



MACHINE SHOP EXHIBITIONS

Interactive & Interpretive Design

'Creative excellence from concept to completion'

We primarily work on interactive exhibitions, commercials, events and features projects and would normally expect to complete 100-150 projects annually.

Many years of experience within the exhibition industry has given us extensive knowledge of the intricate nature of developing exhibits for use in public environments. Consideration of health and safety, through flow of visitor numbers, life spans, maintenance and serviceability are integrated with exciting and innovative designs to capture the audience's attention and 'get the message across'. Our track record shows low maintenance and call-out figures on installations and interactive exhibitions, giving peace of mind and negligible down time for operators and venues.

We have extensive experience in floor effects involving pyrotechnics, wind, rain, water, snow, smoke etc.

Our experience also comprises of work on models, miniatures, animatronics, stop-frame animation, sculpting, mechanical rigs, liquids, foods, large and small-scale engineering, underwater work, flying and rigging.

A long standing involvement in designing and building illusions for television and live performances has given us extensive knowledge of the magicians craft and brought about many further commissions incorporated into shows, launches and events.

We have our own Studio facility, Fries Mitchell 35mm camera and high-speed digital video camera for pre-visualisation, as well as all the latest Non-Linear Editing software. This means that we have the ability to pre-visualise high-speed shoots or even shoot live action, stop-frame or model/miniature inserts for your project in-house.

During the past fifteen years we have built up one of the country's leading interpretative design, effects and model making companies. Increasingly we have become involved at the early stages of a project where our experience and intuition enables the most effective use of any budget.

As consultants we can advise upon the practical and budgetary implications of an idea from conception to completion, thus preventing the expense and frustration of 'blind alley' design. The company uses its innovative and talented staff to fulfil requirements for many and varied clients who are confident that we can provide a design and practical solution, whatever the challenge may be.

It is our aim to complete any project with flair, imagination and commitment, on time and within budget.

'Our experience is your guarantee'

Key Personnel - resumes

Paul Mann **Managing Director**

BA (Hons) 3 Dimensional Design.

Special Effects Designer/Senior Supervisor **Founder of Machine Shop**

- Trained in Pyrotechnic handling and operation.
- Working full-time in the special effects industry since 1986.
- 9 years experience working in the BBC visual effects department.
- Extensive training in special effects and specialist training in pyrotechnic uses, underwater rigging and diving, budgeting, studio and safety practices
- Qualified underwater diver with credits on programs such as Walking with Dinosaurs and Planet of Beasts.
- Puppeteer with numerous credits on commercial and film.
- Experience on over 2000 projects as Designer/Supervisor
- Worked extensively within the field of interactive exhibitions following the formation of Machine Shop in 1993.
- Managing Director and Senior Supervising Designer with overall responsibility for the work of Machine Shop and its future direction.

Alex Phillips

Design Supervisor

Machine Shop 2005-

- Responsible for a broad range of large-scale projects such as the 400 m² interactive gallery at Snibston Discovery Centre, The Dino Jaws Exhibition at the National History Museum and the prestigious Weller Astronomy Gallery at the National Royal Observatory.
- Various smaller projects include works in the London Transport Museum, the National Army Museum, HMS Trincomalee, Wells Cathedral and Kew Gardens.
- Recently supervised the production of 27 interactives for the new 'Great Museum of The North: Hancock' Exhibition and also the 'Wallace and Gromit present a World of Cracking Ideas' Exhibition at the Science Museum. Presently overseeing development of Ashmolean museum in Oxford

HB source, London Jan 2001 - 2005

- Project Manager responsible for two areas in the Thinktank Museum of Science and Industry, Birmingham (29 exhibits), Chatham Dockyard (13 exhibits), Falmouth Maritime Museum (11 exhibits), various projects at the Imperial War Museum, Famous Grouse Distillery and Discover at Stratford in East London.
- Took over the running of the workshop with the emphasis on maintenance and health and safety issues following the reformation of Harris Blyth as HB.Source.
- Carried out maintenance visits throughout the UK on many exhibits previously created by the company.

Machine Shop 1994-Jan 2001

- Design Supervisor.

Special effects modelmaker 1984-1994

- Staff and freelance for various organisations.

UMI robotics 1982-1984

- Prototype engineer.

Vickers Defence systems, Newcastle upon Tyne 1976- 1980

- Mechanical and production engineer.

Charles Trevelyan College of arts & Technology

- O-Tec cert in Mech. & prod. Eng.

Stephen Loible
Design Engineer

BSc (Hons) Industrial Design Engineering Brunel University 2000-2004.

