## Craft Fellowship Report:

# The Power of Colour – From Scarcity to Abundance

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A series of colour charts from my fellowship work. Photo: Stine Rudi Standal 2025

NORSK HÅNDVERKSINSTITUTT 9

## Til min læremester

Handlingsbåren kunnskap. Fra læremester til læring.

Hver gang jeg skaper, er arven etter deg med meg,
dine hender har lært mine hender, ditt blikk har formet
mitt, en del av deg vil alltid være til stede i alt jeg gjør.

Takk, Mona, jeg savner deg

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## Special thanks to:

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Silje Ødemotland and Thom House – for shaping my writing into clarity.

To my colleagues at the theatre, my fellow makers, and the milliners both here and abroad who have influenced my path – thank you for your collaboration and inspiration.

## Introduction

I have chosen to use English as the primary language for this project, although it is not my first language, in order to make the work more accessible. I wish to emphasise that my research and practice are undertaken from the perspective of a maker working within the specific conditions of contemporary hat makers and milliners in Norway.

The foundation of my research is deeply rooted in my family history within the millinery trade. My great-grandmother worked as a milliner in a thriving market during the first half of the 20th century. Her daughter continued in the same profession, but in a market that was already rapidly declining in the latter half of the century. Today, I practise as a milliner in a field that has almost disappeared altogether. This personal and generational trajectory illustrates not only the shifting economic and cultural conditions of millinery but also the broader transformation of artisanal trades over the last century.

In Norway, millinery materials have not been readily available locally for decades. This poses a significant challenge for micro-businesses, particularly when working under tight deadlines and with limited storage capacity. The ability to dye the diverse materials used in our craft is therefore especially valuable, as it reduces the need to keep an extensive inventory and allows us to stock primarily white and neutral colours.

At the outset of this project, my intention was to further specialise in specific straw techniques. While straw remains an integral component, it soon became apparent that a broader mapping of materials was more pressing for preserving and advancing the traditions of our craft. Consequently, my focus has expanded to encompass both the historical and contemporary use of materials, as this knowledge forms a crucial foundation for achieving consistent, high-quality dyeing outcomes. Nevertheless, this report will primarily address the core research objective: the dyeing of millinery materials.



Undyed materials Photo: Stine Rudi Standal 2025

## Research Aim

- To reflect on the role of in-house dyeing in redefining craft practice for millinery of today.

Early in my career, I recognised that the ability to dye materials would be transformative for both the creative possibilities and the speed at which milliners can and must work. This has been an opportune moment for me to develop the necessary skills and techniques to incorporate dyeing into my practice, with the aim of later sharing this knowledge with others.

The practice of dyeing within millinery workrooms is more commonly undertaken in the UK and several other countries. In Norway, however, milliners do not typically engage in this process on a regular basis, although many will occasionally perform small-scale dyeing – for example, when creating silk flowers or colouring individual feathers. Establishing in-house dyeing practices would enable larger orders to be placed with trusted suppliers, ensuring consistent quality and maintaining stock more effectively. This would also reduce the need to source materials in specific colours from various providers, minimise the frequency of small orders, and decrease the time spent on administrative tasks such as postal logistics, customs clearance, and accounting, ultimately lowering postage and customs-related costs.

In millinery, the hat or headpiece is often the final element in completing an ensemble, necessitating careful coordination with the remaining attire. Proficiency in fabric dyeing can significantly facilitate this process, enabling more precise colour matching. Frequently, milliners are required to cut fabrics on the bias to achieve the desired drape and finish. Pre-dyeing or dyeing the material post-cutting can substantially reduce waste and lower long-term production costs. When producing bespoke pieces, surplus fabric is often left unused because it may not match future projects in both colour and textile properties (such as fibre content or weave). By cutting bias strips and subsequently dyeing them, this limitation can be effectively mitigated.



Undyed materials and sketch illustrating a dyeing example for cutting fabric for hats on the bias. Photo: Stine Rudi Standal, 2025

A professional theatre production typically requires a planning and production period of around two years prior to its premiere. As these productions involve a complex interplay of numerous professions and crafts working together towards a unified artistic vision, extensive planning is essential.

For example, the costume department cannot begin its work until the cast has been finalised, as accurate measurements for each performer are necessary. The visual concept may also need to be adjusted to accommodate the performers' acting styles or body types. Casting decisions are often finalised only six to three months before the premiere, leaving even less time before dress rehearsals.

Milliners, in particular, face significant time constraints, as their work often cannot commence until costume fabrics have been selected or sourced, whether from suppliers or existing stock. This dependency creates challenges, especially when international shipping is involved.

The ability to dye materials in-house offers a more predictable workflow and provides the flexibility required to adapt to late-stage changes. This not only facilitates smoother collaboration with the wider production team but also tends to be more cost-effective in the long term.



