A Handbook specially designed for Textiles and Art Teachers for using Liquid Radiance colours in the Classroom

# **Fabric Designing**

# Simple, Safe, and Sustainable

by Anne Mitchell

and featuring Liquid Radiance from Genesis Creations™

This book has been printed on one side of the paper only, giving you, the teacher, the ability to write personal teaching notes on the facing page as lesson plans are developed and adjusted over time.

These notes were originally compiled for hands-on presentations at HEIA National Conference in 2017, and Queensland Conference later that year. The handbook is now available for the benefit of ALL Home Economics teachers, as well as Art and Primary School Teachers.

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# Fabric Designing ... Simple, Safe, and Sustainable

**PRESENTER** 

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### THE CONCEPT of MY WORKSHOP PRESENTATIONS ...

Simple to use ... simple to teach ... stunning results! These words accurately describe the processes you will learn and the results you will see in my workshop presentations. It is my pleasure to show you how to use these unique products - totally non-toxic and non-polluting - to design exciting, individual fabrics for use in all sewing and 'garment recycling' projects. Help your students to express their individuality with these creative ideas. Help our environment by using products that are safe, effective and economical - and Australian made.

### BACKGROUND INFORMATION about Liquid Radiance ... a simple and environmentally friendly concept in Fabric Colouring ("Dyeing") ...

Inspired by an idea while relaxing in the bathtub, Genesis Creations™ Owner Anne Mitchell acted on her dream for a colouring product that could achieve the vibrancy and beauty of traditional dyes without the complications of steaming them, or using chemical fixatives. The dream was to create a colour that could be used on any fabric or fibre, from silks to synthetics, and across the range of polyester blends for use in "dyeing" fabrics. With the assistance of our paint technicians, YES we DID IT! Bathtub dreams became reality ...

### Liquid Radiance ... a finely milled liquid COLOUR that performs LIKE a dye in the fabric ... no steaming required ... no messy chemicals or fixatives ...

- MON TOXIC and NON-POLLUTING, these colours are safe, simple and effective to use. They wash off the skin easily and leave no residual stains.
- ✓ Very CONCENTRATED COLOURS for ECONOMY and ease of application. Colours must be diluted with water ... 1 part concentrate:3parts water for super bright colours ... LOTS of water for really pale colours ... or anything in between for the colour strength desired.
- Nine pure pigment liquid colours, from which you can mix absolutely any colour you wish ... our Colour Mixing Guide will get you started.
- ✓ Made in Australia ... Owned by Australians.
- ☑ Safety Data Sheets are available on request, or as a pdf to download from our website.

### FROM THE TEACHER'S PERSPECTIVE ...

The safety and efficacy of Liquid Radiance means that you, the teacher, can prepare your programs with confidence, knowing that your students will achieve maximum results within a lesson. Student outcomes will be reliable and gratifying. Techniques are not messy to teach, or to clean up afterwards. No special equipment is required.

### FROM THE STUDENTS' PERSPECTIVE ...

The simplicity of using the skills to achieve a variety of unique and stunning results is motivating and exciting, enthusing the students to pursue the skills further beyond schooling.

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### Fabric Designing ... Safe, Simple, and Sustainable

### About the Presenter / Author:

I'm Anne Mitchell, co-owner of Genesis Creations along with my husband Alan. I have taught fabric designing for over 40 years, and silk painting for the past 20 years, travelling extensively across Australia and to areas of New Zealand to demonstrate and teach these skills.

As a former High School Teacher, with experience in retailing through my family business history, I became involved in teaching fabric painting through an Australian company, then went on to management responsibilities within that company. The love of what I had done for many years, combined with my past

experience in this field, led us to start our family business, with our own unique concepts, in July 1999. I look forward to growing old in this business, in the happiness that I really enjoy what I do ... what we do together!

**OUR UNIQUE CONCEPT** ... From my foundation of working with other people's products over many years, it has been my pleasure to work closely with an Australian paint manufacturing company to have them produce for us a range of paints and colours that are exclusively ours.

It was my dream to have a colouring product that could achieve the vibrancy and beauty of traditional dyes without the complications of steaming them, or using chemicals and complicated 'fixing' procedures. The dream was also to create a colour that could be used on any fabric or fibre, from silks to synthetics, and across the range of polyester blends for use in 'dyeing' fabrics. With the assistance of our paint technicians, we DID IT! ... called Liquid Radiance, made exclusively for Genesis Creations™, here in Australia.

To complement these liquid colours, we have a range of thick, creamy paints, also made exclusively for us. These are paints that stay where you put them on the fabric, so are perfect for brush painting and stencilling, as well as printing and stamping techniques. Built on a soft-based cold cure formula, they are fully washable three days after painting, and maintain the soft feel of the fabric. Another 'first in Australia' in fabric designing for Genesis Creations™.

### **History of Presenting Workshop Sessions at Major Events:**

- Home Economic National Conferences in Perth (2014) and Melbourne (2017)
- Home Economics Queensland State Conferences in Brisbane for many years
- TEA NSW Conferences and 'Texstyle' presentations for students' Year 12 assessments
- Home Economics National Conference in Auckland, New Zealand (2015)
- Royal Easter Show in Sydney for many years, as a guest presenter in the Art and Craft Pavilion
- Ag Show in Toowoomba from 2011 until its closure
- Mad Quilters' Gatherings in Sydney, Melbourne and Brisbane
- Craft Alive Shows in Bendigo, Wodonga, Tamworth, Castle Hill, Toowoomba, and Rockhampton

### Other Presentations and Demonstrations:

- **Better Homes and Gardens** project on TV and in the magazine 2003 involving script writing and oversight of the production for the television segment.
- **Demonstrations at the Better Homes and Gardens trade stand** at major craft shows in capital cities across Australia for two years after the TV segment, at the invitation of the Better Homes and Gardens organisers.
- Exhibited at Quilting Festivals in New South Wales and Victoria, and South-East Queensland.
- Guest tutor at Koala Conventions in Brisbane, a world-renowned embroiderers' convention.
- Articles published in the magazine "Down Under Textiles" at their invitation.
- Articles in the textile magazine, "Embellish" magazines at their invitation, starting in 2017 for seven issues, then on a continuous basis from June 2020.
- **Personal Workshop Programs** at my home studio and across all states and territories of Australia, as well as New Zealand too many to mention!

