



A Crafts Council Touring Exhibition



Digital Adventures in
Contemporary Craft



Michael Eden's *Babel Vessel #1* in production at the Digital Manufacturing Centre, The Bartlett Institute, University College London. Photo: Ed Reeve

Today we live in a Digital Age; a time when technological advancements are presenting craft practitioners with liberating opportunities. A new visual language is emerging. A language which involves manipulating, distorting and exploiting the parameters of digital software and fabrication tools. These tools enable the production of objects that move beyond the limitations of the hand.

Imagine objects three-dimensionally printed from a bed of nylon powder; shapes appearing to seamlessly morph and merge with each other; materials etched and cut by computer-controlled lasers and milling machines; movements and sound waves captured and translated into physical objects by sensors and scanners; and new forms randomly self-generated by computer software. Lab Craft presents the imagined as real objects.

As the human touch is considered a pivotal anchor in the definition of craft, is this made redundant amid the adoption of digital tools? Does digital perfection allow space for the great charm of mistakes? Far be it from spelling the end of craft as we know it, Lab Craft presents an exciting extension to the maker's toolbox by showcasing a variety of items that utilise digital technologies, wholly or in part, in pursuit of pioneering new outcomes.

QR (Quick Response) code

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QR code is a form of two-dimensional computer language that enables scanning equipment to read and interpret information such as websites, email addresses or telephone numbers. By reading the code a mobile device, such as SMART phone, can direct you to a website or automatically download information.

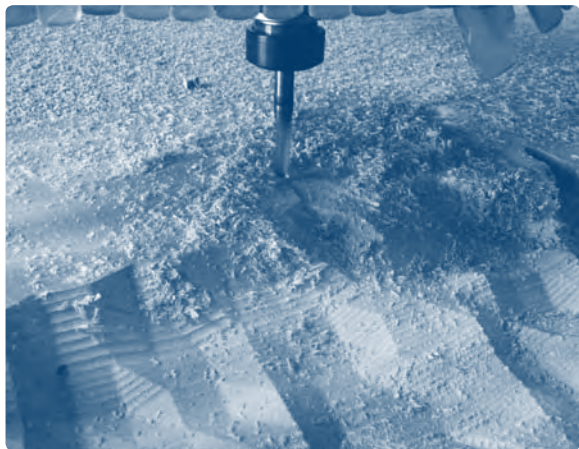
If your mobile phone has a camera, it may already have the software to read QR codes. You can also download the software from the iPhone App Store or from www.mobile-barcodes.com

QR codes are included throughout the exhibition to provide a direct link to more information.



Lab Craft: Digital Adventures in Contemporary Craft

Max Fraser, Lab Craft Curator



Information Ate My Table in production on a CNC routing machine. Photo: Zachary Eastwood-Bloom



Wireframe image from Geoffrey Mann's *Cross-Fire Series* animation. Photo: Chris Labrooy

In the 21st century, technology has significantly infiltrated our lives. The word 'digital' is used and understood extensively. Across its various guises, people commonly associate the word with computers, gadgets and sophisticated technologies. Since the advent of computers in the 20th century, the term 'digital' has been applied in numerous ways; it began in the hands of the privileged few and, like most innovations, evolved exponentially to become commonplace. Nowadays, it is rare to encounter someone who doesn't own a mobile phone. Indeed, most homes have at least one computer and a broadband connection.

Computer-aided Design and Manufacture

The production industries have been continually revolutionised since the 1980s, when Computer-Aided Design (CAD) was first introduced. CAD is mainly used for detailed engineering of 3D models and/or 2D drawings of physical components. It has become an important industrial art across many applications including the automotive, shipbuilding and aerospace industries, and in industrial and architectural design. Without question, CAD has emerged as the occupational must-have tool for designers, architects and developers.

Craft practitioners are also on the list of CAD users. It is entirely understandable that they would be drawn towards the seemingly endless opportunities. After all, unimaginably complex structures and shapes can be dreamt up in the

virtual world of CAD software. Highly detailed technical data is generated and input into Computer-Aided Manufacturing (CAM) software, which then automatically controls the machine tool. CAD/CAM software lies at the heart of digital production processes, and is increasingly being exploited by individual makers. All of the work in Lab Craft has employed CAD/CAM technologies at some point in the process.