Headwear for A Christmas Carol, National Theatre 2024. Photo: Stine Rudi Standal

## Method

When synthetic dye innovation expanded during the latter half of the nineteenth century, it acted as a social equaliser by broadening access to colour across all classes of society and within diverse artistic and craft practices. The availability of a wider range of more colourfast dyes and pigments at significantly lower costs blurred traditional indicators of status and wealth, reshaping how individuals could express themselves through colour. Combined with the transformative forces of the Industrial Revolution, this development altered the fabric of everyday life in both positive and negative ways but unquestionably made the world a more colourful place.

I chose not to use plant or natural dyes for my project because, at this stage, they are not widely available and would not be practical for professionals to use regularly while meeting expectations for quality, price, and production speed. Additionally, achieving consistent colour fastness in a wide range of hues remains a challenge.

I explored this topic through various sources, including a webinar from the Society of Dyers and Colourists (SDC) that highlighted the growing interest in more environmentally sustainable dyeing methods. From what I gathered, there is ongoing research aimed at making natural dyes viable for industrial and professional use. However, this involves addressing complex issues, such as the need for collaboration with the agricultural sector, since large-scale cultivation of plant matter would be required to support production.

Another critical factor is consumer perception. A shift in mindset would be necessary to value garments that age naturally, with colours that may lighten over time and develop a patina, rather than expecting them to remain unchanged.

When I began researching and experimenting at the start of the fellowship, I started with the dyestuffs I have previously used for costume dyeing. The brand I typically worked with is classified as a multipurpose dye, designed to bond with all major fibre groups (protein fibres, cellulose fibres, and some man-made fibres).







Ombre dyeing Petersham ribbon for nautilus headpiece 2023. Photo: Stine Rudi Standal

Early on, I realised that I needed to move away from multipurpose dyes. While these are the dyes I have used most frequently in the past—and they are also the most commonly used dyestuffs within my sector (stage and screen/performing arts) in Norway—they are not, in my view, the best choice for milliners and hatters.

However, I did include multipurpose dyes in my trials to validate my reasoning. This confirmed my initial perspective: although there may be exceptions, I am confident that fibre-specific dyes are the better choice going forward. By fibre-specific dyes, I mean acid dyes for protein fibres, feathers, and nylon, and reactive dyes for plant-based and regenerated fibres.

I considered several important factors to ensure that the dyeing method I developed would be accessible for all milliners and hatters—whether they work in a small studio or as part of a larger organization, such as a theatre.

First, the dyes needed to be readily available through suppliers, even in small quantities suitable for independent businesses. It was also essential that good instructions and reliable resources were accessible online to support makers.

Additionally, the process had to be safe and easy to manage in a small, self-made dye kitchen setup. From a technical perspective, the dyes needed to provide good overall colour fastness, with particular emphasis on lightfastness, which is crucial in hat making. Consistency—in both product availability and dyeing results—was also a key consideration.

Jacquard's dyestuffs emerged as the most suitable choice. Their popularity among yarn dyers (wool/protein fibres) and batik practitioners (cotton and linen/cellulose fibres) means they are relatively easy to find, even in brick-and-mortar shops in Norway. For larger-scale production, it is straightforward to order their products in bulk online.

Throughout my project, Jacquard products consistently met these criteria, making them my primary choice for swatch dyeing. Following a discussion with a professional dye chemist, I am now exploring other brands of fibre-reactive dyes and continuing trials and experiments, particularly with millinery-specific plant materials.

I will not list the recipes for dyeing here, as these are well described by the manufacturer, along with safety instructions. They are written by professional dye chemists, thoroughly quality-controlled, and regularly updated as formulas and regulations change.

For millinery work, the most practical method is immersion dyeing using plastic tubs, pots, or pans, as only a small amount of material is needed for a hat. If you are producing many hats of the same design, it may be worthwhile to set up a larger, professional dye kitchen equipped with an industrial washing machine. This allows you to control movement, temperature, and timing throughout the dyeing process, and to stop the dyeing at the exact moment you achieve the desired lightness of colour when working with acid dyes.

Note: if you are new to dyeing, remember that wet materials appear much darker than when they are dry.



"Scrappy dyeing" 2022 Photo: Stine Rudi Standal

I have used the following tools in my fellowship work:

• Fish steamer pots – long and narrow, good for buntal mats, abaca materials and feathers. The buntal mats and abaca materials can be rolled up and tied with a polyester sewing thread when dyeing, you will be able to dye evenly if you create sufficient flow/movement in the dyebath despite of the material being rolled up.



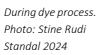
Dyeing Buntal mat 2022 Photo: Stine Rudi Standal

Pots in varied sizes, from the smallest for samples and small pieces like ribbon, large 10–15
 litre pots for bigger and stiffer materials like felt/ sisal cones and capelines.



Dyeing Melasine fur felt Photo: Stine Rudi Standal 2025

- Measuring tools, spoons, weight, thermometer.
- Plastic tubs/ containers, for dyeing with fibre reactive dyes, and washing your materials before and after dyeing.
- A tray. I have used a large aluminium catering tray, with a dye-rag in it, it gives me contained "dirty zone" surface to mix dyestuffs and keep my stirring tools as I work.
- Dye rags, I preferer white cotton Molton, they last a long time and are affordable. Molton can
  - hold quite a bit of moisture, but do not make your work surface unstable as a bath towel may do. You easily see your new/old spills on a white material, so you can keep on top of avoiding transferring stains.