### The Product – Liquid Radiance – in Summary:

Liquid Radiance is non-toxic, and non-polluting, safe and simple to use, and requires no complicated preparation of fabrics, or 'finishing' when the colouring processes are completed. It is totally light fast and colourfast, washable and ironable. It is made in Australia exclusively for my Genesis Creations™ business, to my own specifications. Liquid Radiance is available from us at our Distribution Centre. It is not available in shops.

### USING LIQUID RADIANCE ... IMPORTANT POINTS TO REMEMBER

While there's moisture, there's movement ... that is, while the fabric is still wet, the colours will continue to 'do their thing' in the fabric, moving and acting with the colours around them (or water) until the fabric is dry.

REMEMBER "ME" ... Key words "Moisture / Movement" and "Excess / Enemy"

- Excess is the enemy ... overloading the fabric with Liquid Radiance can stiffen the fibres, especially on fine or sheer fabrics. This can leave an undesirable 'plastic-y' feel on the underside of the fabric. Avoid this by not putting too much colour in the fibre in the first place ... blot out any excess with another piece of fabric. Remember that if you can see puddles of moisture in your fabric, there's way too much colour in there. And if it's dripping, that's really bad news!! You're not only suffering from overload but wasting colour at the same time. And your mop-ups will 'go with' your main fabric in your project.
- Adding extra colour or wetness does not strengthen the colour! It is the ratio of Liquid Radiance concentrate to water that determines colour strength. Adding extra colour or wetness can actually dull the colours you are trying to apply. The fibres of your fabric can only hold so much moisture, and when the fibres are full, that's it. Any excess will just sit around the edges of the fibre, then come away from the fibres during washing, causing your fabrics to look dull. To achieve stronger colour, use a higher ratio of Liquid Radiance concentrate to water and put in the correct amount for the fibres to absorb.
- Allow fabric to dry before moving it, as movement can cause the colours to move where you don't want them or spoil the pattern or effect you are aiming to achieve. Sometimes it is OK to move it when it feels cold and clammy.

### PRE-WASHING FABRICS ...

To pre-wash or not? Fabrics that contain lots of 'dressing' (especially 100% cottons like calico and homespun) should be washed before colouring. Calico may need two or three washes to remove the stiffening. Do not use fabric softener in the rinse water, as this can put a 'seal' around the fibres and prevent the colour from taking well.

If fabrics have been stowed away in the cupboard for some time, or if you wish to colour a favourite garment that needs revamping, it is best to wash these first. Garments may need to be soaked in a pre-wash soaker first to remove traces of deodorant, perfumes or ironing sprays, any of which can adversely affect the way the colours are absorbed into the fibres. Soak, then wash before colouring.

Synthetics and synthetic blends do not need to be washed unless they have been in storage for some time. These new fabrics do not usually contain much dressing ... and if you are planning to wet them first, this will remove any dressing they may contain.

Keep in mind: if in doubt, wash it first! Better to be sure than sorry!!

### POPULAR METHODS for APPLYING COLOUR to FABRIC ...

- **Dropper Techniques** use dispenser bottles with diluted Liquid Radiance colours, and draw the colours onto the fabric. Place a piece of stocking across the neck of the bottle before putting on the dispenser cap so you can recognise it as a diluted colour. [NOTE: Stocking is optional for use in the classroom.]
- Spray Bottles colour is diluted with water and sprayed onto the fabric. This is suitable for fabrics where the
  colour is absorbed easily into the fibres. If the fabric will absorb the colour well, spraying colour onto dry fabric
  will result in stronger colour. However, working on wet fabric will aid absorption. Aim for good saturation
  without 'overload'.
- Spray Caps these little atomiser caps fit onto our dispenser bottles and will deliver a fine mist of colour
  precisely where you want it. This method will give a soft surface coverage, but without saturation.
  Excellent for towelling. Not suitable for large areas!
- Brushes foam brushes will allow you to place the colour exactly where you want it and work it into the fibres well. Smaller brushes can be used also, for even greater detail. Remember that liquid colour will bleed through the fibres. On dry fabric, it will bleed and stop when the fibres are full; on wet fabric, it will bleed then the colour will soften as it spreads into the wet fibres surrounding it.

Dipping / Dunking Method – "One-Colour Colouring" - colour is prepared in a small vessel, then the fabric dipped into this and squeezed or kneaded to work the colour

evenly through the fibres. Excess colour is then squeezed out before forming the patterns in the fabric.

### **WORKING ON COLOURED FABRICS ...**

Try working on light coloured fabrics as well as white. The Liquid Radiance colours will work with the colour of your base fabric to become part of the design or pattern. (eg using blue LR on yellow fabric will produce green.) Working on white fabric produces true colour. For antique colours, work on cream fabric.



### **HEAT SETTING YOUR FABRICS:**

A unique feature of Liquid Radiance is that when it is dry in the fabric, it is STABLE – you cannot move it or remove it. (Unlike dyes, which are not stable until they are steamed of chemically 'fixed' in the fabric.) The fabric may feel a little stiff when dry, but this is a unique feature of Liquid Radiance AT THIS STAGE

Why then do we need to heat set it? ... the heat setting takes away any stiffness that occurs during the colouring process, and ensures the maximum longevity of the colour in the fibre through washing and ironing and wear and tear. Heat setting also ensures its length of life for light fastness and colourfastness to resist fading over time.

SPRAY, STRETCH AND IRON

### **HEAT SETTING METHOD:**

Liquid Radiance is simply heat set with a household iron, using the iron temperature appropriate for the fabric you have coloured. (eg iron cottons on a 'cotton' setting, synthetics on 'wool' or 'silk'.)