Additive and Subtractive Manufacturing

Broadly speaking, the production processes are split into two categories: additive or subtractive manufacturing. The latter is perhaps easiest to comprehend in the light of traditional processes, in that you take a large chunk of material, say a granite block, length of wood or lump of solid aluminium and you sculpt it with tools, manual or automated. At the end, the material has been subtracted from the original object to 'reveal' the final object. Digitally controlled machines that work in this way, albeit with pin-point precision, include CNC routing, laser-cutting and water-jet cutting (→ see glossary). Such processes are more commonplace and are used with a wide variety of familiar materials: laser-cut fabric such as Tord Boontje's *100 Years* textile; CNC-cut wood such as Gary Allson and Ismini Samanidou's *Woven Wood* panels; and CNC-milled aluminium created by Drummond Masterton.

Additive manufacturing processes are arguably more magical within the digital context. Here there is no original material mass to subtract from. Instead, new material is deposited in an 'additive' way to gradually build up an object from nothing. Machines that work in this way include rapid prototyping machines, laser sintering, powder fusing and 3D printing (→ see glossary).

These new tools have had an impact on the creation of objects as, micro-layer by micro-layer, they are able to 'build' incredibly complex new forms, generated by sophisticated CAD software.

However, whilst the capability of these machines may seem limitless, they require an ever-evolving skill-set at the point of translating drawn data to actual object. Once this hurdle is overcome, the resulting object can be mesmerising in its physical complexity. As the material finish of these processes is becoming more familiar and considered perhaps somewhat primitive and crude, some makers will either coat the object with another material, or take a cast and reproduce it in another material altogether, such as Geoffrey Mann's silver-plated bronze *Shine* candelabra or Nina Tolstrup's *Branch Out* trestle table legs.

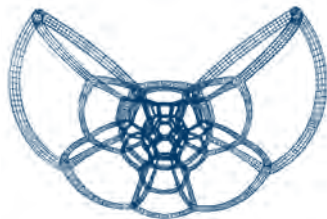
The excitement of these additive and subtractive manufacturing processes is that complex computer-generated forms are able to take shape in ways that would be inefficient or indeed impossible to produce by the human hand alone. Whilst these

tools were originally created for the purposes of easing the development process for mass-production, their capacity to produce incredibly detailed one-off objects has attracted individual craft practitioners to the technologies. It has created a whole new vocabulary for the maker.

Fabrication Bureaus

The digital fabrication process is unfamiliar territory to most of us. Due to the cost of the machines, production tends to be centred in 'bureaus' which are essentially mini factories. One such bureau, Metropolitan Works, is operated at London Metropolitan University. Here practitioners can explore and utilise previously inaccessible industrial technology. Highly skilled technicians are very much present in these centres, as the complexity of the machines and the cost of running them must be overseen.

Sceptics might argue that the intervention of a technician blurs the clarity of authorship of an object, particularly as often pivotal changes need to be made to the data to enable successful production. As long as the creator grants permission to make such changes, then this argument is surely defunct. In reality, the high cost of the machine time does not afford the luxury of much trial and error. As is often the case, objects produced completely digitally are by necessity expensive, due not only to the accessibility and time required by the machines,



CAD drawing and rapid
prototyped model in wax
of *Bubble Jewellery*.
Photo: Lynne MacLachlan



Paper prototype and CAD drawing for *Self Fold #1*.
Photo: Philippa Brock

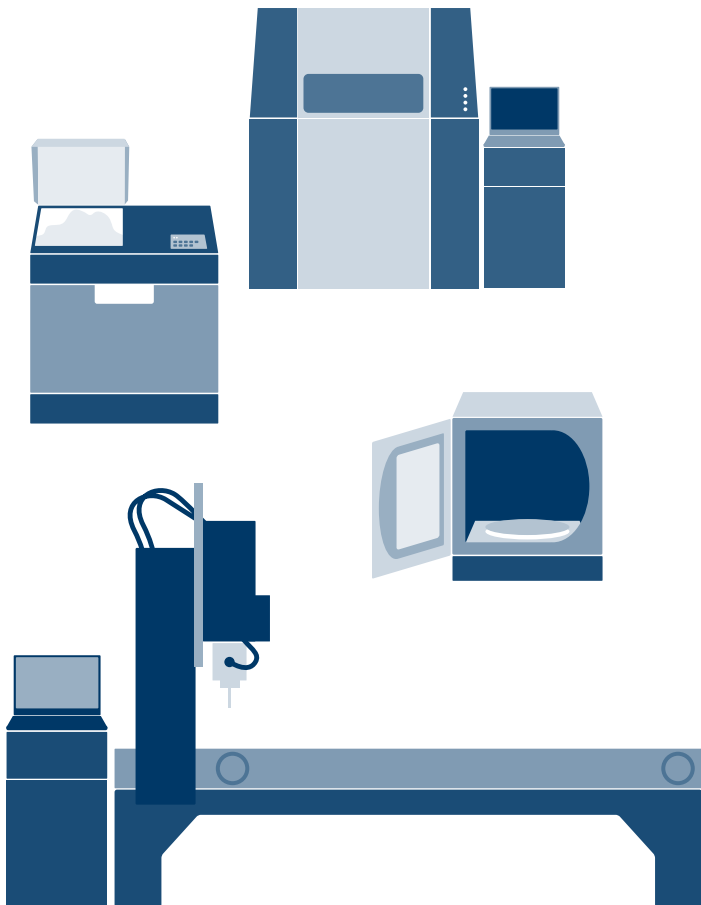
but also to the often extensive 'invisible time' spent on CAD development, the rectification of digital errors, the choice of materials and the added time of any hand-finishing. In time, as such machines become more commonplace, costs may be reduced.

