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Editorial

Another 3 months gone by and Zoom this and that has become a way of life for our members. But there is light at the end of the tunnel - small groups may now get together to discuss our ceramics and individuals can take part in shows.

With the easing of covid regulations BK2021 is on course to open (see page 2). Please advertise it widely to ensure that the extraordinary hard work put in by the exhibition team and exhibitors reaps the success it deserves.

Neil Dewey

Group and Members News

SCG ZOOM LECTURES

Hosted by Tim Thornton the programme for the next lecture is on 6 July - Lee Cartledge on Richard Bateson and the Potteries of Burton-in-Lonsdale. Booking details will be announced via Tony Thompson's mailings.

SCG LIVE DEMONSTRATIONS

We hope to start our program of SCG demonstrations with invited ceramicists as soon as we have a clear indication that such events will fall within covid regulations relating to numbers in a room, social distancing, face masks, eating and drinking. When we have clarity on these issues, we will contact you by email with registration details on the SCG web site.

In anticipation that by early 2022 some progress will have been made Porchester Community Centre has been booked for our AGM on Sunday 23 January.

NEXT COMMITTEE MEETING

Our next meeting will be online, courtesy of Zoom on Monday 5 July at 7.30.

If you have anything you would like to bring to our attention please contact:

Sandie Dixon, Hon. Sec., 2sandie@tiscali.co.uk, 07899 948019 or any other member of the committee.

NEW MEMBERS

A warm welcome to our new members:-

Mr Peter Evans	Worthing
Mrs Cath Raine	Aldershot
Ms Caroline Wadhams	Southsea
Ms Amelie Collyer	Worthing
Mrs Amanda Langford	Milford on Sea

Dr Louise Watson	Westborne
Miss Katie Netley	Petworth
Miss Louise Mahoney	Waltham
Mrs Susan Bailey	Waltham Chase
Mrs Charlotte MacArthur	Southampton

SOUTHERN CERAMIC GROUP CERAMICS EXHIBITION

31ST JULY - 15TH AUG 2021
OPEN DAILY 10AM - 5PM
FREE ENTRY

THE BISHOP'S KITCHEN,
CHICHESTER CATHEDRAL,
PO19 1PX



www.southernceramicgroup.org.uk
Over 600 items to view and buy

BK2021 is alive and flourishing! There are about 65 exhibitors (including over a dozen newcomers). With about 600 wonderful and varied ceramic items to view and buy, this year promises to be a smasher (so to speak!).

We will not be having a Private View on the Friday evening this year. We discussed running it via Zoom but for a variety of reasons decided against it. Hopefully next year we will be fully back to normal.

We will have the usual covid precautions in place - hand sanitiser will be available and masks are likely to be required inside - and we will be monitoring the numbers of visitors inside the exhibition space as well as managing the flow of visitors keeping government guidelines in mind.

Please do advertise the exhibition widely to anyone you know - e-copies as well as hard copies of the flyers and posters are available

Vasu Reddy

What's On and Been On



CHALK'S ART & CRAFT GALLERY LYMINGTON

Harriet Wesley says -

At Chalk's we are very excited to open our Summer Exhibition called 'From the Forest to the Sea' which features a beautiful range of coastal and forest themed work by predominately local artists. We have a fantastic range of ceramics which features some members from the Southern Ceramic Group that you might recognise.

We have Sandy Dixon, Holly Sandham, Libby Daniels, Ross Nelson, Colin Jones, Jill Maguire, and of course myself!

We also have some beautiful paintings, prints, glass, woodwork, metalwork, jewellery and textiles. So if you're in the Lymington area over the summer, pop in and say 'hello' and have a browse of our gallery!

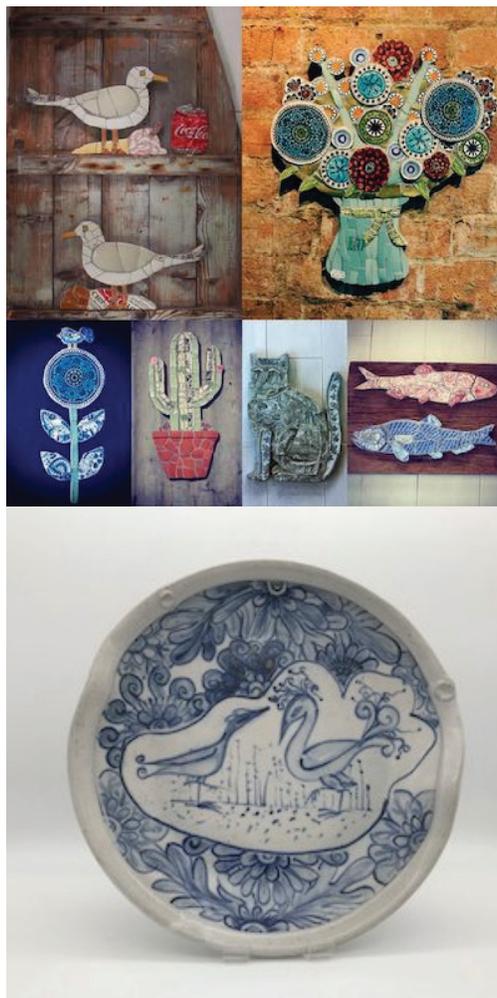
THE CREATIVE GALLERY - WAREHAM

Colin Robert Davis: "Made from Shards", 1-31 July

After a really successful exhibition after lockdown 2020, one year on Colin returns to the Gallery to show another selection of his wonderful mosaic pieces of birds, beasts, flowers & trophies.

