

findings

Issue 71 Autumn 2020

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LETTER FROM THE CHAIR



On each occasion I write this letter I have to resist the initial impetus to reflect on my own experience and that of my immediate environment. Our Association is more than that; it's humbling for me to recall that our members live and work across the world.

We are bound together by our interest in **jewellery**: that physical evidence of the desire (need?) to ornament the body. This is a wonderful, precious bond; one that, like jewellery itself, should be timeless.

Across the globe we now have another common bond – the virus which has by now affected the economy and lifestyle of all countries.

So, my personal experience will be even less typical. I'm aware that, as the second 'spike' takes hold here in the UK, my social isolation may be frustrating but is nothing compared to those across continents, as well as here, who have lost jobs, careers and loved ones.

Thanks to all of you for continuing to support our promotion of jewellery and its creation. Do keep in touch via our social media sites.

The *glasshouses* members' exhibition is now online and we have our very first online AGM to look forward to. On behalf of the Board, I would like to express thanks to outgoing Director Jo Garner for all the time and effort she has put into ACJ.

Terry Hunt

LETTER FROM THE EDITOR

Well, what a year! Coronavirus, lockdown, riots, Black Lives Matter, more riots, moving house, bereavement, turning fifty... It has been a period of reflection for me personally and for society more generally on the things that matter to us, small and large – talking to your mum, seeing a friend smile, considering what kind of society we want to live in, and discussing the wider importance of jewellery in our lives. At the very least jewellery is the focal point of our community, holding us together. Certainly, working on *Findings* has held me together recently.

We have been trying to increase the diversity of voices in *Findings*; hearing more from our members and showcasing international jewellers. This means that different Englishes are found in *Findings*: jewelry as well as jewellery, and also phrases which might show, for example, French, German or Chinese influences. For me, this is part of that writer's individual voice, and I value it.

For the Spring 2021 issue, we are looking for conversations and contributions which relate to found objects, and also which address social and ethical questions about jewellery and society. We continue to seek diverse voices, and hope to challenge some of the unconscious assumptions we might hold, which can contribute to unfairness.

Jo Lally



Cover: Jil Koehn - Bedolach Seaweed.

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ACJ Staff

Chief Executive (part-time):

Tamizan Savill projects@acj.org.uk

Administrator (part-time):

Haru Sakai: enquiries@acj.org.uk

Editor of Findings:

Jo Lally: findings@acj.org.uk

Regional Group Contacts

Bath: Sophie Lowe

sophieadelowe@icloud.com

Farnham: ACJ-JSN Dani Crompton

info@jsnfarnham.com

London: Marianna Hadass

acjlondongroup@hotmail.com

Manchester: Charlotte Verity

mjmnmembers@yahoo.co.uk

Northern Ireland: Anne Earls Boylan

acjsni@gmail.com

Scotland: Anne Walker

Instagram @acjscotland

Sheffield: acjsheffield@gmail.com

Wales: Anne Morgan

jewellery@annemorgan.co.uk

Wessex: Gill Mallett

gillery@btinternet.com

ACJ Contact Addresses

Post: ACJ, PO Box 71338, London SE17 9DY

Email, membership and general enquiries:

enquiries@acj.org.uk

Development and Projects:

projects@acj.org.uk

Website: www.acj.org.uk

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Members' Gallery

In this issue we are looking at colour in all its glories.

What, if anything, is colour? We can see it, it affects our mood, but it has no solidity, no texture, no physical presence in its own right, and it disappears in the dark. We don't even know if we are all perceiving the same thing when we see red or green or blue.

How is colour used in contemporary jewellery, and how important is it? When we set out, I worried that colour might be a traditional concern in jewellery, a visual - perhaps, whisper it, a decorative - effect, largely replaced by concept and technology. What a relief to discover that colour is so central to the work of many contemporary jewellers that it might even be called a material they work with.

ACJ members of local groups around the UK who use colour were nominated by their reps for the Members' Gallery. What a great selection! We're looking out for members' work using found objects for Spring 2021.

In some areas, GDPR rules mean that reps have lost contact with local ACJ members. You may need to get in touch with your local rep – see details on p2 – and make sure that they have your details (and a signed GDPR form), especially if you haven't heard from them for a while. This will help them organise local and regional events and let Findings know about you.



Rebecca Wilson - Tutti Frutti Rings
Photo: Susan Castillo



Anne Earls Boylan - Cell 2017,
Black Diamonds, coated 3D print, steel



Deborah Beck - traffic cone orange

continued >

THEME

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Carolyn Amos - Green and spotty orange long ring



Stephanie Mann

Samantha English



Mandy Nash - Spotty aluminium brooch. blue pewter



Rosie Elwood



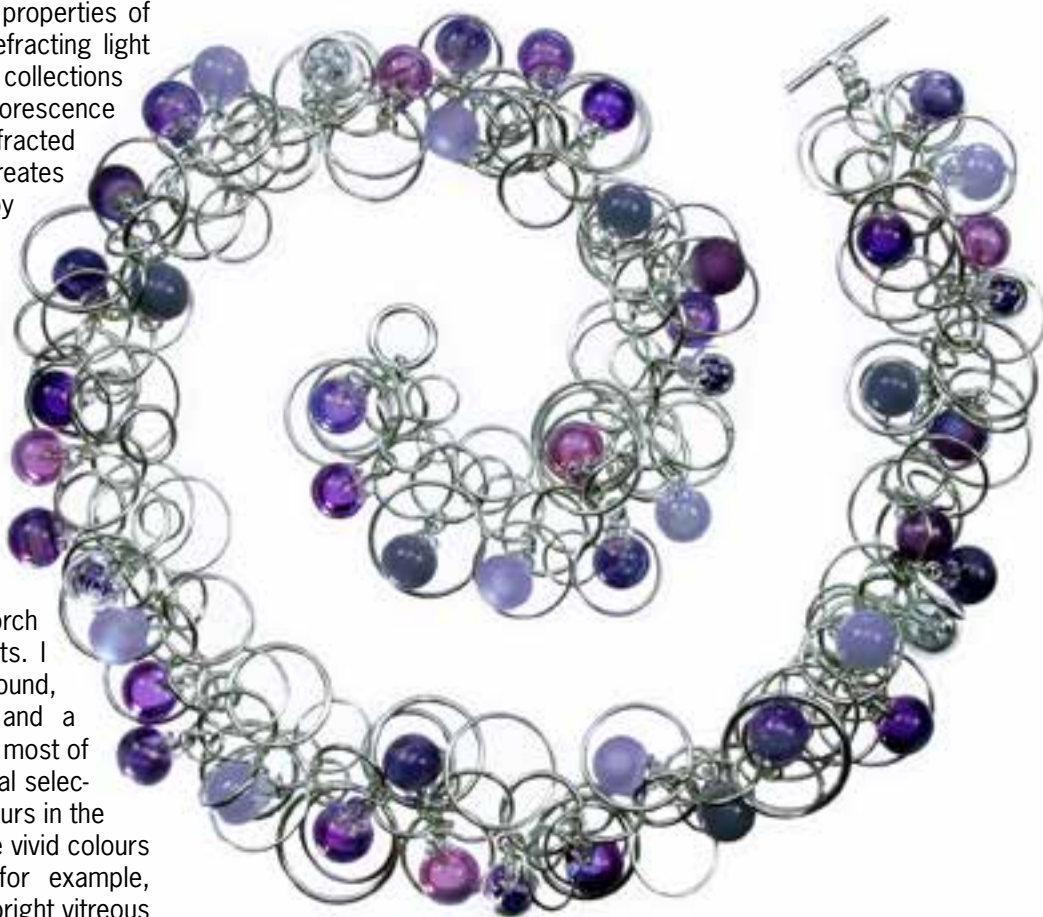
Sarah Macrae - Handflower or Haathphool. Photo: Paul Hartley

Charlotte Verity: Inspired by Light

Colour is a very important factor in my designs.

Light is the main inspiration for all my work; current collections exploit the properties of light by reflecting, transmitting, or refracting light from external sources, while other collections have emitted their own light through fluorescence or phosphorescence. Visible light refracted into its constituent wavelengths creates a spectrum of colours and I employ all these hues in my work. It fascinates me that the electromagnetic radiation of visible light is not directly detected by human eyes; rather it is the effects of the light, for example when it reflects off an object, which provides the visual perception.

I often select the materials to be used in my designs based on the variety of colours they can provide for my pieces. I use Bullseye Glass to create the fused glass elements in a kiln, or I use a propane and oxygen torch to blow hollow lamp worked elements. I often combine the glass with small, round, faceted, laboratory grown stones and a variety of vitreous enamels to provide most of the colours in my work. These material selections ensure I can include vibrant colours in the pieces of jewellery. I love to juxtapose vivid colours against monochromatic schemes, for example, coloured glass with sterling silver or bright vitreous enamels with oxidised silver.



Charlotte Verity - Purple Bubble Chain Necklace

Charlotte Verity - Rainbow Seven Bubble Necklace



Charlotte Verity - Cool Rainbow blown glass bubble earrings with white CZs

continued >

Charlotte Verity - Emerald Bubble Chain Pin



If it is important for the design of a piece that the shades, tones and tints are all of exactly the same hue, I go to great lengths to match between the different materials. This can involve a series of experiments, and the solution may turn out to be quite a technical process. For example, through experimentation, I discovered that turquoise blue cubic zirconia change colour when heated, through various shades of blues into greens and dark yellows, as the temperature is increased. By heating the stones to a precise temperature in a kiln, I am able to change the hue from blue into teal and exactly match the teal lamp worked glass components. In other cases, if the design of a piece calls for evenly graduated hues, I can mix two transparent shades of glass while melting and twisting thoroughly in the flame to produce a specific colour. Overall, considering the use of colour in my jewellery is an integral part of my making process. ¶

An Explosion of Colour: Maud Traon in Conversation

What is the importance of colour for you?

That's a difficult question. I have always worked with colour. I always go a bit further and further into combining different types of colour – found objects, then Fimo clay, then glitter, plastic and synthetic stones and then rough, semi-precious and precious stones. All of these all together bring a bigger and bigger library of colours and textures, roughness and opacity as well as brightness and sparkle. Also part of the colour library is metal. I use plating – part plating, half plating and gradients from one alloy to another.

