Clò na Tìre

Cloth of the Land

CREATIVE SCOTLAND
ALBA | CHRUTHACHAIL

A case study of the 2025 project ‘Clò na Tìre’

Table of contents

Summary

This case study presents the objectives and findings of the 2025 Clò na Tìre ("cloth of the land") project, which investigated how luxury bespoke clothing can be produced entirely through UK-based sourcing while remaining fully biodegradable and soil-friendly. Developed in Glasgow's Bridgeton (historic Camlachie), the project addresses the environmental limitations of contemporary luxury fashion, particularly its dependence on synthetic materials and global supply chains.

The collection demonstrates that contemporary, high-end garments can be produced using locally available fibres—principally British wool—supported by vintage textiles and small-scale domestic producers. Undyed British worsted, commissioned directly from mill Marling & Evans, forms the structural backbone of the tailoring, enabling polished suiting without intensive industrial dyeing. Where UK-grown fibres were unavailable, the project adopted a transparent reuse strategy, incorporating vintage silks, linens, and cottons to virgin fibre use.

Natural dye processes were integrated in collaboration with a local dyer, using UK-grown madder, indigo, birch, goldenrod, nettle and weld. These methods introduced depth and variation while remaining compatible with bespoke construction. All structural components—including shoulder pads, buttonhole gimp, and collar canvas —were designed using wool and linen to eliminate plastics. Buttons were sourced from vintage stocks or produced responsibly from Corozo, horn, and reclaimed antique oak.

Equally central to the project was proximity: weaving, dyeing, and garment construction occurred within a tightly connected local network, demonstrating the ongoing viability of heritage crafts. Guided by the Gaelic concept of Dùthchas—responsibility to land and community—Clò na Tìre treats ecological accountability as an operational principle rather than a token gesture.

The project concludes that soil-friendly luxury is not only technically feasible but culturally compelling. With appropriate infrastructure, transparency, and design intent, bespoke fashion can deliver durability, elegance, and environmental responsibility simultaneously—offering a scalable model for re-localised, low-impact luxury production.

British Wool: Heritage, Decline, and Contemporary Challenges

British wool has been an integral part of the United Kingdom's agricultural and textile heritage for centuries. Historically, wool was among Britain's most valuable exports. Its economic significance endured well into the early modern period. However, from the mid-20th century onward, this legacy faced profound challenges.

The British Wool Marketing Board (now British Wool) was established in 1950 as a cooperative body to collect, grade, market, and sell the UK's wool clip on behalf of sheep farmers, aiming to secure fair returns and stable markets for producers. Despite this institutional support, the value of fleece has steadily declined since the late 1950s, with real prices per kilogram falling significantly over subsequent decades.

Several structural shifts underpinned this decline. After the Second World War, global textile markets expanded rapidly, and cheap synthetic fibres emerged as dominant alternatives to natural wool. Polyester, acrylics, and other oil-based materials gained market share due to their low cost, ease of production, and resistance to shrinkage and moth damage—factors that reduced demand for British wool both domestically and internationally. At the same time, global supply chains and imports of foreign wool blended into broader textile manufacturing, reducing the cultural and commercial centrality of domestic fleece.

Re-establishing British wool's prominence remains challenging. The UK's small and geographically dispersed sheep flocks produce a diverse array of fleece types, making consistent grading and large-scale commercial yields complex compared with major producers abroad. Economic pressures also persist: the cost of shearing and logistics often outweighs the market value of raw wool, leading some producers to compost, store, or even burn fleeces rather than transport their fleeces to BW depots.

Efforts to reverse this trajectory involve both heritage and innovation. British Wool supports traceability schemes, quality grading, education, and marketing partnerships to foster demand for natural fibre applications across fashion, interiors, and technical textiles. However, revitalising British wool requires sustained investment in infrastructure, differentiated branding that emphasises provenance and environmental virtues, and consumer preference shifts away from disposable synthetics toward durable, biodegradable materials.

British Wool, “Super” Numbers,, provenance and ‘luxury’

In contemporary tailoring, “luxury” is frequently coded through fineness. The *Super* numbering system (e.g., Super 100s, 120s, 150s) is widely used in suiting to indicate the fineness of the wool fibre used to spin the yarn: higher numbers correspond to finer fibres and, typically, a smoother handle and lighter cloth. This framework has helped establish superfine merino—most prominently from Australia (and, to a lesser extent, New Zealand)—as the default reference point for “premium” worsted suiting in many markets.

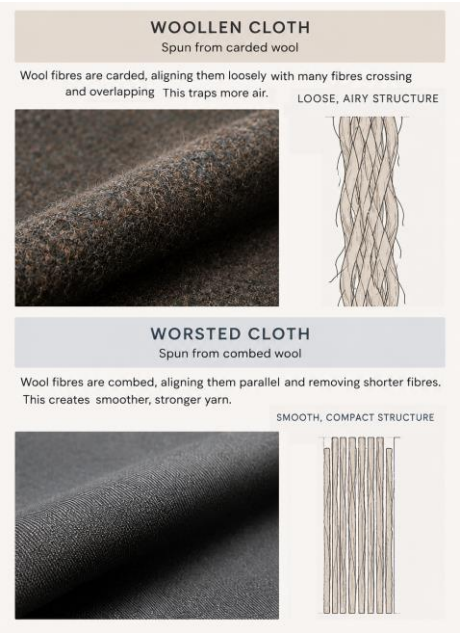
This matters because the metrics that drive modern cloth marketing—microns, “Supers,” and an emphasis on uniform softness—tend to reward merino producers optimised for large-scale, consistent fine fibre production. British wool, by contrast, is structurally diverse: the UK clip spans many breeds and fibre characteristics, much of it traditionally better suited to hard-wearing applications (including robust tweeds, knitwear, carpets, and insulation) than ultra-fine worsted suiting. The result is a persistent market perception gap: British wool is often framed as “heritage” rather than “high-end,” even when the performance attributes—longevity, resilience, and repairability—align closely with the functional needs of tailored garments.

“Woven in Britain” does not necessarily mean “British Wool”

A further complication is that cloth provenance is frequently communicated through *place of weaving* rather than *fibre origin*. A suiting label may read “woven in Yorkshire” or “made in Huddersfield,” yet the underlying fibre (or yarn) may still be non-UK wool.

Within the bespoke and made-to-measure environment, this shapes the contents of the cloth “bunch books” shown to clients. Superfine merino worsteds dominate bunch ranges because they align with prevailing luxury cues (high Super numbers; smooth, even finish; consistent performance). Meanwhile, the most commonly presented “British wool” option in mainstream tailoring contexts is often Harris Tweed—a strong cultural shorthand for British fibre, but also a specific *woollen* cloth category with a distinct handle and aesthetic. (In most tailoring houses, it represents a very small fraction of the overall bunch selection.)