Lesley Dixon, 1-30 September

Lesley has promised us a wide range of her creations in clay, from her beautiful blue and white wares to more sculptural bird baths.



Please check out

www.facebook.com/creativegallerywareham

www.instagram.com/creativegallerywareham

Or visit us at:

The Creative Gallery, St John's Hill, Wareham, BH20 4NB

Daily 10am-5pm

01929 551505

www.creativegallerywareham.co.uk

What's On and Been On - cont.

ART SPACE - PORTSMOUTH



40 YEARS OF ART SPACE PORTSMOUTH

OPEN STUDIOS
Sat 3rd + Sun 4th July
11am - 5pm

Admission FREE!

ART SPACE PORTSMOUTH

OPEN STUDIOS
Sat 3rd + Sun 4th July 11am - 5pm

ASP & ASPEX DIRECTORS TALK: PAST & PRESENT
Les Buckingham & Jo Bushnell in conversation
2pm Sat 3rd July

THE CARAVAN GALLERY
On site and interactive for Open Studios

REFRESHMENTS
Hunter Gatherer on site for Open Studios
with their pop-up cafe

EXHIBITION: 40 YEARS OF Art Space Portsmouth
Every Fri, Sat and Sun
2nd July until 1st Aug
11am - 4pm

Art Space host 30 working studios for professional visual artists and makers. The 145 year old converted church has exhibited many extraordinary artists in the past including Turner Prize winner, Martin Creed and many nominees, Helen Chadwick, Cornelia Parker, Richard Hamilton and Mona Hatoum.

Lynn Nicholls, SCG ceramicist, has had her studio based there for the past 3 years.



Art Space Portsmouth
27 Brougham Road, Southsea, Portsmouth, PO5 4PA
Tel: 023 9287 4523
[E-mail: info@artspace.co.uk](mailto:info@artspace.co.uk)
www.artspace.co.uk

What's On and Been On - cont.

HOTWALLS WEEKEND - 29 & 30 May

Five SCG members were at the Hotwalls Creative Market over the Bank Holiday weekend. I think we all found it great to be back meeting people as well as making some sales. The weather was fantastic too.

Lynn Nicholls



Wendy Brenan



Vasu Reddy



Helen Scribbans



Caroline Wadhams



Lynn Nicholls

Social Media

Find us on

The Southern Ceramic Group has its own Facebook page and it is easy to find using the following link; <https://www.facebook.com/southernceramicgroup>

If you visit you will find announcements, details about events and photos. These are usually posted by one of the committee members but anybody who has joined the Facebook group can post. It offers a great opportunity to chat to other potters. You can show your work or ask for help with a particular problem. Potters are generous people and always willing to teach, advise and share the lessons they have learnt.

Not on Facebook?

It is easy to join and simple to use and you are in complete control of the information that you wish to share and the friends that you want to have. I have found two videos on You Tube that will guide you through the necessary steps.

How to Setup a Facebook Account

<https://www.youtube.com/watch?v=zf5q0oS0FM>

Facebook for Seniors, Grandparents & Boomers FREE Short Video Course & Preview

<https://www.youtube.com/watch?v=FVy6q2JHfKU>

Daunted? Then let us know and we will find somebody to talk you through it.

Connect, share, and learn.

There are a lot of groups on Facebook that have something to do with ceramics. Some are focused on the UK and others are global. I have found everyone to be kind, helpful and supportive.

Finally

Please post on the Southern Ceramic Group Facebook page. Show your recent work. Share a disaster. Seek the solution to a problem.

Currently all our lives are restricted to one degree or another so please reach out, share and communicate.

Jane Ogden-Smith

scg_membership@southernceramicgroup.org.uk

TIM THORNTON

Tim runs the SCG social media accounts on Facebook and Instagram. Whilst these have been useful in helping to promote our exhibitions the aim is to keep them active all year round, (particularly as we are still unable to run events due to Covid restrictions), in order to spread information round to members of the group (this will be in addition to existing channels like Tony's emails and the newsletter).

Please email Tim with anything you'd like posted – it could be a nice pot you've made, some spare kit you want to sell off, an exhibition you attended or you have coming up, or anything else that may be relevant. Also, images! Preferably at least 1024 pixels square resolution (don't worry about them being too large), and if they can have nice wide borders it makes it easier for him to crop them to the different image sizes for Instagram and Facebook use. If you have video,

then even better. But without images it won't get posted on Instagram, and you'll need to persuade him that it is worth posting on the other accounts.

Our accounts are below – please follow them, so SCG posts appear in your feed.