I don't look at stones like the central focus. Obviously they're all beautiful. But you take a diverse palette from the library, and only when you combine them all together, they give life to one another, and there is a new dimension to discover. Everything has the same status, everything is treated as equal, glitter and plastic and precious stones, and after that it's how to interact with them.

You talked about plating – what is the balance between metal and colour for you?

I try more and more to make the metal equal, just a palette, part of the colour library, but it is a strong structural element, which enables me to put everything together. Increasingly, I am using stones in the shank of the ring, so that colour and structure are practically the same. Everything is a bit everything, not one shank one stone.



Maud Traon - Rough Diamond Ring.
Photo: Jeremy Johns

What does colour mean to you?

Silence, deep thought ... after so many years working with, living in colour, everything colourful ... I actually don't know. I really don't know... I think it's mainly the richness of something to play with, it's really endless.

How important is play in your practice?

Play and making are for me the same. Composition is play. It makes life a bit lighter.

I find play quite hard, but when I play, I often make more creative work, find more creative solutions.

Yes, actually, I am more creative at weekends, because I allow myself – it's not work. Play is opening yourself to questions, work is doing something for a purpose. Sometimes you need to sit and polish the ring!



Maud Traon, Rock your Pearls. Photo: Jeremy Johns

Maud Traon, Ring.
Photo: Jeremy Johns



‘Colour is the richness of something to play with’

You don't really use traditional techniques, do you?

No ... well, polishing. The rings are sculpted. I use wax wires and play with them. In itself it's a traditional technique, but after that ... I make it mine. Preparing the rings for electroforming can be hard, at this stage you don't really know where you want the metal – too much, too little, perhaps the ring could be more flamboyant, more there, you don't know.

I think what I meant was ... you don't use traditional techniques to create colour, like people who use enamel or patina. You choose materials which have their own colours and combine them in new ways.

Yes. Combining the colours, the ring almost constructs itself as it goes along. I have a brief idea, then the ring is transforming, and often better than I intended. When you intend something, have a clear vision, you often reduce or limit what the ring can become. I let it evolve into something better than my original idea. It's not a totally conscious process.

Who would be on your shopping list?

So many people, I embrace a bit everything. I am amazed by the diversity, from super classic to – well, everything! The more you learn about jewellery the more you discover different ways of expressing a vision of life and I admire them all. ¶



Maud Traon, Necklace.
Photo: Jeremy Johns

Window on the World: Germany

Jil Koehn: Distant Worlds and Earthly Moments

As part of my design, I address the importance of fantasy on the basis of dealing with imaginary places and questioning realities. Inspired by dreams and nature, I use natural finds such as tree bark, branches, stones and precious stones to model compositions that have an earthly and at the same time supernatural appearance. Precious metals and composites, as well as a touch of magic, are assisting me to create an extraordinary contrast between imagination and reality. Objects are formed that give the appearance of originating in the nature of another world - artifacts of distant worlds as jewels for earthly moments. My jewellery is an homage to nature and a call to dream.

Colour plays a superior role in my design. Colour is - unlike language, for example - the medium that is perceived and processed by humans in the most direct way. Colours enter directly into our consciousness and can convey information and trigger emotions quickly and specifically. I also find colours so exciting because they can create atmosphere and only a slight change in nuance can say something completely different.

It is always impressive when I observe people receiving my objects. The colourfulness of my objects conjures a radiance in the face of the observer, which is accompanied by a silence. As if they were actually being beamed away for a short time. When I perceive this moment in people, I know that the aim of my design is fulfilled. For me, the stories are only created together with the beholders, who are touched by the impression and intense colour effect. Sometimes strange things happen: once it happened that during an exhibition a woman started humming and singing. She said that she could feel the place through my objects and could hear the sound of that place. Another time a mother said to her son "Look, what's that?" The boy replied "It's quite clear, Mum! These are Diomanten." Since then I have been calling my objects Diomanten. I consider my design to be successful when exactly such things happen and people can empathize with the aura and can feel the place like I do.

My material is a composite I have created, where I determine the colour myself. Since I cannot simply buy the final material, but always mix it myself, there can always be colour deviations.



Jil Koehn - Amytha Bracelett.
Photo: Jil Koehn



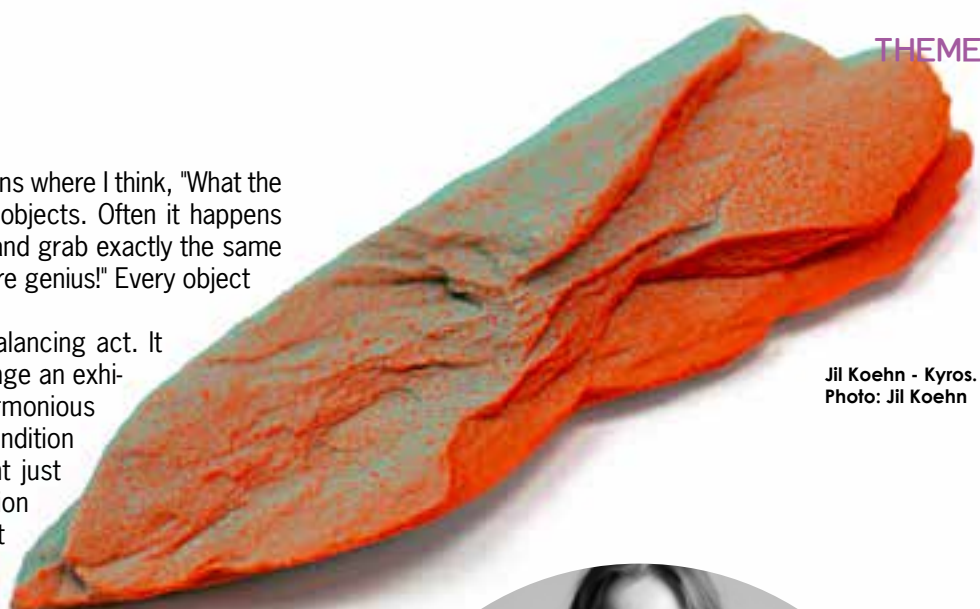
Jil Koehn - Aqua Lilium Coral.
Photo: Jil Koehn

'I believe in the infinite imagination and the power of thoughts. My jewellery is an expression of a feeling of nostalgia for a place without space and without time: A key to ones's inner paradise, the forest of dreams.'

Sometimes I create colour combinations where I think, "What the hell..." I have a special box for such objects. Often it happens that I look into this box after months and grab exactly the same object "How did you get in here? You are genius!" Every object has its time to shine.

Working with color is always a balancing act. It takes me hours or even days to arrange an exhibition space in such a way that a harmonious composition is created. Colours condition and influence each other. If I present just one "wrong piece" in the exhibition space, the whole concept falls apart and goes in a different direction than planned. You need patience and sometimes you have to let the objects lie there for a few days.

However, when choosing colours, I proceed more intuitively than systematically. Of course I look at defined trend colours, but with a critical eye. The topic "trend" seems too diffuse to me and is difficult to understand, as many parameters play an important role. I try to feel which colour expresses a current mood, a general need. I see my design more as a synaesthetic process. I remember one day at the beginning of the Corona crisis, when I was sitting with my husband – who is a colour designer – at the open window, we were looking at the deserted street and wondering what colour needs would come with this crisis. Five months after this day, I can say that I find it difficult – unlike in previous years – to capture a sense of colour for this year. I have the impression that inspiration has fallen



Jil Koehn - Kyros.
Photo: Jil Koehn



Jil Koehn



Jil Koehn - Utopian Forest Rose. Photo: Kevin Momoh

by the wayside due to this crisis: hardly any new films, little new music, indecisive fashion, less social interaction, just few new stories. I have the impression that so many needs have arisen in the context of this disorientation that orientation itself has become a need. Of course, this is all just my personal speculation. I believe that the terms to be focused on in the near future are the following: spirituality, reduction, meaning and ritual. I am currently working on my collection for autumn 2020 on the basis of these terms and am curious to see how it will be received.

I myself hardly wear any jewellery except my engagement ring, which was a prototype of the NIESSING company designed by Georg Dobler many years ago. The ring was never industrially manufactured, so I own a small unique piece of jewellery, which I am very happy about. All in all, I only own a few selected pieces of jewellery which I received or were given as a gift by exchanging jewellery. The moment of beholding, the moment of aesthetic experience at an exhibition is often more valuable to me than actually owning the piece of jewellery itself. However, I have always been a great fan of Marc Monzó. I admire how he manages to bring the essence of things to the point with his design and at the same time to give so much relevance to their insignificance. There is so much in between the lines that cannot be grasped with language. And this is exactly where, in my opinion, the real magic of jewellery lies. ¶

Window on the World: China

Yinglong Li: Plique-à-jour

One of the oldest methods of adding colour to metal is enamelling. Plique-à-jour is a technique of applying transparent enamel to a metal frame, with no backing, and can almost give the effect of being pure colour – or at least like a miniature stained glass window.

Yinglong Li learned traditional plique-à-jour and filigree techniques in Hui Minority County, Hebei province, China, and has visited master enamellers in the UK, France and China in the course of his research.

His current PhD research, at the School of Jewellery at Birmingham City University, questions whether material understanding and current technologies can help overcome the restrictions to developing this traditional and highly skilled enamelling technique.

Could you tell us about your research?

How to develop traditional plique-à-jour creatively and sustainably is a major topic of my research. In my on-going PhD program, I propose the idea of combining material experiments, digital technology, and 3D modelling design to expand the boundaries of plique-à-jour. In recent years, hybrid craft that integrates hand-skills and technology has become popular in contemporary craft discipline.

Traditionally, plique-à-jour artists spend a lot of time on making a delicate metal framework before applying enamels. Today, digital technology allows enamellers to create the metal parts of a design with complexity and higher accuracy. I am on the first year of the PhD program; in the next two years, I will present a new perspective to revisit this ancient technique with cutting-edge digital technology and material study. ¶

Colour palette for plique-à-jour



Yinglong Li demonstrating the filigree method of plique-à-jour.
Photo: Caiyun Wang.