For most of our colouring techniques, results are obtained by scrunching, or pleating, or folding the fabrics to achieve our patterns and effects. So when the fabrics are totally dry, they'll be really scrunched up! To make them

easier to iron, I recommend the **spray**, **stretch and iron** principle. Use a spray bottle of water to dampen the fabrics, then stretch them a little to reveal the pattern.

Lay the damp fabric on your ironing board and iron it for ½ minute for strong colours, up to 2 minutes for pale colours. By this time the dampness should be gone too. You are heat setting the fabrics while you are revealing the patterns. I promise you, you'll fall in love with your iron and ironing board !!!

CAUTION: If your fabrics are still wet with the Liquid Radiance colours you have applied, do not iron them dry! Your colours will end up in your ironing board cover instead of in the fabric where you want them.

**IF YOU HAVE USED SALT OR SUGAR,** or other soluble substances when colouring your fabrics, the salt (or whatever you have used) must be removed and the fabrics rinsed BEFORE heat setting them ...

- 1. When fabric is dry, remove salt. Although the physical salt has gone there will be a 'saltiness' from the dissolved crystals remaining in the fabric.
- 2. Rinse the fabric by dunking it up and down in water. Now the water will become salty!
- 3. Repeat the rinsing process in clean water, this time to remove the salty water; then once more 'to be sure'.
- 4. If you have used LOTS of salt (and some of our techniques require this to create their effects), consider rinsing four or five times to make sure all saltiness is completely removed.

You certainly don't want to end up with salt (or whatever else you have used) all over your iron and ironing board ... and your definitely don't want to put salty fabrics through your sewing machine.

**COLOUR RESIDUE ON THE SOLEPLATE OF YOUR IRON?** If you notice a smudge of colour on your iron when you are heat setting your fabrics, this is 'excess' ... and it is why 'excess is the enemy'. Because Liquid Radiance is stable when it is dry, if you put too much colour into the fabric the excess that cannot be absorbed will dry on the outside of the fibre and rub off on your iron while you are heat setting the fabric. Also if your fabric is still stiff after you have ironed it, again it is because you have applied too much colour. Adjust your technique of applying the colour so you do not go into 'enemy territory! (Excess really IS the enemy !!!)

**SOLUTION?** Make sure you are not putting too much colour into the fabric in the first place! Either blot out the excess or squeeze it out (mop-ups), or simply take more care when applying the colours.

### **WASHING AND IRONING YOUR FABRICS:**

Your coloured fabrics can be washed and ironed by your normal washing methods. Liquid Radiance has absorbed into the fibres, so will now behave exactly as that fabric does in the wash. I like to refer to this as the ...

NATURAL ATTRITION RATE of the fabric. Let's explain this by thinking of a new T-shirt. It is your 'good' shirt for a while. Then after months of washing, it is no longer your 'good' shirt, but maybe your shopping shirt, then gardening shirt, and so on with more washing. This is due to the twisting and abrading of the fibres in the wash. Different fabrics will 'die off' at different rates with wear and tear, depending whether they are 'grippy' or 'slippy' when they rub together. Liquid Radiance will behave as the fabric does, because it has become part of the fibre.

**COLOUR LOOKS DULL AFTER WASHING?** This is also due to excess colour that did not absorb into the fibre! Yes excess definitely is the enemy! Avoid it !! The film of dry Liquid Radiance excess has become cracked and ugly as it has moved around in the wash. Again the solution is NOT to have it there in the first place.

A LITTLE COLOUR COMES OUT OF THE FABRIC IN THE FIRST WASH?

Even though the fabric was totally dry and was heat set correctly, sometimes (not often!) you'll notice a tinge of colour in the washing water. This is most likely to happen with fabrics that have an 'elastic' quality (eg elastane fibres, socks, underwear) where the colour does not grip to the 'rubbery' component of the fibre, especially where heavy scrunching has brought a lot of colour to the surface ridges of the fabric. After the first wash, the colour will remain fast in the fabric when applied correctly.

Please don't hesitate to contact me whenever I can help you further. Now, enjoy!

There will also be colour in the rinse water when you are removing LOTS of salt from fabrics ... this is the colour that was tangled up in the salt and comes away when you dunk the fabric in water, and is not a worry! The colour you have applied to the fabric will remain there.

### **KEY CONCEPTS in SUMMARY:**

- While there's Moisture, there's Movement
- Excess is the Enemy!
- While Liquid Radiance is moist, the colour is still ACTIVE (that is, 'doing its thing'). Fiddling with your
  work when still moist will mar the effect you are aiming to achieve.
- When Liquid Radiance is dry, it is STABLE. You cannot move it. You cannot remove it.
- When applying colour from the dispenser bottles, you are DRAWING, not pouring.

### PREPARING YOUR CLASSROOM:

- 1. Use old sheets or curtains (not plastic) on your benches or desks to absorb any 'oops-es'. The techniques are not messy, but small accidents can occur.
- 2. Use plastic to lay fabric on when working. This allows the colour to be absorbed into the fabric where you WANT it, and not be sucked up by the cloth underneath.
- 3. Have your students wear an old t-shirt or large blouse over their school uniform. Oops-es that go into their uniforms are NOT removable easily. Not even bleach will get spilt colour out!
- 4. A fabric apron is a suitable alternative to the garment in 3 above, but a plastic apron is not suitable. Plastic does not absorb the drips so any spilt colour ends up somewhere else, usually undesirable!
- 5. When you are teaching using Liquid Radiance, wear black (or dark) clothes as LR does not show up on dark colours. ©
- 6. Rubber gloves, preferably disposable, are an asset for some techniques but make sure the gloves fit snugly. Flappy ends of gloves too big for small hands cause more drips and spills, and are even more messy.
- 7. Liquid Radiance washes off skin easily with soap and water, and a nailbrush can be used for around fingernails. But if you do not have access to water in your classroom ...
- 8. Baby wipes or similar wash cloths are perfect for cleaning hands.
- 9. NOTE: If you (or your students) have acrylic nails, gloves must be worn. Liquid Radiance will stain any absorbent surfaces (including 'artificial' nails.)
- 10. Liquid Radiance will wipe off SMOOTH surfaces like stainless steel sinks and vinyl or tile floors. Have a damp cloth or old towel handy in case drips land on the floor.

