

This work has been submitted to **NECTAR**, the **Northampton Electronic Collection of Theses and Research**.

Conference Proceedings

Title: Playing at the crossroads

Creator: Thomas, V.

Example citation: Thomas, V. (2013) Playing at the crossroads. In: *ISBE 2013 Conference Proceedings*. London: ISBE. 9781900862264.

It is advisable to refer to the publisher's version if you intend to cite from this work.

Version: Accepted version

Official URL: <http://www.isbe.org.uk/ThomasV13>

Note:



This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](http://creativecommons.org/licenses/by-nc-nd/4.0/).

<http://nectar.northampton.ac.uk/6677/>



Playing at the Cross Roads

Vicki Thomas, Senior Lecturer The University of Northampton
The School of The Arts
The University of Northampton
St. George's Avenue
Northampton
NN2 6JD
01604735500 x3187
vicki.battle@northampton.ac.uk

<http://www.northampton.ac.uk/info/20517/research-in-the-school-of-the-arts/1932/design-research-group-drg>
Creativity, Design, Play, Toys, East Midlands, Education, Enterprise

Objectives;

The Design Research Group (DRG) at The University of Northampton has been engaged in a number of Knowledge Transfer Partnerships (KTP). Three of these KTP's have involved designing toys, games and playthings. The first exhibition's aim was to act as a research tool to contextualize, analyse and draw conclusions from the KTP experience and collaborations with local enterprises. Then use the knowledge to further research the creative value of play and toy design to all in the community. The curating process for ALL PLAY informed the second exhibition. The data collected will be analysed and any findings will add to the overall outcomes of ALL PLAY. The objective of this research is to establish greater insight into the impact in the form of benefits of design initiatives in the production and use of toys and the role of play in society.

Prior Work;

This research is informed by a series of Knowledge Transfers partnerships undertaken by the DRG for Sue Ryder, John Crane Ltd and BCE (Distribution) Ltd. The group has gone on to research the design management implications of these projects for designers and social enterprises.

Approach;

Two exhibitions and a symposium were planned for 2013 (June-July and October-November) to showcase, review and extend the collaboration with the KTP partners. The first was held at the Collective Collaboration Gallery in the Northampton Town Centre. It enabled the DRG to examine and disseminate the experience and demonstrate the benefits of the KTP projects. It enabled further research about the value and impact of the local toy industry in the Northamptonshire, past and present and to forge links with local community and business organizations. The symposium and second exhibition held at the University provides an opportunity to explore current global trends in design for play in the publishing, health, leisure, gaming and interior design industries in more depth. The process of curating the exhibition involved networking and bringing a wide range of experience, theory and case studies together. Creating a ludic play space in the galleries provides for another level for theoretical exploration, research and design.

Results;

Primary research in the form of interviews undertaken into the local toy and play, complements work being undertaken by the Museum of Childhood, indicating that a specific study needs to be undertaken into the regional history of the toy industry. There is scope for DRG to support and investigate further into the international role of toy design and distribution organizations that are based in the East Midlands. The exhibitions highlighted the impact of the DRG's KTP research on different communities and industry sectors. The event emphasized the diverse and shared perceptions of the creative benefits of play. Knowledge was transferred back to the University feeding into teaching and learning and particularly in further collaborative research work.

Implications;

Oral History on the British Toy-Making Industry has yet to be published and its focus is recording the past manufacturing experience and not the dynamic role of creativity and design management in this sector today. The curatorial process has brought together past and present, the local and the global, the practitioner and the academic. The initial research indicates the increasing international importance of creativity and design in the play sector with a focus of enterprises based in the UK. There is an expectation that second set of events will explore and extend the debate further.

Value;

ALL PLAY is the umbrella title for the events and the paper showcases the benefits of the curating process, allowing the DRG to share their Knowledge Transfer research and account for the impact of it and at the same time continue to build collaborations and information about the value of play locally, to the creative industries, social well being across all groups and enterprise internationally.

Introduction

The Design Research Group (DRG) at The University of Northampton has been engaged in a number of Knowledge Transfer Partnerships (KTP). Three of these KTP's have been involved in designing toys, games and playthings. The aim of this paper and the ALL PLAY events was to share the experience and continue to research the value of play and its relevance to enterprise. It is an active process where ongoing established collaborations with local firms and social enterprises will generate new wider community partnerships. "ALL work and no PLAY makes you a dull DESIGNer" is the full title of two exhibitions and a symposium held in Northampton in 2013.

Curating and organizing the exhibition was the first stage of the research process. It enabled the DRG to refresh contacts with existing partners in manufacturing and the design industry, draw on the expertise of staff in other faculties such as the School of Education and link with research being gathered by local and national museums. The first event based in the Collective Collaboration Gallery had a local focus, working with local firms, archives and an existing network of contacts. With the second exhibition and symposium the intention was to expand and strengthen the educational and international context of the project at the University and draw conclusions on the development and progress of local design manufacturing and its impact on the development of 'play'. Described in toy terms it is more about finding the pieces of a jigsaw, bringing histories, case studies, products and academic research together. At this point the puzzle is not finished and there is no expectation that DRG have the complete picture or full argument. There remains an exciting prospect of further research and collaborative work.