‘enamel plays a role in connection rather than only decoration’



Happy Birthday Ian!



100 years old and still making

Findings and the ACJ Board would like to invite members to join us in wishing founder member John HH Gillespie OBE (known as Ian) a very happy one hundredth birthday. Ian still spends time in the studio – remarkable!

Professionally, Ian was a civil engineer in ports, which involved a lot of travelling. He and his wife, Ellen, used the opportunities this afforded to indulge their passion for jewellery making and silversmithing. For example, they spent time with Navaho, Hopi and Zuni jewellers in Arizona, visited the Mikimoto Pearl Island in Japan and observed craftspeople decorating vases with cloisonné in a Beijing factory.

Ian recognises that working in silver and gold as a hobby has allowed him both design and economic freedom. He has never sold a piece, but has auctioned his work for charitable causes.

His background in engineering allowed him to find his own workshop solutions. He writes: 'My son in law and I made a 30-ton hydraulic jack for forming the bowl of a spoon. Another piece of equipment we made is a geared device for drawing down wire. We incorporated an old car seat belt.'

When asked what advice he has for younger jewellers, he says,

'I am greatly indebted to the two Normans, Grant and Cherry for instilling in me the importance of quality in what you make, "if it is worth doing, do it well to the best of your ability". They also encouraged me to draw down each design. I am on my 19th design book.'

He adds, 'Another observation aimed at young professionals is the great advantage of being a member of ACJ with all the opportunities of networking.'

You can read more about John (Ian) Gillespie's life and work on the ACJ website.

JHH Gillespie OBE, paper knives.



Yinglong's work (under light)

inner image of the work



Colour for Jewellers

Lynne Bartlett

From ancient times rare and beautiful coloured materials have been prized and worn as personal adornment.

Marjan Unger talks about, 'the temptation of colour', and for jewellers, consideration of colour is essential.

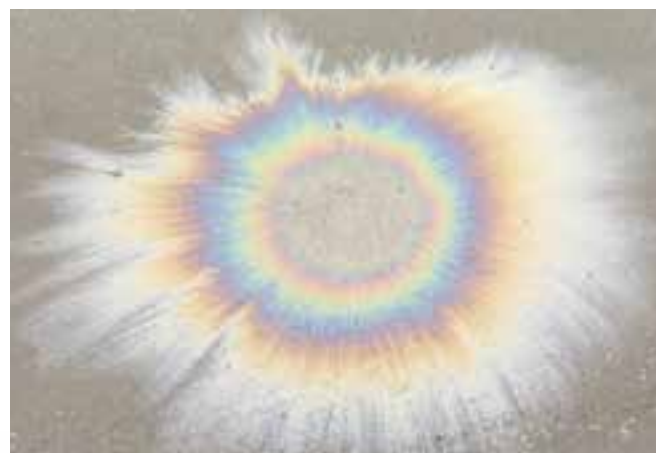
Yet colour does not exist – at least not without an observer. Colour perception depends on three factors: the nature of the light, the angle of view and the observer. Substances absorb and reflect electromagnetic energy at variable wavelengths, but it is only in the presence of an organism with a suitably adapted visual system that colour is observed. The eye transmits the radiant wavelengths to the brain, where colour is processed. The human eye cannot distinguish the individual wavelengths that may form a colour, in contrast to the human ear, which does discriminate between the component frequencies of musical notes.

Visible light is a small part of the electromagnetic spectrum which encompasses many forms of radiant energy, ranging from cosmic rays (with very short wavelengths) to radio waves (with wavelengths measured in kilometres). The usual unit for measuring wavelength is the nanometre (nm) – there are one million nanometres in a millimetre. In the middle of this spectrum is the visible region encompassing wavelengths from 400 nm (violet) to 700 nm (red). The term 'white light' is used to indicate radiation composed of all wavelengths in this range. The most common source of white light is the sun, and the solar spectrum has maximum intensity in the green region of the visible spectrum (Fig1).



Figure 1: Watercolour study of spectrum by John Wharltton Bunney.
Photo: Lynne Bartlett

Figure 2: Petrol slick on a wet road showing interference colour.
Photo: Lynne Bartlett



The cut-off points for the seven spectral colours of which white light is composed are not precise and may be reported at slightly different values, but the following list gives an acceptable range:

Violet.....	380-420nm
Indigo.....	420-440nm
Blue	440-500nm
Green	500-575nm
Yellow.....	575-590nm
Orange.....	590-630nm
Red	630-700nm

When objects are illuminated by white light and some wavelengths in the visible spectrum are removed, the remaining wavelengths combine to produce the colour that is observed. The reduction or elimination of specific wavelengths may be achieved in several ways. Dyes and pigments absorb the wavelength energy within their molecular structures. The phenomenon responsible for the appearance of colour on the surface of titanium is thin film interference and is a manifestation of Geometric Optics



Figure 3: Brooch with silver, oxidised silver, copper and gold rivets. Photo: Lynne Bartlett

(Nassau). A similar mechanism creates the colours seen on petrol on a wet road. (Fig2)

The following sections consider some of the well-known materials and techniques commonly used to bring colour into jewellery.

Metal Colour

Of all the elemental metals only two, gold and copper, are intrinsically coloured. The colour of gold is due to the fact that its atomic structure absorbs wavelengths in the blue part of the spectrum, and so it is seen as yellow. Copper absorbs in the blue/green part of the spectrum and appears to be an orange/red colour. All the others including well-known jewellery metals such as silver, platinum and palladium are white, or rather various shades of grey, because they do not absorb in the visible spectrum but reflect almost all of the incident light. (Fig3)

One way of making durable, coloured jewellery, developed in the twentieth century, is dyeing anodised aluminium. When aluminium, naturally a silvery colour, is anodised, a thin, porous oxide layer is created on the surface of the metal. This layer is very receptive to inks and dyes (usually organic materials), and a wide range of patterning techniques can be used to produce what is effectively a coloured metal surface (Fig4). It is the molecular structure of the inks and dyes that creates the colour appearance.

Titanium, another colourable metal, became available in the second half of the twentieth century.

Figure 5: Anodised titanium wire mail earrings.
Photo: Lynne Bartlett



Figure 4: Collection of dyed anodised aluminium cuffs.
Photo: Lynne Bartlett

Unlike aluminium the colour on titanium is not due to any dye or pigment, but to an optical effect called thin film interference. A thin transparent oxide layer is produced on the surface of the metal either thermally, by heating with a flame or in a kiln, or electrochemically by anodising. Colour is observed when the reflections from the metal surface and the oxide surface are out of phase and interfere so that some wavelengths are eliminated. (Fig5) The thickness of the oxide layer has to be between 7-300nm to produce observable colour. A similar mechanism called diffraction plays a part in the colour of opals.

Other Materials

The colours in many gemstones are often due to the presence of the transition elements, which include metals such as iron, nickel, chromium and cobalt. In some instances, the transition element is part of the chemical formula of the mineral, e.g. peridot and almandine garnet both contain iron. The different atomic structures interact with the light in different ways to produce a green colour in peridot (Fig6) and red in almandine garnet, but in both cases, iron is responsible for the colour. In other cases, such as corundum, the pure mineral is colourless. The presence of metal ions as an impurity produces colour. (Fig7) Thus chromium as an impurity in corundum produces

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the red colour of rubies, whereas the presence of iron and titanium gives the blue of sapphire. The same element as an impurity can produce different colours in different minerals and chromium in beryl gives the green colour to emeralds.

Nitrogen or boron atoms replacing carbon in the diamond lattice can give yellow or blue colours respectively to what would otherwise be a colourless crystalline form of carbon.

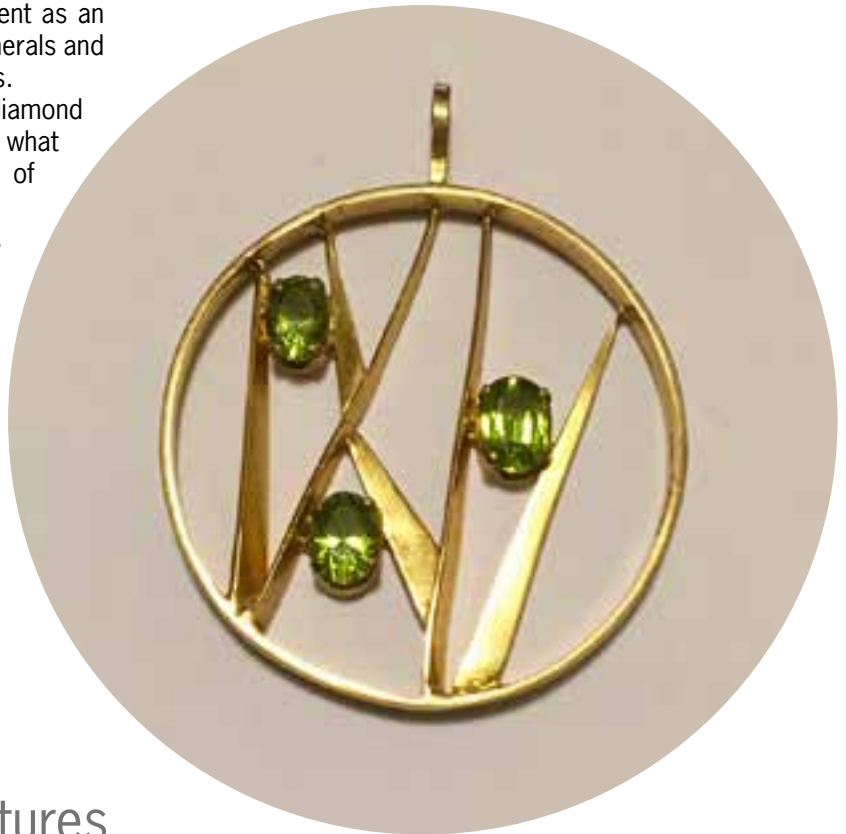
Coloured glass is the basis of vitreous enamels. The colours produced by the metallic oxide pigments can change on firing and different coloured enamels fuse at different temperatures. (Fig8)

Colour is endlessly fascinating, whether you want to investigate its causes or enjoy its effects in jewellery. ¶

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- Unger, M, *Jewellery in context*, Arnoldesche, 2016, p.151.
- Nassau, K, *Scientific American*, 243, 4, 124, 1980.