The bureaus themselves are often sterile environments – due to the operational requirements of the machines – and therefore the general atmosphere is different from most workshops where noise, heat, dirt and dust often prevail. Nonetheless, these 21st century workshops are still central to the creative buzz and enthusiasm of the maker.

The Selection

When selecting the work for this show, I have been guided by one principal criteria of the Crafts Council: that the makers must be UK-based. Beyond that, my search has led me to research departments where many of the most experimental digital developments take place, for example University College Falmouth where the research group Automatic is based, or the University of the Arts, London, where many digital textile print and weave advances are made, as part of the Textile Futures Research Group.

The search into independent studios has required a more thorough questioning of the use of digital applications. Are these technologies being utilised



Digital Fabrication Machines: (clockwise) Rapid Prototyping machines, 3D Scanner, CNC Router

as an efficiency tool in the design process? I've sought to find those makers who are integrating digital technology into the very substance of their work, enabling them to define a new conceptual and material language in response to and as a result of pivotal technological advances.

Within that mix, I've aimed to identify exemplary work across disciplines traditionally associated with craft: furniture, textiles, functional-ware and jewellery. All along, I've been interested in physical outcomes and never considered the inclusion of conceptual, screen-based simulations. In my search, it has become clear that the best work is produced when a craft practitioner marries their existing skills, aesthetic sensibilities and knowledge of materials with the possibilities of the digital tools available to them today. It is those who have challenged their own thinking as much as the capabilities of the machinery who have been included in Lab Craft.

'Digital' and 'Craft'?

For some, the words 'digital' and 'craft' don't marry naturally in the same sentence. Digital processes are often assumed to be too linear, rigid and mathematical to fit the more human-centred definition of craft – where time, patience, evidence of hand skill, rarity, chance, snap decisions and risk of failure are all contributing factors to an object's charm and value.

Contemporary craft need not be defined by genre, it can include a wide range of media, but whatever the medium, craft practice is at the core of the making process. It is a combination of hand, mind and eye – the technical mastery of tools, materials, aesthetic sensibility and design skills.

The question remains: how can craft practitioners manipulate technology to create a unique visual language? How can one shape the technology to the user, rather than being constricted by established data algorithms? Or should practitioners be investing in understanding and developing their own code? Does the software's standardised toolset risk eroding the autonomy of the individual? And if so, can the software and hardware somehow be unraveled, or even hacked?

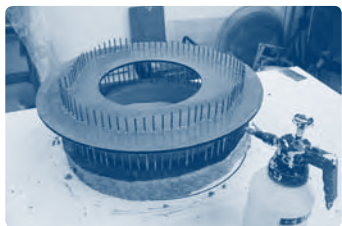
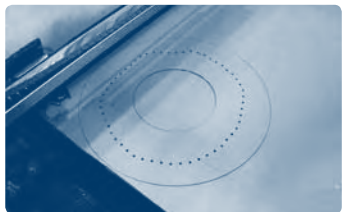
Lab Craft

This exhibition aims to answer some of those questions, and many of the works reveal that exploitation of the flaws in the digital technologies is very much part of the maker's journey. Indeed, digital and handmade elements often coexist and overlap, sometimes on practical grounds whereby one process is simply more suitable than the other, or as a way of adding aesthetic and textural complexity to soften a digital aesthetic which is sometimes deemed too 'perfect'. As some of the works suggest, hand intervention is very much celebrated within the digital context.

