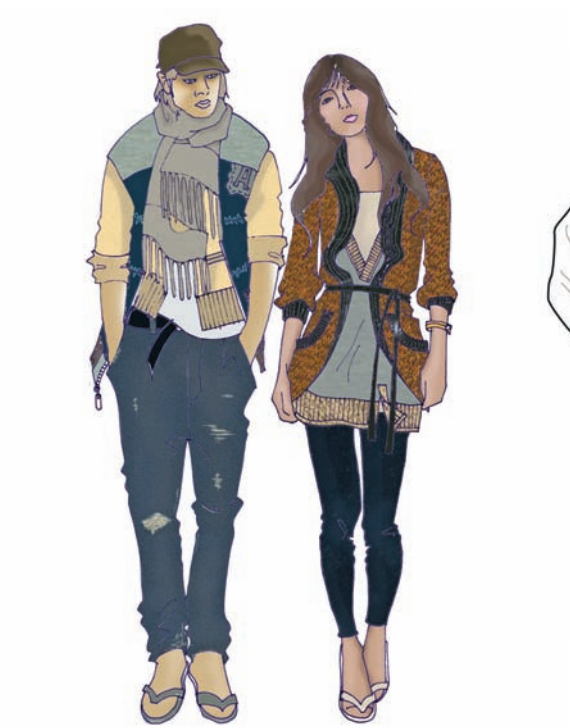
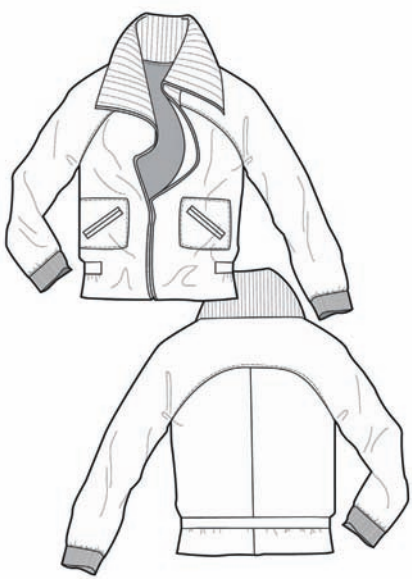
Vector graphics and bitmaps

1–2 Vector graphic fashion illustrations by Nuttawan Ness Kraikhajornkiti.

Digital graphics media first emerged in the 1980s. Desktop scanners and more efficient graphics tablets soon followed, enabling designers to digitise hand-drawn artwork for the first time. The development of digital drawing and image-editing software during the late 1980s heralded the arrival of early vector graphics and bitmaps. In simple terms, vector graphics are geometric formations such as lines, points and curves, which are based on mathematical equations to represent a digital image. They produce clear lines that are suitable for drawing flats or specs; linear quality is not reduced when scaled up or down in size. Bitmaps are the data structure represented by a grid of pixels that makes up a digital image, measured as dots per inch (dpi). Pixels are the building blocks of bitmap images such as digital photographs and scanned images. The more pixels an image has per unit, the better the quality of the image for colour and resolution. Bitmaps are also known as raster graphics and are stored in various image files such as JPEGs or TIFFs.

Since their early application, graphics software programs have steadily developed and expanded into a variety of sophisticated user platforms, which can be used for enhancing fashion presentations.





Techniques include digital drawing, colouring, rendering and image editing for visual formats. Foremost among the available software are Adobe Illustrator and Photoshop, which have become industry standards. Photoshop is a graphics editing program that is primarily geared towards photo manipulation. Illustrator is a vector-based drawing program, originally developed for the Apple Macintosh in the mid-1980s. Today it has evolved into a sophisticated digital drawing tool that allows for the conversion of bitmap imagery into vector art. Illustrator's versatility makes it well-suited for creating composite illustrations and layouts, which are excellent for drawing and presenting flats. Illustrator can also incorporate images and text with vector graphics to enhance presentations. Other software programs of note are CorelDRAW, a Windows-based vector graphics program and its raster image creation and editing counterpart, Corel PHOTO-PAINT. Macromedia Freehand is another powerful vector graphics tool that is orientated towards the desktop publishing market and now owned by Adobe.