Figure 6: Gold pendant with peridots. Photo: Lynne Bartlett



‘The different atomic structures interact with light to produce different colours’

Figure 7: Red, white and yellow gold brooch with range of spinels. Photo: Lynne Bartlett



Figure 8: When enamel goes wrong, silver brooch with opaque enamels. Photo: Lynne Bartlett

Colouring titanium and reactive metals

Jeremy Wyatt

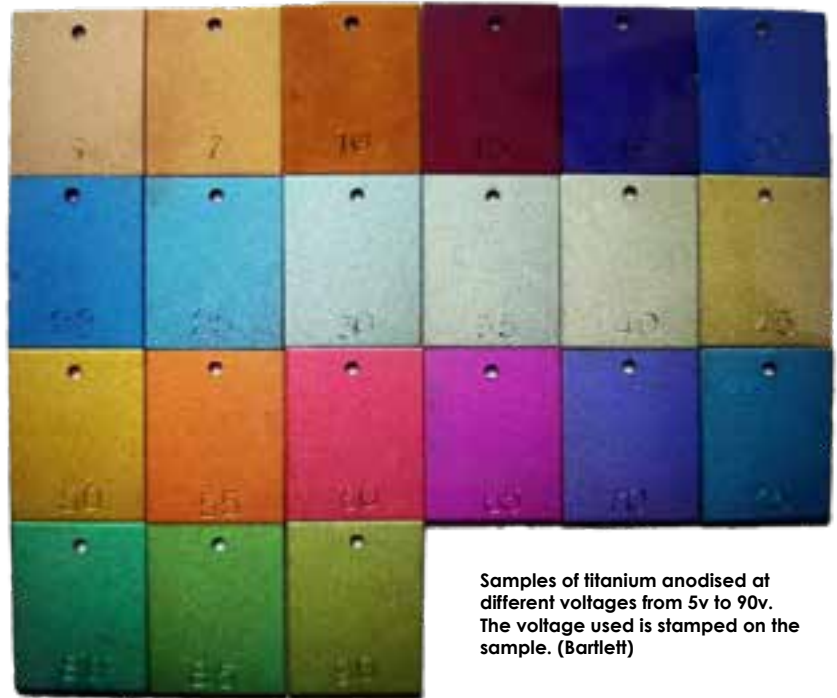
Many jewellers know that titanium, niobium and other “reactive metals” produce spectacular surface colours, but also that they can be tricky to work, join and colour. Here I describe the standard technique used, then share some personal experiences of using these in practice over three decades since studying reactive metals with Edith Sommer in California.

The principles of producing colours on reactive metals

The reactive metals titanium, niobium, tantalum and a few others form an extremely thin durable oxide surface layer whose thickness controls the colour. These are called thin film interference colours and are completely different from the colours on anodised aluminium, as no dye or pigment is involved. It is possible to increase the thickness of this oxide layer in a controlled way using either heat or electricity, and this changes the colour in a specific sequence. This colour sequence is: bare grey metal, light brown, dark brown, violet, indigo, sky blue, pale blue, lemon yellow, gold, orange, pink, purple, azure blue, emerald green, grass green, grey. This colour sequence is shown in the photograph of a series of samples anodised at increasing voltages from 5 to 90 volts (Bartlett).

While some jewellers use heat to form the oxide layer [Ref 2], I use electricity as I find it easier to control. This process is called anodising. To obtain the full range of colours above, you need a DC power supply capable of producing 5-90 volts or higher. This is a potentially dangerous voltage, so always wear rubber gloves when anodising and avoid touching the object being anodised on the cathode. Modern power supplies are protected against short circuits, but the spark can still damage the object being anodised.

You also need an anodising bath containing a dilute electrolyte (I use a level teaspoonful of washing soda per litre of water) and a stainless steel or titanium cathode for the negative connection (see diagram). You can easily combine these two by using a stainless steel bowl or measuring jug. A plastic mesh or sieve is also useful to prevent the object being anodised touching the cathode. Finally, a crocodile clip helps you connect the power supply to the object, but if you are immersing it completely you need to hang it from a titanium or niobium wire, as immersing anything made of other metals in the electrolyte will prevent the object anodising. This means that you must complete all anodising before you assemble the final object using silver rivets, jump rings etc.



Samples of titanium anodised at different voltages from 5v to 90v. The voltage used is stamped on the sample. (Bartlett)

Debby Moxon, Brooch.
Photo: David Chalmers

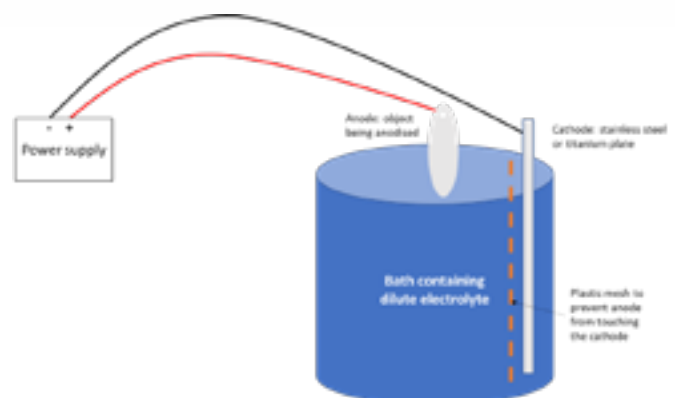


Diagram showing the basic equipment needed for anodising

[continued >](#)

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Matching colours on more than one piece of metal

if you are making earrings for example, you need them to be the exact same colour. The most reliable method to match colours is to cut both items from the same piece of metal keeping the metal sheet the same way round (especially if the surface finish is different on each side) and anodise them at the same voltage and for the same time. I use a double ended niobium wire hook to suspend both earring components in the anodising bath.

Producing several colours on one piece of metal

Sometimes you can set the voltage at just the right level to produce two colours that are adjacent in the colour series. There are also a few more techniques to produce two or more colours on a single piece of metal:

- **Withdrawal:** See photo of striped tube pendant. In this case, the whole strip was anodised at the lowest voltage, then it was repeatedly withdrawn slightly from the anodising bath and the voltage increased. This sequence can also be repeated on the other end of the piece.
- **Abrasion:** anodise the whole piece to the highest voltage colour, then use a file or emery paper to abrade away the colour in places and re-anodise at a lower voltage. You can produce 3 or 4 colours on one piece this way.
- **Masking:** use adhesive tape or varnish to cover the parts that are to be lower voltage colours. Anodise to the highest voltage. Then remove some or all of the tape / varnish and re-anodise at the lower voltage.
- **Free-form anodising with a brush:** here you connect the piece to be coloured to the negative side of the anodiser and the metal ferrule of a small paint brush to the positive side. Using more concentrated electrolyte, you can then “paint” colours in a free-form design. Note that the colours you obtain depend on the speed with which you move the brush, as well as the voltage.



Striped tube pendant coloured using the withdrawal method. Anodised yellow all over first, then pink then purple / green. The highest voltage colour at the top was repeated at the bottom to cover some of the yellow area.

Effects of skin oil. Photo: Jeremy Wyatt

Blue and pink ammonite. Photo: Jeremy Wyatt



Some additional factors that influence these colours

As often found when making, the principles described above are fairly simple, but details also matter. When colouring reactive metals using electricity or heat, I have found that several factors can change the colour:

- The surface finish: colours are stronger with a polished surface and more subtle with a matte or textured surface. However, the colours on a polished or eggshell surface vary with the angle of view more than colours on a matte surface. Sometimes, texturing can influence the actual colour obtained.
- These thin film colours are more sensitive than pigment colours to the type of light illuminating them, for example a piece can look green in daylight but pink in tungsten, fluorescent or LED light.
- When anodising, the type, temperature and concentration of the electrolyte in the anodising bath influence how long the oxide layer takes to form, but usually a minute or two is long enough for the colour to stabilise.
- The type of titanium alloy influences the voltage or temperature at which a given colour forms, and even which colours can be obtained. For example, the aluminium and vanadium-containing alloy used in aerospace and bicycle frames (Grade 5 or Ti6Al4V) forms a slightly wider range of colours than pure titanium but is much harder to work than pure titanium, so is often avoided by jewellers.
- Sometimes the history of that piece of metal can influence which colours form. So, for example, if you go too far in the colour sequence and use emery to clear the colour, sometimes you need to lower the voltage or temperature more than you expected to get the colour you wanted.
- Oil from skin: this can reduce or abolish some of the low voltage colours, making these less attractive for certain objects. Colours produced above 30 volts are less affected by oil from the skin, but this can also depend on the surface finish.

So, as is often the case, experimentation is often needed, and even the best laid plan can sometimes lead to different colours. However, the effects can occasionally be better than intended - the joy of serendipity !

Conclusions

As many jewellers have discovered, you can obtain great colours with reactive metals which can be combined in various ways. However, you do not always get exactly what you want, and you definitely cannot obtain red or black. While it is useful to understand the science behind how these colours form, it is more important to build up practical experience of how each type of metal behaves under various conditions if you wish to use these properties in your work. Best of luck ! ¶

References

- Ward, James Brent, *The Colouring and Working of Refractory Metals*, Worshipful Company of Goldsmiths' Project Report No. 34/1, London September 1978
- Bartlett, Lynne. *Titanium the magical metal*. <http://registration.assayofficelondon.co.uk/media/2567/titanium-the-magical-metal-lynn-bartlett.pdf>



Debby Moxon, flower brooch.
Photo: David Chalmers



James Brent Ward,
Titanium Exploration,
2012.
Photo: Jeremy Wyatt

ACJ Muriel Wilson Bursary

Marion Lebouteiller: Non-toxic patination

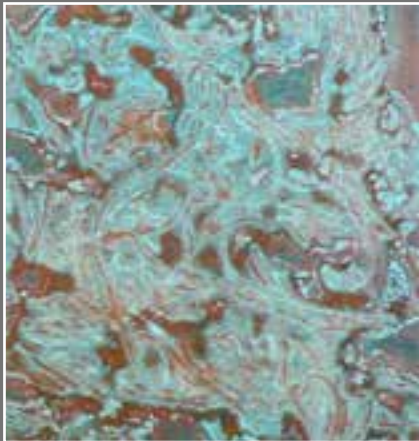


My interest in patination started a little bit by chance when I was working in an art foundry as a chaser on bronze sculptures. One day my colleague (who was the only patinator of the foundry) quit his job without notice and took with him all his secret patination recipes. I then decided to take over the patination workshop as I was curious to learn more about these fascinating techniques. At first, it was really challenging as I didn't have any guidance but after a few months of experimenting (and failing!) I started to feel more confident and began to colour sculptures for renowned bronze artists.