On my various visits to meet makers, I have witnessed the digital/craft-making process which has educated me in the incredible complexity of the digital 'tools' now available to the 21st century craft practitioner. It soon struck me that the energy invested in learning, mastering and ultimately manipulating the software and hardware to perform in entirely new and unseen ways is a pioneering craft in its own right. The fact that creative practitioners have evolved in such a way as to have developed and adapted interfaces and technologies that enable us to create objects that could not, and would not, have been made previously by a human hand is confirmation that craft practice has entered an unprecedented new era.

During my research amongst the digital community it was a sensitive issue as to whether or not objects derived from digital processes warrant being labelled as 'craft'. Perhaps others feel that traditional processes are under threat? "I'm not nostalgic about traditions," stated one practitioner. "I live as part of the digital generation so it is logical that I should fully embrace it. It is my craft." These sentiments were echoed by many others. This may be a matter-of-fact response, but it would appear many of the makers included in Lab Craft find themselves having to continually justify their work's status amid craft circles.

Within a historical context, computerisation is certainly a recent development. To emerging



Digital and manual processes for the production of *Dotted One Liners*. Photos: Tavs Jorgensen

generations, however, life without such technologies is unimaginable. Indeed, whether we like it or not, the presence of digital technologies is totally ingrained in our daily lives today. To a younger generation, the terms 'analogue' and 'mechanical' are redundant as they fully embrace the 'digital age' and the seemingly endless opportunities it offers. In light of this, it is hardly surprising that our material world is being shaped by the advent of revolutionary digital tools and production capabilities.

It is my hope that Lab Craft, through the complexity and diversity of its exhibits, will widen the debate and ultimately cement digital practice within the very fabric of 21st century craft.

Makers



8hertz

2010 • Polyamide

1234lab are an international collective, comprising Sarat Babu, Stefan Dzisiewski-Smith, Guillaume Drapier and Hermann Trebsche, who focus on using highly experimental processes to create products with real enterprise potential. Their work to date draws on the theme of translating soundwaves into physical objects. Along with *8hertz* jewellery, they have collaborated with chiptune musicians to produce *4four*, a tool reinforcing the interplay between composition and playback and *1000faces*, walls that mirror their acoustic environment physically.



→ www.1234lab.org

Gary Allson

Woven Wood

2010 • Oak

Cornwall based Gary Allson trained at Wimbledon School of Art and the Royal College of Art, graduating in 2001. Whilst at the Royal College of Art Allson specialised in Design Products. For a number of years Allson worked in industry with companies such as Raffo Design Associates and Habitat. His research interests and practice involves the use of digital production and cross-disciplinary collaborations. Allson combines his practice with teaching at University College Falmouth, exhibitions and commissions. His primary material is timber and through the use of hand processes he develops explorative surfaces and forms that are both functional and ornamental.



→ www.garyallson.co.uk

Assa Ashuach

Assa Table Loop Lights

2010 • Polyamide

Product and furniture designer Ashuach studied at the Betzalel Academy of Art and Design in Jerusalem and later completed his MA Royal College of Art at Ron Arad's Design Products department in 2003. Assa Ashuach Studio, established in 2003, is based in London. His *OMI Light* was one of the first 3D printed products to be distributed to a mass market. In 2008 Ashuach was invited to lead the new cross-disciplinary MA Design Suite at London Metropolitan University, Sir John Cass Art Media & Design. Most recently he has co founded Digital Forming ltd and UCODO ltd (User Co Design Objects) and was awarded government funding to develop his vision of embedded 'open (modifiable) 3D products' during the London Science Museum's Centenary anniversary.



→ www.assaashuach.com

Tomoko Azumi

Georgian and Victorian Reclaimed Roof Tile Birdhouses

2009 • Reclaimed roof tile, pine

Azumi trained as an architect at Kyoto City University of Arts, graduating in 1989. After working for an architectural practice in Tokyo, she went on to study furniture design at the Royal College of Art from 1993–95, and opened design practice AZUMI with Shin Azumi in London. In 2005 she set up her own practice TNA Design Studio. She has also been involved with the TEN design collective who work together annually to explore issues of sustainability in design. Azumi teaches at the Royal College of Art and is on the selection panel for IMM Cologne, the Good Design Award, Japan and 100% Design, London.



→ www.tnadesignstudio.co.uk

Tord Boontje

100 Years (produced by Kvadrat)

2010 • Trevira CS

Boontje first studied industrial design at the Design Academy in Eindhoven 1986–1991, and then went on to study for a Masters at the Royal College of Art from 1992–1994. Studio Tord Boontje was founded in 1996. Boontje lived and worked in London from 1995 to 2005, when he moved his home and studio to Bourg-Argental, France. In 2009 he took up his appointment as Professor and Head of Design Products at the Royal College of Art, and continues work at his own studio now located back in London. Boontje's work can be found in many public collections including MoMA and the Cooper Hewitt Museum, New York and the Victoria and Albert Museum, London.