Also, if you would like SCG members to see what you are posting on your social media account(s), please use the following link to let us know your account details:

<https://www.southernceramicgroup.org.uk/members-page/social-media/>

Southern Ceramic Group Social Media

Instagram: [@southernceramicgroup](https://www.instagram.com/southernceramicgroup)

Facebook: [@southernceramicgroup](https://www.facebook.com/southernceramicgroup)

Tim Thornton

scg_social@southernceramicgroup.org.uk

SCG ZOOM ACCOUNT

We have paid for our Zoom account, so we are not restricted to 40 minute calls and other limitations of a free account. If you are wanting to use Zoom for any SCG activities, please email Tim Thornton.

scg_social@southernceramicgroup.org.uk

Glaze Group March 2021 - Zoom meeting minutes

Present: Kevin Akhurst, Richard Brockman, Lesley Dixon, Mick Dixon, Jan Griffiths, Sue Kelly, Ruth Padday, Sally Pascall, Vasu Reddy, Eugenie Smit, Linda Smith, Claire Stevens, Charles Stileman, Tim Thornton, Diana Wren

VASU REDDY

Vasu asked about flamework – high mica stoneware versus local low fired clay. Tim said that for the low fired approach it needed to be groggy and underfired to be flexible enough to absorb the thermal shock.

LESLEY DIXON



Doing pots for succulents for her daughter. Decided to use Raku as her daughter wants them to be porous. Decided to do a white crackle glaze. Tried Ferguson's White on 2 clays, and a crackle white (LT24). Not much crackling, so tried a higher temperature as somebody had advised, but no crackle.



initial crazing tests

fired higher



raku succulent pot



Jan Griffiths and Linda Smith suggested pausing between taking out of the kiln and putting into reduction – wait till it “sings” with the glaze starting to crackle. Kevin pointed out that the more the clay shrinks, the less crackling there will be. Tim suggested putting the glaze on thicker. Also, speed up crackling by soaking the pot in water or putting it in a pressure cooker, to make the clay expand from absorbed water and cause crazing. Eugenie, Jan and Vasu said earthenware shrinks less than other clays – 6-8%

MICK DIXON



Showed nuka glaze results. Found it works well on top of tenmoku and other glazes and slips, but applied the lower glaze applied thinly to minimise running. Showed a tessa glaze, black and blue slips underneath the nuka glaze.

Vasu had tried nuka underneath tenmoku, which didn't work well.

Eugenie asked what is a nuka glaze? Tim replied 3 parts rice husk ash, 2 unwashed wood ash, 1 kaolin – and the phosphorous in the raw materials causes more variegation. Kevin said low aluminium. Jan said the rice husk ash content varies with the time of year. Jan had tried using reed ash.

Mick is using flint instead of rice husk ash.

Discussion on how nuka causes movement if on top of a glaze or slip, but not if underneath another glaze, but no firm conclusions.

RUTH PADDAY

Showed a vase made by Jan with the movement of the glaze, and another piece, wanting tips on how to create more movement in the glazes.

Kevin suggests low aluminium and more flux to make it run more. Jan said experiment on the inside of a bowl to save the kiln shelves! Mick said he finds glazes runs more on white glazes.

JAN GRIFFITHS

Showed a teapot made by Ruthann Tudball, with International Women's Day coming up.

Recommended the COCA Clay Council / Leach series of Zoom talks, seconded by Ruth Padday. Tim mentioned NCECA coming up, online this year. Jan also mentioned the Collect talks, up on the Crafts Council website.



CHARLES STILEMAN

Talked about a Dolomite glaze that he used at Morley College, which used to hardpan. He solved it by replacing the kaolin with ball clay, 90% by weight, though this caused some reticulation/crawling, which he then used to good effect putting the light glaze over a dark slip. He did the calcs in a spreadsheet he developed on an early spreadsheet, instead of using a slide rule as was the custom then. Kevin asked if the reticulation was due to crawling – Charles said he thought it was because the glaze didn't fully wet out.

Mike Bush had a heart attack a year or so ago, which is why we haven't seen him for a while. He seems to have recovered OK.

KEVIN AKHURST



Talked about glaze testing in his soda fired kiln – he generally puts test glazes onto small bowls and puts them into gaps in the kiln.

He was working on cobalt blue slips. Slips were up to 3% cobalt, 40 – 10% clay. High clay, high cobalt slips came out almost matt black. Some had rutile, manganese etc. Where there was more salt, like on the front of the pots, the cobalt blue came out better. The best ones were a couple of slips with 40% clay, a cobalt wash, and cobalt added to an iron glaze.

EUGENIE SMIT

Trying using underglaze and stain, with a thin layer of glaze on top, but it isn't sticking properly. Worked on paper clay with a wash of copper carbonate, but not working on normal clays.

Vasu and Linda Smith said they found that underglaze was very dependent on thickness – it worked better to have several layers of thin underglaze rather than a single layer with little water.

Eugenie was also trying metallic glazes. She'd tried a lot of copper carbonate but it was too thick and she lost detail. Jan has a manganese and copper clay recipe she'd send through. Tim suggested a lustre glaze – Jan found the smell offputting; Eugenie had tried it but put it on too thick.

RICHARD BROCKMAN

Has done some raku, and now bought a kiln. Planning on doing some firing once the weather warms up. Listening and learning!