A few years went by and I quit the foundry to start my own jewellery business. I never liked handling dangerous chemicals and as I became more and more aware of the environmental issues I decided to stop patinating. Until... I saw an application for a research project at the School of Jewellery of Québec City and I thought it would be a great opportunity to research new patination recipes using exclusively non-toxic ingredients.

I had a very intense few weeks on the research project in April 2019 and I am pleased that I have managed to find 74 recipes, which I was not expecting at all as after my experience at the foundry, I certainly know how tricky patination can be! Some recipes are very easy to replicate, others will require a little bit more training.

Rock salt, cider vinegar, white vinegar, lemon, radishes, sweet corn, gherkins, ginger, eggs, coffee, natural pigments... my studio looked more like a kitchen than a jewellery workshop!



TWO PATINATION RECIPES

030 TEXTURED BLUE ON COPPER

- 50ml of cider vinegar
- 7g of salt
- Cotton wicks
- Satin-finish copper

Lay the cotton wicks onto the metal sheet and wet it with the solution of cider vinegar and salt. Let it dry and wet it again for a more contrasted result. Remove the cotton and let it dry for 24 hours and wax.



071 TEXTURED BROWNY-RED ON BRASS

- Solution of 200g of nails (not galvanised, old rusty nails are the best) with 500 ml of white vinegar - let it sit for 4 weeks.
- Satin-finish brass

Prepare the solution of nails and white vinegar at least 4 weeks in advance. Filter the solution using a coffee machine filter (only filter what you need for this specific patina, ie. a small glass).

Heat up the sheet and apply the solution with a brush, making quick movements in straight lines from the top to the bottom of the sheet until desired effect is achieved. The solution has to boil on the surface and evaporate almost instantly. Let it cool down, wax and allow to air dry for 24 hours. Apply a second and then third layer of wax making sure to let it sit one hour between each application.

I made the samples on copper, brass, bronze and sterling silver experimenting with the same recipes on different metals. The techniques I used were either applied cold (using either a cold solution or little bits of food that were left on the metal plates for various amounts of time) or applied hot (technique using a blow torch and a brush to gradually build up layers of patina solution).

I tried recipes that were already known, such as oxidising silver using hard-boiled eggs or applying a solution of vinegar and salt to get blue/green on copper. I have also tried some recipes from a Japanese patination book, 'Japanese Patinas' by Eitoku Sugimori, for which I had to prepare different solutions 4 weeks in advance, made of old rusty nails left in a jar of vinegar, beer or even sake. I also tried other recipes from Giles Lasts's patination researches at Central St Martins, London.

Seeing the solutions reacting vividly with the metal was exciting. A thick black foam appeared on the surface of some of the solutions and they also became fizzy! Some solutions were successful, some not.

The challenge while patinating a piece of metal is not really to make it change colour – this is relatively easy to do – but more to get this colour to stay on the metal and not flake off. The colour should be stable and should not leave any marks on the finger when rubbed, and that's the real challenge.

My aim was to do this research to feed my own jewellery practice (and curiosity!) but above all I would like to share my recipes in the hope that it will inspire jewellers to use fewer chemicals in their practice and to gradually turn to non-toxic solutions. ♪

The report is available to download for free in English and French at:
<https://www.ecoledejoaillerie.ca/projet-de-recherche-2020/>

I am so grateful this has been made possible thanks to the ACJ Muriel Wilson Bursary and the School of Jewellery of Québec City.



‘The challenge is to get this colour to stay on the metal’

Japanese patina solutions - rusty nails, vinegar, beer and sake



Kerstin Haigh: Beaks and Feathers

'Beaks and Feathers' is a narrative project that has been rattling around in my head for about 2 years.

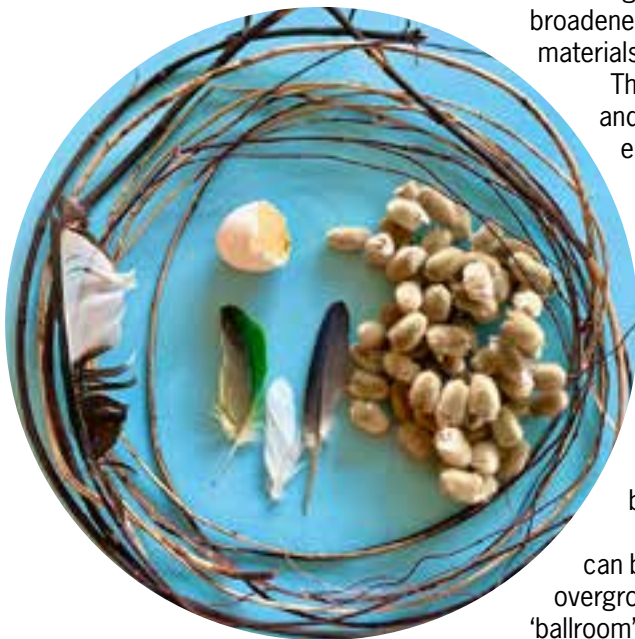
Initially, I had wanted to study puffins and razorbills in the Farne Islands. Unfortunately, lockdown prohibited me from visiting the birds in their natural breeding environment. However, thanks to Thomas Hibbert from The Wildlife Trust, I was given a link to a live 'birdcam' feed and was able to make observations in real-time.

It was frustrating not to take my own photos but, to avoid falling foul of copyright infringements, I have kept my design development to drawing details of the birds and their environments instead.

In the face of these limits I decided to expand my research to include other groups of birds from all corners of the world, which was very liberating. This includes: razorbills for their beaks, kestrels for their fans of tail feathers, bower birds for the arenas they build, the Himalayan monal pheasant for its incredible iridescent colours, parotias for their plumes and tail wires, and the Vogelkop bird of paradise for its illusory, shape shifting dance.

Bower birds are master architects, providing a decorated arbour to win a mate, along with a complex dance and a startlingly varied song pattern. Satin bower birds particularly like blue objects, often blue plastic water bottle lids. The birds collect and carefully position the ornaments to decorate the arena in front of the bower. These plastic 'jewels' are key to winning the female bower bird's affections. I will need to be extra creative to successfully interpret something that would ordinarily be thrown in the recycling.

'I aim to use materials that would naturally be discarded'



I am excited to respond to the bower as I feel humans and bower birds share a relationship with expressing form. We are compelled to either create or appreciate visually arresting craft, both useful and decorative. In contrast, puffins perform a laidback nodding dance and often find an existing burrow to lay one single egg.

Although it's not been easy to focus on this project during lockdown (home schooling instead of a trip to the Farne Islands) the difficulties have significantly broadened how I approach my research and given me greater awareness of materials I have on my doorstep to convey the story.

These past few weeks have been spent researching, drawing, designing and modelling in silver wire and nesting materials. The intention is to emulate the plumes and crests, to show flight and to illustrate in 3D objects the activities and arenas in which the various birds reside. I am working out how to apply strength, flexibility and 'memory' to the wire so it can have kinetic attributes, yet be worn comfortably. I may need to introduce an element of illusion to achieve this, which is in itself very much the centre of many bird displays.

I am also looking at crocheting black threads to emulate the delicacy of the long plume feathers of the parotia. They have tiny muscles at the base of each feather that control the plume displays. I will experiment with combining textures like felt with more typical precious jewellery materials. I aim to use materials that would naturally be discarded or can be responsibly obtained.

Further steps will explore how nesting materials and discarded shells can be integrated into the work. Luckily, I have a wealth of vines in my rather overgrown London garden, with which I will attempt to decorate a bower's 'ballroom'. This collection will be taking shape over the coming months. ¶

Ian Nicholson: Sustainability in the Workshop

20 years ago Ian was in the silver mines of Potosi, Bolivia, where he met a young boy Juan, deep in the mountain. 4000 meters above sea level and 100m below ground, you couldn't get much more of a toxic atmosphere of dust and chemicals going into your lungs with every breath. To be allowed into the mine you had to be guided by a miner and bring gifts to the miners to help them work. These gifts consisted of snacks, tobacco and dynamite. Ian remembers very clearly giving Juan a stick of dynamite so that he and his father could blow up rock around a vein of quartz to help extract fine amounts of silver. It is very unlikely that Juan is still alive today as most miners do not live past the age of 35 due to mine collapse and silicosis. This experience was very much the catalyst behind Ian's drive for ethics and sustainability in his work.

Ian Nicholson is director of the Precious Metals Workshop (PMW) and This is Ian. He steers both organisations towards sustainability and ethical practices. Ian has visited numerous artisanal gold mines around the world in order to help generate awareness around the exploitation in the gold and jewellery supply chains, encourage change in how we all source our materials and to give back to help communities develop.

Ian wrote: The PMW has connected with two women's miners groups in Colombia and Tanzania as part of their commitment to the United Nations 17 Sustainable Development Goals. They aim to host 4 events each year, where they will talk about the women miners and the importance of their organisations and give a profit percentage back to them. These groups are Moyo gems and the miners of Asomuselupaz.

Alongside this project PMW works with Edinburgh Women's Aid, giving a bench space, tuition and business mentoring to one of their service users. This project is currently being developed to allow them to take on a second EWA service user due to the Covid-19 pandemic and the devastating effects that it has had on women who suffer from domestic abuse.

PMW's third project is to provide bench space for two recent graduates to have a free bench for a year, including free business mentoring, to allow them a strong start in setting up their own business.

