembewski, Interaction Design
Matthew Harrison, Industrial Design Engineering
Harriet Harriss, Architecture & Interiors
Tobie Kerridge, Interaction Design
Andy Law, Interaction Design
Julie Mathias, Design Products
Chris McGinley, Industrial Design Engineering
Juri Nishi, Architecture & Interiors
Serge Porcher, Vehicle Design
Sheila Qureshi, Architecture & Interiors
Thea Swayne, Communication Art & Design
Duncan Turner, Industrial Design Engineering
Jonathan West, Industrial Design Engineering
Suzi Winstanley, Architecture & Interiors

2006
Toke Barter, Interaction Design
Cristina Bilisland, Interaction Design
Ré Dubhthaigh, Interaction Design
Owen Evans, Vehicle Design
Chris Glaister, Industrial Design Engineering
Sally Halls, Industrial Design Engineering
Matthew Harrison, Industrial Design Engineering
Anab Jain, Interaction Design
Jeong Tae Kang, Vehicle Design
Maja Kecman, Industrial Design Engineering
Merih Kunur, Vehicle Design
Chris McGinley, Industrial Design Engineering
Florian Ortkrass, Design Products
Tomek Rygalik, Design Products
Thea Swayne, Communication Art & Design
Duncan Turner, Industrial Design Engineering
Jonathan West, Industrial Design Engineering
Stuart Wood, Design Products

2007
Paul Clarke, Architecture
Sally Halls, Industrial Design Engineering
Matthew Harrison, Industrial Design Engineering
Paul John-Baptiste, Communication Art & Design
Maja Kecman, Industrial Design Engineering
James King, Design Interactions
Merih Kunur, Vehicle Design
Chris McGinley, Industrial Design Engineering
Cian Plumbe, Industrial Design Engineering
Tomek Rygalik, Design Products
Lisa Stroux, Industrial Design Engineering
Jonathan West, Industrial Design Engineering

2008
Stephanie Chen, Industrial Design Engineering
Paul Clarke, Architecture
Catherine Greene, Design Products
Sally Halls, Industrial Design Engineering
Maja Kecman, Industrial Design Engineering
Chris McGinley, Industrial Design Engineering
Cian Plumbe, Industrial Design Engineering
Tomek Rygalik, Design Products
Lisa Stroux, Industrial Design Engineering
David Sweeney, Industrial Design Engineering
RESEARCH PARTNERS 2000-2008

2000
BAA
Design Council
Dyson
Jones Lang Lasalle
Laura Ashley Foundation
Leonard Cheshire Disability
PSAG (Packaging Solutions Advice Group)
3D Reid
Samas Systems Furniture

2001
B&Q
BAA
British Heart Foundation
Design Council
Esselte
Ford Motor Company
Gestetner
GMW Partnership
Hewlett Packard
IDEO
Jones Lang LaSalle
Kinnarps
Omron
Peabody Trust
3D Reid
Roneo Office Systems
Steelcase

2002
Audi Design Foundation
BAA
British Heart Foundation
Fitch
Hansgrohe
Mackay Associates
IDEO
Omron
3D Reid
Steelcase
Targetti
Transport for London
Unilever
Waitrose
Whizz-kidz

2003
Audi Design Foundation
B&Q
City Space
ESL Industries
Hansgrohe
Hewlett Packard
IDEO
Mackay Associates
Optare
Scott Brownrigg
Steelcase

2004
Capoco Design
Dams International
DEGW
Faraday Packaging Partnership
GlaxoSmithKline
Guide Dogs for the Blind Association
IDEO
Marks and Spencer
Orange
Pearson Matthews
Philips
Steelcase
Targetti

2005
Audi Design Foundation
B&Q
DEGW
GlaxoSmithKline
Ideal Standard
IDEO
Kinnarps
MFI
National Patient Safety Agency
Osaka Gas
Philips
Steelcase
Thorn
Visteon

2006
Audi Design Foundation
B&Q
BOX at the London School of Economics
Colebrook Bosson Saunders
DEGW
Future Foundation
Heal’s
National Patient Safety Agency
Osaka Gas
Philips
Research in Motion
Thorn
Visteon

2007
Arup
BT
Child Graddon Lewis
DePuy
Ideal Standard
Intel
Lloydspharmacy
National Patient Safety Agency
3D Reid
Sheppard Robson
Thomas Pocklington Trust
Toyota

2008
Arup
Audi Design Foundation
British Council for Offices
Child Graddon Lewis
DePuy
Fletcher Priest Trust
Ideal Standard
National Patient Safety Agency
Nokia
3D Reid
Research in Motion
Thomas Pocklington Trust
UrbanBuzz

(From top): Umbrella Chair by Tim Parsons 2001; Unilever packaging by Katherine Gough 2002; MFI kitchen designs by Juri Nishi and Sheila Qureshi 2005; Steelcase furniture concept by Greg Epps 2003
As part of the CLOSEUP exhibition, the Helen Hamlyn Centre will feature work in progress on a new web-based resource to help and inspire designers to work more closely with people throughout the creative process: 
www.designingwithpeople.org

This new web tool (see right) is based in part on the experiences gained in user research over ten years of Helen Hamlyn Research Associates programme at the RCA. It aims to act as a one-stop resource to support designers in developing a more effective people-centred design approach. The website will include:

- guidance on design methods
- an ethical framework for the practical considerations of working with users
- key insights into user requirements related to basic daily tasks
- character scenarios based on typical ability sets

www.designwithpeople.org is part of the i-design 3 research project (2006-2010) which is funded by the UK’s Engineering and Physical Sciences Research Council (EPSRC).

In collaboration with Engineering Design Centre and Department of Psychiatry, Cambridge University and ESRI Centre, Loughborough University
If you would like to be part of the Helen Hamlyn Research Associates programme at the Royal College of Art, please contact Rama Gheerawo, Programme Leader, RCA Helen Hamlyn Centre: rama.gheerawo@rca.ac.uk

Catalogue editor: Rama Gheerawo
Contributing writer: Jonathan West
Identity and graphic design: Maureen Valfort
Art direction: Margaret Durkan
Print: Redlin Printing Ltd

This publication is dedicated to the memory of Helen Hamlyn Research Associate Eddie Mundy of RCA Design Products (1973–2006)

The Helen Hamlyn Centre would like to thank the following RCA departments and senior academic staff for their participation in the Helen Hamlyn Research Associates programme over the past 10 years:

**Architecture**
Prof Nigel Coates, Mark Garcia, Dr John Smith, Clive Sall, Gerard O’Carroll

**Ceramics & Glass**
Prof Martin Smith, Felicity Aylieff

**Communication Art & Design**
Prof Dan Fern, Jeff Willis, Prof Andrzej Klimowski

**Design Products**
Prof Ron Arad, Hilary French, Daniel Charney

**Design Interactions**
Prof Tony Dunne, James Auger, Prof Irene McAra McWilliam

**Innovation Design Engineering**
Prof Miles Pennington, Ashley Hall, Prof Tom Barker, Dr Roger Hibberd, Prof John Drane, Prue Bramwell-Davis

**Vehicle Design**
Prof Dale Harrow, Richard Winsor, Clive Birch, Dr Paul Ewing

ISBN is 978-1-907342-00-4
© 2009 Royal College of Art Helen Hamlyn Centre
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior consent of the publisher. All ideas or concepts described or depicted in this document are the intellectual property of the research partners/designers/college. Further copies can be obtained from the Helen Hamlyn Centre