Woollen vs Worsted how they differ and are available in British Wool

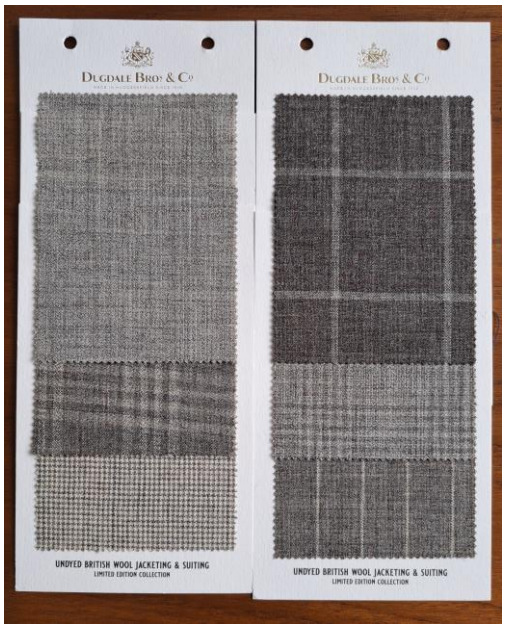


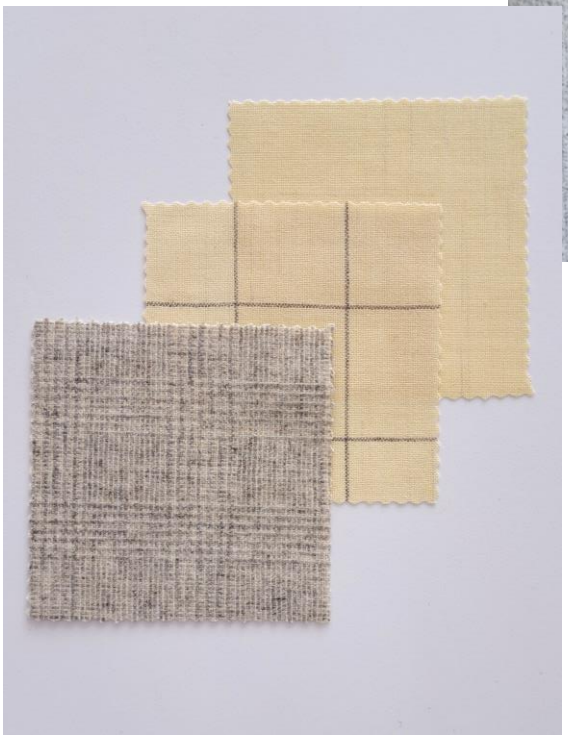
The difference between woollen and worsted is not solely aesthetic; it is structural. Woollen textiles emphasise loft and air retention—fibres are prepared to create a softer, more insulating yarn and a cloth with more surface texture. Worsted textiles, by contrast, align fibres more parallel to create a smoother, denser yarn and a cleaner-finished cloth—commonly associated with formal suiting. This distinction helps explain a long-standing imbalance: while a British-wool woollen suit (notably, a Harris Tweed-type proposition) has been comparatively accessible, British-wool worsted suiting has historically been far harder to source at commercial scale. The market's "luxury suit" template has been built around fine merino worsteds; British wool has been channelled toward other end uses, reinforcing the idea that "proper suiting" is not made from British wool.

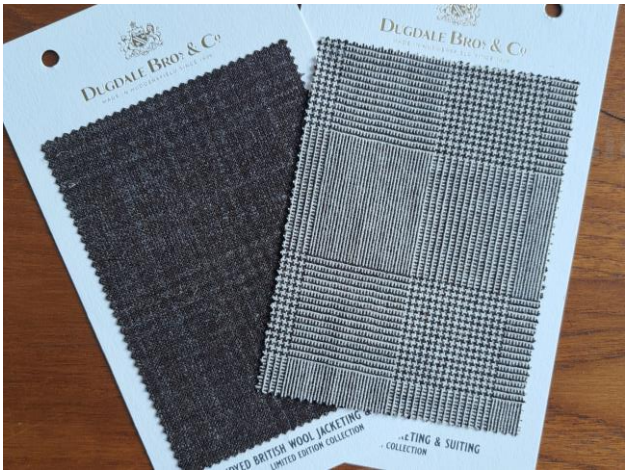
Undyed 100% British wool worsted: Marling & Evans within Clò na Tìre

Clò na Tìre sits within this context as a practical intervention: demonstrating that polished, professional suiting does not have to default to imported superfine merino and high-chemical processing. A key turning point was access to undyed British-wool worsted, suitable for refined tailoring, commissioned directly from Marling and Evans. Marling & Evans is a heritage worsted mill based in Huddersfield, with roots in Yorkshire's historic textile industry. For Clò na Tìre, the mill produced custom lengths of undyed British-wool suiting in pale colour palette, suitable for overdyeing. This partnership demonstrated how traditional manufacturing expertise can enable contemporary, soil-friendly luxury.

Marling and Evans undyed 100% British wool worsted







We worked both with cloth merchant Dugdale Bros & co. to source from cloth by the metre (from their range of Marling & Evans worsted) and directly with the millt itself. 3 lengths of pale cloth were woven (suitable for over-dyeing) including 2 cream worsteds. This direct relationship with Marling and Evans was invaluable to the project.

Vintage Textiles

While British wool forms most of the materials used in the collection, a tailored garment relies on multiple additional components beyond the outer cloth. These include cotton pocketing, linen collar canvas, and silk or rayon linings, among others. In the absence of locally grown, newly produced equivalents for many of these elements, British wool was supported through the strategic incorporation of vintage textiles already circulating within the UK.

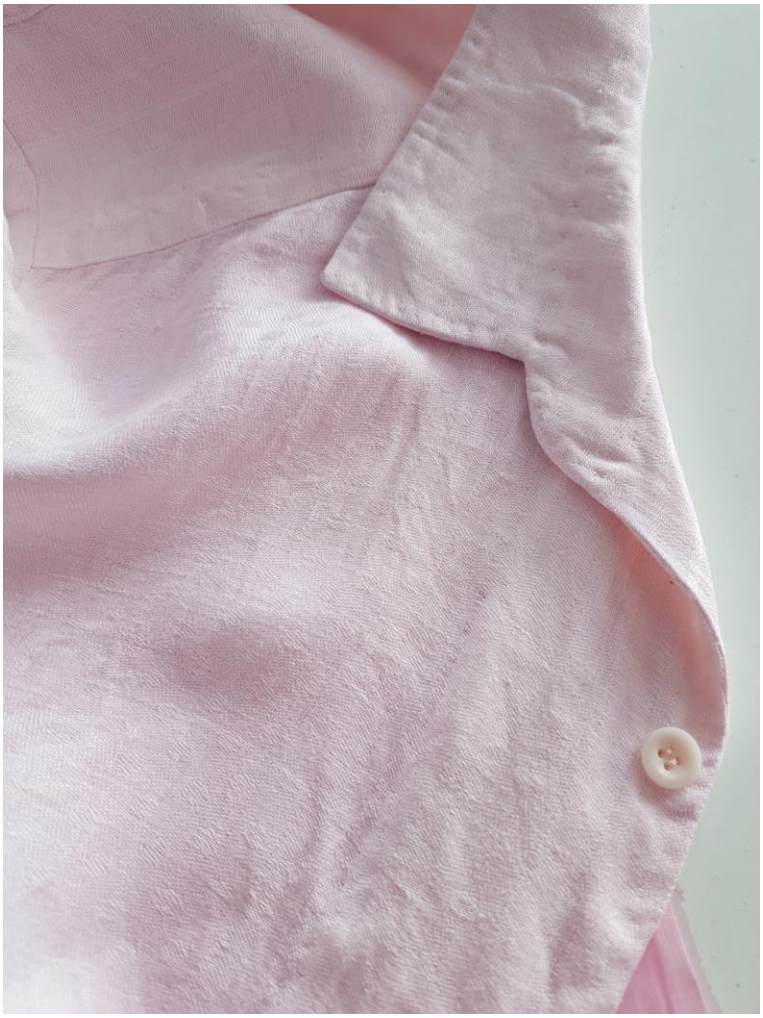
Rather than defaulting to newly manufactured imports, existing silks, linens, and cottons were treated as a material resource in their own right—redirecting cloth with embedded history back into contemporary use. Vintage linen played a key structural role across the collection, providing stability for pocketing, internal reinforcement, and garment foundations. These materials were sourced through local markets and antique sellers, fostering ongoing relationships and more human, personal exchanges into the supply chain.