Eugenie said she'd been trying to get bright colours when pit and barrel firing, but was worried about adding too much flux. Jan suggested using a saggar. Linda Smith said she'd seen a video of a Japanese firer using fireclay as wadding.

CLAIRE STEVENS

Had been using Amaco Potter's Choice glazes, but found they were too thick. So she did a lot more sculpted pieces. Flat platters work at Cone5 and 4, but at Cone3 she gets a very sharp crack across the piece, sometimes at bisque and sometimes in the glaze firing. Using sausage rollers underneath. Probably due to cooling in the middle taking longer than at the edge. Consensus was to try slower cooling, and also possibly

using aluminium oxide or sand instead of rollers to fire on.

TIM THORNTON

Showed some bottle forms he'd been working on, with running lead glazes, and also an oil spot glaze. Bottles are sized to fit a standard card bottle package for shipping. Other clays had shown flashing with a wash of the water from a wood ash glaze, but it didn't happen with this clay.

Showed bowls fired in oxidation with a wood ash glaze, where the colour of the clay came through to the surface with a longer soak.

He showed his own and other Nuka glaze recipes in glazy.org.

He showed graphs of dust levels declining with time, with no ventilation (when it took over an hour to decline) and with an air filter (which took about half an hour). He talked about the benefits of having an airflow by having a couple of windows open.

SUE KELLY

Playing with ash glazes. Showed 50/50 ash with and without stain, a fake ash glaze with stain, and a dolomite crystal glaze. Looking for a satin finish with a fair bit of variation in the glaze. Tim mentioned his test series on Glazy, and suggested that 1240C was probably a bit low without adding more fluxes. Kevin mentioned Phil Roger's book on ash glazes, and Jan recommended Robert Mellon's book. Tim and Kevin mentioned Daniel de Montmollin's book.

DIANA WREN

Diana showed a mandrake form parsnip, and showed a sculpture she's working on, based on the piece.

Members Profile - Caroline Wadhams (a.k.a. Liu Qian)



I grew up in a Chinese village in the 1980s. Making is what my mum always did. Like all the other women in the village, she learnt how to turn the humblest materials into something useful. At the time, making for my mum was both a skill and a necessity.

Decades later I migrated to UK and built a professional career for a number of years, yet somehow I always intuitively wanted to create with my hands and lead a more creative life. So around 2013 I joined the FDAD (Foundation Diploma in Art and Design) course run by West Dean College, through which I met Veronique Maria, who later became my creative mentor.

My Village Home In China

In 2018 I took a short career break and studied contemporary art through a summer school run by Chelsea College of Art. I felt at the time I was on cross roads and I had to make a decision in order to move forward. Art up to that point felt like more of an escape, other than a part of my more being.

After the summer school I took on a series of creative coaching sessions with Veronique. Now looking back I felt I needed a push in order to make some important life decisions. The main outcome from the coaching was that I realised that I wanted, more than anything else in the world, to lead a life in the arts.

In January 2019 I made the decision to move to London, in order to study ceramics and art whilst working in London. Making with clay came natural to me. Clay as a material feels both humble and familiar; it brought me back the memory of being the carefree child in the village, with imagination running wild.



Vase (2020), inspired by the woods from my village

a stoneware vase made in 2020, aesthetics of which I would like to take forward in my work



Members Profile - Caroline Wadhams - cont.

Currently I am based in Portsmouth and about to put on a show with Citylit, as part of our one-year long course Contemporary Practice: Personal Project (CPPP). As a ceramic maker, I wanted to locate myself in the realm of contemporary art practice and search for the meaning of making. After all I didn't feel the world needed another pot made by me.

Through research, inquiries, studio practices as well as dialogues with Citylit art tutors, fellow artists and makers during the past year, I feel now I am surer in terms of my path forward: I would like to use ceramics as an agency in re-connecting myself with China, and as a way of living and experiencing life as an overseas Chinese artist.

Me making



I feel for a long time I disconnected myself from my past and my cultural identity given by birth, with many reasons that I only understood much later. Studying ceramics brought me home. Making ceramics, over the time, has become my core being, and my window of experiencing the world and life around me.

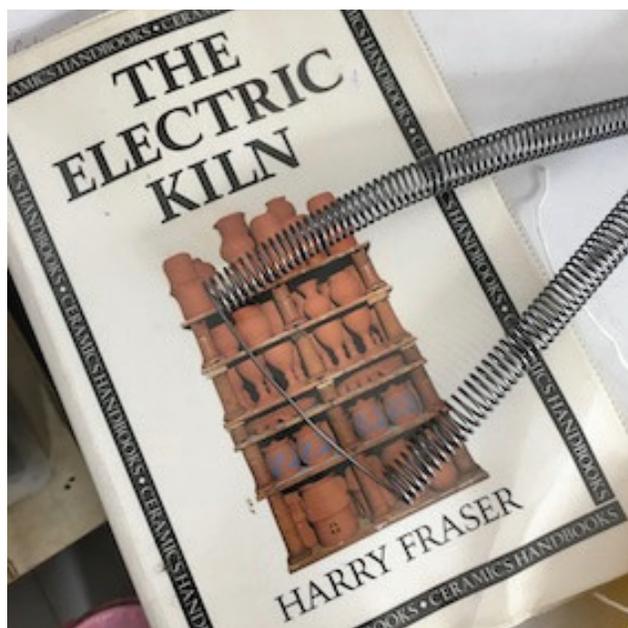
I am grateful for the journey thus far and very much look forward to the journey ahead.