The PMW is a creative safe space, a haven in the storms of daily life, for all the makers in residence (MIR). It is an all-inclusive, everyone welcome, workshop and facilities provider for hobbyists, jewellers, silversmiths and goldsmiths. In all their classes there is a focus on education, education not only in creative techniques but equally in sustainable materials and information around exploitation in jewellery supply chain and how to source responsibly.

As a goldsmith, Ian Nicholson focusses on the best practice in his guidance for clients in their choices of materials in wedding bands and engagement rings. Ian is licensed to work with Fairmined and Fairtrade gold and silver as well as using Betts' single mine origin gold as the best three options for ethical gold and silver. The next best practice, recycling gold, is often seen as controversial. Many couples will come to Ian and recycle family gold in their new wedding bands, which is a great thing to do. While this is way better than buying standard new gold, recycling old gold is arguably greenwashing materials gained from exploited origins. Ian will only ever use standard gold where it is not available from responsible suppliers and cannot be made in house, such as certain chains and findings.

Ian's main work is with couples choosing their wedding bands and engagement rings. Half of this work is couples coming to the workshop and making their own wedding bands, cast from wax carvings. This is a two day workshop that

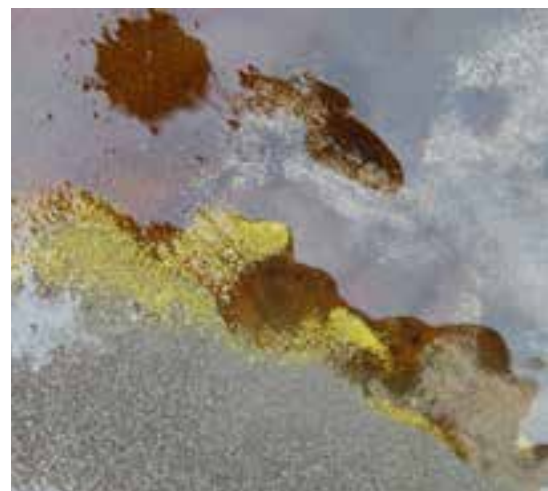


Ian and Rolberto outside Codmillia mine on a Fairmined licensee trip



guarantees a happy pair with the most ethically sourced gold on their fingers for the rest of their lives. For gems with engagement rings, Ian has a supply of Canadian and lab grown diamonds, as well as lab grown coloured gems from reputable, responsible gems dealers. ¶

Separating gold flakes from dirt on the water shaking table. Photo: Ian Nicholson



Fairmined gold that has been panned and smelted. Photo: Ian Nicholson

Hallmarking Agony Aunt

Emma Paragreen

Emma is the Curator, Librarian and Archivist at the Sheffield Assay Office and a director of ACJ

From the 1st May 2020 a new Dealers' Notice was introduced. Make sure you use the new one! You can download it from your Assay Office website.

Hallmarking can seem complicated and confusing, but it is a legal requirement for jewellers working in precious metals to have their work hallmarked and to display the Dealers' Notice when selling.

Over the next couple of issues, our hallmarking agony aunt will be here to explain issues relating to hallmarking, and to answer your questions.

Why do I have to get my work hallmarked?

Assay Offices provide an independent verification of the purity of the metal and this protects the consumer, the honest trader and jeweller. Also, it's the law.

Should it be hallmarked? What are the rules?

The basic principle of the Hallmarking Act is that you must only sell your work as precious metal – silver, gold, palladium or platinum – if it is hallmarked. Describing your work as gold, silver, palladium and platinum without a hallmark in the course of trade or business is an offence, which can be punished with a fine or up to two years in prison.

However, you only need to hallmark a precious item if it weighs more than:

Metal	Weight
Platinum	0.5 grams
Gold	1 gram
Palladium	1 gram
Silver	7.78 grams

What about mixed metals?

Contemporary jewellers in particular use mixed metals. New hallmarking legislation in 2007 made it possible to hallmark mixed metals more accurately. So, an item which is mostly

sterling silver, with some 9ct gold will be marked as '(maker's mark) 925 (Assay Office Mark) 375'. An item which includes silver, 18ct gold, copper and steel can be marked as '(maker's mark) 925 (assay office) 750 +copper, +metal'.

The most important points to note about hallmarking mixed metals are:

- You have to get an item which contains a precious metal hallmarked if the TOTAL weight of all metals in the piece exceeds the minimum weight for that metal. Exclude stones and other non-metal parts.
- All precious metals must be of the minimum legal fineness or the article cannot be hallmarked.
- The item can only be marked if, in the opinion of the Assay Office, a person will be able to determine which part is which precious metal and which parts are base metal. Customers might find brass and gold or silver and (uncoloured) aluminium or titanium hard to tell apart.
- Where possible fineness marks will be placed on the relevant precious metal, (eg 750 on 18ct gold), but often they will be placed with the main hallmark because of the small size of precious elements on a mixed metal piece.

If you have a hallmarking question for Emma, send it to findings@acj.org.uk with the title: Dear Emma. You can also contact your Assay Office, or go to one of the following websites:

British Hallmarking Council

www.gov.uk/government/publications/hallmarking-guidance-notes/hallmarking-is-the-law-guidance-summary
www.gov.uk/government/organisations/british-hallmarking-council/about

Birmingham Assay Office www.theassayoffice.com
 Edinburgh Assay Office www.edinburghassayoffice.co.uk
 London Assay Office www.assayofficelondon.co.uk
 Sheffield Assay Office www.assayoffice.co.uk

Trading Standards

<https://www.tradingstandards.uk/consumers/support-advice>

Dear Emma,

I have made a 'boring meeting' doodle pendant with 7.25g of silver, including the chain and clasp. I deliberately kept it under the 7.78g hallmarking limit for silver, because I was up against a deadline for an exhibition. I have also added copper – I didn't weigh it, but probably about 6g copper. There is a bezel set amethyst and some beads. My friend told me I was breaking the law, because it was the total weight of the piece that counted, not just the weight of silver. Do I have to send this for hallmarking, even though I really need it at the exhibition tomorrow? AAAARRRRGGGGHHHH.

Yours,

Confused and frustrated.

**Dear Confused and frustrated,**

Obviously, in an ideal world, you would plan plenty of time before an exhibition to send items to the Assay office - but we've all faced deadlines that are tighter than we would like. Yes you do have to send this piece to be hallmarked. Here, you've used silver, and the total weight of all metals is over 7.78g. You don't have to include the weight of the stones. One useful tip is to weigh the metal parts as you make them, before you add stones, because if you leave it till the end, it's hard to tell how much of the weight is made up by stones and how much by metals.

Yours,

Emma.

Dear Emma,

I have made a ring with 5g of silver, resin and a stone. The total weight of the ring is about 13g. I want to get it hallmarked, but I am not sure. Do I have to get it hallmarked because the total weight is 13g? Or will they tell me I can't get it hallmarked because there is only 5g of silver?

Yours,

Who made these rules up?

Dear Who made these rules up,

Well, the rules are set down in the Hallmarking Act, and they have to be very precise, because some people are very good at finding ways to cheat. Regarding your ring: no, you don't have to get it hallmarked because the total metal weight is under 7.78g. However, you can get it hallmarked, so long as the silver meets the minimum fineness – if it's sterling silver you are fine. We encourage makers to have items hallmarked regardless of weight as it is a unique selling point to the

customer and will give customers confidence if you say your items of jewellery have been independently assayed (tested) by an Assay Office.

Yours,

Emma

Dear Emma,

I don't need a hallmark for items I am selling through my online shop, do I? It's so hard competing online, without the extra assay costs. Also, I have a necklace which is silver with a tiny bit of gold and some stones. I know I need to get it marked because there is quite a lot of silver, but I don't really need to pay the extra for the gold fineness mark, do I? I'm sure it's less than 1g of gold.

Yours,

Feeling a bit poor.

**Dear Feeling a bit poor,**

First of all, the law about hallmarking also applies to online sales. So yes, you do have to hallmark items you are selling through your website or online shop. You should also display the Dealers' Notice online.

The total weight of your necklace is over 1g, and it contains gold, so it needs to be hallmarked appropriately. The fineness mark for gold will only cost 70p, which is nothing compared with the cost of gold – and the high cost of gold at the moment makes it even more important that customers know exactly what they are buying. I am sure that you wouldn't cheat the system, but some people might try to sell 9ct gold or vermeil as 18ct or 22ct gold.

Yours,

Emma. ¶

Andrew Sutherland Aperture Bowl Palladium, Steel and Brass



Angela Mann: Craft says something

The director of the Great Northern Contemporary Craft Fair talks about responding to the challenges posed by Covid-19.

So, if there is a hierarchy of how badly affected your sector is when it comes to Covid, it's safe to say the events industry comes pretty high.

The Crafts Council's recent landmark survey, 'Market for Craft', published by the Crafts Council, showed that events are a major route to market for makers, with 84% citing fairs and galleries as their foremost revenue sources. Clearly, the impact of cancelled events has been pretty devastating on all concerned.

Great Northern Events organise the award-winning Great Northern Contemporary Craft Fair. GNCCF Manchester is usually held annually in October. Since it was launched by Thomas Heatherwick in 2008, it has showcased more than 2500 artists, attracted over 70,000 visitors and generated over £2.7m of sales. Whilst GNCCF is a mixed craft fair, jewellers make up the largest proportion of makers and jewellery is our biggest seller.

As a not for profit organisation, Great Northern Events is partly dependent on Arts Council funding. When Covid 19 hit, access to this funding was withdrawn, and our venues closed their doors. There was no choice but to cancel all shows planned for 2020.

Our immediate concern was for the makers. We asked them how the pandemic was affecting them and what we could do to help them.

Being a maker in any discipline is multi-faceted. They must have time and space to design, make, promote themselves, sell their work and run a business – as well as manage supporting portfolio careers. In addition to providing opportunities to sell work, fairs, galleries and exhibitions also help raise their profiles. Having all these avenues suddenly taken away, makers found themselves having to do it all themselves, some without their own websites, some without the necessary skills and knowledge, many without access to facilities, studios or materials.