### PREPARING THE COLOURS:

**Liquid Radiance must be diluted with water** for MOST techniques ... and definitely for all the techniques described in the following pages. You'll be amazed at just how much water you can add and still maintain good colour strength. Liquid Radiance is packaged with a flat cap for economy of purchase. For economy of USE, remove the flat cap and replace it with a dispenser cap to eliminate the 'tip and spill' method of pouring it.

### To mix colours in a dispenser bottle. [Example here is a 1:3 mix - "Anne's Favourite"]:

- 1. Remove the dispenser cap and pour the concentrate into an empty dispenser bottle until it reaches ¼ of the way up the bottle. HANDY HINT: When you place the flat cap beside the empty bottle, the top of the cap is very close to where the ¼ mark will be saves a lot of measuring !!!
- 2. Add water until the bottle is full.
- 3. Place a small piece of stocking over the bottle, holding it firmly while you screw on the dispenser cap. The stocking helps you identify your diluted colours from the concentrates when you are using the empty concentrate bottles as dispenser bottles it's the same bottle, just with a label on it. And the label is not

easy to remove! Stocking also acts as a strainer as required.

FOR GREAT ECONOMY for school use I suggest you mix 1:6, or even 1:8 or 1:10 LR concentrate to water, especially for younger grades. These lighter mixes will still give good colour strength for the techniques in this workshop.

### **Suitable Water to Use:**

- ☑ Water directly from the tap
- ☑ Tank water / rain water is perfect too
- ☑ Filtered water
- ☑ Boiled water 3 mins on stove top
- ☑ Bottled water for drinking

IMPORTANT: Our manufacturers are dedicated to producing environmentally safe products. So Liquid Radiance does not contain 'preservatives' that could damage our world! Because of this, bacteria in the water we use to dilute the LR can cause strange mucus-y lumps or mould to form when colours are stored for lengthy periods of time. THIS DOES NOT ADVERSELY AFFECT the colours, but the 'gucky bits' need to be strained off. The stocking helps with this. Alternatively the colours affected can be strained through a piece of damp 'Chux' cloth.

**To avoid the bacterial action in the colours,** I recommend using boiled (and cooled) water, OR purchase drinking water for the task. (Saves having to wait for the boiled water to cool, and saves on electricity!) The diluted colours can then be stored for MONTHS – or from year to year for class use.

### **CLEANING AND MAINTENANCE**

### **Cleaning Dispenser Caps**

- © After use, close the caps and wipe them with a soft damp cloth.
- © Dry colour on the outside of the cap can be scrubbed off with an old soft toothbrush.
- © Colour inside the cap can be cleaned with a cotton bud, and stubborn colour removed with a broken-off satay stick. (It makes a great non-scratchy 'brush'.)
- When colour builds up inside the tip of the cap and dries in there (as it will over time), take the cap apart\* and clean with cotton buds or a broken-off satay stick. Rub a little soap onto the cotton bud if necessary.
- © Rinse the cap in clean water and replace it on the dispenser bottle.
- \*To take the dispenser cap apart ... it's easy when you know how !!! ...
  - > Drop cap to be cleaned into a cup of very hot water for a few minutes to soften it so it's easier to pull apart.
  - For the small 'screw-y' part of the cap with your thumb and fingers so they are under the lower edge of the cap as far as you can get them. Grip the larger part of the cap in your other fingers.
  - Pull the small part away from the large part. When soft enough, it should come away readily.

To reassemble the cap ... Place the large part of the cap rim down on a flat surface, and put the small part on top. With a towel or cloth over the cap, press down firmly until you hear the two parts of the cap click back together.

Cleaning Dispenser Bottles - Rub an old toothbrush over a cake of soap, then insert the toothbrush head into the bottle and scrub well. The film of dry colour will come away easily. Rinse the bottle to remove soapiness. Clean the toothbrush head too so you're not transferring the residue from the last clean-up into the next bottle.

**Plastic Covered Boards** - Wipe these regularly with a mesh scrubber and a little soap or detergent to remove any film of dry colour that can build up on the boards. If you have used black plastic to cover your boards (as I do — it's strong, as well as economical!) you will not see any build-up of colour on them. Remove any soapiness with a cloth dampened in clean water then dry with a towel. Allow to air dry completely before storing them.

### **Cleaning Palettes and other Equipment**

All equipment will come clean easily by scrubbing with an old toothbrush and sudsy water. Rinse well. Any equipment used in salting techniques must be washed well after use to remove all traces of salt which could transfer to other fabrics later on, and cause rusting if metal equipment has been used when colouring.

It is perfectly safe to dispose of paint-y waste into the environment. Liquid Radiance colours are non-toxic and non-polluting. They are safe for disposal in septic systems.

### **TECHNIQUE NOTES**

### "Fold, Splot and Scrunch" with Salt Texturing

### PREPARATION:

- Using masking tape, secure a piece of plastic larger than the fabric onto your table surface. You'll also need a bowl of water in which to dampen your fabric before colouring it.
- ☑ Prepare Liquid Radiance colours by mixing with water ... 1 part concentrate to 3 parts water is 'Anne's favourite' mix for vibrant colours. Use more water (up to 1 part concentrate to 10 parts water) if paler colours are required in this method.