- Stirring tools. I prefer chopsticks. Small "take-away" and longer cooking chopstick. They are great for all kinds of stirring, but also lifting material out in the end or lifting to check in the process.
- Heat resistant rubber gloves are useful, but you can manage without.



Dye chopsticks Photo: Stine Rudi Standal

• Salad spinner. This has increased how efficiently I can rinse out leftover dye, and kick start the drying, as it works as an affordable manual handled centrifuge.



Rinsing dye samples. Photo: Stine Rudi Standal 2025

- Silk organdie, as a pressing/ironing cloth.
- Iron and ironing surface/ board.



Ironing dye samples. Photo: Stine Rudi Standal 2024

When I first started out, my experience was limited to thinking on my feet and handling dye jobs on a case-by-case basis. I would read up on techniques as I worked, solving challenges as they arose—mainly in the field of costume textiles, garments, and shoes. With the support of the craft fellowship, I gained the time and resources to study further, seek advice from fellow makers, attend workshops, talks, and webinars, and experiment based on what I learned.

I decided to build experience across a diverse range of fibres, thread and yarn fastness, felts, and weaves. This allowed me to understand how different fibres respond to dye, how spinning, felting, and weaving affect dye adherence, and how the structure of a material influences our perception of colour—all while ensuring that the dyeing process did not compromise the original characteristics and properties of the materials.



Registering dye results Photo: Stine Rudi Standal 2025

I also needed a strategy to categorise and organise my dye work, as it includes both plant fibres in traditional woven textiles and specialised millinery materials. My system of categorisation was inspired by my fellowship colleague, basket weaver Hege Iren Aasdal, who based her project on split wood basketry. In my first year, I visited her in Hardanger to explore the commonalities between our crafts—of which there were several. One key similarity is the use of plant materials that are simply split then woven or braided.

From this, I developed two main categories for plant fibres:

- Low-processed plant fibres: This includes straw braid (both split and unsplit) and split materials such as sisal, abaca, raffia, and buntal.
- High-processed plant fibres: This includes textiles such as cotton, linen, ramie, and bamboo, which are processed or broken down, then combed, spun, and woven.

My binders of samples are divided as follows:

- High processed plant fibre
- Low processed plant fibre
- Regenerated and semi-synthetic fibre
- Silk
- Silk blends
- Feathers
- Wool
- Felt



Dye sample binders. Photo: Stine Rudi Standal 2025

Most swatches measure 10 x 10 cm, while costlier hat materials are provided as smaller samples for budgeting purposes.



Bonnet for "Sancthansnatten" Nationaltheatret. Photo: Stine Rudi Standal 2022

## **Process**

Throughout my fellowship, I have actively engaged with makers and professionals within the field, sharing my work and seeking their insights. I have been fortunate to receive valuable tips and techniques from these exchanges. Further details regarding my travels and meetings with other makers can be found in my first- and second-year reports.

At the outset of the fellowship, I had access to a professional dye kitchen. However, due to circumstances beyond my control, I had to relocate my dyeing practice to my home studio. Although this transition was initially challenging, it ultimately reinforced my thesis: that the methods I have been developing are accessible to anyone, regardless of the scale of their millinery practice.

My research and learning process has encompassed a wide range of activities, including attending online panel discussions, webinars, and workshops, as well as extensive reading and travel. These efforts have been focused on finding an effective intersection between traditional millinery techniques and professional-grade fibre dyeing.

In the early stages, I engaged in what I termed "scrappy dyeing," experimenting with leftover materials and various dyestuffs and methods. Through repeated testing, reflection, and refinement, I gradually built up both knowledge and confidence. With this foundation, I invested in a broader range of dyestuffs and materials to develop comprehensive swatch dye binders, as well as to create independent hats and headpieces.

Developing high-quality swatch binders was a major priority, as they serve both as a vital tool for my ongoing work and as an educational resource to inspire others about the potential of these dyeing methods.

I have successfully produced numerous hats based on my thesis for theatrical productions, which has validated the efficiency, sustainability, and cost-effectiveness of my workflow. These applications have also demonstrated the suitability of the methods for stage use. Further details on these projects are included in the annual reports.





Blocking Fox ears for "Hakkebakkeskogen" Nationaltheatret. Acid dyed felt. Photo: Stine Rudi Standal 2025

Additionally, I have created a selection of independent hats to showcase the range of possibilities these methods offer. While I would have liked to produce more in this category, time constraints limited the scope. I look forward to continuing the development of both swatch books and independent headpieces in the future.













Individual Projects. Pink straw headpiece with silk organdie waves, 2024. Top hat created in collaboration with weaving scholarship fellow Magnhild Peggy Jones Gilje.

## Results

## Fibre reactive dye

Procion MX Dyes

## Pros

## Colour Fastness

The colours bond well with fibres, resulting in long-lasting and wash-resistant hues.