2

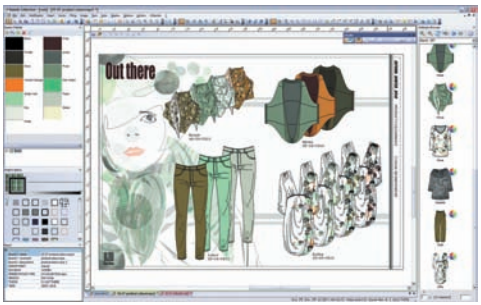
Fashion software

Specialist IT providers have developed dedicated fashion software applications. For example, French company Lectra has developed Kaledo, a Windows-based fashion design software package. SnapFashun in the United States has developed a CAD system to serve the fashion industry, which includes an extensive library of fashion flats and garment details that digitally 'snap' together (see page 82). Intended to assist busy designers working in industry or fashion students with creating and drawing their flats, SnapFashun's vector graphics templates are compatible with Adobe Illustrator.

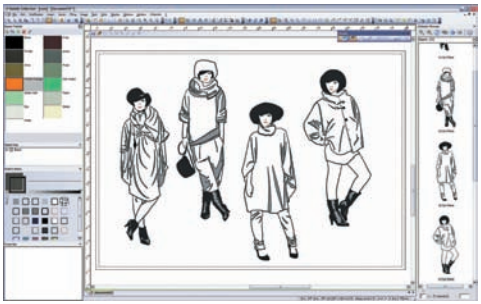
As well as their labour-saving capabilities, these graphics applications and CAD solutions offer extended opportunities for designers to modify their ideas and working processes. The ability to draw by hand will always be relevant in fashion and should be practised and maintained. But increasingly, as we shall see later, developments in fashion illustration are witnessing a synergy between hand-drawing styles and digital enhancements.



1



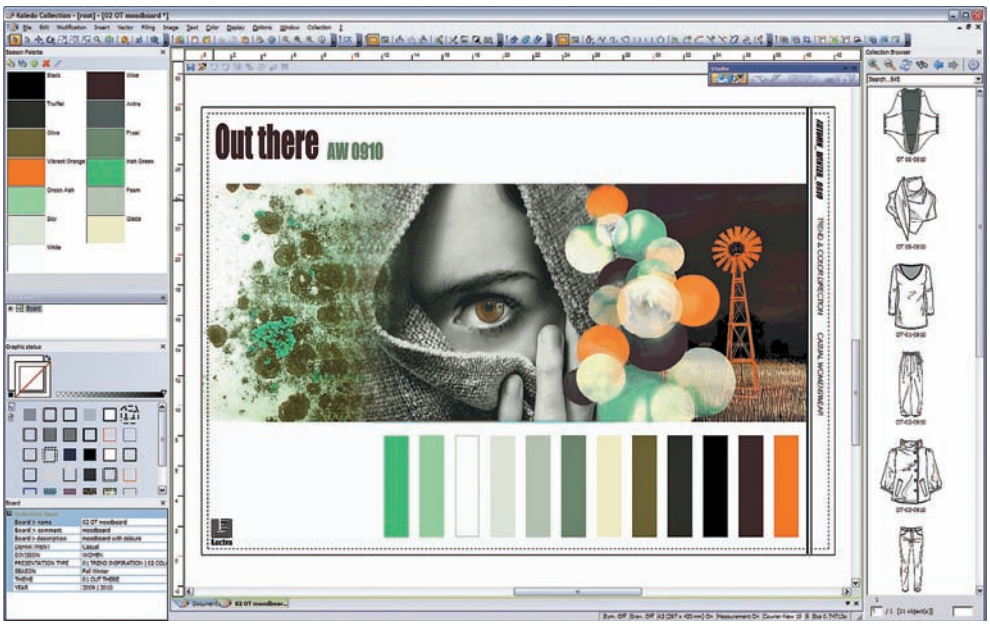
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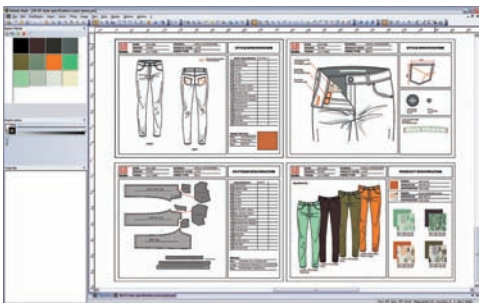
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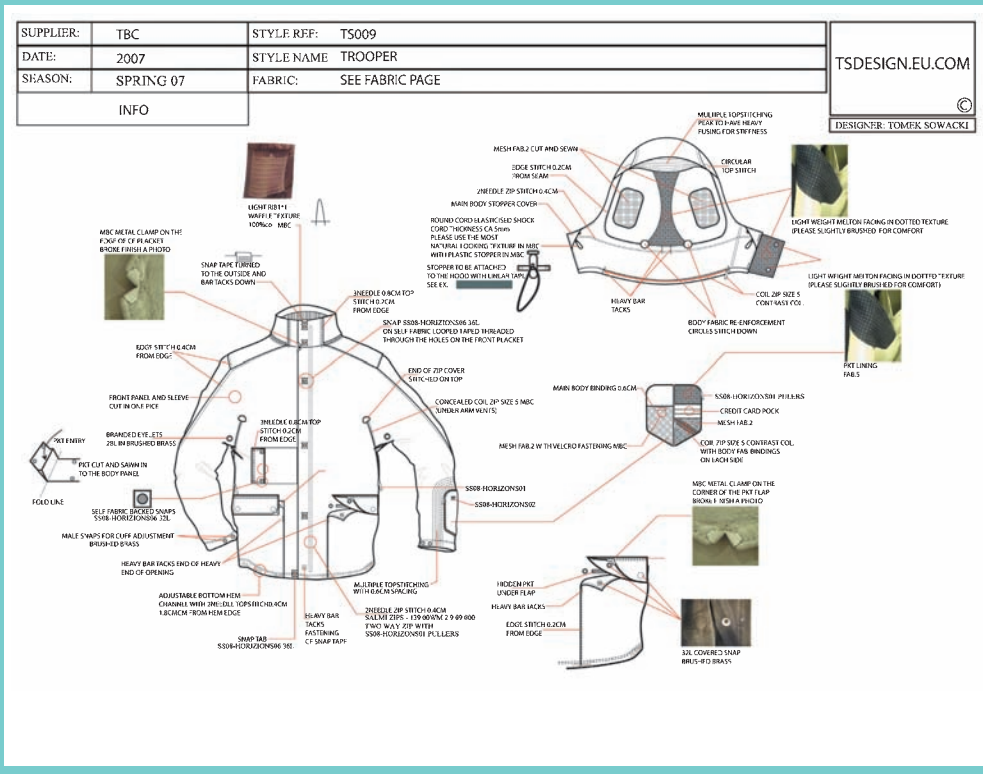
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7