→ www.tordboontje.com

Melanie Bowles

Digital Shibori

2010 • Silk crêpe de Chine, silk organza

Bowles is a digital textile designer, Senior Lecturer at Chelsea College of Art and Design and author of Digital Textile Design. She is passionate about digital textile design and its relationship to traditional textile design and digital technology. Bowles is currently working on a new publication about digital textile design projects, and her work has recently been exhibited in the Trash Treasure exhibition at the Science Museum and Re- Think, at Audax Textile Museum, Tilberg, Netherlands. She is also collaborating with Dr Emma Neuberg on a series of Slow/Fast textile workshops at the Victoria and Albert Museum, which looks at historical reference and its translation through digital technology.



→ www.melaniebowles.co.uk

Philippa Brock

Self Fold #1 & #2

2009 • Silk organzine, paper, silver lurex, elastemeric

Philippa Brock is the Woven Textile Pathway Leader at Central Saint Martins College of Art and Design, an independent International Textile Researcher and Designer/Artist with a portfolio practice. Her practice lies in CAD/CAM woven jacquard. Her work ranges from researching and developing SMART woven textiles through to designing trend packages, designing woven textile swatches for the International textile industries and exhibiting textiles. Pieces of her work for the science/art project: Nobel Textiles have recently been acquired by the Crafts Council for their permanent collection.



→ www.tfrg.org.uk/node/3568

Committee

Lost Twin Ornaments #1 & #2

2009 • Found objects, polyamide, lacquer, sycamore

Lost Twin Ornament #3

2009 • Found objects, plaster

Committee is run by Clare Page and Harry Richardson, who met whilst studying for Fine Art degrees. Since that time they have studied the crafts of machine knitting and hand-crafted cabinet-making respectively, developed a derelict space in Deptford into an ad hoc studio and gallery, before beginning to work within the design industry for companies such as Topshop, Moooi, SCP, Lladro and The Rug Company. Committee has come to design products as varied as lighting, rugs, ornaments and chairs, textile and wallpaper, whilst also maintaining a studio practice that produces self-initiated works, which follow their own academic interests.



→ www.gallop.co.uk

Shelley Doolan

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Iteration 512

2010 • Glass

After graduating in 2007 with a degree in Three-Dimensional Design: Glass, Doolan worked as Artist in Residence in the Glass Department at the University for the Creative Arts, Farnham, enabling her to develop her practice and gain valuable teaching experience. In April of 2009, she was awarded Arts Council Grants for the Arts funding for a research project focusing on the application of 3D CAD modelling within a craft context. In February 2010, Doolan took up an offer of a PhD Studentship at Swansea Metropolitan University within the School of Architectural Glass.



→ www.shelleydoolanglass.com

Zachary Eastwood-Bloom

Information Ate My Table

2010 • Beech

Eastwood-Bloom grew up in Yorkshire in the 1980's. On leaving school he attended an art foundation course where he discovered clay and the three-dimensional form. From there he went on to study for a degree at Edinburgh College of Art, where he was introduced to digital three-dimensional design programmes. While attending the Royal College of Art in 2008 Eastwood-Bloom started to use processes such as Rapid Prototyping and CNC milling to assist in realising his three-dimensional designs.



→ www.zacharyeastwood-bloom.co.uk

Michael Eden

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The Babel Vessel #1

2010 • Nylon, mineral coating

After 20 years as a studio potter, Eden undertook an MPhil research project at the Royal College of Art. This explored how an interest in digital design and manufacturing could be developed and combined with the craft skills he had acquired during his previous experience. Following this period of study, Eden has continued to create a series of pieces, inspired by historical objects and contemporary themes. The work further explores the relationship between hand and digital tools, investigating experimental manufacturing technology and materials. This way of working has allowed Eden to extend his practice into other areas such as glass and furniture.



→ www.michael-eden.co.uk

Jo Hayes Ward

Random Rings and Lace and Pattern Brooches

2007–2010 • Silver, aluminium, stainless steel

Hayes Ward holds a degree in Silversmithing and Metalwork from Camberwell College of Art and graduated with an MA in Goldsmithing, Silversmithing, Metalwork and Jewellery from the Royal College of Art in 2006. The complexity of her work and the need for perfect accuracy, particularly with interlocking parts, has led Hayes Ward to pursue new technologies. Creating her designs in a virtual environment she employs rapid prototype technology alongside traditional jewellery techniques. Hayes Ward won the UK's New Designer of the Year Award in 2006 and is a recipient of the Crafts Council Development Award.