Wide Range of Colours & Premixes

Extensive selection makes it easy to reproduce colours and dye additional material to match.

Registering fluorescent dye samples. Photo: Stine Rudi Standal

## Beginner-Friendly

Straightforward to use with clear manufacturer instructions.

## Good Availability

Widely accessible for professional and hobbyist use.

## Low Toxicity & Fibre-Specific

Requires only the necessary chemicals for the chosen fibre, meaning less chemical waste.

## Natural-Looking Results

Dyes integrate into the fibre rather than sitting on top, resulting in a less "generic" finish (based on user perception).

## Interesting Effects on Fibre Blends

Fibres like viscose and silk absorb dyes differently, creating depth and unique effects in draping work.

## No Elaborate Steaming Required

Colours set without extensive steaming processes.

## Convenient Post-Dye Handling

Materials can be ironed or lightly steamed after rinsing, which helps remove crinkles without waiting for complete drying.



Samples of Petersham ribbon. Photo: Stine Rudi Standal 2024

## Cons

Challenging for Small Quantities

Weighing out precise amounts can be tricky for small-batch dyeing (e.g., millinery).

Longer Dyeing Process

Requires more time than multipurpose or direct dyes.

Unpredictable Colour During Process

Final colour only becomes apparent after completing the whole process due to hue shifts when adding soda ash and salt.

This can be managed by keeping a swatch book and gaining experience over time.

Samples of high processed plant fibres

Fine Bleached Cotton W:150 cm Whaley's 2024

Cheesecloth Cotton White W: 85 cm Whaley's 2024

Cotton Percale Neptune White W:270 Whaley's 2024

Cotton Gauze W:100 Whaley's 2024

Novell Linen White W:150 cm Whaley's 2024

Fine Linen Sadurida White Whaley's 2024

Bamboo Melody White W:150 Whaley's 2024

Ramie Trinity White W:140 Whaley's 2024



Cheesecloth dye samples. Photo: Stine Rudi Standal 2025

Samples of low processed plant fibres

Raffia Capeline Millinery.uk 2022

Jin Sin Buntal/Polyester Parkin Fabric 2023

Pineapple Silk Natural Whaley's 2024

Sisal Hood millinery.uk 2022

Wheat straw Petersham's 2022

Samples of abaca

Abaca/silk

Abaca/Polyester

Sinamay



Sisal dye samples. Photo: Stine Rudi Standal 2024

Samples of regenerated and semisynthetic fibres

Milk Twill White W:150 Whaley's 2024

100% Viscose Twill Linning Monaco Ivory W:140 cm Whaley's 2024

Viscose/ Polyester Elsa W140 cm Whaley's 2024

Silk/ Viscose Velvet (Devore) W115 cm Whaley's 2024

Querstretch Satin "Solero" 65% Acetate 29% nylon 6% spandex W: 105 cm Fucotex 2023

Petersham Viscose, Baxter Hart and Abraham

## Acid dye

## Pros

Colour Fastness – Colours remain vibrant and resistant to fading.

Wide Range of Premixes and Dye Selection – Makes it easy to reproduce colours or dye additional material as needed.

User-Friendly – Simple to learn with clear, well-structured instructions from the manufacturer.

Readily Available – Easy to source when needed.

Low Toxicity – Fiber-specific dyes mean only essential chemicals are used, reducing environmental impact.

Integrated Dyeing Effect – The colour bonds more within the fibre rather than sitting on top, resulting in a richer, less generic appearance (based on personal observation).

Beautiful Results with Fiber Blends – Especially striking with blends like viscose and silk, where different fibres absorb dye differently, creating depth and visual interest.

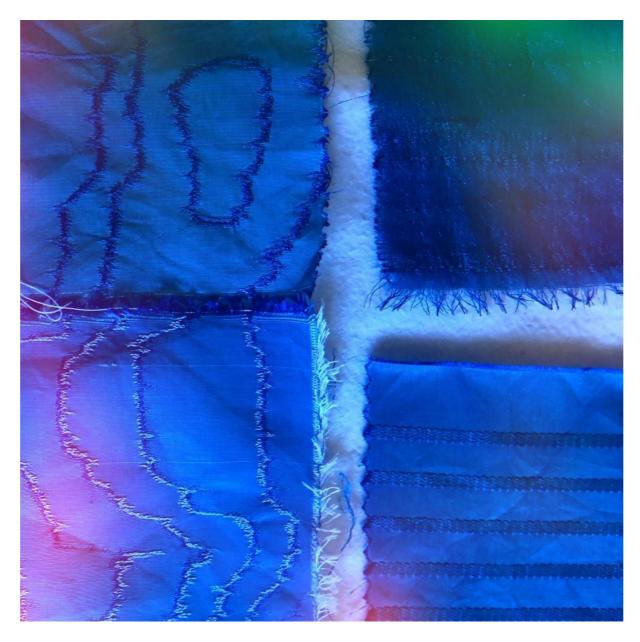
Convenient Finishing Process – Fabrics can be iron-steamed after rinsing, making it easier to remove crinkles before fully drying.