Two eveningwear pieces within the collection required consideration. While British wool was incorporated into hidden structural elements, it was not suitable for the main cloth in these garments. In these instances, alternative vintage fabrics were sourced, ensuring continuity with the project's principles while responding to the aesthetic and functional demands of eveningwear.

A key material source within the project was vintage kimono silk. Vintage kimonos are widely available in the UK, and while fabric widths are narrow, piece lengths are predictable and consistent, making them straightforward to design around. These textiles are often in exceptionally good condition and are typically better suited to reuse than more heavily worn or stained everyday garments.

A particularly valuable "waste stream" identified through this process was vintage kimono linings: unbleached, lightweight silk traditionally used to line the central body and sleeves of kimonos. These linings often hold limited commercial appeal due to their lack of colour, pattern and weight. However, within Clò An Tìr they proved highly effective for dress linings, trouser linings, and sleeve linings, offering a breathable, biodegradable alternative to conventional synthetic linings while extending the usable life of an under-valued textile resource.

Vintage textiles in use throughout the collection



Buttons, Thread, and Hidden Materials

Buttons

Plastic buttons emerged in the early 20th century alongside the development of synthetic polymers such as Bakelite and later polyester and nylon, offering a cheap, uniform, and mass-producible alternative to traditional materials. Their adoption accelerated rapidly post–Second World War, in parallel with the wider expansion of petrochemical textiles, and today plastic buttons are the industry default across both high-street and luxury garments. Despite their ubiquity, they present a significant environmental issue: most are derived from fossil fuels and will not meaningfully biodegrade, instead fragmenting over decades or centuries into microplastics that persist in soil systems. Prior to this shift, buttons were produced from a wide range of natural materials—wood, horn, bone, rubber, corozo (vegetable ivory), and casein, a milk-derived protein plastic widely used in The early 20th century. These materials offered durability through their useful life and can biodegrade thereafter.

For *Clò na Tìre*, the use of fully biodegradable buttons was essential to maintaining material integrity across the entire collection. Buttons were sourced from Courtney & Co, a specialist manufacturer working with natural materials including corozo, horn, and casein. Their practice bridges traditional craft knowledge with contemporary production, enabling high-quality components without reliance on synthetics. Within the collection, corozo, horn, and casein buttons were selected for their performance and aesthetic qualities, while an experimental attempt was made to produce buttons from reclaimed vintage oak. Although conceptually aligned with the project's principles, the density and grain structure of the oak proved incompatible with Courtney & Co's machinery, highlighting the practical limits of adapting certain reclaimed materials within current manufacturing systems.

Buttons continued

Corozo in particular offered a valuable surface for natural dye application. In collaboration with dyer Julia Billings, a series of buttons were dyed using madder for the coral suit and oak for the brown suit. However, the process revealed challenges inherent to natural dyeing: colour continued to develop for up to 24 hours after removal from the dye bath, making precise shade matching difficult. The most effective approach was to dye to a lighter tone than required and to produce a surplus of buttons to accommodate variation across individual pieces. This variability, while demanding in production terms, is not unusual when working with natural materials and plant dyes - where inconsistency is not a flaw to be eliminated, but a characteristic to be understood and designed with.

For the focal piece of the collection—Còta a' Cham-Làchaidh / The Camlachie Coat, a raglan coat (the cloth of which woven by hand in Glasgow) it was important that the buttons carried the same depth of narrative as the cloth itself. To extend this material and craft continuity, buttons were produced from antique oak remnants salvaged from a long-dismantled piece of furniture, possibly a pew. The timber was cut into small cubes and hand-turned by local cabinetmaker Pete Bowness, who lathed eight buttons for the coat. These were subsequently ebonised using a traditional solution of iron and vinegar, reacting with the tannins in the oak to produce a rich charcoal-grey finish. The resulting buttons sit in quiet harmony with the tones and texture of the cloth.

Threads

Synthetic sewing threads, particularly polyester, were introduced in the mid-20th century as part of the broader expansion of petrochemical textiles. By the 1950s and 60s, polyester thread had begun to replace cotton and silk alternatives due to its strength, uniformity, low cost, and resistance to shrinkage. Today it dominates garment construction across the industry—from mass-produced ready-to-wear to high-end labels—largely because of its reliability in industrial processes. This dominance presents a significant contradiction within contemporary "sustainable" fashion: garments marketed as organic cotton, Tencel, or otherwise environmentally conscious are frequently assembled using polyester thread, embedding synthetic materials into otherwise biodegradable garments.

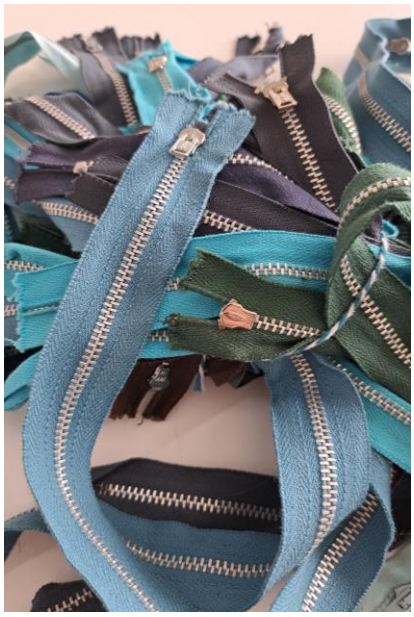
For Clò na Tìre, avoiding synthetic thread was therefore essential to maintaining the integrity of a fully soil friendly garment. Viable alternatives include organic cotton, silk, linen, and viscose/rayon; however, in keeping with the project's aim to minimise the use of newly produced materials, vintage thread was prioritised wherever possible. Scotland has a particularly rich history of thread production—most notably through J. & P. Coats, whose mills in nearby Paisley once supported large communities of workers. As a result, a substantial quantity of vintage thread, originally spun in Scotland, remains in circulation. These threads are often inexpensive and widely available, making them a practical resource, though not without challenges. It is rare to source multiple reels in identical colours, and purchasing online introduces further uncertainty, as screen-based colour representation is often inaccurate. However, this variability can be absorbed into a broader material system: threads unsuitable for one project can be retained and repurposed for another. Concerns around strength were also considered, as some vintage threads can degrade over time. In practice, this was rarely an issue; many of the threads proved to be of exceptionally high quality—often outperforming modern equivalents, particularly in hand sewing. A key resource within this process was a specialist Etsy seller with a large archive of vintage silk thread. Notably, they offered a thread-matching service, allowing fabric swatches to be posted for accurate colour pairing—removing much of the uncertainty typically associated with sourcing vintage materials remotely. The silk threads supplied through this process were both strong and versatile, performing well in both machine and hand sewing, and contributing to a construction method that remained consistent with the project's broader commitment to natural, biodegradable materials.

