

RSE@ INVERNESS

*The Royal Society
of Edinburgh*

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proudly presents



Colours of Art & Science

Programme

Saturday 16 March 2019

Eden Court Theatre
Bishops Road
Inverness
IV3 5SA

10.30 am–4 pm

<p>11 am MacLean Room</p>	<p>RSE@ Inverness Introduction</p> <p>Dr Alison Elliot OBE FRSE, General Secretary</p> <p>Dr Alison Elliot will provide a brief introduction about the RSE@ Inverness programme and the <i>Colours of Art & Science</i> Family Day.</p>
<p>11:15–11:45 am MacLean Room</p>	<p><i>What has chromatography ever done for you?</i></p> <p>Professor Phillip Whitfield, UHI</p> <p>This talk will provide an overview of the principles and everyday uses of chromatography. It will highlight some of the pioneering work in developing this analytical technique and how chromatography has evolved from a tool for separating plant pigments to an advanced technology with applications in pharmaceuticals, food and environmental analysis, clinical diagnosis, anti-doping testing and forensics.</p>
<p>11:45 am– 12:30 pm Chapel Room</p>	<p><i>Creative Workshop 1 – Illustrating Nature</i></p> <p>Claudia Wellwood, Freelance Illustrator</p> <p>Do you really ‘see’ colour in the natural world? Is a leaf simply green, a pebble just grey, a stick only brown? In this workshop, we will look at complementary contrast colours and their vibrancy in nature when they appear together. We will also explore the depth and many colours in natural objects. You'll get a chance to roll your sleeves up and have a go at creating your own wonderful masterpiece to celebrate the vastness of colour in nature!</p>
<p>12:30–1 pm MacLean Room</p>	<p><i>Feeling, Dreaming, Learning: The Sense of Colours in Children’s Fashion</i></p> <p>Dr Aude Le Guennec, Heriot-Watt University</p> <p>Often limited to ancient photographs highlighting the white outfits of well-dressed upper-class children, research in Fashion has not considered coloured and visual sensations as a major development of children clothes. However, looking at childrenswear throughout the 19th and 20th Centuries and especially at contemporary fashion, the playful and cheerful patterns of colourful garments are the norms. What is so special about children’s fashion? How can we explain such an attraction for colours, prints and textures? And, what do children think about this?</p> <p>From a historical and cultural approach, this talk will explore the educational role of colour in contemporary childrenswear and look at ways for a more inclusive design where the spontaneous approach of children to the world is revealed.</p>

<p>1:30–2:15 pm Chapel Room</p>	<p><i>Creative Workshop 2 – The Colours of Children’s Fashion</i></p> <p>Maija Nygren, Designer</p> <p>An exploration of knitting techniques through hand knitting needles and a manually operated knitting machine with knitwear designer Maija from AlmaBorealis.</p> <p>This workshop is a taster session to experience the activity of knitting, exploring the technique through two very different means; hand knitting with needles and a manually operated knitting machine, with the aim of creating knitted stitches or a small piece of fabric. Each participant will get an opportunity to experience both.</p>
<p>2:15–3 pm MacLean Room</p>	<p><i>The Art of Science</i></p> <p>Professor Rory Duncan, Heriot-Watt University</p> <p>This talk tells the wonderful story of how a Pacific jellyfish has helped literally to illuminate modern biology and unveil the beauty of how cells work; focusing on how some imagination from physics helped biologists see deeper inside cells than ever thought possible, and how this led to a Nobel Prize in Chemistry. The beauty we now see is very real and Professor Duncan will talk about the very rewarding experience of working with a sculptor, who in turn used her imagination to help us celebrate the beauty of life and reach ever wider audiences in our art exhibition called <i>From the dark ocean comes light</i> – and how our work using these powerful microscopes is discovering surprising facts about diabetes.</p> <p>Professor Duncan will also be presented with the RSE Senior Prize for Public Engagement at this event.</p>
<p>3–3:30 pm MacLean Room</p>	<p><i>Colour the Sky Electric: Science Meets Beauty in the Northern Lights</i></p> <p>Dr Kenny Taylor</p> <p>Auroras bring outer space in to earth, linking our home stars and home planet. Their shifting patterns and colours make parts of the push and pull of solar and terrestrial forces visible. Science, beauty, myth and mystery meet when the northern lights start to dance. This talk will colour-in some of the details – a taster of what fascinates both researchers and watchers.</p>