→ www.johayes.com

Liam Hopkins

(Lazerian)

Bravais Armchair

2009 • Cardboard

Hopkins studied Three-Dimensional Design at Tameside Technical College and then went on to obtain a degree in the same subject from Manchester Metropolitan University; discovering a niche in the design and making of furniture. He is heavily influenced by the structures and colours of nature, especially the flowing form of trees. In 2006 Hopkins set up studio Lazerian in Manchester, where he develops and creates his own experimental designs, collaborating with other designers and producing other chosen designers work under the Lazerian brand, as well as working on unique commissions for clients worldwide.



→ www.lazerian.co.uk

Tavs Jorgensen

Dotted One-Liners

2009 • Glass

Danish born Jorgensen is a freelance designer and research fellow at the Automatic Research Group, University College Falmouth. Jorgensen's research is predominately focused on investigating how new computer interfaces can facilitate more personal and expressive aesthetics in artefacts created using digital tools. Recent projects have also explored borderline areas between 2D and 3D drawing using CNC technology. Originally trained as a craft potter, Jorgensen has been running his own design consultancy since 1995. In addition to his commercial work and research practice, Jorgensen also teaches on the Ceramic and Glass course at the Royal College of Art.



→ www.oktavius.co.uk

Chae Young Kim

32

Knitted Room

2010 • Paper

Young Kim first studied Fine Art and Visual Communication at Seoul National University, from 2001–2006, and then went on to attend Chelsea College of Art and Design, graduating with a degree in Textile Design in 2008. Utilising this background and experience Young Kim's work pushes the boundaries of digital textiles and print to create a new look with the expert use of digital software. From her personal experience, she studies the relationship between people and their environment and explores the theme of urban camouflage.



→ www.chaeyoungkim.com

Lynne MacLachlan

Bubble Jewellery

2010 • Silver, quartz, pearls

After studying for a degree in aerospace engineering, MacLachlan returned to education at Duncan of Jordanstone College of Art and Design to undertake a degree in jewellery design. Upon graduation she received several prizes for her work and exhibited around the UK and in Europe. Following this MacLachlan went onto study Goldsmithing, Silversmithing, Metalwork and Jewellery at the Royal College of Art, graduating in 2010. Her current work is concerned with the digital generation of patterns and structures, inspired by the natural world, to create delicate and complex forms to adorn the body.



→ www.lynnemaclachlan.co.uk

Geoffrey Mann

Cross-Fire Wine Glass, Teapot and Knife

2010 • Glass, ceramic, resin, metal-plate

Shine

2010 • Bronze, silver-plate

Mann is a Scottish artist, designer and lecturer whose fascination with transposing the ephemeral nature of time and motion has created a studio practice that challenges the existing divides between art, craft and design. He has exhibited in national and international venues including MoMA, New York, International Bombay Sapphire Awards, London and Milan, Jerwood Contemporary Makers, London, MAD, New York and the European Glass Context in Denmark. In 2008, Mann was awarded the World Craft Council Prize for glass and in 2009 won the Jerwood Contemporary Makers prize. Mann's works are included in the MoMA, New York, Design and Architecture collection and MAD, New York, Design and Applied Arts permanent collections.



→ www.mrmann.co.uk

Justin Marshall

Automake Collection

2008-2009 • Polyamide, dyed nylon, copper-plated nylon

Dr Justin Marshall is a Research Fellow working within Automatic, the 3D Digital research cluster based at University College Falmouth. He is a practising maker and researcher with a diverse training in range of visual art and design disciplines. Over the last ten years his research has involved investigating the integration of digital technologies into both art and craft practices. Recent projects have concentrated on the role of digital technologies in building new relationships between independent makers and industry, and to refigure the relationship between maker and consumer. Since April 2009 Marshall has been involved a project investigating the role of bespoke design in facilitating digital inclusivity.



→ www.justinmarshall.co.uk

Drummond Masterton

Terrain Cup

2005 • Aluminium

Decagon

2010 • Aluminium

Drummond Masterton trained as a 3D designer, at Grays School of Art, Aberdeen and at post-graduate level at the Royal College of Art, where he graduated from the Metalwork and Jewellery course in July 2000. He has exhibited in the UK and Europe for the last ten years and has works held in the collections of the National Museum of Scotland, Edinburgh and the Herbert Museum, Coventry. He is currently employed as a Senior Lecturer in Three-Dimensional-Design, and a Research Assistant in 3D digital production, within the Automatic research cluster, at University College Falmouth.