The DRG were aware of prior research about play (Huizinga, 1949), on creativity (Johnson, 2007) in education (Moyle, 2010) and toy as culture (Sutton-Smith, 1992). There are studies of the UK Toy industry that cover notions of improving design (Brown, 1998). There is a body of published work relating for each area of the exhibition. Individuals and organisations currently working in the field were approached to contribute to the exhibition and the symposium. The publication of a catalogue or conference proceedings is one of the intended outcomes, along with the submission of academic papers about the events at The International Toy Research Association Conference in 2014.

Background Information and Research

The KTP schemes are government-funded projects building bridges to allow knowledge to transfer between the University and the wider community, particularly local enterprises. The DRG's partnerships have involved embedding design capabilities into firms that were previously buying and distributing finished products from overseas, rather than designing and creating their own ranges.

The nature of the underpinning research for the partnerships took the form of applied research in the fields of Product Design and Design Management over a period of twelve years with a number of organisations distributing and manufacturing a range of products including toys, games and gifts, signage, phone systems, building products, household goods and train seats mainly in the Northampton region. Three of the partnerships were involved in designing for play.

Randle Turner (2007) applied his research on computer aided design and on creative applications of visualising software together with research on the use of specialist laser cutting and three dimensional printing technologies in creating prototypes, and in introducing and embedding concepts of the design process and design management into the work of the companies. He was the lead academic on all three KTPs included in this paper.

The research undertaken by Derek Attenburrow (2009) and applied in the KTP's was in the area of decision making in the design process. His particular focus was on the importance of drawing in communication across cultural and language boundaries. John Wood's (2010) industrial design experience and research into design for plastic products supported Randle Turner's work with the business partners. He presented joint papers with his KTP Associate disseminating their collaborative research in the Far East before later publication. (Wood and Findlay, 2012)

Friedemann Schaber's research into the use of new materials resulted in a materials library for use in applied research projects including the KTP's. His research on ethical manufacturing techniques and sustainable production was also applied with the companies involved. He has published on the benefits of the KTPs for design management in businesses and social enterprises. (Schaber, 2011, Schaber, 2010, Schaber 2008)

Vicki Thomas's research lies in design history (Thomas, 2012) social and cultural theory (Thomas, 2011) and design management (Schaber and Thomas 2008). Her role in the KTP was contextual and she has had a

research role in these KTPs, situating the product outcomes in a theoretical study of the importance of Play. Friedemann Schaber and Vicki Thomas have collaborated on a series of projects about cross-cultural design and designing for global production. (Schaber and Thomas 2008, Thomas, 2012)

Social and cultural theorists argue that play is a social process found in all cultures. Johan Huizinga (1949) in 'Homo Ludens' explores the meaning of play in different cultures and languages. He stresses that in all cultures,

...play is a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is "different" from "ordinary life". (Huizinga, 1998 p28)

The term he uses to describe this overarching notion of play is "ludic" and covers all aspects of the social behavior or process, as we would define it in the English language. One of the key aspects of his research is his emphasis on a notion of a time and place for play. The DRG's exhibitions created specific play spaces and sections in the exhibitions in order to share and explore the KTP research and experience with others, specifically explore the creative benefits of play.

Brian Sutton-Smith writing in 'The Ambiguity of Play' in 2001 argues that there are some seven rhetorics of play; progress, fate, power, identity, imaginary, self and frivolity. The focus in the exhibitions was on creativity and toy design. In his terms the focus was on "progress" through the educational benefits, "identity" with community aspects and "imaginary" with the creativity benefits of play for all. His argument includes:

"...that play's definition must be broad rather than narrow, including passive or vicarious forms as well as active participant forms, including daydreams as well as sports and festivals"

"...that it can be as momentary as a piece of wit, or can endure as long as the one-year cycles of festivals or the four-year cycles of the Olympics. That it can be spatially as diffuse as a daydream or as articulate as a sports stadium."

"....that play is like language; a system of communication and expression, not in itself either good or bad."

(Sutton-Smith, 2001 p219)

Only when work began on the exhibition were the team aware that this work had important implications on a key regional industry and has the potential to assist in its development. The East Midlands was the major U.K. toy producing area for most of the twentieth century and is still the major distribution center for the toy trade. The East Midlands are literally at the cross roads of the UK on major north and south routes, as well as with good routes to major container ports. In the twentieth century local manufacturers took the lead because they were innovators experimenting with new plastic materials, rotary molding and stamping processes. Much design and development has remained in the region even if products and components are manufactured elsewhere.

The DRG's KTP research have focused on play in the toy trades but the benefits can also be seen across what is termed as the Creative Industries (Smith, 1998). This paper aims to share the group's experience and to bring individuals and enterprises together around research into creative benefits of play to community well-being and the economy as a whole.

Knowledge Transfer Partnerships Experience

The first partnership was with **Sue Ryder Care Direct Ltd** based in Daventry. The charity Sue Ryder provides neurological and palliative care through care homes and they raise funds through a chain of some four hundred charity shops. They retailed goods donated but also non-bespoke items such as novelty giftware, decorative items for the home and toys. They initiated the partnership by approaching The University of Northampton's (TUN) design department to see if they could help them create some products for their shops, so that they could offer their customers and supporters a bespoke range. Randle Turner, the course leader and key member of the DRG introduced and guided them through a KTP application. The partnership involved recruiting a graduate to work as an Associate, employed by the University but based at the Charity. Stewart Betts joined with the remit of embedding a fully functioning design capability into the offices at Daventry. The plan also included a short design project as well longer product development role. The opportunity arose to work with the Daily Mail Newspaper to design a Fantasy Castle that would just be offered to its readership. The gross profit for the charity from the castle was in excess of £132,000 and in addition they benefited by the equivalent of £200,000 of free publicity nationally through the newspaper. The design of the castle was carefully considered for manufacture in the Far East and distribution by mail order, so raised

issues about designing for global production that were then shared with students and through academic conferences.