Website: qianceramics.com

Instagram: <https://www.instagram.com/carolinewadhams/>

Replacing Kiln Elements With Professional Help - Katherine Schafli

If like me you have no previous experience of rewiring kiln elements, I hope this can be of help.



I bought my front-loading kiln second-hand. It was an opportunity I didn't want to pass up but was unable to get any 'user' information from the owner so I assumed that the kiln had not been fired for some years, and had never been re-wired. From the outset I expected it to need at least a service but had no idea how, or who to go to for help, so took a carry-on-regardless approach.

After a couple of years of fairly infrequent but successful firings the kiln began struggling to get above 1150°C and glaze firing became really problematic. I had no consistency and everything was hit or miss.

I needed help. To get myself started I bought a copy of a now out-of-print book, "The Electric Kiln", Harry Fraser which was published in the same era as the kiln was built, 1997. Even if you have a more modern kiln, I highly recommend getting your hands on this if possible - apparently [available at public libraries locally](#).

Replacing Kiln Elements With Professional Help - cont.

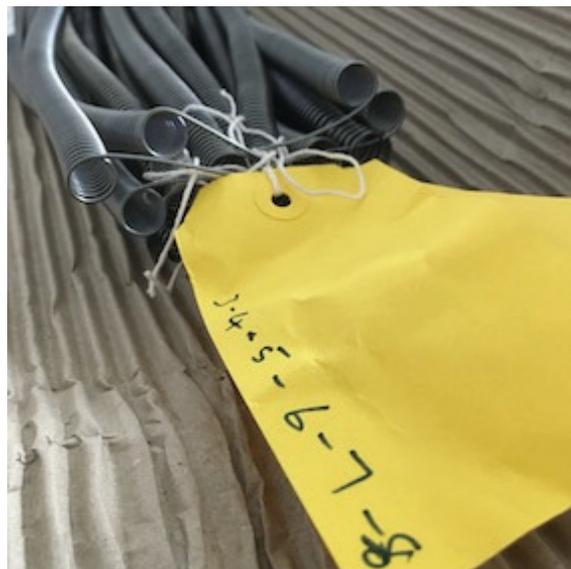
I looked at 'Dr. Google' and went through some basic diagnostics myself: is the power stable enough? Is the kiln controller correctly programmed? Any obvious signs of brick or wiring damage? etc. These all seemed OK which led me to believe it could be the elements, now likely over twenty years old. I didn't know what 'spent' elements would look like but to my untrained eye I could see some areas appeared blackened, and quite a lot of fine dust had built up underneath the elements.

Out of my depth, I knew I needed a professional kiln engineer.

Who to call?

I can help save you a lot of effort.... Under useful links on the SCG website is the number for **Alan Jennings at A C Electric (07967 817 320)**, based in East Sussex. He was the only one on the list to respond and although I didn't think he'd be interested in coming out from Brighton (to Havant) to my relief he was really helpful. (The others on the list were either no longer offering a service or could not be contacted).

Initially, Alan conducted a telephone 'health check' to try to diagnose the issues. Having agreed it was time for new elements, he helped me track down the supplier (usually the kiln's manufacturer) for the new bespoke elements and connectors for my ancient kiln.



Each of the elements is wound to a specific 'value' so that there is the right amount of resistance in the wire to create the right amount of heat in the specific area of the kiln; top, middle or bottom. These came clearly marked to identify their correct position.

Results?

Following the installation and service, the final step was to fire the kiln without any kiln furniture or pots, bungs out, to 1050°C. This is to 'season' the elements after which they lose their new shiny look.

Before changing the elements the kiln struggled to reach over 1150°C. With the new elements the kiln now fires easily to 1260°C. I mix my own glazes and the colours are significantly brighter, smoother and have more depth.

What's the cost?

Alan Jennings charged roughly £30 per hour on site and for his travel time. The replacement of the elements and service took under 4 hours. To service the kiln, install the elements, and of course providing a certificate for the work, cost me roughly £230. The kiln elements, made bespoke by the kiln manufacturer, and required brass connectors also cost roughly £250.

I wasted a lot of time and energy (literally) putting off the inevitable. Although there is still some trialling to be done with - perhaps like having a new kiln - I am really glad I made this investment in my decades old kiln which now could go for another 25 years... let's see.

Product Safety: Strong and Stable - Tim Thornton

No, she's not back! But having a strong and stable glaze is important for many types of ceramics, not just tableware. What if your customer puts your vase through the dishwasher, or positions your sculpture outside, exposed to the elements? And, of course, it is often key to a piece being "food safe". Here we will look at how glazes may be attacked by chemicals, from the dishwasher to Coca Cola.