→ www.flickr.com/photos/dmasterton/

Gareth Neal

Louis

2010 • Oak

Neal graduated from Buckinghamshire University in 1996 with a degree in Furniture Design and Craftsmanship. His work has received critical acclaim and has featured in many publications and exhibitions, both in the UK and internationally. Selected exhibitions include Collect at the Victoria and Albert Museum, London and The Unexpected at Sotheby's, New York. Neal's furniture design practice was established in 2002 and is currently located in the creative heart of East London. Neal specialises in the production of unique pieces, which are exclusively developed for individual clients and companies. His practice combines the technical modes of 3D computer drawing and CNC processes, with the intricacy of professional craftsmanship.



→ www.garethneal.co.uk

Daniel O'Riordan

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Ripple Tank Table

2010 • Oak, glass

Daniel O'Riordan was trained and works in Bath. He has worked as a Ceramic Artist, Interior Designer, and Lecturer in Three-Dimensional Design and Contemporary Craft. In 2008 he decided to take a two-year sabbatical from full-time teaching to try and synthesis his own practice and develop new work and working methods. O'Riordan became interest in new technology whilst teaching, but often found the results to be sterile and other worldly. His aim is to take a 'craft' approach to the use of technology and rapid prototyping, experimenting and manipulating the processes involved in the production of objects.



→ www.orchardstudio.co.uk

Jo Pierce

Lost in Digital

2010 • Cotton

Pierce is a designer-maker of wallpaper and interior textiles. Since completing an MA in 2003 in Design for Textile Futures at Central Saint Martins she has continued her practice through her company Re-surface Design. Continuing also to lecture at Central Saint Martins and the University College for the Creative Arts (UCA) in Farnham, Pierce was Course Leader for the BA Textile Design and MA Contemporary Crafts (Textiles) at Farnham where she was part of the UCA Crafts Futures research cluster and a founder member of the experimental textile group Circle. She is now in the role of Department Leader for the Print pathway on the BA Textile Design course at Central Saint Martins and a member of the Textile Futures Research Group.



→ <http://tfrg.org.uk/node/8481>

Ismini Samanidou

40

Water

2008 • Cotton, linen, silk, paper, metallic thread

Woven Wood

2010 • Oak

Athens born Ismini Samanidou trained at Central Saint Martins and the Royal College of Art specialising in woven textiles. Her practice involves designing and making textiles for exhibitions, commissions and collaborations focusing on the use of digital technologies and craft making. Samanidou has travelled and researched textile techniques worldwide, most recently spending nine weeks in Bangladesh as an artist in residence with the British Council New Silk Road project. She is the recipient of the Next Move residency and the Crafts Council Development Award and in 2009 was jointly awarded the Jerwood Contemporary Makers award for a large scale textile installation.



→ www.isminisamanidou.com

Timorous Beasties

Chair upholstered with 'White Moth
All Over'

2009 • Wood, linen

Established in 1990 in Glasgow by Alistair McAuley and Paul Simmons, Timorous Beasties are renowned for distinctive style and quality of printed fabrics, wallpapers, and interior products. They hand-print their wallpapers and fabrics, but also work with other manufacturers to produce lace, jacquards, lighting, rugs and ceramics. Recently they have produced successful collections for Brintons Carpets, collaborated with brands such as Nike and Famous Grouse. Currently Timorous Beasties are working on a new collection of rugs for Brintons, designing stone cladding for several building projects, and a woven fabric for Bute Fabrics.



→ www.timorousbeasties.com

Nina Tolstrup

Branch Out

2009 • Iron

Tolstrup's design studio Studiomama is situated in the East End of London. Studiomama designs products, furniture, interiors and accessories for companies including Habitat, Lexon, Trip Trap, E&Y, The Danish Embassy in London, Wentworth, Twentytwentyone and Greenwich Village. Studiomama won Best contribution to 100% Design for the curation and exhibition design for Made in Denmark. Tolstrup is consulting professor at the Syracuse University, a member of 100% Design's advisory board and curator of the Danish Craft Collection. Previously Tolstrup worked as design manager for Eleven Danes and was examiner at the Danish Design School and a board member in the Designfondation with a budget under the Ministry of Cultural Affairs.