The charity had always sold dolls houses, which were commonly bought by adult collectors or by adults for children. Stewart Betts designed new houses and furnishings just for the charity shops. He worked with Friedemann Schaber and shared his experience with student cohorts, asking them to design an Art Deco dolls house. This allowed them to explore the history of design and educational theories during the 1930's as well as consider what play means not just for children but also for adults and the growing importance of cross-generational play. The houses had to be designed for production in China so visual communication, ethical, environmental issues had to be considered. (Schaber and Thomas, 2008)

The ideas of early years educational theorists like that of Dr. Maria Montessori, with its stress on the importance of child-sized furniture can be seen in a range of children's stools designed by Stewart Betts and sold by the charity. He went on to design guitars to be sold under the "Ryder" brand illustrating another use of play. The range was to encourage people to start playing but he was asked to develop a guitar to be designed and manufactured by the charity on behalf of the "Lambretta", drawing in different and younger audience for the charity shop, just before these sorts of outlets became sources a fashionable vintage products.

The collaboration between the DRG and Sue Ryder raised their sales turnover by £1,000,000, a rise of over a quarter over the duration of the partnership, and profits went up by £400,000. The Gold Green Apple Award has acknowledged Stewart Betts's achievements for Sustainable Design and the accolade of being a named the Business Leader of Tomorrow for 2008. Stewart Betts contributed to the impact of the research beyond the partnership giving a paper in Portugal (Schaber, Turner and Betts, 2007).

Richard Crocker was the Associate at the second play related KTP, **BCE (Distribution) Ltd**. They produce leisure products such as pool tables and air hockey games from a base in Bristol. The distances between the partners' locations were out-weighed by the shared experience and collaboration. The brief here was to research and design then implement and embed a new design methodology enabling them to create innovative and unique sports products into the company's range. The use of computer-aided design software was key to the success of this partnership. Innovative technology in the company's terms allowed them to do far more to develop their brands, such as Riley, and adapt to a changing global market. Randle Turner played a key partnership role because of his expertise in computer aided design (CAD) software and the developing prototyping technologies. (Schaber, Thomas and Turner 2010)

Graphic design went hand in hand with product development. Four new games tables were designed, two of which went into production. Exhibition stands and websites were designed side by side with new graphics on products. Understanding the importance of play in the leisure market in the UK was important, but Richard Crocker was also called upon to design high-end cues and tournament specified tables for the Chinese market. CAD technology was allowing the firm not only to compete with cheaper global production but it was providing them with the capabilities to export to flourishing markets in China.

The three and a half year involvement was seen as very beneficial for the firm. They were able to cut the costs of out sourcing design for print catalogues and a website amounting to at least £75,000. The value of the numerous brand developments has not been published but the business has continued to expand its markets and Richard Crocker remains central to those developments.

The third KTP was with **John Crane Ltd**; a toy company based in Northampton. The collaboration started with a student toy design project. This coincided with the appointment of a new Managing Director Jonathon Thorpe and it proved to be a valuable learning experience for all concerned. The firm produces high quality wooden and educational toys to schools and playgroups but they also supply own-brand ranges to retailers like the John Lewis Partnership. They had access to design facilities supplied by manufacturers abroad but they had no design facility of their own and were not able to respond quickly to changing markets.

The DRG were able to share their KTP experience and recommended they apply for funding. The bid was successful and an Associate selected. The appointment was made at a time of great change within the company and the Associate was tasked with setting up the design development process and design a new brand of toys for the firm so that they were less dependent on specific Far East suppliers. Due to all the internal changes, John Crane Ltd decided not to continue the KTP after a year, but the collaboration with the DRG continued.

Changes in management were also occurring at Sue Ryder and when a new senior design role arose at John Crane, the DRG was able to suggest Stewart Betts apply for the post. Stewart Betts has been involved with

the launch of the Tidlo Brand for the company and designed twenty-eight new toys for their current collection; including prams, sorting boxes and, of course, dolls houses. BCE and John Crane Ltd testify to the value of design in their current business plans and the role the DRG played in that process.

The Implications of the ALL PLAY Exhibition as Research

The ALL PLAY exhibition was originally proposed by the DRG academic partners at a KTP meeting and actively encouraged by Jonathan Thorpe. He was aware of the history of toy production and the current distribution hub in the East Midlands. The firm sponsored the event by supplying banners and helping with three key sections of the exhibition, which showcased local firms including their own work with the University. These three KTP partnerships form the core of the prior research for the ALL PLAY exhibition. The DRG has been involved directly in eight partnerships generating £742,555 of external funding for the University. The projects have been varied from melamine tableware to train seating. A KTP is two way process and the benefits for undergraduate education have been varied and valuable, from an increased knowledge of design for a global market, through exploring green and ethical issues to simply encouraging them to experiment, play and be more creative.