Comparable Process Time – Dyeing takes about as long as with multi/direct dyes.

Exhaustible Dye Bath – Allows for near-complete uptake of dye, minimizing waste.

Good Manufacturer Guidance – Comprehensive instructions and guides are available.

Good Visual Control – Colour hue becomes visible quickly, allowing you to stop at the desired depth or lightness for your project.



## Cons

• None reported at this stage of experience.



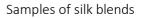




Four images, silk dye samples. Photo: Stine Rudi Standal 2024

## Samples of silks

Habotai silk medium 115 cm Whaley's Habotai silk heavy 140 cm Whaley's Organza satin silk 135 cm Whaley's Crepe De Chine Heavy 115 cm Whaley's Double faced satin silk 140 cm Whaley's Jearsy Silk (tube) Whaley's Chiffon Satin Saransa 135 cm Whaley's Satin Silk Heavy 140 Whaley's Double Georgette silk 140 cm Whaley's Sandwashed Silk 115 cm Whaley's Watery Silk (all silk) Hopkins Dupion Silk 140 cm Whaley's Douppioni Silk Alexis 140 cm Whaley's Crinkle Silk 115 cm Whaley's Indian Plain Silk 105 cm Hopkins Shaded Stripes Ivory Silk 125 cm Hopkins Silk ribbon, Whitchurch Silk Mill



Ottoman Silk/ Cotton Hopkins
Watery Silk/Linen Hopkins
Watery Silk/ cotton Hopkins
Grosgrain Fabric Silk/ Cotton Hopkins
Claude Ivory Silk/ Cotton Quilting Hopkins
Mirabel Ivory Silk/Cotton Quilting Hopkins
Silk/ Viscose Georgette 115 cm Whaley's
Silk/Viscose Satin 140 cm Whaley's

Silk/ Viscose Velvet (Devore) W115 cm Whaley's 2024

Samples of feathers

Nagorie Goose Feathers
Ostrich Feathers





Dupion Silk dye samples. Photo: Stine Rudi Standal 2025



Silk/ Cotton Quilting dye sample Photo: Stine Rudi Standal



Dye bath silks. Photo: Stine Rudi Standal 2024



Two images. Dye samples feathers. Photo: Stine Rudi Standal 2024

## Samples of wool

Potany Wool Serge 150 cm Whaley's Worsted Twill 140cm Whaley's Artic Wool Gauze 140 cm Whaley's Wool Barathea 150 cm Whaley's Andrea Wool Crepe 150 cm Whaley's

Monkswool 150 cm Whaley's Voltaire Wool (fine) 150 cm Whaley's Kova Wool Sateen 150 cm Whaley's

Samples of hat felts

Rabbit fur felt (off white) Kopka

Melasine fur felt, Rabbit (alabaster) Baxter, Hart and Abraham

Velour Rabbit (off white) Parkin

Suade fur felt Capeline (rabbit, alabaster) Parkin

Wool felt hood (unknown origin, old stock)





Four images. Wool and felt dye samples. *Photo: Stine Rudi Standal* 2024





## Multipurpose dye

## Pros:

Easy to use and learn – Beginner-friendly with straightforward application.

Good manufacturer instructions – Clear guidance provided.

Readily available – Easy to source.

Relatively quick dye process – Saves time compared to some other methods.

Good control over colour depth – The hue becomes visible quickly, allowing you to stop at the desired lightness or depth for your project.

## Cons:

Low colour fastness – The dye tends to fade more easily over time.

Not fibre-specific – Range of chemicals for different fibres included, leading to more chemicals going down the drain.

More surface-level dyeing – The dye tends to sit on top of fibres rather than penetrating deeply, making the results feel less integrated (based on perception, not scientific analysis).

Less vibrant results – Colours may appear duller compared to fibre-specific dyes.

Even effect on blends – For example, viscose and silk absorb the dye, similarly, reducing depth and contrast that could otherwise enhance the weave.

Ironing restrictions – Cannot steam/ iron immediately after rinsing/ centrifuging; fabric must be fully dry before ironing, causing wrinkles to set and making them harder to remove.

Samples of high processed plant fibres

Fine Bleached Cotton W:150 cm Whaley's 2024

Cheesecloth Cotton White W: 85 cm Whaley's 2024

Cotton Percale Neptune White W:270 Whaley's 2024

Cotton Gauze W:100 Whaley's 2024

Novell Linen White W.150 cm Whaley's 2024

Fine Linen Sadurida White Whaley's 2024

Bamboo Melody White W:150 Whaley's 2024

Ramie Trinity White W:140 Whaley's 2024

Samples of low processed plant fibres

Raffia Capeline Millinery.uk 2022



Dyed buntal hat. Work in progress. "Dødsdansen" Nationaltheatret 2023. Photo: Stine Rudi Standal 2023

Jin Sin Buntal/Polyester Parkin Fabric 2023

Pineapple Silk Natural Whaley's 2024

Sisal Hood millinery.uk 2022

Wheat straw Petersham's 2022

Abaca/silk

Abaca/ Polyester

Sinamay









Four images. Work in progress. Dyed abaca and sisal materials for "A midsummer nights dream" Nationaltheatret 2022. Photo: Stine Rudi Standal 2022