Hidden Materials

Beneath the visible surface of a tailored garment lies a complex internal architecture, composed of multiple layers that shape, support, and stabilise the cloth. In contemporary manufacturing, many of these hidden components rely heavily on synthetic materials. Ready-made shoulder pads, for example, are often constructed from foam or bonded polyester felt, while waistband interlinings frequently incorporate petrochemical-based fibres. Even within higher-end or semi-bespoke contexts, fusible interfacing—commonly known as "fusing"—is widely used. This material, typically a synthetic fabric coated in thousands of tiny adhesive dots, is bonded to cloth using heat to quickly add structure and rigidity. While efficient, fusing introduces several drawbacks: over time it can delaminate, causing visible bubbling or "blistering" on the garment surface, and it imparts a uniform stiffness that lacks the subtle responsiveness of traditionally constructed tailoring. Crucially, it also embeds non-biodegradable elements within garments that might otherwise be composed of natural fibres.

For *Clò na Tìre*, all forms of fusing were deliberately avoided in favour of stitched, natural alternatives. Structure and reinforcement were achieved using layers of vintage linen and cotton—some over a century old—carefully selected for their density and durability. These materials were used to strengthen high-stress areas such as hems, vents, and cuffs, allowing the garment to retain flexibility while maintaining form. Waistband interlinings were constructed from layered linen and cotton canvas, sourced from vintage sellers and existing studio waste stocks, demonstrating how historical materials can be reactivated within contemporary making. Shoulder pads were developed using *Cloudwool*, a soft, lofty wool wadding designed as a natural alternative to synthetic padding. Composed of carded wool fibres, Cloudwool provides volume and resilience while remaining breathable and fully biodegradable. Layers were built up and hand-stitched together using cotton thread to create pads tailored to the specific shape and balance of each garment. This approach not only eliminated synthetic inputs but also reintroduced a level of tactile sensitivity and adjustability often lost in pre-formed, industrial components—ensuring that even the unseen elements of the garment remained aligned with the project's material and ecological principles.

Hardware – zips and buckles



In line with the project's commitment to eliminating synthetics, the use of conventional zips—typically composed of plastic coils or metal teeth fixed to polyester tape—was avoided. Instead, vintage zips were sourced, offering combinations of metal teeth set onto cotton tape that align more closely with the goal of full biodegradability. These zips also revealed a functional advantage: many ran more smoothly than their modern counterparts, a result of higher material quality, precise manufacturing, and the natural "wearing-in" that occurs over time. While availability and sizing can be inconsistent, the breadth of vintage stock in circulation allowed for a considered selection of components that not only met environmental objectives but also upheld the performance standards expected within bespoke garment construction.

Buckles present a similar sourcing dilemma. Magi-bar buckles, commonly used on side adjusters in bespoke trousers, are typically made from metal alloys such as brass, steel, or zinc-based die-cast alloys (often referred to as Zamak), and are frequently plated with nickel for durability and corrosion resistance. This nickel plating is particularly common, though supply chain transparency around these components is limited, making it difficult to verify origin or environmental impact. In keeping with the project's principles, newly manufactured buckles were avoided in favour of sourcing vintage magi-bar buckles from UK-based sellers. While this approach ensured reuse and avoided introducing newly extracted materials, it presented limitations in availability, sizing, and colour variation. Due to project constraints, further material development in this area was not possible, though future exploration could include UK-made buckles from recycled brass, or alternative biodegradable materials such as bone or casein.

An alternative to metal side adjusters in bespoke trousers is the use of a buttoned side adjuster with elastic "pull"—sometimes referred to in tailoring as a *side strap with elastic gusset* or *Daks-style side adjuster*. This construction replaces the buckle mechanism with a short length of elastic secured by buttons, eliminating the need for metal components altogether. However, it introduces a different material consideration: elastic is most commonly produced from synthetic fibres such as polyester or elastane (spandex), which are not biodegradable. More sustainable alternatives do exist, such as elastic made from natural rubber combined with cotton—available through suppliers like James Tailoring—which will break down more readily at end of life. The trade-off is durability: elastic will naturally degrade and lose resilience over time. However, it is relatively straightforward to replace, making it a viable and repairable option for clothing designed to be worn and used for decades.

Structural materials; body, chest and collar canvas

In bespoke tailoring, much of a garment's structure is determined not by the outer cloth, but by a series of internal textiles collectively referred to as canvas—principally the body canvas, chest canvas, and collar canvas. These layers shape the garment, allowing it to mould to the wearer over time. Traditionally, such canvases are composed of natural fibres, most commonly wool and horsehair, though some contemporary variants incorporate synthetic elements. For *Clò na Tìre*, wool and horsehair body and chest canvases were sourced from Richard James Weldon. While it would have been preferable to use vintage materials or fibres with clearly traceable, locally grown provenance, the canvas is a critical structural component that must be consistent and reproducible across future commissions. Short, irregular vintage lengths were therefore not suitable. Establishing provenance proved challenging: as a trade supplier, Richard James Weldon were unable to disclose full details of their supply chain. It was possible to confirm that the canvases were manufactured in the UK, though further information regarding the origin of the wool was not made available .

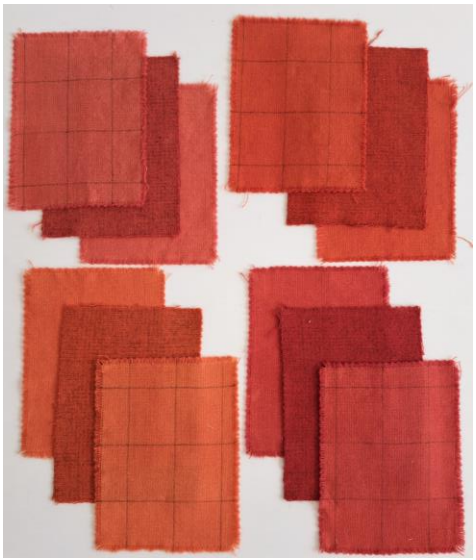
Linen remains the preferred material for collar canvas due to its strength and ability to hold shape when properly prepared. While cotton alternatives are available, they lack the same structural integrity and longevity. At present, there is no linen produced in the UK at meaningful commercial scale, though a number of small initiatives are contributing to a renewed interest in domestic flax processing. These include Mallon Linen, research and development work at Edinburgh College of Art, and emerging Scottish projects such as Fantasie Fibre Mill, alongside Flaxland, which is leading practical education and small-scale production. A limited quantity of Flaxland linen canvas was used within the collection; once starched, it proved highly effective for the collar of the Camlachie Coat, though too coarse for finer suiting applications. For these garments, vintage linen was used instead, offering a softer handle while maintaining the necessary strength. Looking forward, the development of UK-grown linen suitable for tailoring would represent a significant advancement. Linen twine from Flaxland was also employed as buttonhole gimp—the firm core thread around which silk is worked to create a hand-sewn buttonhole—further integrating locally sourced, biodegradable materials into the garment's internal structure.