The exhibition was seen by the DRG as an opportunity to set aside a 'ludic' play space to showcase the research from all three KTPs and to continue to work with the Associates and the companies involved. Jonathan Thorpe saw it as worthwhile for John Crane and the toy trade and he provided links to other enterprises in the region. The plan was to share and learn more about the significance to toy design, production and distribution by working with the local community and enterprises. All those who contributed information and samples to the exhibition were invited to all three events. Press releases were sent out on a local level for the first event and network as widely as possible. There was interest from local radio resulting two interviews.

It was the intention that the first exhibition had a community focus and was set up in an empty shop unit. The space had been taken over by two postgraduate students a year before as a gallery space, "Collective Collaborations", and the DRG worked with them and their contacts to share the research with the town. The exhibition was open in the Gallery from 8 - 29 June 2013. Thirty-six toy firms, designers and organizations were involved. The display included cabinets with vintage items, current products and books that could be played with by visitors.

The response from the public was collected by a head count of visitors, a comment book, and through the construction of communal bunting which allowed more creative and playful feed back. The gallery staff also acted as observers and tried to capture stories and record them.

The first section **Toy Stories** presented examples of four local toy-manufacturing companies Bassett-Lowke, Mettoy, Rosebud Dolls and Burbank Toys. There was a map showing other toys and play firms in the UK, which illustrated the concentration of the toy trade in the East Midlands. The firms included playground companies, toy distributors, games designers as well as manufacturers. The toy firms showcased were all involved in manufacturing innovation and the mass production of toys in the twentieth century, but all have now been taken over and production shifted abroad. Skills developed in boiler making, engineering and the leather trades, had been adapted to new plastic materials and fabrics. Jigsaws and metal toys were die stamped from card and sheet metal and dolls heads were rotationally molded in plastic with their stitched nylon hair. What had been produced in limited number in wood and ceramics could now be produced in volume by machine. Northamptonshire was shown to lead the move to the industrialization of toy production.

Several of these manufacturing firms were bought by foreign companies like Mattel, allowing American firms to trade in the UK and then into Europe. Others are now part of large conglomerates specializing in model-engineered ranges targeting the adult model engineer as much as the child, like Hornby. The John Crane KTP had highlighted the local heritage and the exhibitions allowed the DRG to make contact and start to record a local oral history. In addition it became clear that the toy trade remains important locally. Northamptonshire is now a major marketing and distribution centre for the trade. The DRG research paralleled the British Toy Making project being undertaken by the Museum of Childhood at Bethnal Green into British toy manufacture as a whole.

Films in the exhibition showed toy production at three of the four firms. (British Pathé, 1968, MACE, 1977-1982) Wenman Bassett-Lowke (1937) made his own film it showed model production but also sports activities. It included local Art School students "at play" appearing in a theatrical performance. Bassett-Lowke was involved in the development of the Art Deco swimming baths, where student designed the tile decoration. In the 1930's sport and play were seen as beneficial to all and this is clearly reflected in the film. Current studies also highlight the links between toys, play and architectural design (Kinchin, 2012 and Vale, 2013).

Toys provide an opportunity to scale down, experiment with and test new materials and processes. The mechanical principles - like the wind-up engines on Bassett-Lowke boats and trains, can be seen in a fresh light when one thinks of the effect of Trevor Baylis's wind-up radio and its spinoffs products on the environment and African communities. The toy trade continues to provide space to test out technology, for the last two years recent London Toy and Hobby Fair has showcased firms displaying robot cars controlled by mobile phone apps. It is an industry open to new ideas and innovation. New firms can learn from business histories particularly how others managed design and innovation. A local collector receives regular inquiries from designers working for international toy firms that want to handle vintage toys in order to see how they were constructed. This highlighted the importance in playing with old toys to solve current design problems.

Early Benefits looked at the work of toy firms outside the region that were influenced by the educational and psychological ideas being developed in Europe from the late nineteenth century. The Early Years Education Team at the University became involved developing a time line to show how these ideas become a central feature of nursery and primary education in the UK (Moyles, 2010). There was no attempt to cover this area in depth as it is well researched elsewhere, but to omit the history would have ignored the impetus its provided to designers to create "good" toys.

In the Interwar and Post-war decades, Hilary Page, Paul and Marjorie Abbatt (V&A Museum, 2013), Edward Newmark and the owners of James Galt & Company were studying psychology and child development theories (Page, 1953) and their effect on primary education. They did not simply write, teach and promote these new ideas but they set up companies and shops to sell toys designed to encourage child creativity and intellectual development. They took theory and turned it into playthings. (Brown, 1998)

Hilary Page is at the border of the Toy Stories and Early Benefits sections as he argued that plastics were cleaner and safer for children. He published his research (Page, 1953) and produced stacking, nesting and shape sorters, versions of which are now in every range of educational toys. He also invented the interlocking brick that was later adapted and patented for the rest of Europe by Lego. It allowed Lego to make the transition from wooden based batch production to volume plastics. Hilary Page was certainly an important innovator but was unable to protect and exploit his ideas fully through his Kiddicraft brand.