1–7 A selection of screen images showing Kaledo, a fashion design software program from French company Lectra.

Tomek Sowacki, design director



1

Please describe your current job
I work and manage a freelance design consultancy agency: <www.tsdesign.eu.com>
It consists of a network of experienced and dedicated designers; we take on a variety of projects from clients in the fashion and textile sector. Our work includes fashion design, graphic design and logo design.

What was your career path to your current job?
After completing my MA at Central Saint Martins, I started to work for sport-specific brands such as Adidas, Puma and Tommy Hilfiger Sports, as well as lifestyle brands such as Levis and Rip Curl. I also had my own brand, Yucon, which was successful but we ran out of funding. With my overall experience as designer and manager I decided that I prefer freelancing or self-employment so my current situation, managing my own freelance business, suits me perfectly.

How would you describe your artwork?
Carefully thought through and usually rich in detail.

How important are computers to what you draw?
Computers are vital to my work as they allow me to be clear and specific in detail; any alterations can be done then and there. They make it easier to share the information between me, my clients and factories; I think they are essential to any business these days and I would be lost without them.



What type of software do you need to be able to use?
My favourite is Illustrator on Mac as it is fantastic for technical drawings and it links up with the whole Adobe Suite such as Photoshop and others.

What makes a good fashion flat or technical drawing?
I would say a clear one: when you are able to give the drawing to production and the person 'reading' the drawing is able to execute the design according to the information given without having to ask any further questions. Good drawings are important as they can save time and not halter the progress.

What are your favourite garments or subjects to draw?
I really enjoy designing outerwear as I think these garments in particular require you to think jointly about function, style and technical aspects due to the different end use (such as who will wear it, where, when, in what weather and so on). This allows me to indulge in the details of the garment, internal as well as external, to create maximum style and functionality.

Do you have any advice for someone starting out in the fashion industry?
Make sure you love it, persevere in the industry and find a career path that suits you!

1–2 Design and corresponding spec sheet by Tomek Sowacki.



'I like light, colour, luminosity. I like things full of colour and vibrant.'

Oscar de la Renta

In this chapter we look at the influence of colour in fashion drawing by considering how it affects design presentations and media choices for artwork. Colour theory is also introduced and evaluated in relation to hand-rendering techniques and the development of computer-aided drawings and associated colour schemes. The particular role of mixed media and collage for fashion is considered, with a variety of supporting visuals that provide an introduction to the wide range of media choices that have become integrated into contemporary fashion artwork. We also look at the application of colour to different fabrics, textures and prints. The chapter ends with an engaging interview with a fashion design illustrator who has collaborated with a number of international fashion houses to produce colour prints and textiles for their seasonal collections.