Samples of regenerated and semisynthetic fibres

Milk Twill White W:150 Whaley's 2024

100% Viscose Twill Linning Monaco Ivory W:140 cm Whaley's 2024

Viscose/ Polyester Elsa W140 cm Whaley's 2024

Silk/ Viscose Velvet (Devore) W115 cm Whaley's 2024

Querstretch Satin "Solero" 65% Acetate 29% nylon 6% spandex W: 105 cm Fucotex 2023

Petersham Viscose, Baxter Hart and Abraham



Hat blocks and raw natural or bleached undyed material. Photo: Stine Rudi Standal 2022

## Final thoughts

The tasks I have embarked upon are substantial, and at times they have felt overwhelming. Yet, I am profoundly grateful and happy to have been able to dedicate myself to this work. It is the nature of this craft that it has no final answer and no clear end; it is a continuous journey. The diversity of materials in textile crafts can feel infinite, beginning with growing or creating a fibre, processing it, spinning, weaving, further refining and dyeing it. Simply trying to grasp the countless variables involved is enough to make one's head spin.

I am deeply thankful for the financial support that has enabled me to source materials, travel, and devote time to experimentation. This support has allowed me to find ways to continue working in my craft in a rapidly changing world—adapting as needed while remaining rooted in the history and traditions that we, as craftspeople, are custodians of.

My community has been vital—especially Mona Strand, Arild Skarsfjord Berg, Katarina Grasmo, and Ellen Wang Thommessen. At times when I have lost my nerve or confidence, they have been there to help me find my footing again. When life hands you unexpected lemons, you sometimes need others to help find the recipe for lemonade.

One of the greatest gifts of this period has been the time to read and explore resources beyond what a structured educational system provides. This form of learning is both invaluable and demanding—it often leads down unexpected rabbit holes, amassing vast amounts of information that must somehow be managed and retained. Training my mindset to work in this way, and at times coming close to academic or scientific territory—especially in chemistry—has been challenging. Yet I strive to hold onto the belief that this work has value, because it is shaped by the unique perspective of an experienced maker in a specialised craft.

Choosing to write in English has shaped my work, and it will continue to do so. In fields of craft that have been dwindling over decades, the professional language and technical terminology inevitably erode. Without suppliers or forums to uphold standards, we lose consensus on the names of materials and tools. Some new materials and tools never receive Norwegian terms that function well in formal communication. And when one seldom meets fellow makers in the same field, the daily discourse instead takes place in international online communities, professional journals, and with global suppliers.

The field of fibre dyeing in Norway is no larger than the millinery community, and the knowledge and vocabulary surrounding dyeing are in a similarly fragile state. Writing my fellowship work in English has strengthened my ability to continue learning, removed language barriers to further research, and allowed me to stay up to date internationally. It also, however, opens my work to greater scrutiny. Taking this on, alongside the work itself, has been no small task. The infrastructure for such a choice was not fully in place, which added both workload and pressure. Yet I believe the project—and I, as a maker—will benefit in the long term from having met this challenge.

Two of the most influential resources I encountered during my fellowship are a book and an international organisation.

The book *The Fabric of Civilization* offers a sweeping overview of the impact of textiles on humanity, from prehistory to the present. I recommend it to anyone—because we must stop taking textiles and textile crafts for granted. They are intimate, essential parts of our lives, as fundamental as food and shelter. The book is accessible and engaging, with an excellent audiobook version available.

The second resource I recommend to anyone in the textile field is the international organisation *The Society of Dyers and Colourists*. Its main focus is dyeing textile fibres, but through engagement with them you also gain insight into fibre production, textile processing, and the broader infrastructure of the industry. This is critical knowledge for everyone—from product developers and large-scale producers to retailers, craftspeople, and artists. We all bear responsibility for how we work with textiles. The SDC offers invaluable insight, including webinars and courses that provide both historical and cutting-edge perspectives on innovation and sustainability. I initially joined for a trial month but have since become a long-term member.

Looking ahead, I hope and believe I will be able to continue developing and applying the methods and skills I explored during my fellowship. I want to deepen my knowledge of dyeing and dye chemistry—I feel I have only scratched the surface. I wish to continue testing colour fastness, both to expand my own understanding and to share insights with others. In particular, I am drawn to working more with materials such as sisal, straw, and abaca, which are often highly light-sensitive.

I also wish to continue documenting millinery materials, as I believe this work will be valuable for future makers. My first-year mentor, Ellen Wang Thommessen, has expressed interest in joining me in this endeavour, and my second-year mentor, Sean Barrett, has offered to contribute historically significant samples for further study. Mona Strand has been an incredible support—a personal pillar and a cornerstone of the Norwegian millinery community. As I write this, I am still coming to terms with the loss of this irreplaceable and beloved person, who I had hoped would walk this path with me into the future.