The border between education and manufacture was narrow and ideas were shared. The research for the exhibition has been encouraged by Galt Toys, as their own archive was destroyed by fire in 2003 and the company had passed through several owners. The designers we interviewed all argued that the firm did not produce toys with the same design values as those held by Galt Toys in the 1960s and 1970s. The DRG were able to bring together personal archive material or interview, three of the designers and illustrators working for the company in these decades: Ken Garland, Roger Limbrick and Barbara Sampson.

Many of the Galt designs are still in production but now made of plastic rather than wood or card. By the 1970s high quality plywood was becoming expensive and Galt's games and puzzles were printed onto card rather than wood. Partial histories of all these firms and some of the designers can be found on line (V&A, 2013) but much has been learnt by comparing their accounts, for example the Galt and Abbatt stories would not be complete without the vision of Edward Newmark – a shop manager who worked for both firms and commissioned the designers. The DRG are particularly interested in the retail buyers' role in design and product development and their approval and understanding was key for John Crane and Sue Ryder (Thomas, 2002).

For many consumers wooden toys and educational toys went hand in hand (Brown, 1992). Plastic had negative connotations of being cheap and mass produced. Plastic toys are easier to produce to meet the ever-improving health and safety standards. Galt, Kiddicraft and Fisher Price started to produce high quality plastic nursery toys. By the 1980's each High Street had an Early Learning Centre that specialized on educational toys (putting wooden train sets ready to play with in their windows). Here again the retailer was promoting well-designed educational toys.

Roger Limbrick, as well as designing for firms like Galt, started a series of specialist courses at the London College of Furniture including designing for disability, a specialist masters degree in the subject and craft based toy design and making. Roger Limbrick was the link to the next part of the exhibition, **Caring Connections** that was set up to showcase the therapeutic benefits of play. Play is good for us what every our age or ability. One need only think of the Paralympic games in London in 2012 and their history, to understand the argument play can be beneficial. The DRG went back to Sue Ryder to include the Stewart Bett's designs for the Fantasy Castle and stools in the exhibition, to display the toys that helped raise funds for the charity's therapeutic work. Most play and games are seen be healthy and are thought to make us all more capable.

But play activities also raise funds. One need only think of the London Marathon or even Red Nose Day to see why play makes money for good causes.

Toys and playrooms are found in schools, hospitals and care homes up and down the country. They are not just provided in children's areas. Architects and interiors designers have to understand play and its benefits. Royal institute of British Architects ran a competition, for an innovative play and garden space at the Royal Hospital London. Increasingly toys are being designed for people with dementia and play activities are being used to help designers and manufacturers understand the needs of an aging population better. (Morante, 2011) Co-design is allowing the consumer to directly affect the finished design solution. Designers are using focus groups and play sessions to help them meet the needs of the aging population (Myerson, 2011). Feedback from visitors recommended the inclusion of toy libraries and the development of soft play areas and sensory rooms in the later show.

Design Futures in the exhibition looked at Stewart Betts's ongoing design work for John Crane and the company's collaboration with Northampton School of The Arts' students. Often undergraduates' play-related research goes no further than the psychological development of a child. The DRG found that play projects make them think about the future, as they consider what younger people may want or need. They have to think about standards and safety. Challenged by a world where toy production is global, trade ethics are brought into question. They learn to communicate visually (Attenburrow, 2010) with designers and manufacturers abroad and overcome cultural and linguistic differences (Schaber and Thomas, 2008). They explore new design tools, such as three-dimensional printing and try out new materials and processes. Most importantly they are more likely to play and experiment. Play projects encourage creativity. Some students return to childhood favorites (e.g. "Transformers") before challenging themselves to create new solutions. The opportunity of working with licensed properties and characters raises questions about intellectual property and the value of design and ownership of ideas.

Global Well-being looked at enterprises promoting play and toy design today. Many of these firms like DKL (Marketing) Ltd and Osborne Sports and Toys are small family run business collaborating together through organizations like the Toymaster and the British Toy and Hobby Association (BTHA). These organisations work together in a market where larger retailers and toy conglomerates offer less choice and expertise to the consumer. William Osborne commented on his visit to the Collective Collaborations Gallery that the relatively small footfall was only to be expected with the continuing recession and changing shopping patterns. The use of a shop unit for the show gave the researchers an unexpected insight into the independent toy retailers' problems and customers.

The educational benefits of play still hold sway and are not questioned by the current local toy distributors. But many are seeking to go a step further. More toy companies are using criteria which Galt and Abbatt pioneered but taking them further:

- Encourage traditional play
 - Boost creative thinking
 - Inspire the developments of one's own imagination
 - Not made of plastic
 - Without batteries
 - Sold in independent toy shops
 - Durable, stands the test of time
 - Without thousands of different functions
- (Slow Toy Movement, 2012)

Wood is back as one of the preferred materials for educational toys but now from sustainable sources (John Crane Ltd). Plastics are recycled and play is used to generate awareness of global issues (Ocean and DKL) Children are encouraged to make toys from waste and found objects. These are packaged and sold as kit assembly play products, circumnavigating some restrictive standards Smaller design-lead producers are generating innovative products and distributors like Asobi are specializing in selling "well-designed" ranges.

Organizations like The BTHA and Play England are promoting play in the community – the benefits are perceived as being far wider than the remits of their member organizations. Playgrounds in schools and the community are being reconsidered again. The exhibition included recent playground projects undertaken by James Engel, an architect who recently joined the DRG. The second exhibition provided an opportunity to explore his work and invite back graduates who now design playground equipment, thus expanding the impact of the KTP research into the play equipment industry. Play is seen as socially good and benefits students and older school children.