We need to understand that there are three external factors that result in a glaze being attacked: time, temperature, and the environment. The longer the time a glaze is in contact with something that can attack it, the more it will be damaged. And the higher the temperature, the faster it will be attacked – as a rule of thumb, every increase of 10°C doubles the rate of corrosion. But what do we mean by the environment? This is simply the substance in contact with the glaze that is trying to attack it.

In normal use, we are looking at attack by water-based chemicals, and the key consideration here is how acid or alkaline they are. This is given by the pH – 7 is neutral, pure water; lower numbers are acidic; and higher numbers are alkaline.

The most significant alkaline environment is when washing up the dishes – hand washing has a pH of 7 to 9 at a maximum temperature of around 45°C. Dishwashers are more aggressive, though, with a pH of 10 to 12 or more, and a temperature of 55-85°C. This is aggressive enough to slowly dissolve the glaze, the silica and aluminium in the glaze dissolving into the water, along with all of the other glaze components. This attack continues at a constant rate and is proportional to the pH and the temperature.

For acids, the main perpetrators are food and drink – most foods are only mildly acidic, but things like fizzy drinks, lemon juice and pickles can have a pH of 3 or less. Here, at temperatures up to about 50°C, the mechanism is different: the fluxes and colourants in the glaze are not bonded in as strongly as the core matrix of silica, aluminium and oxygen, and they dissolve out into the water, being replaced by hydrogen ions (electrically charged atoms and molecules) from the water, leaving a weakened glaze full of voids where the larger atoms have been replaced by hydrogen. The corrosion rate starts climbing steeply at a pH of 4 or below. This starts at the surface of the glaze and descends ever deeper, but the rate of leaching slows down as the ions have to travel ever further to get in and out of the glaze. Until you heat it up above about 50°C, or wash it up, when the top layer of the glaze is removed, exposing fresh glaze to be attacked by the food!

So how to decide what makes a glaze stable? First, glossy glazes tend to be more stable – matt glazes can be stable too, so long as this is through the growth of stable micro-crystals on cooling. If the crystals are not chemically stable, or if it is just matt because it hasn't been fired to a high enough temperature, then it won't be stable. You can often test if it is the right firing temperature by firing a test tile at the top temperature of your kiln and seeing if there is a difference – if it comes out glossier, it was under fired at the lower temperature. If developing a glaze from scratch, a good source of guidance for glaze composition is to look up the limit formulae for your firing temperature – ones for high fired stoneware are in the table (see the end of this article). Another guide is the Stull chart, a plot of SiO₂ against Al₂O₃, which shows the regions of gloss and matt glazes (and also crazing), though you need to remember that Stull only created this for one glaze at one firing temperature and didn't intend it to be generalised to all glazes as some people do. The shape of the regions on the graph will be similar for most glazes, but their size and positioning on the graph will vary.

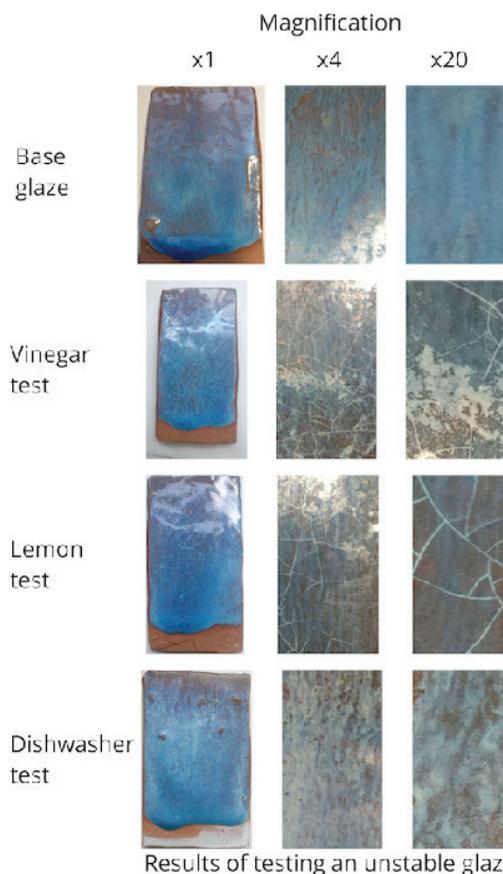
A key point to understand is that the more the glaze heads towards just aluminium and silica, with fewer fluxes and colourants, the more stable it will be. And, from this, the higher the firing temperature, the more durable you can make the glaze (though you can also make a non-durable glaze at any firing temperature!). Looking at the fluxes, the alkali metals (sodium, potassium and lithium) help melting at a lower temperature than the alkali earths (calcium, magnesium, strontium and barium), but also make the glazes less stable in acids, so a ratio of about 0.3 alkali to 0.7 alkali earth is best for high fired stoneware or porcelain, dropping to 0.5:0.5 for earthenware (unless Boron is added – see below). The best alkali to use in terms of glaze toughness is lithium, but it is expensive, and may affect the fit of your glazes. And the benefits of lots of alkali earths are reduced in a caustic dishwasher environment, so you don't want too much of them. But one easy tweak to do is to add 1-2% of Zircon, which toughens the glaze up significantly against both acids and alkalis but isn't a high enough quantity for it to start acting as an opacifier.