3–3:45 pm
Chapel Room

Workshop 3 – Illustrating Nature

Claudia Wellwood, Freelance Illustrator

Do you really ‘see’ colour in the natural world? Is a leaf simply green, a pebble just grey, a stick only brown? In this workshop we will look at complementary contrast colours and their vibrancy in nature when they appear together. We will also explore the depth and many colours in natural objects. You'll get a chance to roll your sleeves up and have a go at creating your own wonderful masterpiece to celebrate the vastness of colour in nature!

3:30–4 pm
MacLean Room

The Elements of Colour

Professor David Cole-Hamilton FRSE,
University of St Andrews

We shall show how elements are responsible for colour in fireworks and many other things. We shall then present a new Periodic Table that shows the number of elements available and, is colour coded to show how quickly we are using them up. It also shows which elements are in most smart phones. We shall discuss how we can protect and nurture the 90 elements which are the only building blocks of the diverse and beautiful world around us.

Interactive Displays – Available All Day

Colour within Forensic Science

Researchers from University of Dundee's LRCFS and CAHID

Come and find out how separating coloured substances and the spectrum of light are important in Forensic Science. Ever wondered how a crime can be solved by examining a finger? Researchers from the Centre for Anatomy and Human Identification (CAHID) and the Leverhulme Research Centre for Forensic Sciences (LRCFS) at the University of Dundee are here to discuss the role of colour within their work and forensic science.

Chromatography in Medicine

Centre for Health Science, Inverness

The Convertibles

Maija Nygren, Designer

A preview of *The Convertibles*, the latest collection of AlmaBorealis, based on learning lifelong skills, will be available for viewing (and playing!)

The New Periodic Table of the Elements

Professor David Cole-Hamilton FRSE, University of St Andrews

Make of flame of your favourite colour, make a column of liquid change through rainbow colours.

Try out the new video game Elemental Adventures. A Periodic Table Adventure

Flow Photofest Presents: Colour Photography in the 19th and 20th Centuries

Matt Sillars, UHI

The first photographic process dates from the late 1830s and although the technique was monochromatic, the desire for colour reproductions was so strong that hand coloured prints were often commissioned. Colour as part of the photographic process itself first emerged in 1861 through the work of the Scottish physicist James Clerk Maxwell and photographer Thomas Sutton. However, colour was not popularised in general photography until the late 1930s - 100 years after the invention of the medium.

Colour posed a number of aesthetic challenges to photographers steeped in the use of black and white images which emphasised tone, shape and form. But work by photographers such as Ernst Haas demonstrated its artistic as well as commercial value.

This display will introduce the early history of colour in photography and also explore the way key photographers have used it in their work.

Biographies

Professor Phillip Whitfield

Professor Phillip Whitfield completed his PhD at Great Ormond Street Institute of Child Health, University College London and went on to work as a Hunter's Hope Foundation Postdoctoral Research Fellow at Adelaide Children's Hospital. He continued his research at Addenbrooke's Hospital in Cambridge before taking up a Lectureship at the University of Liverpool. He is currently Head of Lipidomics Research at the University of the Highlands and Islands where his research involves the use of chromatography and related analytical techniques to study the roles of fats and proteins in biology and medicine.