Print and publishing formed a secondary story throughout the exhibition. Starting with a cabinet of 'Boys Own' books to games sacks sold by Child's Play. The divide between a book and toy has always been close in the child's world. Hornbooks became simple bats, (Thomas, 2011) paper doll books and activity books of all kinds. Local publishers like W. F. Graham in Northampton produce activity books targeting a number of titles for the older person. However graphics plays a powerful role in the industry. Toys and play merchandise can be part of an integrated marketing campaign, be it soft toys for a comparison website and free gifts on the front of magazines. The dividing lines between publishing, games and films are increasingly blurred. Screens technologies are leading the way to new products. For some manufacturers, the licensed property route is a short cut to product development, "lazy" design was the term William Osborne used. Standard proven toy types can be just produced with characters from a new TV series to assure sales. Sometimes the licenses are expensive and hard to obtain. In the late 1980's Hestair Hope had bought Kiddicraft Toys and Maclaren Prams, licensed Rachel B Stevens exclusively to create images and patterns to work across all their products. They wanted control and to hold the brands together without the expense of an outside license. Two-dimensional design can be vital.

Licensed properties have become increasingly popular because of the income they generate for toy producers as well filmmakers (Fleming, 1996 and Kline, 1993). The earliest licensed character featured in the exhibition was Bonzo the Dog and a cartoon image dating for 1923 (Babb, 1988). From the film industry we showed a film of the production of Star Wars toys at Palitoy, a division of Mettoy (MACE, 1980) Children's television has generated spin off toy ranges. The DRG has been working on a project with the "Camberwick Green" television series, turning characters like Windy Miller into games and phone apps. Parents are be able to introduce their children to television characters they remember not by showing them old videos but by playing with games on tablets. The world of the E-book, i-Pad and toys controlled by apps are all changing toy and games industry. William Osborne pointed out the increasing sales of Games Workshop figures creating a new generation of modelers. The miniature world they create is a new take on the toy soldier, with fantasy battles rather than real events.

The **Creative Communities** area of exhibition was primarily about adults playing at work. In the nineteenth century forward looking employers like Cadbury and Lever provided sports facilities for their staff and encouraged other forms of play such as brass bands and amateur dramatic societies. BCE (Distribution) Ltd are involved designing games for adults to use in bars, clubs and leisure centres. Students find their products in the union bar.

Today the use of play at work is different with firms like Pixar and Google actively creating play interiors to inspire and encourage their staff. They bring outdoor play equipment indoors, put up sheds, set up pool tables and create indoor putting greens on synthetic grass. The creation of spaces for play we have already seen as important to schools and therapeutic communities, so architectural and interior design practices have to respond and are taking a lead. As we have already seen play is also used by business to train and educate staff.

DRG included a garden shed as part of a play office interior but it also represented adult leisure and hobbies. The Bassett-Lowke Society set up the shed as a train enthusiast's workshop. The shed in British culture is seen as a place where play and creativity is allowed. Roald Dahl wrote his stories in his shed and when Gerry Anderson died in 2012 it was reported (Anon., 2013) that his shed workspace was left brimming with new ideas for puppets and television programming. We are all being encouraged to be creative at work, in our spare time and when we retire. When the organisers described this section as about adult play, some responded that the term had connotations of gambling dens and brothels, and therefore forms of play and toys not considered as particularly beneficial for the community.

Response and Analysis from ALL PLAY Exhibitions

The feedback from the events has taken time to collect and analyse. For those involved in the toy industries or using play in education the exhibition has set up a locus for sharing knowledge and experience. The firms approached were all encouraging. All the forty toy designers and enterprises involved have been approached to discuss the value of the event to their activities and how the DRG can work with them in the future.

The numbers of visitors finding the gallery by chance was limited to less than two hundred and efforts will be made to invite more groups to the second exhibition. DRG intend to build on internal cross-disciplinary collaborations with Schools of Health and Education.

Through the symposium cross-cultural connections have been forged, as 80% of the papers received were from speakers abroad – including Finland, New Zealand, India, Greece and Germany. The toy firms involved varied from craft toy makers like John Gould to large global toy firms like Mattel. Knowledge Transfer

Partnerships have allowed local toy distribution firms to set up design capabilities locally. The KTP have generated income but they have also set-up new collaborations. The DRG have been approached with suggestions for two new partnerships; a toy design project based on Boys Own Annuals and another request to improve the design of a regional theme park.

The DRG were aware that the KTP projects had made a significant difference to the enterprises involved. The idea that an exhibition as a way of sharing the positive experience of the KTP projects and has proved to be far more than a showcase. It has introduced the impact of the DRG research to the wider toy and play industry in the region. This event has created a call for a local historical study of the industry. Each section of the exhibition gained a different response from visitors, depending on how they use play in their lives and enterprises. Educators at all levels saw the exhibition as a small case study from a much longer history of education ideas. The small and medium enterprises involved are quite passionate about the importance and relevance of what they produce and appreciate the opportunity to share experience and present their products within the research project. They have become valued external members of the DRG.