Machine Shop 2007-

- Recently completed design-engineering and developing 27 interactive exhibits for the new 'Great Museum of The North: Hancock' Exhibition, as well as the 'Wallace and Gromit present a World of Cracking Ideas' Exhibition at the Science Museum.
- Recently completed supervision and design roles for a set of large-scale interactive stage props for the 2009 Take That Circus Tour.

2004-2007 HB Source Ltd, London.

- Working as a Design Engineer for the past 3.5 years.
- Involved in the hands-on manufacturing phase of the interactives, installations and site work, through to design and development meetings with clients.
- High level user of Solidworks 2007 CAD system for full Technical Specification.
- Active role in all areas of the company with a real 'getting the job done' attitude.
- Manages contracts from start to finish whilst being used to working with large teams of designers, project managers and sub contractors for more complicated contracts.
- Wide knowledge of materials, manufacturing techniques and suppliers along with solid communication skills with new and current suppliers and contractors.

George Waite
CAD/CAM technician

BA Model Design and Special Effects

Machine Shop 2006-

- Responsible for workshop CNC machining and liaison with outside CAD/CAM subcontractors.
- A knowledgeable and competent craftsman in all disciplines.

Various product and architectural model making companies (2005-2006)

- Architectural and product modelmaking for a variety of leading international companies.

University of Hertfordshire, BA model design and special effects (2003-2006)

- Included block release to work on several major feature films.

Barking College, Btec diploma industrial modelmaking (1997-1999)

Apprentice Gunsmith (1993-1997)

Dan Smith
Design Assistant

BSc (Hons) Computer Aided Product Design.

Machine Shop May 2006-

- Broad range of technical and creative skills and work, spanning from medical device design to script writing and film direction.
- Sound understanding and practical experience of computer hardware, software and networking.
- Proficient in a broad range of computer disciplines including CAD, Non-linear Editing, Video Encoding, Photo manipulation, Web design and Flash animation.
- Trained in design practices and theory and has a firm understanding of design engineering concepts
- Recent projects include Royal Observatory Gallery 'Time and Space' at Greenwich. Content and structural design for new website 'www.thefirefliesride.com' for the leading directors and producers in the London advertising industry.

Director/Production designer, film short 'Untitled v166' 2008

Director/Production designer, film short 'Eith' 2007

London Unit Art Department, feature film 'The Escapist' 2007

Production Designer/Art director – 'The Wow Life' 2006

Design Engineer

Nickel-Electro Ltd, June 2003 – July 2004

- The 'AirLab' (Nickel-Electro Ltd): A Wireless device. During this project wrote university dissertation on Wireless Technology.
- The 'Soniclave XE' (Nickel-Electro Ltd): A device that uses four layers of technology in conjunction for a safer, cost-effective and more effective alternative to the steam Steriliser (Autoclave).

Glen Moore
Senior Technician

HND (Model making) University of Herts.

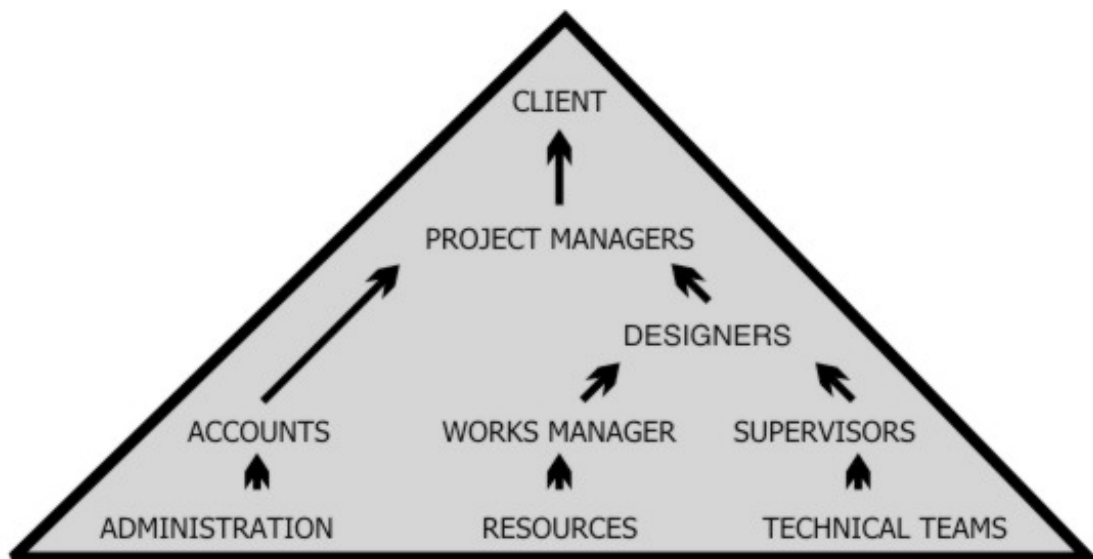
Machine Shop 1997-

- Apprenticed mechanical engineer at British Aerospace
- Pyrotechnic usage trained and certified.
Certified First Aider
- Responsible for implementation of H & S procedures and general workshop practices.
- Senior Technician, responsible for the internal interface of all sub-contracted in engineering products and mechanisms.