So, what about Boron, the mainstay of many low and mid fired glazes? Well, that depends – its chemistry is much more complex than silica, and not fully understood by potters – a clue to its complexity lies in the "boron anomaly", where its thermal expansion coefficient can swing from a high positive number to a high negative number, depending on the glaze chemistry. Basically, small to moderate amounts, up to about 12% in the UMF act in a similar way to aluminium, joining the homogenous glaze network.

Product Safety: Strong and Stable - cont.

But higher amounts cause a phase separation, so you have a tough silica glass and a soft boron glaze intermixed like oil and water in mayonnaise, and in a corrosive environment the boron glaze is readily dissolved away. The threshold for this depends on the fluxes used, and the amount of aluminium in the glaze.

Unfortunately all these complexities mean that it is very hard to predict with a high degree of certainty whether a glaze will be stable or not, but there are 3 simple tests you can do in your studio: for acids, there's the lemon test and the vinegar test – they work slightly differently, so it's worth doing both. And for alkalis, put it in the dishwasher – or you can accelerate this by simmering the piece in a strongly caustic solution in a stainless steel pan for a few hours. In all cases, you're looking for a loss of gloss, streakiness developing, white patches, or a loss of colour. Have an untested piece with the same clay and glaze to compare before and after, and using a magnifying app on your phone (or even a magnifying glass) can make it easier to see things. Google will take you to descriptions of these tests, or I'll cover them in a later article. You can see the before and after results of subjecting an unstable glaze to these three tests, at different levels of magnification, in the illustration.



Results of testing an unstable glaze

Stoneware UMF Limit Formulae

1250-1325 °C / Δ10	Ron Roy (1250 – 1300°C / Δ8 – 10)	Green & Cooper (1250 – 1270°C / Δ8)	Green & Cooper (1260 – 1280°C / Δ9)	Green & Cooper Δ10	DigitalFire UK (1250 – 1300°C / Δ8 – 10)	Rhodes (1250 – 1345°C / Δ8–12)
(K+Na)O ₂	0.2 – 0.45	0 – 0.35	0 – 0.325	0 – 0.3	0.1 – 0.5	0.2 – 0.4
CaO	0.35 – 0.7	0 – 0.6	0 – 0.65	0 – 0.7	0.35 – 0.8	0.4 – 0.7
MgO	0 – 0.35	0 – 0.33	0 – 0.335	0 – 0.34	0 – 0.4	0 – 0.35
BaO	0 – 0.3	0 – 0.425	0 – 0.45	0 – 0.475	0 – 0.3	0 – 0.30
SrO	-	-	-	-	0 – 0.7	-
ZnO	0 – 0.3	0 – 0.32	0 – 0.34	0 – 0.36	0 – 0.3	0 – 0.30
Al ₂ O ₃	0.3 – 0.55	0.325 – 0.7	0.375 – 0.75	0.45 – 0.825	0.3 – 0.55	0.3 – 0.5
B ₂ O ₃	0 – 0.3	0 – 0.3	0 – 0.25	0 – 0.225	0 – 0.3	0.1 – 0.3
SiO ₂	3.0 – 5.0	2.6 – 5.15	3 – 5.75	3.5 – 6.4	3.0 – 5.0	3.0 – 5.0

Tim Thornton runs courses on product safety and on studio health and safety. The next online courses are in September; in person course dates are dependent on the COVID status.

See www.tim-thornton.com for more information.

Glaze Group May 2021 - Zoom meeting minutes

Present: Kevin Akhurst, Claire Stevens, Tim Thornton, Jan Griffiths, Di Wren, Ruth Padday

RUTH PADDAY

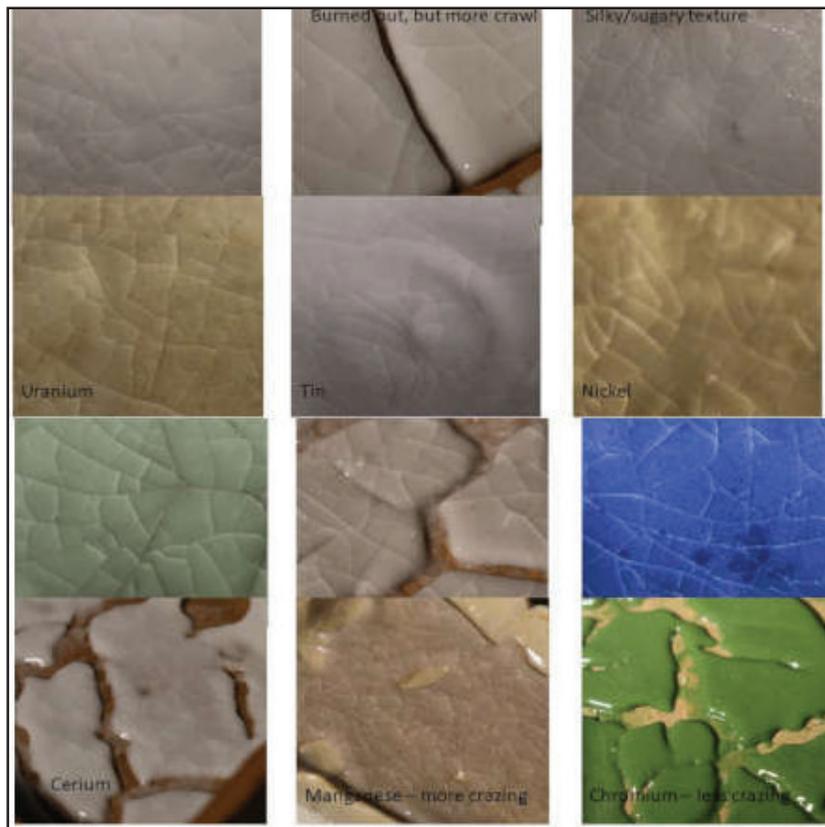
Ruth produced some porcelain mugs with a new forest green glaze under a sienna glaze and there was some discussion about the movement of glaze especially over porcelain. She also used a turquoise glaze with sienna on top – the double layering of which produced a lovely graduated run effect. Her daughter Tash had decorated various ceramic pieces with splashes of slip and embedded with broken gin bottles which were very lively. Also, Ruth has double layered to produce some greys on flower pots by applying white over black.