The Next Step

The organisers have found more related research and interest than they expected about play and toy design. Toy design has been covered by the Museum of Modern Art in New York's recent exhibition (Kichin, 2012) and the Victoria and Albert Museum research on British Toy Making Project. There is an ever-growing body of work about play in primary education. The decision to use the exhibition as a research tool brought diverse groupings together with the potential to continue research in the area of play. The DRG intend to add to the body of literature by publishing a fuller catalogue and symposium proceedings.

The DRG's work with the local toy distribution industry indicates the increasing international importance of creativity and design in the play sector. It is clear that expertise lies in the region with the key players being small and medium enterprises. The DRG's KTP work and ALL PLAY exhibition provided a show case for what is happening local and internationally. The effects of new technologies such as rapid prototyping, three-dimensional printing and laser cutting make design-led ranges and these lead to the possibility of product development and production in the UK. The DRG through this exhibition has taken a lead.

Playing with Conclusions - Creative Value of the Research

ALL PLAY was the umbrella title that aimed to bring better understanding of how play is used and its potential to drive further work. It has been suggested that it would be inspirational to see ALL PLAY logo on toys, which express a series of values about toy design. This research has focused on toy design, but play is just as relevant to fashion, film making, and high tech industries. This paper has illustrated that the organization of an exhibition is a valuable method of gathering information and generating discussion across areas of practice and research. Looking back at the KTPs even without conclusive data it is possible to see the value these projects have benefited the individual toy companies and DRG.

The DRG approached two firms that use play to educate the general public. Both Tim Rowett Toys and Eco Action Games promote science, sustainability and management skills. Both are involved in teaching skills such as team building and creativity for corporations not directly involved in toys or the creative industries. They were invited to contribute to the symposium and encourage the delegate to play. All the information gathered from the community based "Collective Collaborations" exhibition has influenced the second exhibition and symposium. At the graduate New Designers exhibition in July 2013 there were about a dozen toy or play projects. A Central St Martins graduate's product was a set of components that helped children turn sticks into toys won a prize. The suggestion was made that ALL PLAY could be an opportunity to bring graduates and manufacturers together. Already several local playground companies now employ Northampton graduates. The three organizations involved in the KTPs testify to the value of design in their current business plans and the role the DRG played in that process at the cross roads of toy innovation.

References

- Anonymous (2013) *Gerry Anderson News Story*, Metro 9 April 2013 London: Metro Newspaper
- Attenburrow, D. H. (2009) *The Design Decision Trail: a transition tool to design employment*. Paper presented to: *Transitions: Learning and Teaching Conference, University of Northampton, 13 May 2009*
- Attenburrow, D. H. (2010) *Mapping the tutorial dialogue*. Paper presented to: *University of Northampton Learning and Teaching Conference: Learning Dialogues, University of Northampton, UK, 13 May 2010*.

Attenburrow, D. H. (2010) Visual conversation. Workshop presented to: *Drawing Research Network Annual Conference 2010 (DRN 2010): Observation, Mapping, Dialogue, University of Brighton, 14 September 2010.*

Attenburrow, D. H. (2012) The design decision trail. In: Buck, L., Frateur, G., Ion, W., McMahon, C., Baelus, C., De Grande, G. and Verwulgen, S. (eds.) *Design Education for Future Wellbeing: Proceedings of the 14th International Conference on Engineering and Product Design Education (E&PDE 12).* Westbury: Design Society. 9781904670360. pp. 737-741.

Babb, Paul and Owen, Gay (1988) *Bonzo the Life and work of George Studdy*, Shepton Beauchamp: Richard Dennis

Bassett-Lowke (1937) *Northampton Film Footage* University of Northampton

British Pathé Ltd (1968) *Rosebud Toys* Film Screened 25 January 1968 London: British Pathé

Brown, Kenneth (1998) *Design in the British Toy Industry Since 1945* Journal of Design History, Vol.11, No 4 pp 323-333 Oxford: Design History Society/OUP

Butcher, J. and Schaber, F. (2011) Enhancing design learning through partnerships: the case of Joinedupdesign for Academies. *Networks*. **13** 1756-963x.

Craft, Anna (2011) *Creativity and Education Futures Learning in a Digital Age*: Stoke on Trent: Trentham Books

Fleming, Dan (1996) *Powerplay – Toys as Popular Culture* Manchester: Manchester University Press

Fuller, Roland (1984) *The Bassett Lowke Story* London: New Cavendish Books

Hillier, Mary (1965) *Pageant of Toys* London: Elek Books

Huizinga, Johan (1998) *Homo Ludens* (Reprint) London: Routledge

Kinchin, Juliet and Aidan O'Connor (2012) *Century of the Child: Growing by Design 1900-2000* New York: The Museum of Modern Art

Johnson, James E (2007) *Play and Creativity* Conference Paper at Play and Creativity Conference May 30-31 2007 Tainan, China

Kline, Stephen (1993) *Out of the Garden – Toys and Children's Culture in the Age of TV Marketing* London: Verso

Media Archive of Central England (1977) *Teddy Bears* Screened 2, March 1977 Lincoln: Anglia Television (ATV)

Media Archive of Central England (1980) *Metros (Mettoy)* Screened 5, December 1980 Lincoln: ATV

Media Archive of Central England (1982) *Sindy Doll* Screened 11, March 1982 Lincoln: Central News

Media Archive of Central England (1982) *Star Wars* Screened 28, October 1982 Lincoln: Central News