Natural dyes; Madder

All cloth, threads and buttons were dyed using traditional techniques and plant dyes in a natural dye studio in Bridgeton. The process was one of experimentation in appropriate cloth types, processes and scale through ongoing consultation between dyer and designer/ tailor. At the outset of the process, clear parameters were established to inform the process, particularly regarding the plant species used. All dye material was to have been grown in Britain and, where possible, near or within Glasgow's East end and, ideally, to have a historical and cultural connection to the area's long history as a centre for textile production. Traditional, small-scale immersion techniques were used to colour all materials. Cloth and threads were scoured, mordanted with alum and dyed in a combination of stainless-steel pots and recycled plastic drums, using heated dye baths to apply and fix colour. Similarly, buttons were immersed in strong dyebaths in small containers, substituting longer time for high temperatures.

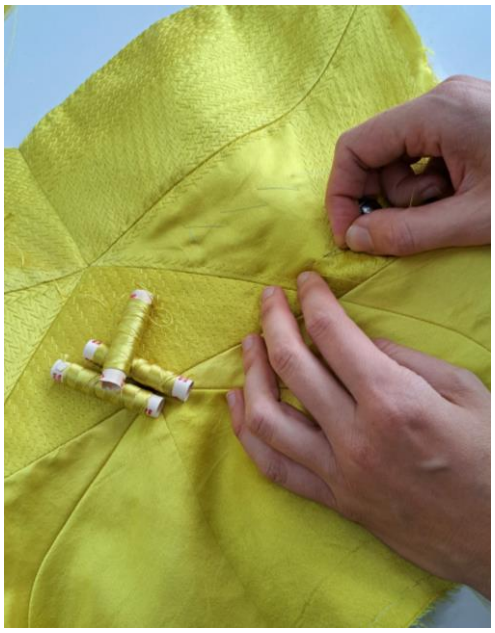
European madder (Rubia tinctorum) was used to dye *Luisneadh a' mhadiar ruadh* (Glow of the red madder), a women's suit in bold coral on undyed cream wool. Madder has been in use as a dye in Scotland for millennia and the choice of this dye references Scotland's Turkey Red industry that was centred in the East End for centuries and produced dyed plain cloth, printed textiles, such as bandannas and handkerchiefs, and dyed yarn.

Native to the Middle East and the eastern Mediterranean, the root of this species of madder is a source of numerous dyes, giving warm shades of red, orange, salmon, pink, purple, rust, brown and gold, and can be harvested after a minimum of three years of growth. There is no commercial grower of madder in Scotland but Lisa George of Bailiwick Blue produces small quantities of fine-grade madder and was able to supply the quantity needed to dye samples and the cloth for the suit. Local species of plants belonging to the same family and containing similar dyes in smaller quantities include lady's and bedstraws (Galium verum and G.boreale), dyer's woodruff (G. odoratum) and cleavers or sticky willie (G. aparine). These species could be used in place of madder, however there are inherent issues of availability with each of them so further research is required.



The madder roots were simmered in water in several of the smaller pots and then strained from the liquid, which was then placed hot into the large drum. The cloth was cut to pattern-shaped pieces with allowance for shrinkage and selvedge but

Natural dyes; Madder (cont.) Goldenrod, Weld and Birch



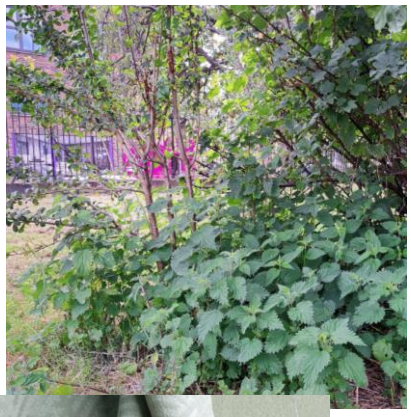
small enough to be dyed together; ideally, in future, a rectangular vessel would be used to allow the full width of cloth, particularly wool with a certain amount of body, to remain unfolded, thus removing the need to pre-cut and the potential for uneven dyeing. The cloth was added to the vessel for and rotated constantly for approximately one hour until the desired shade was achieved.

Goldenrod, Weld and Birch

A complex of local dyes were used to colour *Sioda na Beitha oir* (Silk of the birch of gold), together creating luminous shades of yellow. The young leaves of birches, flowers and leaves of goldenrod and aerial parts of weld were all harvested in early summer in Bridgeton and steeped together to form a dyebath, using twice the weight of the cloth in fresh dye. The fresh leaves of all species of birch have long been used as a dye in Scotland and are harvested early in summer for cool, bright yellow and gold. Goldenrod (Solidago canadensis), indigenous to North America and cousin to Scotland's less virulent wild goldenrod, is a garden escapee that is overtaking local species along Scottish waterways. As an invasive species with great colouring potential, it is a dye that should be used more and lent a warm gold to the dyebath. The final dye, weld, is one of Britain's most important natural dyes and, though not traditionally found in Scotland, has been moving northward and is now spotted regularly in the eastern part of the country.

Offcuts of duchess satin leftover from other projects and a Victorian silk embroidered bedspread were mordanted and dyed in the smaller pots. The relative suppleness and small volume of these two cloths meant that they could be dyed successfully in this size pot, so long as they were constantly moving, however the density and rightness of weave of the duchess satin made it very resistant to colour uptake and evenness- another lesson in careful consideration of materials.

Natural dyes; Nettle and Indigo



The subtle green of *Deanntag na Seasamh (Nettle Standing/resilient)* was achieved through the use of fresh nettle leaves and stems, growing wild and weedy under fruit trees in the Gorbals Rose Garden. Nettles have a long history of use in Scotland, one that is particularly well-documented on the Western Isles, and give a clear pale yellow or, with the use of iron or copper, soft and subtle silver-greens.
Five times the weight of the cloth was used and were chopped, simmered and left to macerate in several smaller pots for 24 hours and then strained to make a large dyebath in the large drum. Mordanted wool crepe was then cut into several pieces and dyed in the same way as the madder suit.

Lastly, vats were made from powdered Japanese indigo grown by Bailiwick Blue and fresh home-grown woad to generate blue shades for both the lining of the Camlachie coat and the silk cord used for the belt for *Dail sioda nan seachd dualan guirmeanach* (Silk meadow of the seven blue strands).

Natural dyes; Context and ethos

And for the why of it:
The choice to use natural colour for this project, that of both British wool and plant-sourced dyes, was deliberate and multifaceted, led by environmental and health concerns, deepening our connection to place, supporting and maintaining British sheep farming and craft practices, valuing the embodied energy inherent in making and colouring clothing and the beauty and complexity of these shades.