### METHOD:

- 1. Fold fabric to a manageable size, and dampen in water. Squeeze out excess water.
- 2. Lay folded fabric onto plastic, and apply the colours of your choice ... two or three colours are best for this method of colouring. Splot the colours on, pressing firmly into the fabric so they penetrate all layers in the fold. Check the reverse side for adequate penetration. Touch up on the back if necessary.
- 3. To blend colours, roll the folded fabric and squeeze a little to remove any excess colour. Mop up this excess with another piece of damp fabric and you have coloured another piece to tone with your original piece!
- 4. Open up the folds of the fabric and spread it onto the plastic. For an interesting pattern, form hills and valleys by scrunching the fabric between your fingers and thumbs to form hills and valleys. Areas of fabric that are up off the plastic will dry darker, while those down against the plastic will be lighter.
- 5. To create interesting textures, sprinkle on salt immediately while the colours are still wet. Each grain of salt will draw colour to it. Try rock salt, or coarse cooking salt. Table salt works well on finely woven fabrics (eg silk) too. Epsom salts is wonderful also, and works as a fabric softener as well.
- 6. Allow to dry completely then remove the salt. Colours are now stable in the fabric. Salt can be reused.
- 7. Rinse the fabric gently in at least TWO lots of water to remove the remaining saltiness, and peg on the line to dry.
- **8.** Heat set your fabric using an iron  $-\frac{1}{2}$  minute for strong colours, up to 2 minutes for pale colours.



**NEVER USE METAL** 

OBJECTS when cleaning equipment ... metal will

scratch the surface of

whatever you are cleaning.

and make it more difficult to

keep clean from then on!

# Five Finger Foam Brush Colouring Technique Creating a Crystal Design (Air Exclusion)

### PREPARATION:

- Place an old sheet or curtain on your table. Then, using masking tape, secure a piece of plastic larger than your fabric onto your sheet or curtain; or use a plastic covered board slightly larger than your piece of fabric. You'll also need a bowl of water in which to dampen the fabric before colouring it.
- Prepare Liquid Radiance colours by mixing with water ... 1 part concentrate to 3 parts water is 'Anne's favourite' mix for bright colours. Use more water (up to 1 part concentrate to 10 parts water) if pale colours are required in this method.

#### MFTHOD:

- 1. Wet the fabric in water and squeeze out all excess till no drips come out. It is OK to blot out the moisture in a towel if you are not able to squeeze the fabric firmly. 100% cotton fabric eg calico or homespun works best for this technique.
- 2. Lay the fabric flat onto the plastic (or plastic-covered board).
- 3. Apply the diluted Liquid Radiance colours by drawing them onto the fabric, using the dispenser bottle like a pen. Leave small gaps between the colours and within the coloured areas so the fabric doesn't become 'drowned' or sloppy.
- 4. Using a gloved hand, spread the colours so they meet up, leaving no blank areas in the fabric. Dry fingertips of gloves on an old hand towel between colours so as not to move or transfer them where you may not want them.
- 5. Blot out any excess colour using an absorbent fabric ... we are using silk for our project in this workshop. Lay it on top of the prepared piece and press gently with your fingertips. Dry this mop-up on a separate piece of plastic.
- 6. Ease the fabric into gentle hills and valleys to make the next process simpler to do; then using a tickling action, form tiny scrunches, without heaping the fabric up. Keep the scrunches as flat onto the plastic as you can.
- 7. When done, flatten the scrunches by leaning on them to press out all the air.
- 8. Allow to dry naturally it can take up to 24 hours, especially in winter, but it is worth the wait. Do not force the fabric dry using a hairdryer or by putting it in the sun as this will lessen the effects that you are aiming to create.
- 9. When totally dry, heat set your fabric ... spray lightly with water to dampen it, then iron it for 2 minutes with your iron set on "cotton" temperature. Your fabric is totally colour-fast and washable, and ready for you to enjoy.



### Heliography (Sun Printing)

### **METHOD:**

- Colour your fabric by your favourite method any fabric will work with this technique, provided it is not too textured or patterned. Use a colouring method suitable for your fabric, and appropriate for the design you wish to create. Remember though that if there's NO colour there, there's nothing for the technique to work on!
- Lay coloured fabric onto BLACK plastic to intensify the UV action of the sun.
  - Arrange 'objects' to form your design flat things work best.
- $\bullet$  Place fabric in the sun to dry a couple of hours either side of midday is good, when the sun is highest and hottest.
  - When dry, remove objects and heat set fabric.
  - HINT: Do NOT use salt in this method!

### Heliography is a brilliant way to create very individual designs, especially for people like me who are not good with drawing!

All sorts of interesting shapes can be found in your pantry, in \$2 shops, and places like newsagents (paperclips come in so many different shapes now!) ... and a favourite shop for all sorts of creative things, 'Reverse Garbage', with all its amazing shapes from industrial processes – a great way to recycle!

On a windy day, find a safe place to put the students' work to dry. There's usually a sheltered spot against a brick wall somewhere around the school. Fabrics can also be held onto the plastic or board using masking tape (not pins – they will destroy your painting boards by putting holes in them.) Or try putting the objects under fencing wire or onion bags, remembering that anything you use will become part of the design. (Mmmm ... the effect of onion bags sitting flat across the fabric creates great 'snake skin'.)



create the design above

### You've planned to do heliography and it's cloudy or raining?

Use very flat objects for the design pieces and put the work to dry under a halogen light (if you can); but a fluorescent light works fairly well too. You just don't achieve the same intensity of colour as you would if you were able to put the fabric out in the sun.

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### One-Colour Colouring

### PREPARATION:

- ☑ Prepare your plastic or board and LR colours as usual.
- Up to ¼ metre of fabric can be coloured flat on plastic, or a covered board.
- For larger pieces of fabric, prepare your colours in a bowl or dish. See below for quantity guidelines.