Arts Council England threw a lifeline with their emergency funding for organisations. Our application was successful and we used the funding to keep the GNCCF afloat and give us time to adapt our business model to respond to ongoing changing needs of the sector. We went on to develop and deliver activity over a 6 month period and plan for the period beyond.

July saw the launch of GNCCF online, a week long digital craft fair. It was a steep learning curve for everyone concerned but with 80% of makers stating they would do it again and recommend it to others, I think we can say it was a success. Jewellery remained the highest selling discipline which came as a surprise given the perceived need to 'try on'. Jewellers, it seems, had risen to the challenge and found new ways to show their work, using Insta live demos, video clips, virtual stands and open studios.

There are clearly benefits of an online event – no stand fees, no accommodation or travel costs, no packing and unpacking or having to build your display and no time out of the studio. As well as sales and commissions, makers also reported increases to mailing lists, social media followers and traffic to websites, and with some making sales to Australia, Germany, Belgium and the USA, clearly the potential for audience reach is global.

Kath Russell, who collects hand-made jewellery said, "The main GNCCF exhibition and the 'little' shows are highlights of the year for me. However the online offer generated due to the restrictions around Covid-19 was really impressive and compelling. It was well designed and very well marketed and I enjoyed the direct contact with the jewellers themselves. Although very different it was nonetheless a very positive experience."

Covid 19 has certainly made us all embrace and accelerate new digital ways of working. As craft event organisers there's no denying that online events will continue to be an important part of our organisation's portfolio and of the wider future craft economy.

Of course, online events will never replace the experience of a live event. "Craft says something" is GNCCF's strapline and I think we all agree that craft needs to be seen and touched (and in the case of jewellery, to be tried on) for it to truly speak to you. Meeting and chatting to the maker is also a key part of the live experience, that doesn't always translate that well digitally.

Where do we go from here? Well, we have further online events planned for Christmas 2020 and summer 2021 and we're hoping that October 2021 will see us return to a live version of the Great Northern Contemporary Craft Fair. Like everyone else, we are just doing our best in the circumstances we find ourselves in. ¶

GNCCFonline will take place 21-22nd November 2020
www.greatnorthernevents.co.uk



How will online fairs compare without the personal touch?
 Jewellery by Chris Boland

Coronavirus response

Kassandra Gordon: Black Jewellers' Experiences

Could you tell us about the KLG fund, please?

The Kassandra Lauren Gordon fund aims to support Black jewellers to grow their businesses or survive through the pandemic, because many are missing out on government help. I set up a Go Fund Me page, and raised £26,000, which was more than my target. The money is being administered by the Goldsmiths' Company Charity – I don't touch any of it. Twenty-one people have received a grant. There's also a financial contribution to a research report coming out about Black UK jewellers' experiences, to highlight their unique set of challenges.

Could you help us to understand some of the problems faced by Black jewellers in the UK?

Trust is the biggest problem, being seen as a troublemaker. I got followed in Hatton Garden like a thief. If you're looking at inexpensive stones, they'll let your white counterpart touch and look, but me, they're looking over my shoulder. Or people will ask, 'Did you really make the jewellery?' Sometimes it's subtle, a surprise in people's face, a change in the way they treat me when they realise that the Kassandra Gordon they have been emailing is Black.

Networking is another problem. Black jewellers come into the industry by different routes, it's not knowing at school that jewellery making is even a possible career, it's not getting apprenticeships, not going to Central St Martins and getting alumni support, not getting put in touch with dealers or getting trade references.

The KLG fund and research into Black experiences seem positive to me, but there have been some negative reactions on social media. What do you think is the best way to respond?

Yeah, I've had a lot of backlash from even doing the fund, people thinking I'm advancing my career or scamming or embezzling. I'm not – I just started it off, because I saw a need. There are people being nice to my face and then being rude on Facebook. And people are feeling excluded, thinking 'Why not me?' If they don't have our lived experiences, it can be hard to empathise. But there was one white woman who just calmly responded and gently challenged. Open support helps, and an acknowledgement that anti-racism is hard work, that you have to practise every day, that you have to be prepared to be uncomfortable.

What can the jewellery industry do to help?

There's lots of work to be done. More diversity and inclusion work, helping to open up the supply chain, giving us the same access to all parts of the trade as other groups.

Part 2 of this conversation can be seen in the Spring 2021 edition of Findings. ¶

VEILED REBEL: The grant from the KLG fund is a fantastic development for Veiled Rebel and I am very grateful. It feels as if the judges have faith in my brand. I plan to purchase additional tools and equipment.

Veiled Rebel: Spiky ring on red and black. Photo: Juliet Sheath



CATHERINE MARCHE: I am delighted being a recipient of the KLG fund as my grant is enabling me to grow my business. I am improving my website with new functionalities.



Catherine Marche. Photo: Valerie Sieyes

glasshouses

Tamizan Savill

Earth provides enough to satisfy every man's need, but not for every man's greed - Ghandi

The most pressing issue of our modern world is that of the climate emergency. With a continually increasing population, diminishing resources and the uncomfortable warming of the planet we call home, we must respond.

This was the theme set last year for ACJ's 2020 exhibition. Members have responded by exploring materials, processes and concepts to make body adornment referencing considerations of growth, sustainability, fragility and transparency. Any materials were permitted, with encouragement to re-use, recycle and source materials sustainably.

This exhibition was planned for September & October at the Vittoria Street Gallery, part of the School of Jewellery, Birmingham City University. Like so many events in 2020, the physical exhibition was cancelled due to the pandemic, so we presented the exhibition online, www.acj.org.uk.

This produced several new challenges: a remote selection meeting, how to present the work well online and the quality of available photos. ACJ had planned to have a virtual catalogue (to save paper) but would have arranged a professional photoshoot. Also, the planned one-day symposium has morphed into a series of online events to accompany our AGM in November. A positive outcome has been the delightful collection of short videos, with the makers showing their pieces; some have also shown their process (on the ACJ YouTube channel, link on the website).



Jessica Briggs - Please Recycle Me necklace



Faye Hall - Found 1 brooch

The Selection Panel met by Zoom on a hot August afternoon:
Elizabeth Moignard, Professor of Classics, University of Glasgow, ACJ member since 1997
Katy Tromans, BA & HND Lecturer, School of Jewellery, co-ordinator of the Vittoria Street Gallery
Tamizan Savill, ACJ's Chief Executive and exhibition manager

They examined the strength of the design, quality of making, and relevance to the theme; the quality of the photographs supplied was important for this exhibition as all of the photographs exhibited were supplied by the makers. ACJ's usual high exhibition standards have been well maintained with the selected work. Materials included found objects, discarded plastics, wool, recycled silver and Rachael Colley's intriguing **Sha-Green** made of dried citrus peel, a replacement for traditional sharkskin shagreen.

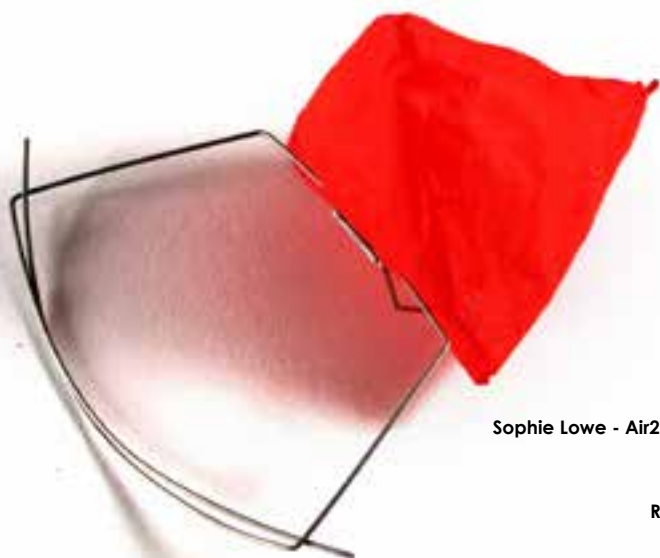
Masako Hamaguchi made a large necklace from a year's combings of her Welsh corgi Jiro's fur; this sits well alongside Mandy Nash's **Woolly Collection**, felted from rare breed sheep fleeces. Also using textiles, Ashley Heminway's georgette necklaces were hand dyed and pleated. Eleanor Symms often uses discarded plastic objects and her **Currents** necklaces incorporate AC/DC units from a school laboratory. Deborah Beck also formed recycled plastics for her **Legacy** series, and Hendrike Barz Meltzer cut up HDPE milk containers, with surprisingly delicate results. Jessica Briggs made two long necklaces from bottle tops (she did not drink all the beer and wine). Sophie Lowe used recycled reformed tea bags to make some beautifully light volumes. Faye Hall included found glass, Meron Wolde uses recycled silver, as does Silke Espinet, and Xuella Arnold recycled bronze.



Linda Connelly - Botanical Gardens Wisley Necklace

We also see narrative and conceptual pieces: Dr Allison Macleod's 3D printed rings inspired by Greta Thunberg; Terry Hunt's frightening and amusing **Oblivion** and **Utopia** triptych neckpieces; Gail Ferriman's series on climate change; Kim Nogueira's strangely disturbing brooches incorporating antique tintypes. Sue Wainwright's three pendants live in their own sealed 'glasshouses' made of watch glasses. Linda Connelly's enamelled pendant was inspired by the Botanical Glasshouses at RHS Wisley.

The exhibition is really varied and interesting; it would have been a real pleasure to curate the physical exhibition and handle all the jewellery. ¶



Sophie Lowe - Air2 brooch

Rachael Colley Sha - green brooch



Terry Hunt - Oblivion neckpiece



Goldsmiths' Fair Review 2020

Candy Matterson

For the first time in its 38 year history, Goldsmiths' Fair was online in 2020.

I had pre-booked online feeling very unsure about the mechanism for connecting. However, on the opening day Goldsmiths' sent an email link. One click and I was right there with efficient drop-down menus for artists, jewellery types and more, with top quality images and contemporary and traditional jewellery for every taste. Nothing stuttered or stopped during my visit.