Claudia Wellwood

Claudia Wellwood is a South African-born illustrator, now living in the beautiful coastal town of North Berwick with her husband and young daughter. She creates wall murals (most recently for a project called *The Telephone Exchange* on North Berwick High Street) and bespoke illustrations, when she gets time out from her '9 to 5' job. Claudia is working towards making illustration her full-time role, currently undertaking an *Illustrating Children's Books* course with the London College of Art, as well as working on two children's books with a friend, which she hopes to complete soon. If you would like to see some of Claudia's work, her Instagram is @claudiawellwood

Dr Aude Le Guennec

Fashion Anthropologist, Aude Le Guennec is the Director of Fashion Studies at the School of Textiles and Design, Heriot-Watt University (UK). From her academic background and first career as a Museum Keeper, Aude has developed a specific interest in the way fashion informs society. **Specialising in Children's Fashion, she has completed a PhD addressing the socialisation of children through fashion and clothing from the 18th century onwards (Sorbonne University).** Aude publishes extensively and shares her approach of an inclusive and educational fashion around the globe.

Laura Daly, Andrew Brandon and Lysbeth Antonides

Laura Daly, Andrew Brandon and Lysbeth Antonides are researchers at the University of Dundee. Laura works within the Centre for Anatomy and Human Identification and the Leverhulme Research Centre for Forensic Science. Her area of research is focused on improving the recovery of non-visible fingerprints from different surfaces. Andrew is a postgraduate research student within the Centre for Anatomy and Human Identification and the Drug Discovery Unit. His research aims to understand the interactions between illicit common drug mixtures within the human body after consumption. Lysbeth is a postgraduate research student within the Leverhulme Research Centre for Forensic Science. Her research aims to understand and explain the chemistry of a class of illicit drugs known as Synthetic Cannabinoid Receptor **Agonists (SCRAs), more commonly known as 'Spice', and how they behave in the human body when consumed.**

Laura, Andrew and Lysbeth are part of a team of scientists from varied backgrounds working on projects across all areas of forensic science.

Maija Nygren

Maija Nygren is a knitwear designer with a passion for sharing skills. Maija graduated with a BA(Hons) and MA in Knitwear from Galashiels School of Textiles having specialised in circular economy and educational **children's knitted textiles**. **Maija is the founder of AlmaBorealis** through which she makes her tactile and textural, playful and innovative designs come to life.

Professor Rory Duncan

Rory Duncan was born and raised in Inverness and although he has a keen interest in art and painting, was always going to be a scientist – he had a microscope in primary school. After leaving Inverness Royal Academy he was the first person in his family to go to university in Aberdeen and then Edinburgh where he got a PhD. Rory is now a senior Professor at Heriot-Watt University. He has won several awards for science communication and was awarded the **Royal Society of Edinburgh Senior Medal for Public Engagement in 2018 for his 'passion and enormously productive advocacy for public engagement in Scotland, the UK and internationally'**.

Dr Kenny Taylor

Dr Kenny Taylor is a Black-Isle based writer, broadcaster and lecturer with a background in animal behaviour, ecology, wildlife surveys, conservation and the media. Formerly **Scottish Wildlife Trust's Northern Officer**, **he has played prominent roles in campaigns and debate** about peatland afforestation, mountain development, the buy-out of Eigg, GM crop trials and restoration of native woodlands and native species.

He continues to be involved in a variety of groups promoting environmental education and local arts. Kenny is known across Scotland for his many books, magazine features, talks and broadcasts.

Professor David Cole-Hamilton FRSE

David Cole-Hamilton was Professor of Chemistry at the University of St. Andrews for 29 years, retiring in 2014. He is currently Vice-President of the European Chemical Society (EuChemS), of which he was President until December 2017. He is on the Royal Society of Edinburgh Education Committee.

Matt Sillars

Matt Sillars is a Director of FLOW Photofest, the biennial photography festival in the Highlands and Islands, and a lecturer in photography at the University of the Highlands and Islands. Previously a Director of the Scottish Society for the History of Photography (SSHOP), Matt, with his colleague Rachel Fermi, also runs the new Community Photographic Darkroom based in Inverness. Passionate about photography, its history and future potential, Matt regularly speaks at events throughout Scotland promoting photography in all its forms. FLOW Photofest **curates** regular photographic exhibitions in the One Touch Corridor at Eden Court Theatre in Inverness, and the month-long Festival itself runs throughout September 2019, bringing international photography to the Highlands and Islands.

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