### **METHOD:**

- Wet the fabric in water and squeeze out all excess till no drips come out. It is OK to blot out the moisture in a towel if you are not able to squeeze the fabric firmly. Cotton, poly-cotton, synthetics – all can be coloured by this method.
- 2. For small pieces of fabric, make a small 'puddle' of prepared colour onto your plastic a circle of about 5 to 7 cm diameter is enough to colour a small piece of calico or homespun approx 20 cm x 20 cm.
- 3. Now pop on a pair of disposable gloves, and dunk the wet fabric into the puddle to soak up the colour. From here on we need to work the colour through the fabric until it is evenly covered ... like this ...
- Work the colour by squishing it in your hands then squeezing out the excess, kneading the colour through the fibres. Continue doing this until the fabric IS evenly coloured.
- 5. Squeeze the fabric once more, to remove any excess colour. [EXCESS IS THE ENEMY.]
- 6. Wipe over the plastic or board with another piece of wet fabric (or an old towel) so you now have a clean dry surface to work on.
- Lay the coloured fabric onto the plastic, and handle it to form your desired end result. (I suggest you demonstrate how to create the spiral, as the students usually love it!)
- 8. Leave it to dry completely! [WHILE THERE'S MOISTURE, THERE'S MOVEMENT.]
- Heat set the fabric to maximise its washability and ensure its light-fastness.
  Iron it for ½ minute for really strong colours, but up to 2 minutes for really pale
  colours, with your iron set on the temperature suitable for the fabric on which
  you are working.

### So ... FABRIC DESIGNING ... SIMPLE, QUICK, and SAFE !!!

I think by now you will be discovering that there are both "Colouring" methods and "Handling" methods involved in our techniques. Fabrics can be coloured by one method and handled using another method from those described in these notes and in my DVDs. Mix and match your techniques! This is how we achieve such amazing, individual results, allowing teachers and students alike to express themselves in fabric designing. Try scrunching the one-colour pieces, and adding salt 'to taste, for example; or wind them around a pole and scrunch them. Pleat them or concertina them.

HANDY RULE: For one colour pieces, colour first then handle the fabric. For multi-coloured pieces, handle first then add the colour.



COINS and ELASTIC BANDS have created the sample below







The dark and light areas of the spiral effect are revealed when dry

**QUANTITY GUIDELINES FOR LARGER PIECES OF FABRIC** – volumes listed below are for 100% cotton (eg homespun or calico), dampened ready to colour. For synthetics and synthetic blends, or lighter weight cottons, adjust quantities down a little, as synthetic fabrics are less absorbent than natural fibres like cotton.

### Amount of Fabric / or Type of Garment

### Volume of Prepared Colour\*

1/4 metre cotton 6 to 8 teaspoons (30 to 40 mls)

½ metre cotton 12 to 16 teaspoons

(and multiply your quantities similarly for whatever size you need)

Pair of adult socks 30 to 60 mls
Adult t-shirt – short sleeves 200 to 300 mls

- © Remember these quantities are guidelines only, as there are huge variations in the absorbency of fabrics and fibres.
- When diluting the colour concentrates with water, dab a little onto 'craft paper' (white toilet paper or kitchen towel) to check colour strength.
   © Anne Mitchell 01.17

### Designing using Marbles

#### PREPARATION:

- Prepare your work place as usual, and have a bowl of water handy. Of course you can dampen your fabrics at the kitchen or laundry sink of you wish, but water bowls are best in the classroom.
- ☑ Prepare Liquid Radiance colours by mixing with water ... and again thinking classroom use, it is more economical to use, say, 1 part LR concentrate to 6 or 8 parts water. That will still produce good colour strength, especially for your younger classes.
- Have your supply of marbles and elastic bands handy.

#### **METHOD:**

- Wet the fabric in water and squeeze out the excess till no drips come out. It is OK to blot out the moisture in a towel if you are not able to squeeze the fabric firmly enough, but don't make it TOO dry.
- 2. Marbles and elastic bands are used to form the pattern in each of the photos. Where and how the colours are added will create the different designs.
- Secure each marble with an elastic band everywhere you want the centre of the flower or pattern to appear. Ease out the fabric around the rubber bands as you work.
- 4. Lay fabric marbles upward onto plastic.
- 5. Now let's talk 'flowers' see photo at top of page. Apply the diluted Liquid Radiance colours using a dabbing action. For the flowers demonstrated, the first colour is dabbed into the centre of the marble, and 'flower colours' are applied in concentric circles around each marble, leaving gaps between the colours to avoid 'excess'. Colour the remaining fabric to fill in the background. For my 'Flowers' background, I chose green and lime, dabbing these on randomly, then added a few dots of magenta and red as used in the flowers, dabbing them into the green areas to unify the colours in the piece.
- 6. Blot out any excess colour using an absorbent fabric ... I use silk for this during my workshops, but any absorbent light weight fabric will be OK. Lay it on top of the prepared piece and press gently with your fingertips. Dry this mop-up on a separate piece of plastic.
- 7. Allow colours to dry before removing the marbles.
- 8. Heat set your fabric ... spray lightly with water to dampen it, then iron it for 2 minutes with your iron set on the heat suitable for your fabric.
- 9. Your fabric is now completely colour-fast and washable, and ready for you to sew, or mount as a wall picture.

### OTHER PHOTOS, TOP TO BOTTOM:

**Second one** – colour was placed on the marble first, then streaked out in the shape of an asterisk. A second colour was alternated with the first colour. Background was filled in as for the flowers.

**Third photo** – is a combination of the two above, AND the one below!

**Last photo** – I define this as an 'abstract' pattern, with blocks of colour placed around each of the marbles till they join up.

Think of all the other things that can be used instead of marbles! Small stones, glass shapes (found in the floral décor aisles of various stores), ... If you have a supply of the flat caps from our Liquid Radiance concentrate bottles, they look really good. Or you can gather drink bottle caps, milk bottle tops, coins, ... Every different shape will give you variety in the patterns you can create. I know you'll add lots more to this list.

### My underlying principle with all the things we use is to collect items that are readily available, and NOT EXPENSIVE!

From drink bottles and egg cartons, to old sheets and shirts for protecting school uniforms – and the many other things we talk about during our workshop and in these notes – everything we need will be easily accessible for your students to bring when learning these fabric designing skills.

There's nothing dangerous or toxic in what we use, so all techniques are perfectly safe, simple, and economical for you to use in the classroom.