The processes currently employed in the production of most clothing, including growing, spinning, weaving, construction, dyeing and finishing, involve the use of diverse and often unnamed substances, many of which have a profoundly harmful impact on the health of living organisms and systems. Despite regulation by many government bodies, substances such as lead, PFAS, BPAs, fluorine and phthalates from dyes, pesticides and solvents are difficult for both industry professionals and consumers to detect and avoid and are linked to various cancers, foetal abnormalities, reproductive disorders and reduced immune and endocrine function. Much of the water used in production is in the dyeing stage and, where regulation is insufficient, untreated water containing residual dye, chemicals and microfibres is released into water systems and is often untraceable to the source. These hazardous chemicals do not break down as they move, polluting global waters and entering the food chain.

While fundamentally less polluting to living systems, natural dyes bring their own set of challenges, such as the amount of raw plant material (and therefore land) that would be needed to supply the global demand for colour, their high water use and the need for mordants (namely alum and iron) to make them colourfast. Without these, the colour from many natural dyes is generally fleeting and yet finding a way to dispose of residual mordants is an important consideration when substituting them for synthetic dyes. The Clo na Tire project highlighted the need to explore and establish low-water production methods and focus on plant dyes that don't require mordants and that are found in large quantities, particularly weedy or invasive species.

There may be other benefits to using natural dyes; as traditional dye cultures have long held and new research is now backing, some natural dyes have antimicrobial properties that reduces the growth of bacteria on cloth or garments dyed with them, thus preventing odour and mildew from bodily or environmental humidity. This could be of use in Scotland's damp climate and indigo and woad, both used in the project, are examples of these.

Natural dyes; Context and ethos

Above all, the project pointed to the use of the colours produced naturally in sheep, linen and other fibres as a key part of moving towards sustainable colour, backing up the concept of 'colour economy', coined by dyer Teresina Roberts and framed around using small amounts of colour from natural dye as highlights within a ground of naturally-coloured fibres. This is shown beautifully in the *Dail sioda nan seachd dualan guirmeanach* (Silk meadow of the seven blue strands) dress.

Finding applications for traditional crafts such as natural dyeing is vital in sustaining a living practice and the opportunity to dye garments at a small scale and to learn, develop and experiment through that process is a rare and precious thing. The pulling together of a network of craftspeople to work together seems like a vital step at a time where many craftspeople are struggling.

The Gaelic concept of *duthchas* conveys an inherent connection to place, land, and ancestry; it embodies the idea of belonging, both to a geographic area and to the traditions and people tied to it, and implies both the right to live in that space and the responsibility to act as its steward. The use of sheep shades and natural dyes for this project reflects this in several ways. Working with dye plants in the local area gives the dyer both agency to harvest and responsibility to consider the ecological health of the land, developing an understanding of the species that are plentiful and those that must be carefully nurtured to support healthy plant communities. Similarly, a garment dyed with that flora becomes a tangible representation of the dye process for the dyer, designer/ tailor and, if properly conveyed, the consumer of the garment; understanding how much embodied energy is held in the finished garment can lend it more weight and value, encouraging the user to wear and treasure it for longer, much like understanding what goes into growing food results in it being more highly valued by its consumer. And, if the breed of sheep and dye material are directly of or connected to the landscape of the consumer, it is very likely that they will value the colour even more highly and engage with it in a deeper way.

Quite simply, there is a subtlety and complexity to natural dyes that cannot be achieved with synthetic dyes. This is because most plants contain more than one colour compound; indeed, examining naturally-dyed fibres at a microscopic level shows myriad shades of one or more different colours. Many different plants also contain the same class of dye, lending a communality to even highly contrasting shades. This allowed the Clo na Tire garments to sit harmoniously together as a collection, particularly when grounded by the undyed sheep fibres.

Duthchas

Dùthchas—often understood as a deep, reciprocal responsibility to land, community, and cultural continuity—became a central conceptual framework within Clò na Tìre. Through the course of initial research, it became clear that the area in which the project is based—Bridgeton, historically Camlachie—has roots in Gaelic language and culture. The name Camlachie derives from the Gaelic Cam Lòchaidh, commonly translated as “winding dark water,” reflecting both the physical landscape and the linguistic heritage of the area. This challenges the widespread perception of Glasgow as a purely post-industrial, anglophone city. As explored in Glasgow's Gaelic Place-Names, many of the city’s place names retain clear Gaelic origins, evidencing a long-standing Gaelic-speaking presence within the region. Engagement with Gaelic language and culture, supported through learning with Rona MacDonald, led to a deeper understanding of dùthchas as both a philosophical and practical orientation. Scholar Paul Meighan-Chiblow describes dùthchas as an ethic grounded in belonging and stewardship, where people are understood not as separate from land, but as embedded within it, with corresponding responsibilities of care and continuity. This perspective closely aligns with the material and production decisions within Clò na Tìre: the use of locally sourced fibres, the revival of regional textile practices, and the creation of garments that are not only rooted in place but capable of returning to the soil without harm. In this way, the project positions tailoring not simply as a craft, but as a site of ecological and cultural accountability—where making becomes an expression of connection to land, history, and community.

Conclusion

Clò na Tìre demonstrates that a fully biodegradable, locally grounded model of luxury tailoring is not only achievable but offers a compelling alternative to the dominant systems of contemporary fashion. Through a process of material investigation, supply chain reconfiguration, and design-led experimentation, the project has shown that garments of refinement and durability can be produced without reliance on synthetic fibres or globalised production networks.

Central to this outcome is a shift in how value is understood. Rather than defining luxury through fineness, uniformity, or industrial perfection, *Clò na Tìre* proposes a model rooted in provenance, material integrity, and longevity. British wool—often marginalised within high-end tailoring—has been repositioned as a viable foundation for contemporary suiting, supported by vintage textiles and natural fibres that extend the life of existing materials while reducing the need for new extraction. In doing so, the project challenges entrenched assumptions around both quality and desirability within the luxury market.

The research also highlights the complexity of working within existing supply systems. While many natural alternatives exist, issues of traceability, availability, and scalability remain significant barriers. The difficulty in sourcing fully transparent materials—from canvases to hardware—reveals the extent to which even traditional crafts have become entangled in opaque global supply chains. At the same time, the project demonstrates that meaningful progress can be made through a combination of local production, reuse, and careful material selection.

Equally important is the role of place. Rooted in Camlachie, a historic weaving district of Glasgow, the project draws on the concept of dùthchas to frame making as an act of responsibility—to land, to community, and to cultural continuity. By situating production within a local network of makers, dyers, and suppliers, *Clò na Tìre* reactivates a model of clustered craft that has largely been displaced by industrialisation, while suggesting its continued relevance in a contemporary context.

Ultimately, *Clò na Tìre* does not present a fixed solution, but a working model—one that is iterative, adaptive, and grounded in practice. It proposes that the future of luxury fashion may lie not in further technological abstraction, but in a return to material literacy, local knowledge, and ecological accountability. With continued development, investment, and collaboration, this approach has the potential to inform a broader shift toward re-localised, low-impact systems of production, where garments are designed not only to endure, but to return—safely and productively—to the land from which they came.