Looking forward, I hope to remain present and engaged, to share the craft of millinery with the next generation, to continue the legacy of my family and my mentor Mona, and to pass on the knowledge and dyeing strategies I have developed through this fellowship.



Some millinery tools. Photo: Stine Rudi Standal 2025

## **Professional Profile**

I am an experienced milliner and costume maker with over twenty years of expertise in costume production, project management, and product development. Over the past decade, my primary focus has been millinery, encompassing sculptural headpieces, hat making, dye work, and patina. My portfolio spans a wide range of craftsmanship, artistic, and functional design projects—from creating bespoke theatrical costumes to developing soft parts for Stokke baby prams and strollers.

My practice is deeply rooted in traditional techniques and guided by a strong commitment to material exploration and sculptural form. I hold journeyman letters in both costume making for stage and screen and millinery and have apprenticed at several leading Norwegian theatres and ateliers.

In addition to my technical and creative expertise, I have pursued studies in transformational leadership and cultural project management, enabling me to bridge artisanal creation with structured production and project delivery.

I am currently employed full-time at the National Theatre in Oslo while continuing to develop my independent artisan and craft practice.



Top hat made in a millinery craft informational film 2023. Photo: Stine Rudi Standal 2025

## Resources

While these resources are not directly quoted in my report, they have informed my work throughout the fellowship project. I have included an extensive list to inspire others to explore beyond what I have covered

#### Books and digital archives:

## General millinery work, history and materials:

HATS – a Papin press design book, The Pepin Press 2000

Women's Hats, Headdresses and Hairstyles, Georgine de Courtais, Dover Publications, inc. 1973, 1986

A Dictionary of costume and fashion, Mary Brooks Picken, Dover books on fashion, 1999

Metmuseum.org, The costume Institute collections

Textilepedia, Fashionary International Ltd ISBN 978-988-77110-9-4

Headwear, Alan and Vanessa Hopkins ISBN 978-0-9931744-3-8

## Straw work:

Swiss Straw Work: techniques of a fashion industry, Veronica Main, Main Collons Publishing, 2003

Workshop with Hege Irene Aarsdal:

Basketmaking in Ireland, Joe Hogan, Wordwell Ltd 2001

The complete book of Basketry techniques, Sue Gabriel and Sally Goymer, David & Charles, 1999

## Feather work and dying:

My world according to me – a technical Workbook, Ian Bennett, self-published 2018

## Dyeing:

Handbook of textile and industrial dyeing, Woodhead Publishing Limited, 2011

ISBN 978-0-08-101651-0

#### Society of Dyers and Colourists:

- Dye Discoveries in the 18th and 19th Centuries SDC Online Talk
- Bursary Catch-up! Monika Dolbniak and Caroline Coyne SDC Webinar

- ColourQ Colour and its relationship within Film Production SDC Webinar
- Schutzen Chemical Group Next Generation Bio-based, Bio-degradable Textile Chemicals –
   SDC Webinar
- Natural Dyes/Alternative Dyes SDC webinar
- Ecofoot Webinar SDC-W24
- Hohenstein Webinar SDC-W23
- There's nothing small about embroidery SDC-W21
- Fibres and their sustainable and environmental issues SDC webinar | SDC
- Colour Lifecycle Management: A SDC Webinar from Natific recorded on 05 05 2022
- A Basic Guide to Making Dyeing Safer
- A Basic Introduction to Acid Dyes
- A Basic Introduction to Disperse Dyes
- A Basic Introduction to Reactive Dyes
- A Basic Introduction to Cotton
- A Basic Introduction to Nylon
- A Basic Introduction to Polyester
- A Basic Introduction to Colour Communication
- A Basic Introduction to Sustainability
- A Basic Introduction to Textile Dyeing
- Colour Communication Webinar
- Chemical Compliance SDC-W3



Work in progress. Straw bonnet for "Sancthansnatten" Nationaltheatret 2022. Photo: Stine Rudi Standal 2022

- A History of Dyes: from Ancient Egypt to modern times Webinar
- A History of Pigments: from cave painting to the present day webinar
- Colour in Stage and Costume Design webinar

## Workshops:

- Straw Millinery with Lynn McMasters 2022 (online workshop)
- Top Hat course with Denise Wallace-Spriggs 2022 (online workshop)
- Feather dye work Ian Bennett (in his studio 2022 London, two-day workshop one-to-one with Ellen Thommessen and me)
- Filagree Straw work Bridget Bailey (in her studio 2022 London, one day workshop one-to-one with Ellen Thommessen and me)

#### The Hat Academy:

## Bespoke Feather Course:

- Dyeing feathers
- Sculpting Feathers
- Mounting Feathers

## Thermoplastic:

- Thermoplastic fundamentals
- Sculptural Thermoplastics
- Theatrical Thermoplastics

## Millinery Turbans:

- Turban Fundamentals
- Contemporary Turbans

## Contemporary Sinamay:

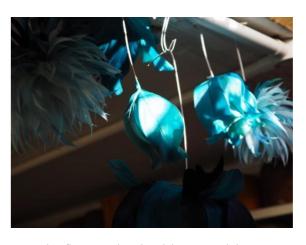
- Sinamay essentials
- Bespoke Bows
- Sculpted brim
- Elevated Trimming