Jacquie Scott
Head of Administration/Accounts

Machine Shop 1995-

- Responsible for the day-to-day running of Machine Shop and the company premises.
Fierciously efficient, knowledgeable and able.
- Keeps track of projects as they run through their many stages within the company.
- Certified First-Aider.
- 'Right hand' to all crew and first point of contact with clients ensuring efficient and informative evaluation of the project finances throughout.



Company structure.
Last updated December 2009

Subsidiary Contractors

Machine shop has several contractors whom have a close working relationship and history of in-house collaboration on comprehensive projects with the company. Two of these close associates are described below:

Richard Glassborow **Interpretative Designer**

BA Hons.

Richard Glassborow is a specialist interpretive and interactive consultant with a well-established reputation within the museum and visitor centre industries.

Richard's experience with interpretive and interactive communication has been built up over more than 15 years, working on client teams, design teams and as exhibit maker. This has given him a unique perspective and experience and he is equally at home with front-end strategic and operational issues, high-level concept, content and scheme design as well as the detailed intricacies and practicalities of sophisticated multi-disciplined productions or deceptively simple yet highly effective interactive exhibits.

Clients include:

RAF Museum, Hendon	Opel AG
National Maritime Museum Cornwall	NHS Executive
University of the First Age, Birmingham	British Gas plc
Think Tank Trust, Birmingham	British Airways plc
ECOS, Ballymena	LEGO UK
Bede's World, Northumberland	IBM - Asia Pacific
Marston Vale Trust	Sainsbury plc
The River & Rowing Museum, Henley	Wellcome Trust Hong Kong
Natural History Museum, London	Telecommunications Ltd.EMI Land
Science Museum, London	Design Studio Ltd.
Imperial War Museum, London	Met Studio Ltd.
Museum of London	Brennan & Whalley
National Museum of Natural Science – Taiwan	Ideas (Yorkshire) Ltd.
National Museum of Science and Industry, Jakarta	James Gardner 3D Concepts
Dover District Council	John Sunderland Design Associates
Irish Heritage	Imagination Ltd.
	HP:ICM

Enzo Fiondella

Electronic Engineer and Interactive Programmer

First class BEng (Hons) in Electrical and Electronic Engineering. Accredited by the Institution of Electrical Engineers, BTEC HNC in Electrical and Electronic Engineering.

Key Achievements and Skills

- Wireless network system design and implementation
- Programming languages include C, C++, Assembler, HTML and Java.
- Extensive embedded real-time hardware and firmware design with the 8051, 68HC11 and PIC16/17 and various DSPs
- Familiarity with hardware description languages such as VHDL and AHDL (Altera HDL).
- Completion of many designs using the latest Complex Programmable Logic Devices and Field Programmable Gate Arrays.
- EMC Testing
- ASM hardware design
- Advanced Motor control design
- Multiple designs of MP3 based sound-stores
- Schematic capture, PCB layout, firmware emulation and simulation
- Spice analogue digital and mixed mode simulation etc

Projects as director of Interactive Imagination Ltd.

- FIAT Concept Store (Wigmore Street, Mayfair London) We were responsible for designing and installing a 9 screen 40" NEC LCD interactive video wall complete with 2D gesture interface based on retro-reflective sensing
- Bridge School (Holloway, London) Responsible for the design and installation of several Interactive Exhibits for Atrium space in a school for children with severe learning difficulties
- Design and development of a multi-node Theatre Control System for Cyber Port in Hong Kong. The system is used to synchronise moving theatre doors, plasma screen hoist controls and a moving central lighting rig to other elements of show presentation (www.cyberport.com.hk). Technologies include concurrent multiprocessor programming, Bluetooth sensor feedback, remote radio control and closed loop servo control.
- CE compliant energy saving products for Llumarlite Ltd (www.llumarlite.co.uk) including *Wallbox Dimmer*, *Monitor Miser* and *Neutral-less Intelligent Switch*
- Amnesty International *Photo Album*. An interactive, that is able to capture a person's face without any sort of touch interface. The capture image is displayed on 1 of 18 monitors. Uses a proprietary face recognition algorithm to prevent multiple images of the same person entering the album.
- ASDA and Tesco GSM remote energy management system. A system enabling area managers to quickly and confidently monitor and modify store energy consumption in real-time via a web enabled laptop.
- RGB sensing Camera connected via DMX512 to an extremely high-power 30 channel LED driver control board used by Leicester City Council in permanent display lampposts dotted around the city.