Collection Images and exhibition garment descriptions

Luisneadh a' mhàdair ruaidh
/ Glow of the red madder

This collection is focused on British wool, this outfit provided an opportunity to challenge expectations of what a naturally dyed, British wool, suit could look like. British wool has makes up a tiny percentage of the cloth used by UK bespoke tailors, and when it is used it is generally a thick tweed - ideal for more casual outfits and cold days but not strictly speaking a 'suiting' cloth. This garment is made from a crisp wool worsted suiting cloth, from British Jacob sheep, woven specifically for this project by Marling and Evans.

The bold colour references the 'Turkey Red' dye industry for which the East End of Glasgow was once world renowned. The root of the madder plant was a key ingredient to the Turkey Red process, and madder root is used here to create a vibrant coral. The suit is lined with vintage, cellulose-based kimono fabric, which was sourced in Glasgow. The buttons were made in the UK from corozo nut and have also been dyed with madder. The suit was designed, cut and made by Alis Le May, with additional making, and all hand finishing, by Abby Gray.

Materials

1. Main Cloth: 100% Undyed British Wool woven by Marling and Evans, dyed with UK grown madder from Bailiwick Blue by Julia Billings.
2. Collar Canvas: Victorian holland linen, studio stock
3. Lining: Vintage cellulose-based Kimono fabric, sourced from Mr Bens Vintage, Glasgow. and vintage silk kimono lining.
4. Body Canvas: Wool and hair woven in the UK, supplied by Richard James Weldon
5. Pocket Bags: Vintage cellulose-based Kimono fabric
6. Interfacing for hems & cuffs: Victorian holland linen, studio stock
7. Threads; Studio cotton, vintage silk by Atelier Supplies. Vintage buttonhole silk dyed with madder. UK grown linen twine by Flaxland.
8. Buttons: Corozo, by Courtney and co. dyed with madder by Julia Billings
9. Silk piping: Studio stock silk, dyed with locally grown woad.

Còta a' Cham-Làchaidh/
The Camlachie Coat

This coat was inspired by The Camlachie Burn – a river which flows through the East End of Glasgow from Wellhouse, through Greenfield, Carntyne, Parkhead and Bridgeton, and eventually reaches the Clyde through Glasgow Green. The area of Camlachie was once a weaving village and it has it's roots in the Gaelic 'Cam Lòchaidh' which roughly translates as 'Winding Dark Water'. Today the burn is mostly culverted (buried in tunnels below ground) but it does appear here and there, often in unexpected places.

Referencing the weaving community that once lived in Camlachie, the cloth for the coat has been hand woven by micro mill Vevar. The palette is restricted to earthy greys and browns, using undyed 100% British wool from Knoll Yarn. The raglan sleeve seams on the back take their shape from a stone arch above a section of the burn still visible above ground.

The coat is lined with vintage, cellulose-based kimono fabric, which has been dyed with British indigo by Julia Billings. The pattern of the lining suggests hidden waters flowing under urban landscapes. The buttons were lathed by hand from antique oak by Peter Bowness. The coat was designed, cut and made by Alis Le May, with additional making, and all hand finishing, by Abby Gray.

Materials

1. Main Cloth: 100% Undyed British Wool woven by Vevar, yarn from Knoll Yarns
2. Collar Canvas: British grown linen by Flaxland
3. Lining: Vintage cellulose-based Kimono fabric, naturally dyed by Julia Billings with British Indigo grown by Bailiwick Blue
4. Body Canvas: Wool and hair woven in the UK, supplied by Richard James Weldon
5. Pocket Bags: Vintage Linen sourced from The Barrowlands
6. Interfacing for hem, cuffs and vents: Victorian holland linen, studio stock
7. Threads; Vintage cotton, spun in Paisley and vintage silk supplied by Atelier Supplies
8. Buttons: Antique oak, lathed by Pete Bowness, ebonised with iron and vinegar.
9. Silk piping: Studio stock, dyed with woad grown in Glasgow.

Sìoda na Beithe òir /
Silk of the birch of gold

Birch tress grow throughout Glasgow, and many are found alongside the Clyde and smaller rivers. In the urban landscape of Bridgeton, the quiet presence of the Camlachie Burn is marked by a line of birch trees. It felt fitting to celebrate the birch tree in this collection,. Birch leaves were gathered in Bridgeton as one of the key ingredients for a dye bath, which transformed ivory silk, to a vibrant, rich yellow. The bustier was made from duchess silk satin offcuts – remnants from past bridal gowns. Once dyed, the bustier pieces were strengthened with Cloudwool wadding and quilted with a tailoring stitch called 'padstitch'. This stitch is usually a structural stitch, hidden from view. This collection explores the heritage of place, which often lies just beneath the surface, and this stitch, applied here as a kind of embroidery, reflects that enquiry. The outer layer of the dress was once a cream, undyed Victorian silk bedspread, it had a subtle floral pattern which has been brought to life by the application of a natural dye, made by Julia Billings. from birch, goldenrod and weld – all gathered in Glasgow. The dress is lined with vintage silk kimono linings, and fastened with vintage snap fasteners and silk cord. The dress was designed, cut and made by Alis Le May, with additional making, and all hand finishing, by Abby Gray.

Materials

1. Overdress: Victorian silk bedspread, dyed with locally foraged weld, goldenrod and birch.
2. Bustier: Studio stock duchess silk satin scraps, dyed with locally foraged weld, goldenrod and birch.
3. Skirt: Reworked vintage yellow silk jersey dress, sourced locally from Mr Bens Vintage.
4. Linings: Vintage unbleached silk kimono lining fabric.
5. Interfacing for stabilising garment edges: Scrap cotton and silk from studio stock, vintage linen sourced from the Barrrowlands.
6. Bustier interfacing: studio stock organza and Cloudwool wadding
7. Threads; Vintage cotton, spun in Paisley and vintage silk supplied by Atelier Supplies.
8. Fastenings: Vintage snap fasteners, hooks and eyes.
9. Silk cord: Studio stock, dyed with locally foraged weld, goldenrod and birch
10. Boning: Studio stock hair canvas, silk cord and linen.

Clòimh na Beinne Dorcha/ *Wool of the dark mountain*

This suit is made from Undyed 100% British Wool, made from the fleece of Black Welsh Mountain sheep. Another understanding of the etymology of Camlachie is that it stems from Camadh Làthaich/the muddy bend of the burn. Brown can often be dismissed in bespoke tailoring, but with this collection it felt appropriate to illustrate the beauty of this 'muddy' shade.

The buttonholes in this suit have been created using linen grown in England by Flaxland, who are part of a growing community of flax growers and processors who are working to revive the British linen industry. This suit brings together two local regenerative fibres – wool and linen, and all the materials (some UK grown) can return to the earth after the suits useful life, and provide nutrients to the soil. This perfectly illustrates the aims of the Clò An Tìr project.

The suit is lined with fabric from a vintage silk dress, and vintage kimono lining silk. The buttons are real horn and were made in the UK by Courtney and Co. The suit was designed, cut and made by Alis Le May, with additional making, and all hand finishing, by Abby Gray.