AND THERE'S MORE !!! Look what happens when we add salt – but only to the flowers, so the design doesn't become 'confusing'! Rinse salt off marbles and elastic bands before reusing them.

### Shaving Foam Marbling ... Creating an Informal Pattern ...

#### **METHOD:** [IMPORTANT - work on DRY fabric!]

- 1. Shake can of shaving foam, and dispense a 'generous heap' of foam onto a plastic or metal tray. The size of the heap will depend on the size of your project to be marbled. It's good to start off with a heap of foam about 10 cms high and 20 cms diameter.
- 2. Prepare Liquid Radiance colours in dispenser bottles ready for use dilute the concentrates 1 part conc to 3 parts water for strong colours.
- Drop colours randomly from the dispenser bottles into the heap of foam two or three colours will produce interesting patterns.
- 4. Swirl the colours around a little using plastic scrapers or spatulas.
- 5. Add more colour ... randomly ... and swirl it in.
- 6. Continue to drop and swirl until the foam is adequately coloured for your project. Doing this three or four times is usually sufficient.
- 7. Press the item firmly into the foam. The coloured foam will squish all around the item you are working on, whether it be flat paper or fabric, or an irregular shape like socks, a hat, or a terra cotta pot!
- 8. When surface has picked up the colours, it will be covered in foam too. Scrape off the excess foam with spatula.
- 9. If working on flat surfaces eg paper or fabric lay your piece on a flat board and scrape off the excess foam. Blot or wipe with a towel and put aside to dry. Socks or shirts can be coloured one side at a time, then scraped and blotted also one side at a time. If working on irregular shapes - scrape off the excess with the spatula, then wrap the object in a towel and pat to complete the 'cleaning' process. Put aside to dry.
- 10. Rinse by dunking gently in clean water to remove excess foam.
- 11. Heat set fabrics and fabric items. Cover with an old linen tea towel and iron for TWO (2) minutes.

INFORMATION FOR PAPERCRAFTS WHERE 'ACID FREE' PAPER IS IMPORTANT (eg to protect precious photographs or other memorabilia): Liquid Radiance is a pH neutral (ie acid free) formulation, so is perfectly safe to use to design and decorate hand-coloured papers, provided the papers being used are also acid free. However, if colouring paper by the Shaving Foam Marbling technique, it is important to know that the shaving foam is not acid free! When 'acid free' is required, the foam can be rinsed from the paper by carefully passing it through a tray of water a couple of times when the colours are dry. Archival Spray can also be used to neutralise any acidic residue where 'acid free' is required to protect valuable photos and other precious things in your papercrafts projects.



INFORMAL PATTERN

> **FORMAL DESIGN**

### Creating a Formal Design or Pattern ...

METHOD is similar to the Informal pattern but instead of heaping the foam up, flatten it out using a tiling scraper or

plastic ruler. Make the foam pad 1 to 2 cms deep. Drip the colours onto the foam. Using a satay stick or brush

article into the pattern you have created, then proceed through steps 7 to 11 above.

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### Poles ...

In this topic we will hit the tip of a HUGE iceberg! You'll be able to explore lots more via my DVD, "Beyond the Basics".

SUITABLE FABRICS – any natural fibres, especially cottons, will give crisp patterns.
Synthetics or 'blends' will give smoother results.



DRINK BOTTLE at left has been used to create the DESIGN above. Mop up is created by using the bottle like a rolling pin over dry fabric

YOU WILL NEED:

### A piece of poly pipe

OR Any round object with straight sides ...

eg Plastic drink bottle

Large fruit can or 'Nescafe' tin Caterer's food bucket (sides not too slope-y) A collection of things to bind fabric to pole eg elastic bands, string, bias binding

[See what else you can find!]

Fabric can be wound onto the pole in many ways, using different things to hold it there for different effects.

- When fabric is wound flat and bound with string or rubber bands, bias binding, or laces, the things used to bind the fabric onto the pole will form a pattern on your fabric.
- When fabric is randomly scrunched and held in place with rubber bands, wonderfully textured patterns are formed.

**SIMPLE METHOD**: Result looks like leaves or bamboo ... or maybe waves, or swimming dolphins depending on colours used.

- 1. Wet fabric, and scrunch it onto 'pole' (drink bottle), holding it in place using rubber bands.
- 2. Apply colour randomly.
- 3. Work it evenly into fabric by patting and/or rubbing with your hands. It's Five Finger Foam Brush on a pole instead of lying flat! It is best to wear rubber gloves, as it can get a bit 'gooey' on your fingers. However Liquid Radiance colours are non-toxic so gloves are not essential. Colours wash easily off skin with soap and water, but will NOT wash out of clothes!
- 4. Allow to dry completely on the pole.
- 5. Remove from pole when dry.
- 6. Heat set spray, stretch and iron  $\frac{1}{2}$  minute for really strong colours, up to 2 minutes for pale colours.

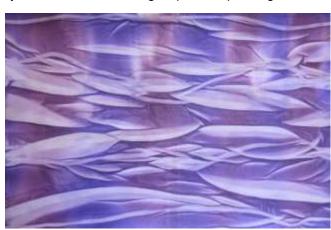
TO MOP UP WHEN WORKING ON A POLE: Lay a piece of fabric flat on your table, the roll the bottle or pipe over it to pick up the excess colour. When mop-up fabric is dry, the result will bleed and stop. (Photo top right) When using damp fabric for the mop-up, colours will continue to bleed and soften. Try both methods !!!

Socks coloured by One-Colour Method, and drying on poles to form striped pattern.

Garments and socks, in both one-colour and multi-colour techniques.
Blue socks were done using marbles before putting them on the pole.

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## Water Soluble Designing ... mini-lesson for Workshops

In this project I have coloured a ready-made bag, so I have applied Liquid Radiance through both layers .. and eventually needed to colour the handle as well. DEFINTELY NO ARTISTIC SKILLS REQUIRED ... just a really simple 'scribble', followed by 'Five Finger Foam Brush' technique, then the Water Soluble Resist applied straight from its applicator bottle.