I can find technology challenging, as my family will attest, but the navigation was simple and effective. However, by just page 4. I was beginning to flag. Although a glass of something might have been helpful, it might also have loosened my grip on my credit card. I was attracted to Jo McAllister's brooches 'My Grandmothers Hands,' making use of vintage jewellery. Unfortunately, the inability to adequately visualise their size and mounting material was frustrating. Next, Sam Waterhouse's 'Bangle,' a 'timeless' piece made in green and fine gold inlay. The coloured gold is cleverly inlaid using alloys Waterhouse makes himself. His pieces, which are centred on process and evolve from historical ceramics and metalwork, combine technical skill with thoughtful contemporary presentation. I coveted this badly, worth every penny of £8,000.

In the astronomic price range Tom Rucker caught my eye with his dramatic 'Nion' piece. A client (at least one like me!) is unlikely to spend £24,000 outright online but along with a slick, professional YouTube video it makes its case. I thought it a strong teaser for a more regular style artist contact and that there was something to learn from this.

Goldsmiths' *raison d'être* is precious metal and that is what they gave us here, and they did it very well. The exhibition was still essentially 2D, despite the YouTube artist videos. They could take a hint from ACJ with the almost tactile very short video clips that are currently appearing on Facebook. This greatly enhances the enjoyment and understanding of the piece for me. A few seconds' 'handling' video would be my recommendation for all artists if this crisis continues.



Tom Rucker - Nion Necklace



Samuel Waterhouse - Inlaid Bangle



Talk 'The Brooch'

An interesting talk by two educated fans of the brooch, Rachel Church (V&A), and Dora Thornton (Goldsmiths' Hall), which of course lacked the buzz of being in the room. Sadly, the video quality was poor. Pieces were mostly held to camera half out of shot and always out of focus. The screen view was jumpy and pixelated. I was disappointed as they had said they would show the backs and construction detail which we then missed. Interspersed were professional still shots of some brooches. Alas these were front views from the online exhibition. ¶

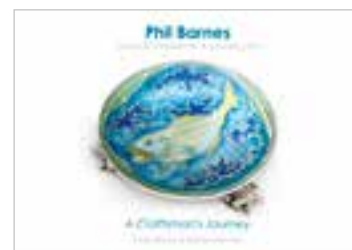
The talk is now recorded and can be accessed at a future date.

Jo McAllister - Grandmothers Hands

Phil Barnes, Master Engraver & Enameller

by Linda Barnes & Gordon Hamme

Tamizan Savill



This beautiful book, with 128 full colour pages, celebrates the life and work of Phil Barnes, one of the world's best enamellers of the last 40 years. It's written by Phil's wife Linda Barnes and his friend and collector Dr Gordon Hamme.

Phil developed his skills in engraving and enamelling to the highest levels, winning multiple awards and accolades, including the Cartier Award aged just 19 (he was the youngest ever winner). Phil's excellent technical manual *Engraving and Enamelling – the Art of Champlevé* (Crowood Press) was published a few months before his death in May 2019. He wanted to write a book about his father Fred Barnes' life, and his own enamelling journey, but did not complete this work.

The first section of this book is that story. Fred's career from the first day of his apprenticeship in 1926 to his teaching at the Central School of Art & Design (which became the Cass) is shown with many photos of people and places. Phil was aged just fifteen when he joined CF Barnes; there are many lovely details of life as an apprentice, and of the world of trade enamelling of the times. Phil's later career in the trade and as

an independent craftsman is also told well, and the photos are a great addition to the tale.

There's a section on the making of the Dunwich Bowl, a late and larger work which took over 400 hours, with fabulous process pics taken by Phil's wife Linda Barnes.

The largest section of the book is made up of images of pieces enamelled for companies including Ingo Henn, Leo de Vroomen and Elizabeth Gage. 25 pages show Phil's own designs and touchingly, a page on his unfinished last work *The Chalice of Time*.

Linda, Gordon and enameller Fred Rich gave a webcast about the book for the Silver Society; this hour long video may be viewed online via the Festival of Silver website www.festivalofsilver.co.uk.

This book is a high quality hymn to an excellent craftsman and lovely man. Phil was funny, modest, patient and always happy to help other enamellers improve their work. At £30 this is an investment, and it is a pleasure to hold and to read. ¶

Mastering Contemporary Jewelry Design

By Loretta Lam, Schiffer Publishing

Anne Earls Boylan



Lam's book is styled as a go-to reference publication focussed on developing the vocabulary of design, that will help inspire and improve your ability to communicate ideas effectively in your jewellery pieces. Its scope ranges from 'Designing Jewelry Sets' to working with conceptual ideas, providing examples drawn from commercial to artistic, gallery-based work.

There are over 125 images of work from around the world, giving a sense of diversity, which is particularly good for early stage jewellers working alone from the studio. The book will also have appeal to mid-career jewellers in need of a self-help refresh or change in direction.

Lam begins with a seductively illustrated section on Inspiration. The varied processes of idea becoming object is described and illustrated by jewellery artists such as Myung Urso and Amy Tavern, to good effect.

Lam methodically takes the reader through a design toolbox to explore a variety of simple processes that help you get started. By looking at line, shape, form, colour,

texture and pattern, regular highlighted sections provide short snappy exercises. These encourage engagement and are formatted as simple illustrations suggesting balance, position, character of line, to help keep the reader comfortable in the challenge and open to possibilities. The design toolbox closes with a 5-step section addressing critique, an important and sometimes difficult part of the design process.

Lam closes the book with a gallery of images acting as a visual summary, showing how professional jewellers have effectively employed the techniques illustrated. In doing so, they find their voice. Readers are encouraged to make this their goal as 'we are all trying to make better art all the time'.

Overall, it feels like the book is aimed at early career jewellers and tailors its illustrations and language towards this audience. I would have valued some reference to boundary pushing or challenging work. *Mastering Contemporary Jewelry Design* will appeal to those wanting take a degree of risk but may not excite the rebellious activists to the same extent! ¶

Competition: Win a starter pack of Moleroda finishing products

First prize: **a starter pack of Moleroda finishing products**

The winning piece and two runners up will be printed in the Spring 2021 issue of Findings.

Theme: Bubble

Submit one design or photo of a finished piece (can be a phone snap) on the theme of: Bubble. The protection, comfort and claustrophobic constraints of being in a bubble, or the joy of blowing bubbles as a child spring to mind. Any relevant interpretation will be considered.

Deadline for entries: 15 February 2021.

All entrants must be ACJ members. The judges' decision is final.

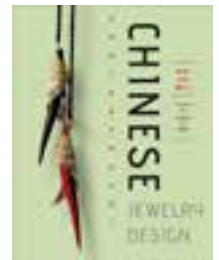
With thanks to Moleroda Finishing Systems Ltd. Moleroda Finishing Systems Ltd is a well-established manufacturer and supplier of polishing and abrasive products to the jewellery trade and precision engineering sector. The prize pack includes Moleroda's own felt ranges and abrasive nylon buffing balls. The pack also includes MicroMesh files and pads as well as some mops and compounds. All you need to get the perfect finish.
<https://www.polishingjewellery.co.uk/>
<https://www.moleroda.com/>



Chinese Contemporary Jewelry

Bifei Cao, Schiffer Publishing, 17 November 2020

Li Prim



I started learning contemporary jewellery in 2015 when I was still in Beijing. At that time, I needed to go to a foreign design bookstore in Sanlitun to browse the English magazines of contemporary jewellery with only half a shelf. I was full of joy when I looked at the interlaced content of pictures and words. In 2017, I started to study jewellery at Birmingham School of Jewellery. The library of the school has a wealth of books, periodicals and magazines. I was reading with satisfaction, but I also regretted that I had never seen a comprehensive overview of Chinese contemporary jewellery, like Bifei Cao's new work.

When reading this book, my brain is filled with many exciting thoughts. Before all other thoughts, I want to thank the pioneers of Chinese contemporary jewellery for their hard work. In this book, I saw exhibitions and WeChat platforms that I am familiar with, and I have benefited a lot from these platforms. There is an old Chinese saying that "the predecessors planted trees, the descendants take advantage of the shade".

This book introduces the rise and development of Chinese contemporary jewellery, throughout history, the founders of jewellery programs in different schools, the researchers of improving education methods, and other pioneers in this field have made great efforts for our current learning environment.

When sitting under the "tree", we can also discuss how to develop our "forest" while enjoying the shade; the inheritance and hard work of generations of jewellery artists are very precious.

This book also introduces a large number of Chinese contemporary jewellery artists and their works. When I browsed, I felt as if I was in the middle of a galaxy, with every star shining brightly. China, from ethnic tribes with unique cultures to modern open first-tier cities, from poor mountainous areas where cattle farming is still maintained to automated high-tech factories, this country now has a large cultural and developmental span. Many of us have experienced the transformation of the learning environment from China to abroad. While we love and respect traditional Chinese craftsmanship, we have new thinking and expression. While inheriting and adhering to traditional Chinese culture, we also hope to absorb the advantages of Western methods. However, it is not easy to achieve all this. Persistence and openness, tradition and cutting-edge, innovation and realization require the efforts of every star in the galaxy. As large as the design of the teaching method of one school and one department, as small as the struggle of each of us to express ourselves in our own works, as a jeweller, when I see every achievement in the book, it is not difficult to think of their thinking and exploration process. ¶

Spring 2020 winner and runners up.

The quality of entries for the Spring competition with the theme 'Recovery' was very high, and the judges had a tough time picking a single winner. In the end, the judges decided on a piece which embodies recovery through the process of jewellery making. The link between the piece, the statement and the competition theme was clear. With thanks to H. S. Walsh for the generous first prize of a £50 voucher.

Winner: Chien-Yu Liu 'One moment to another'

'The development of the piece has followed the arc of my recovery from a period of loss. The durable medium is layered back and forth, annealed and gradually solidified by virtue of the spiritual hammering. I attempt to respond to the ephemerality in the meditative progress.'



Chien-Yu Liu
'One moment to another'

Runners up

After much discussion, the judges decided that there were three entries worthy of runner up status.

Masako Hamaguchi, 'A brooch, a flower...'



Sue Wainwright, 'Vigour'

Jo Tallis, 'Lockdown Blues and Greens'



Kirsten Estaugh's winning piece from the 2019 competition, with thanks to Nielson Photography who offered a professional photograph as a prize



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