→ www.studiomama.com

Daniel Widrig

Cloud Like

2009 • Polystyrene

Widrig studied architecture in Germany and the UK. After graduating from the Architectural Association in London with an MA in Architecture and Urbanism in 2006, he joined Zaha Hadid Architects. Since establishing his studio in London, Widrig has worked on architectural concepts, products, objects and experimental furniture editions. His work has won several awards including the FEIDAD Merit Award 2006, the Swiss Arts Award 2007 and has been internationally published and exhibited. He is currently artist-in-residence at the German Academy, Villa Massimo in Rome.



→ www.danielwidrig.com

Your comments:



Visit www.labcraft.org.uk to tell us what you think about the exhibition. Join the discussion about this exciting and developing area of craft practice.



A Crafts Council Touring Exhibition

The Crafts Council's goal is to make the UK the best place to make, see, collect and learn about contemporary craft.

www.craftscouncil.org.uk

Curator	Max Fraser
Exhibition co-ordinator	Charlotte Dew
Exhibition design	t.n.a design studio
Exhibition production	Amos Marchant
Graphic design	OPX
Films	Spotlight Productions
Photography	Ed Reeve

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METROPOLITAN WORKS
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Code guide

- 3D Scanning
- CAD: Computer Aided Design
- CAM: Computer Aided Manufacture
- Computer Numerical Control (CNC) Milling and Routing
- Digital Textile Printing
- Electronic Jacquard Loom
- Laser Cutting
- Rapid Prototyping or Manufacturing
- Water Jet Cutting

→ See Glossary inside backcover

→ For more information visit www.labcraft.org.uk

Glossary

This glossary defines and describes the range of digital technologies used to create the objects in Lab Craft.

Each technology has a colour-code, which can be cross-referenced with the coloured dots on the object captions.

The majority of objects in Lab Craft have been produced using a mixture of digital technologies and hand techniques such as drawing, casting, cutting, glazing, lacquering, metal-plating, polishing and varnishing.

- **3D Scanning**

A 3D Scanner can be used to digitally record the three-dimensional properties of an object, to create a CAD file. The digital version of the object can then be manipulate or recreated. A digitising arm is a type of 3D scanner.

- **CAD: Computer Aided Design**

The use of computer software as a tool to design an object. A CAD file is required to control a CAM machine.

- **CAM: Computer Aided Manufacture**

The use of computer software to control a machine tool or process. A CAM machine requires a CAD file to work from.

- **Computer Numerical Control (CNC)**

- Milling and Routing**

CNC milling and routing machines can cut three-dimensional objects or surfaces, using a CAD file, from a solid material such as timber, aluminium, PolyStyrene foams and Carbon Fibres. The machines can cut along three or more axis simultaneous, enabling 3D forms to be created.

- **Digital Textile Printing**

A digital textile printer uses speciality inks to print directly on to fabric, leaving a 2D pattern or image. The ink is absorbed directly into the textile fibres and sealed with steam. A digital textile printer is controlled by a computer using a CAD file.

- **Electronic Jacquard Loom**

A Jacquard Loom is a mechanical loom, used to weave complex textile patterns. An Electronic Jacquard Loom is considerably faster and controlled by a computer using a CAD file; a pre-digital version would have been controlled by punched cards.

- **Laser Cutting**

A laser cutter can cut through a material or engrave a pattern on to the surface using a CAD file. The technique can be used to cut a range of materials, including plastics, textiles, wood, board and paper. It can not be used for metal, glass or reflective materials.

- **Rapid Prototyping or Manufacturing**

Rapid prototyping machines 'print' in three dimensions from a CAD file. The object is built up layer-by-layer; each new layer is bonded or melted into the previous one.

Rapid Prototyping can be undertaken in a variety of different materials, for example: polyamide powder or nylon, plaster bonded with glue, photo-polymer resin, bronze alloy, steel, stainless steel or cobalt chrome. Types of rapid Prototyping and manufacturing include:

- ^A **Selective Laser Sintering**
A type of rapid prototyping or manufacturing which builds three dimensionally using a polyamide powder.

- ^B **3D Printing**
A type of rapid prototyping or manufacturing which prints three-dimensionally using a plaster based material bonded with glue.

- ^C **Prefatory Three Dimensional Printing**
A type of rapid prototyping or manufacturing which prints three dimensionally using photo-polymer resin cured with glue.

- ^D **Direct Metal Laser Sintering**
A type of rapid prototyping or manufacturing which prints three dimensionally using a variety of metals, including bronze alloy, steel, stainless steel or cobalt chrome.

- **Water Jet Cutting**
A water jet cutter uses a fine jet of water, mixed with an abrasive matter, to cut through a range of hard materials, including iron, steel, titanium, stone, concrete, glass, laminated wood, mirrors and composite resins.