I'm using my favourite mix of ¼ conc to ¾ water

The end result will be ...

### **TULIPS**

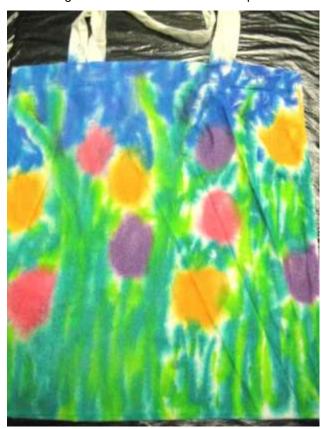
LEFT: Stage 1 - Tulips start off as egg shapes and lines in appropriate colours

RIGHT: Stage 2 – lime

colour is scribbled on in lines – really adds a bit of 'zing'! Then some blue and cyan added for the sky. Blue colour dilution is a bit strong but it's what I had ready to use ready at the time! Dilute the colours with more water for a softer sky.

BELOW: Stage 3 - Use gloved fingers to 'smudge' the colour and fill the design area.

Left-hand side of bag is completed, right side yet to be done. Interesting to note the difference this step makes!



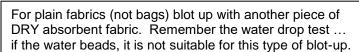
IN YOUR CLASSROOM, you will probably be working with plain fabrics. For these, lay two pieces of fabric down one on top of the other. Wet them and squeeze out the water until no more drips come out. Spread them as evenly as you can onto a board ready to apply the colours.

It's a brilliant way to produce a range of fabrics that look amazing in any project, as you can achieve four different 'representations' of the same design at the same time. Simply colour two pieces of fabric that are four times larger than what you require; then, as each layer will be slightly different, cut the fabric up when complete so you have pieces of each section



Because I'm working on a bag, handles must be coloured too. I have flipped them down onto the colours and pressed with my fingertips to blot up enough of the design colours to complete the bag.

MOP-Up: Stage 4 - To avoid excess in the fabric, I have laid another bag on top and pressed it firmly to absorb excess colour from the main bag. The 'blot up' bag will be the beginning of another one with more colour added - Probably something like scrunches and salt that doesn't need a specific design. Can't waste that lovely colour ... and we know that excess is the enemy so we don't want that in our main 'work of art' either !!!







FINAL STEP: Stage 5 - Draw on the Water Soluble Resist in lines to define the design you are creating ... line will be really gooey and look nothing like the end result !!! It's even tricky to see the lines you've done on some colours. Just draw away, then leave it all to dry. It will take several hours. But it's definitely worth the wait.

Lines, when first applied, should be about the thickness of a piece of string. They will disapper into the wet fabric as you work, but don't be tempted to go back over them!

Keep your design SIMPLE !!! Too many lines? You'll lose your pattern in the confusion.

The lines that looked gooey when wet will be defined when dry. I just LOVE the way the colours 'migrate' into each other during the drying time. (While there's moisture, there's movement). The end result will be nothing like the strange looking piece when you started!

FINISHING OFF: Stage 6 - When colour and resist - are all totally dry, dunk the fabric into water to remove the water soluble resist. Allow your fabric to soak for 10 to 20 minutes,then gently agitate it as if washing baby woolens. Do this three or four times to completely remove the resist. There will be a significant amount of colour come out into the water. This is where the resist was applied, and is now taking the colour with it, as it must, to reveal your final design.

Here you can see the spread of the WS Resist lines that were about the thickness of string when first applied. They have spread during drying time.

CLOSE-UP of bottom RH corner

This method of designing lends itself perfectly to Free Motion Machine Quilting



LEAF DESIGN [right] showing under side of upper layer, and both up side and underside of lower layer

Our Water Soluble Resist was originally created from my desire to have a 'clear gutta' type product for traditional silk painting. It can also be used for single-layer batik work. Amazing what else we find to do with such a simple product ... and there's more to come !!!



LEAF DESIGN - upper layer





### Discharge "Dyeing" ...

In this technique, colour is removed from black (or very dark) cotton fabric using bleach, then colour added back into the bleached (ie discharged) areas for spectacular results. Here's a nutshell version of the technique. You'll find more in our "Garments Galore" Handbook.

### METHOD:

- 1. **Handle the fabric** (or garment) to form the desired pattern or effect.
  - SOME IDEAS: marbles and elastic bands, scrunched on a pole as in the pictures at right, lay fabric flat and brush the bleach on, ...
- 2. **Apply bleach** a good quality one, and it must be fresh. You can use a sprayer as seen here, or brushes or cotton buds ... or whatever will create your desired effect. Remember that bleach will eat natural bristle brushes, so use a good quality synthetic brush for this task. For fine areas, satay sticks are excellent! Wait for the bleach to 'work' then ...
- 3. **NEUTRALISE** a vital step to prevent the bleach from continuing to degrade the fabric even after the bleach is dry. Use white vinegar about ½ cup of vinegar in ½ bucket of water. Soak the fabric in this solution for at least 10 minutes.
- RINSE to remove the vinegar, firstly in sudsy water, then clean water.
- 5. **ADD COLOUR** by your chosen method spray painting, five-finger foam brush, one-colour colouring, ... whichever will best achieve the look you want.

IMPORTANT: Anything that has been used with bleach must also be neutralised and rinsed. Be sure to clean your brushes well, as well as marbles and elastic bands (or whatever else you have used) and wipe over the poles and plastic covered boards.



Design above created using marbles and elastic bands, then coloured using Five Finger Foam Brush





100% cotton shirt has been held on a pole with wide elastic bands, and the bleach sprayed on.
BELOW: Different garment, same spraying method





The Completed Garment, now washed and worn - an old favourite for many years!

Design at left traced then discharged using cotton buds and satay sticks.

A broken-off satay stick makes a great fine-but-strong 'brush'!

Here's to working together for LOTS more creativity in colour !!! Enjoy ...