## Classic Buntal Brims

- Wide brim hats
- Breton hats

# Workshops and Panel talks, London Hat week 2022:

- Organdy Dahlia Flower Masterclass with Ian Bennett
- Cut and Curl Long Feathers and Quills Masterclass with Ian Bennett
- "In conversation" with Awon Golding, Jess Collett and Rachel Travor-Morgan on Royal Hats (Panel talk)
- Dressed to the Nines, Windrush Generation style talk, with Alva Wilson
- Making history talk, with Bridget Bailey (online)
- Back to the Future Sustaining Heritage Crafts, with Racel Frost (online)



Two images. Feather flower work and acid dyeing. Workshop with Ian Bennett 2022. *Photo: Stine Rudi Standal 2022* 



Product sheets and respires from dye manufactures

Instructions for Jacquard's acid dye:

Acid+Dye+Instructions\_rev2014.pdf

Technical information for Jacquard's acid dye:

Acid Dye Tech Info

Instructions for Jacquard's Procion MX:

Procion-MX\_Instructions.pdf

Technical information for Jacquard's Procion MX:

PMX+Technical+Info+Chart\_2022.pdf

Instructions for Dypro multipurpose dye:

Instructions for Multi- Purpose Dye.pdf

**Directions** 

Safety data sheets Dypro multipurpose dye:

Safety

Instructions for Rit All-purpose dye:

How to Use Rit All-Purpose Dye

Instructions for Rit Dye-More for synthetic fibres:

How to Use Rit DyeMore for Synthetic Fibers



Blue acid dye bath. Silk samples. Photo: Stine Rudi Standal 2024

Suppliers

Undyed fabric:

Whaleys Fabrics - Fabric Suppliers | Fast UK Delivery

**Hopkins Fabrics** 

Parkin fabric (felt and abaca)

Fred Reugger (Straw and tropical fibres)

Hat material and supply:

Baxter Hart & Abraham

Parkin Fabrics | Millinery, Sinamay and Haberdashery Online

Petershams Millinery Supplies

House of Adorn | Online Millinery, Dance, Costume and Craft Supplies | We Ship World-Wide | House of Adorn

Feathers – Feather business and dye works. Established 1946.

Dyestuff:

https://www.patin-a.de



Birdy studio Brobekk/ Nationaltheatret 2022. Photo: Stine Rudi Standal 2022

## List of physical compendiums

Memory stick with images and film of my work in the scholarship period

## Bidders of dyed material, and millinery materials

- 1 Product sheets and dye theory
- 2 Fibres and material information
- 3 First dye samples
- 4 High processed plant fibres w/ reactive dye
- 5 Low processed plant fibres w/ reactive dye
- 6 Abaca fibre w/ reactive dye and acid dye (acid dye; one's with silk Warp)
- 7 Regenerated /semi synthetic fibres w/ reactive and acid dye
- 8 Silk fibre w/ acid dye
- 9 Silk fibre blends w/ reactive and acid dye
- 10 Feathers w/ acid dye
- 11 Wool 1 of 2, w/acid dye
- 12 Wool 2 of 2, w/ acid dye
- 13 Felt 1 of 2, w/ acid dye
- 14 Felt 2 of 2, w/ acid dye
- 15 High processed plant fibres w/multipurpose dye
- 16 Low processed plant fibres w/multipurpose dye
- 17 Regenerated /semi synthetic fibres w/multipurpose dye
- Various trails dyeing and colour fastness
- Tools, tec and history
- The beginning of a material register
- Polymer and thermoplastics

## Folders of same dye colour code samples for comparison:

- Reactive dyes
- Acid dye
- Multipurpose dye

Travellers' notebook of dye samples



Bust of Henrik Ibsen at Nationaltheatret wearing mushroom hat made for "Sancthansnatten" in 2022. Photo: Stine Rudi Standal 2023

## Hats and Headpieces

## "Sancthansnatten" 2022

- The mushroom hat
- White bonnet
- Straw bonnet

"En midtsommernatts drøm" 2022

- Blue sisal hat with bow
- Bride hats

"En julefortelling" 2023

- Turban
- Jin-sin bows
- Butterfly headpiece
- Pink pillbox
- Green fedora with feather dye work



Blue butterflies, acid dyed silk organdie. For costume and headpieces "A Christmas Carol" Nationaltheatret 2023. Photo: Stine Rudi Standal 2023

## "Karusell" 2024

- Re-designed bird hat (from "a midsummer-night's dream")
- Re-designed sinamay hat (from "a midsummer-night's dream")
- Maid's headpiece
- Feather headpieces

"Dødsdansen" 2023

-Buntal hat for actress Pia Tjelta

## *Independent pieces:*

- Top hat in collaboration with scholarship fellow in weaving, Magnhild Peggy Jones Gilje
- Pink straw headpiece with silk organdie waves
- The nautilus headpieces (white and blue)