Morantes, Miriam (2011) "Sociable": A Motivating platform for elderly networking, mental reinforcement and social interaction Paper, The 6th ITRA World Congress, 26-30 July 2011 Bursa, Turkey

Moyles, Janet (2010) *The Excellence of Play* Maidenhead: Open University McGraw Hill

Myerson, Jeremy and Lee, Y (2011) *Designing for the people with the people and by the people*, Design Activism paper at Design and Activism and Social Change, Design History Annual Conference 7-10 September 2011 Barcelona, Spain

Page, Hilary (1953) *Playtime in the First Five Years* London; George Allen and Unwin

Schaber, F., Turner, R. L. and Betts, S. (2007) From ivory tower to fantasy castle: a design case study of industrial collaboration. Paper presented to: *International Conference on Engineering Education (ICEE), University of Coimbra, Portugal, 3-7 September 2007.*

Schaber, F. and Turner, R. L. (2008) Enhancing student learning in design: research and inquiry skills through live projects. Paper presented to: *4th Centre for Learning & Teaching in Art & Design (CLTAD) Conference, New York, USA, 3-4 April 2008.* Also presented at: University of Northampton Learning and Teaching Conference, Northampton, 14 May 2008

Schaber, F. (2008) Last works: networks of design, business and technology in the shoe and leather industry. Paper presented to: *Networks of Design Conference, University College Falmouth, 3 - 6 September 2008.*

Schaber, Friedemann, Vicki Thomas (2008) *Knowledge Transfer: Industry, Academia, and the Global Gift Market*, Design Management Journal, Vol. 4 no 1, Oct 2008

Schaber, F. (2009) Creating better communities: involving design students in regeneration projects. In: Clarke, A., McMahon, C., Ion, W. and Hogarth, P. (eds.) *DS 59: Proceedings of E&PDE 2009, the 11th Engineering and Product Design Education Conference - Creating a Better World.* Glasgow: The Design Society. 9781904670186. pp. 514-519.

Schaber, F. and Turner, R. L. (2009) Building employability and industrial engagement into the design curriculum. Paper presented to: *International Conference on Engineering Education and Research (ICEE/ICEER 2009), Seoul, 23-28 August 2009.*

Schaber, F. and Butcher, J. (2010) Joinedupdesign for Academies: enhancing design learning through complexity. Paper presented to: *Design Research Society International Conference (DRS2010): Design & Complexity, Montreal, Canada, 07-09 July 2010.*

Schaber, F. and Turner, R. L. (2010) Design and local development: case studies from the UK. In: *1st International Congress of Design and Innovation of Catalonia Book of Abstracts.* Terrassa, Barcelona: FUNDIT Sabadell. 9788493616519. p. 43.

Schaber, Friedemann, Vicki Thomas and Randle Turner (2010) *Designing Toys, Gifts and Games: Learning through Knowledge Transfer Partnerships* in Handbook of Research on Trends in Product Development: Technological & Organizational perspectives edited by Arlino Silva and Ricardo Simoes IGI Global

Schaber, Friedemann, Vicki Thomas and Randle Turner (2011) *Playing with Design – Preparing Designers for the Global Market* Joint Conference paper at International Toy Research Congress, Bursa Turkey

Thomas, V. (2002) *The Buyer* Conference paper at Design History Annual Conference, University of Aberystwyth, September 2002

Thomas, V., Turner, R. and Schaber, F. (2011) The Toy workshop. Invited Presentation presented to: *Learning Global - Fourth Learning & Teaching Conference, The University of Northampton, 11 May 2011*

Thomas, V. (2011) Designing Gifts paper *1st International Conference on Semiotics and Visual Communication: from Theory to Practice* Limassol, Cyprus November 2011

Thomas, V. (2011) Mind the gap – bridging the divide between the worlds of design education and commerce. Invited Presentation presented to: *6th International Akmullah Readings, Bashkir State Pedagogical University, Ufa, Russia, 12-16 December 2011.*

Thomas, Vicki (2012) All Work and No Play make Jack a Dull Designer Conference Paper, *The Material Culture of Sport, DHS Conference* Brighton University September 2012

Thomas, Vicki Ed. (2013) *ALL work and no PLAY makes you a dull DESIGNer*, Exhibition Catalogue Northampton: Northampton Design Research Group

Slow Toy Movement (2013) Available from: <http://slowtoymovement.com/> (Accessed 5 September 2013)

Smith, Chris (1998) *Creative Britain*, London: Faber and Faber

Sutton-Smith, Brian (1986) *Toys as Culture* New York: Gardner Press

Sutton-Smith, Brian (2001) *The Ambiguity of Play* Harvard: Harvard College

Vale, Brenda and Robert (2013) *Architecture on the Carpet, The Curious Tale of Construction Toys and the Genesis of Modern Buildings* London: Thames and Hudson

Victoria & Albert Museum (2013) *British Toy Making Project* Oral History Collection London: Bethnal Green Museum

Wood, John (2010) *A Life in Art & Design* - Exhibition Avenue Gallery 17th May to 18th June 2010

Wood, John and Findlay, J. (2012) Research relating to new passenger Train Interiors for 2020 and beyond, in Partnership with Government, Industry and Academia in *International Journal of Scientific & Engineering Research*, Vol.3 Issue 8 August 2012 pp 1-6