Materials

1. Main Cloth: 100% Undyed British Wool woven by Marling and Evans, predominately from Black Welsh Mountain sheep.
2. Collar Canvas: Victorian holland linen, studio stock
3. Lining: Vintage silk dress, and vintage silk kimono lining.
4. Body Canvas: Wool and hair woven in the UK, supplied by Richard James Weldon
5. Pocket Bags: Vintage linen sourced from the Barrowlands
6. Interfacing for hem, cuffs and vents: Victorian holland linen, studio stock
7. Threads; Studio cotton, vintage silk by Atelier Supplies. Vintage buttonhole silk. UK grown linen twine by Flaxland.
8. Buttons: Horn, by Courtney and co.

Dail sìoda nan seachd dualan guirmeanach/
Silk meadow of the seven blue strands

Most ready-made bridal gowns today are made from of polyester. For most brides this is a garment that will be worn for a day... but take hundreds of years to degrade in the landscape, shedding microplastics into soil and water systems. This collections offers an alternative take on a bridal outfit, with the British Wool as the predominant fibre. This wool worsted cloth is undyed and unbleached and was woven in Huddersfield by Marling and Evans. The bustier is made from Cloudwool wadding, silk organza and it is decorated with pressed flowers which were gathered in Glasgow. The dress is finished with a belt made of 7 silk cords, dyed with woad - grown in Glasgow for the project. The The skirt is lined with vintage white linen, formerly a bed sheet. The cords were dyed by Julia Billings. The skirt and bustier were designed, cut and made by Alis Le May, with additional making, and all hand finishing, by Abby Gray. The braided belt was made by Abby Gray.

Materials

1. Skirt Cloth: 100% Undyed British Wool woven by Marling and Evans, from Jacob sheep.
2. Lining: Vintage linen bedsheet
3. Bustier interfacing: studio stock cotton and Cloudwool wadding
4. Bustier outer: locally gathered pressed flowers and vintage silk tulle
5. Threads; Vintage cotton, spun in Paisley and vintage silk supplied by Atelier supplies
6. Buttons: Codelite, milk protein based, by Courtney and co.
7. Silk cord: Studio stock, undyed and dyed blue with woad grown in Glasgow.

Deanntag na Seasamh /
Nettle Standing / resilient

The panels of this draped dress take their shape from the historic boundary of Camlachie, when it was a much larger area encompassing parts of (now) Dennistoun and Bridgeton. The silk cord that laces the dress together winds in and out of the wool, emerging and disappearing, like the Camlachie Burn.

The colour of this piece was created using nettles gathered in the Gorbals. Nettle is a significant plant in Gaelic, two words discovered in research were:
1. deanntagach / *abounding in nettles*
2. Neanntagach / *like a nettle, of nettles*

A phrase that resonates with this project is "dinn air deanntag" - "Grasp the nettle“. The meaning is to ‘confront the danger’, take a chance and be bold. This collection has involved a lot of risk taking with new, and often unpredictable, materials. And whilst not every experiment has succeeded, the risks have been worth taking.

The dress is made from deadstock wool crepe, lined with vintage, cellulose-based kimono fabric, and laced with silk cord – all dyed with nettles by Julia Billings.. The dress was designed, cut and made by Alis Le May, with additional making, and all hand finishing, by Abby Gray.

Materials

1. Main Cloth: 100% Wool Crepe, deadstock fabric, from studio stock, naturally dyed with locally foraged nettles by Julia Billings.
2. Linings: Vintage cellulose-based Kimono fabric, naturally dyed by Julia Billings with locally foraged nettles. Vintage unbleached silk kimono lining fabric.
3. Interfacing for stabilising garment edges: Scrap cotton and silk from studio stock
4. Threads; Vintage cotton, spun in Paisley and vintage silk supplied by Atelier Supplies.
5. Fastenings: Vintage snap fasteners, hooks and eyes.
6. Silk cord: Studio stock, dyed with locally foraged nettles

Key Collaborators

Alis Le May
Designer, bespoke tailor and project lead for *Clò na Tìre*. Responsible for project conception, research, garment design, material sourcing, bespoke pattern cutting, tailoring, and overall creative direction. Based in Bridgeton (historic Camlachie), Glasgow, the project was developed through her practice with a focus on localised, biodegradable luxury tailoring.
Glasgow, UK
www.alislemay.com

Abby Gray
Bespoke tailoring and dressmaking apprentice. Contributed to garment construction, hand sewing, finishing and studio production throughout the development of *Clò na Tìre*, supporting the practical realisation of the collection whilst undertaking advanced training in bespoke tailoring methods.
Scotland, UK

WoollenFlower (Julia Billings)
Natural dye studio and practice specialising in plant dyes, fibre and colour research. Collaborator on the development and application of natural dyes across cloth, thread and buttons used within *Clò na Tìre*.
Bridgeton, Glasgow, UK
www.woollenflower.com

Vevar
Small-scale Glasgow weaving mill and textile studio specialising in woven cloth production. Collaborator in the development and weaving of cloth for the collection, including handwoven cloth used for *Còta a' Cham-Làchaidh / The Camlachie Coat*.
Glasgow, UK
www.vevar.co

Gemma Dagger Photography
Photographer and visual collaborator responsible for documenting the collection and producing project imagery.
UK
www.gemmadagger.com

Claire Nisbet Makeup
Hair and makeup artist collaborating on the visual presentation and styling of the collection imagery.
Glasgow, UK
www.clairenisbetmakeup.com

Suppliers

Marling & Evans
Heritage worsted mill producing 100% British wool suiting cloth. Supplier of custom undyed British wool worsted for *Clò na Tìre*.
Huddersfield, West Yorkshire, UK
Tel: +44 (0)1484 848840

Dugdale Bros & Co.
Cloth merchant supplying tailoring cloths, including Marling & Evans worsted ranges used within the project.
Dugdale House, Huddersfield, West Yorkshire, UK
www.dugdalebros.com

Courtney & Co.
Manufacturer specialising in natural material buttons including corozo, horn and casein. Supplier of biodegradable buttons used throughout the collection.
Gloucestershire, UK
www.courtneyandco.co.uk

Cloudwool
Supplier of wool wadding and natural padding materials. Used as a biodegradable alternative to synthetic shoulder pad materials.
UK
www.cloudwool.com

Richard James Weldon
Trade supplier of traditional tailoring materials, including wool and horsehair body and chest canvases used within the project.
London, UK
www.richardjamesweldon.com

James Tailoring
Supplier of tailoring sundries and specialist garment components, including natural rubber and cotton elastic alternatives.
London, UK
www.jamestailoring.co.uk

Flaxland
Producer and educator focused on flax and linen production. Supplier of linen canvas and linen twine used within the collection.
Cornwall, UK
www.flaxland.co.uk

Bailiwick Blue (Lisa George)
Grower and supplier of natural dye materials including madder, indigo and woad. Plant dyes grown in the Bailiwick of Guernsey, Channel Islands, UK.
Bailiwick of Guernsey, Channel Islands, UK
www.bailiwickblue.com

Knoll Yarns
Supplier of natural and luxury yarns for weaving, knitting and textile production. British wool yarns supplied for the handwoven cloth used within *Clò na Tìre*.
Ilkley, West Yorkshire, UK
www.knollyarns.com