TIM THORNTON

Tim has been experimenting with snowflake effects similar to those produced in the far east. He produced a number of test pieces, firstly a small bowl using 100% Nepheline Syenite fired to 1240 (cone 6) with good effect and some crackle. At only 80% some pinholing was occurring.

snowflake glaze

Below are some images of various other of his test pieces showing the effects of various additives:



top row: Base Glaze, Vandium, Antimony
2nd row: Uranium, Tin, Nickel
3rd row: Copper Carbonate, Red Iron Oxide, Cobalt Carbonate
4th row: Cerium, Manganese – more crazing, Chromium – less crazing

For a more in depth explanation see Tim Thornton Ceramics on Facebook May 18/19th

Several layers are needed and it would be possible to apply ink after firing to enhance the crackle.

Tim also explained that glazing only one side of a pot makes it a weaker vessel. (see image to right)



base with 3% CaCO3 min



CLAIRE STEVENS



Claire confirmed that firing her large panels with sand or rollers underneath is working well. Her panels are press moulded then cast. She uses a wide range of underglaze plus Potters Choice glazes – tenmoku/mid-blue/seaweed to produce leafy colours both mat and shiny. Apparently there is a tendency to puddle therefore at 1200 she steps the kiln down to 1160 and then back up to 1220 to compensate for this.

KEVIN AKHURST

Kevin produced a 2000 year old Chinese vessel, earthenware with a lead glaze which would have been filled with food/grains and used in a burial to aid transition to the afterlife. The frieze decorations were of a bear, lion, dragon and a horse with rider and moulding for a loop. It would have been fired upside-down and was perhaps amongst one of the earliest in the world of this method. It appears that both China and the Romans were using lead based glazes around the same time with lead glass having been around some 1000 years earlier than pottery.



JAN GRIFFITHS

Having not used an electric kiln much for many years other than bisque firing, Jan enquired about obtaining a reduction fired effect glaze and was advised that adding a fine ½% silicon carbide, ideally put through a 1200 mesh could produce similar.

DI WREN

Di showed us a slim figure vase made by Jude Jelfs. Sadly it had broken and after our recent discussion about Kintsugi she decided to have a go using superglue and gold leaf. It came out beautifully and highlights the history of the object. Gold powder or mica could also be used instead of gold leaf.

We are hoping to have the next meeting in July face-to-face we`ll see!

The Story So Far - Linda Smith

I went to Worthing Art College in the 60s going on to do fashion and interior design among other things and only came to ceramics fairly recently. My mother was a member of the Hole In The Wall Pottery at Emsworth and when she became unable to get herself there I started being the taxi driver. While there I had to have a go and very soon I was hooked.

I embarked on a wonderful voyage of discovery, quickly building myself a raku kiln and experimenting with everything and anything I found or could think of. Later I was lucky enough to be able to buy an electric kiln. I think my work is more fine art using the medium of clay, it certainly isn't very often functional. I mainly hand build although I throw if the idea requires it.



When lock down was announced I had a shed full of ceramics ready for various exhibitions and clearly could not continue producing as I had, however, I slowly realised that I had been given a rare opportunity for more experimentation and reflection. Working in solitude I decided to make something memorable which would capture the moment in time for me. Slowly the idea evolved to create a tiled wall which would be a lasting comment about the situation we all found ourselves in. From inception to completion it took me exactly a year. The 2m X 1.25m tile mural I called "The story so far.....".

Now I just have to find a home for it!

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Newsletter Matters

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Next Newsletter due: 1 September 2021
Next Copy Deadline: 22 August 2021

Keep me posted, please, at any time before the deadline with your news, hopefully if the situation improves, of galleries and exhibitions showing your work, studio tips, memories, and especially images that might be shared.

Photos and other images. Please send these as separate **.jpg** files. If your document contains embedded photos that is not a problem as it shows me where they should be placed but I always need them as separate files as well with descriptive file name please, (e.g. Fred blue pot).

Neil Dewey

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Acknowledgments

Thanks go to regular contributors to the Newsletter and all the new ones prepared to have a go and submit something.



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