The group exhibition *Beauty is the First Test* has been devised by curator Liz Cooper for the Pump House Gallery in Battersea Park, London SW11, to run from 12 September to 25 November 2012. It will explore the relevance of mathematics to contemporary craft practice.

The title of the exhibition is drawn from an extended essay published in 1940 by accomplished mathematician G H Hardy who declared: ‘The mathematician’s patterns, like the painter’s or the poet’s, must be beautiful, the ideas, like the colours or the words, must fit together in a harmonious way. Beauty is the first test; there is no permanent place in the world for ugly mathematics.’

Mathematics is often the subject that pupils most dread and adults express discomfort with, despite extensive 21st century use of technology based on mathematical models. Perhaps the friendliness of the technology allows a distance from a subject that frightens and overwhelms people? The curator says, “As a former school maths champ, and a celebrator and explorer of contemporary craft forms, particularly textiles, I am seeking to change that.”

This exhibition proposes an exploration of how mathematical concepts underpin craft techniques and artistic development, unlocking and demystifying maths by showing unique and stimulating works of art. It draws together existing and new artworks to invite in-depth consideration of contemporary craft practice in this wider context and may include selected “non craft” artists. Beauty and playfulness will be evident in the exhibits to illustrate what delights both craftspeople and maths enthusiasts.

This project is also a deliberate provocation to stimulate debate around the current situation where the arts and sciences are pitted against each other in school curricula (a situation now highlighted by the Henley Report). *Beauty is the First Test* will show that the arts and mathematics are more closely bound together than many perceive and that the enjoyment of one can enhance the understanding of the other.
The exhibition will foreground textile practice, especially constructed textiles, which generally rely on number and sequence for their creation. Other artists and makers who reference geometric shapes, tessellation and structures are also included. The artist’s hand will be evident throughout, to underline that while mathematics is from nature, nature itself is not perfectly regular or symmetrical. The exhibition includes established and upcoming makers, all based in the UK, though many are well-known further afield too. Artists included are Michael Brennand-Wood, Suresh Dutt, Janice Gunner, Lesley Halliwell, Lucy McMullen, Janette Matthews, Peter Randall Page, Ann Sutton and Laura Thomas.

Learning and participation are key to the exhibition. A teacher’s pack and gallery worksheet for children has been developed with the assistance of the Primary Mathematics Consultant from Wandsworth Children’s Services and this will be widely distributed by email and available as a download from the gallery website. We are also working with Crafts Council on development of new learning resources for the show around weaving and basketry.

A programme of participative craft events has been developed with opportunities for all age groups, and to reflect the particular needs of school audiences. It will be a mixture of formal
workshops, drop-in activities and talks. Apart from targeted schools activities there will be a concerted effort to publicise these events widely across South London and beyond. Events include:

- Curator tour and talk
- Drop-in family activities, in association with the Crafts Council’s Craft Club initiative and Wandsworth Council’s Family Learning division.
- ‘Sunday Socials’ delivered by local craft groups on various themes
- Ticketed skills-based workshops for adults on constructed textile techniques with mathematical bases, such as crochet, knitting and patchwork.
- Celebratory monthly events tied into local and national initiatives, such as Open House London, Black History Month and the Big Draw.
- CPD for craft makers on marketing, pricing and selling work.

This exhibition has been developed and is presented in partnership between Liz Cooper and Pump House Gallery. It would not be possible without the generous support of Arts Council England, Crafts Council Crafts Club, Wandsworth Children’s Services, Wandsworth Family Learning, Wandsworth Arts and The National Centre for Craft & Design.

We are grateful to all of the artists, and also to Andrew Harrison and Andrew Ross; and Stephen Bogod of Bogod & Company Ltd for the loan of artworks.