1 Illustration by Wendy Plovmand.

1

Colour for fashion

Colour media for fashion has evolved over the years and it has had a direct influence upon the visual style and presentation of fashion drawings. The introduction of marker pens in the 1960s confirmed a particularly significant shift towards faster and more responsive media, which were specifically design-orientated rather than historically rooted in a tradition of artist materials. Marker pens still exert a powerful influence over fashion sketching styles and drawing techniques. Today, however, the range of colour media that is available to fashion designers and design students must also be considered in the context of computer-aided design software.

Let's start by briefly considering what colour represents from a fashion perspective. When most of us look at images of clothes in a magazine or see a fashion window display we are immediately drawn to the colour of the clothing and accessories. Moreover, fashion collections are routinely designed and visually merchandised into seasonal colour themes. Colour is a fundamental, powerful force in the design process, from fabric selection through to the completion of a design. It is also a vital component in fashion that can have a transforming effect upon audience perceptions and reactions. Some designers such as Matthew Williamson or Manish Arora are well-known for their engaging use of colour, while other designers use colour to make a statement or add specific pieces to their collections.

Colour can also be expressed through embroidery, appliqué and a variety of trimmings such as zips and buttons, as well as colour dyes and printed textile designs. Fashion labels such as Basso Brooke, Cacharel and Eley Kishimoto are all known for their use of colour through printed textiles. The selection and application of colour is a decision driven by emotion but it can have a transforming effect on a design. Consider, for example, a dress design conceived and drawn in beige and then the same design presented in red. We would respond to them differently, even though the dress would be in the same style. Such is the emotive power of colour.

Despite personal preferences there is really no such thing as a bad colour. It is an artistic or design decision to select a colour and apply it to a design, choosing whether or not to combine it with another colour. The appearance of a colour is dependent on light: it will take on a different appearance when viewed under different optical conditions. The multitude of shades, tones and hues that are available today through synthetic or natural processes can be broadly identified within a colour wheel classification.

1 Manish Arora S/S08. Catwalking.com.

2 Matthew Williamson S/S09. Catwalking.com.



1



2

The colour wheel

The colour wheel visually represents the basic principles of colour theory. The wheel is divided into three categories: primary, secondary and tertiary. The three primary colours are red, yellow and blue. These may be considered as the foundation colours since they are used to create all other colours and are equidistant on the colour wheel. The combination of two primary colours creates three secondary colours: orange, green and violet, which are also equidistant on the colour wheel. The six tertiary colours are made by combining a primary and an adjacent secondary colour. These equidistant colours make up red-orange, red-violet, yellow-green, yellow-orange, blue-green and blue-violet. Colours may also be divided into cool and warm categories: cool colours are classified as green, blue and violet. Warm colours are classified as red, orange and yellow. When mixing colours, a tint of a colour is made by adding white, while a darker shade is made by adding black.

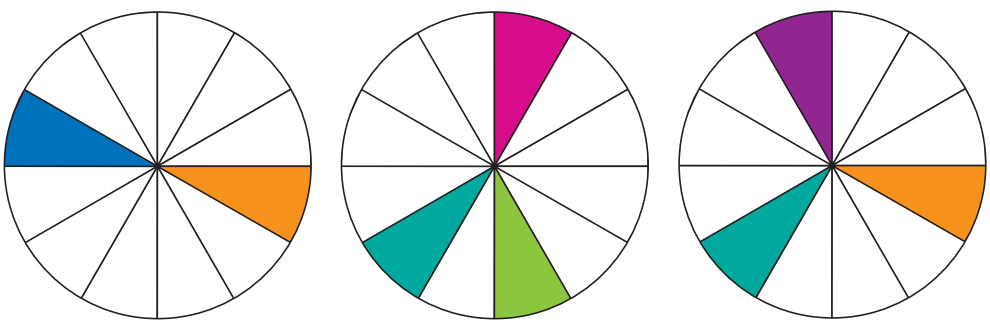
Colour schemes

When working with colour media it is worth remembering that there are three basic colour schemes. The first is a monochromatic colour scheme, in which a single colour is used with its various tints and shades. The second is an analogous colour scheme. This is when a colour such as red is used in combination with its adjacent hues such as red-orange and red-violet. The third type of colour scheme is made up of a variety of contrasting colours and includes the complementary scheme. This is when two hues that are opposite each other on the colour wheel are used together. For example, red and green are opposites, and are considered complementary colours when used together as they make each other appear brighter and more intense. Other colour combinations exist such as 'split complementary', which is a derivation of the complementary scheme and uses three colours comprising any hue and the two adjacent to its complement. This could be, for example, a combination of red, yellow-green and blue-green.

1 The colour wheel.

2 Examples of different colour schemes.

2

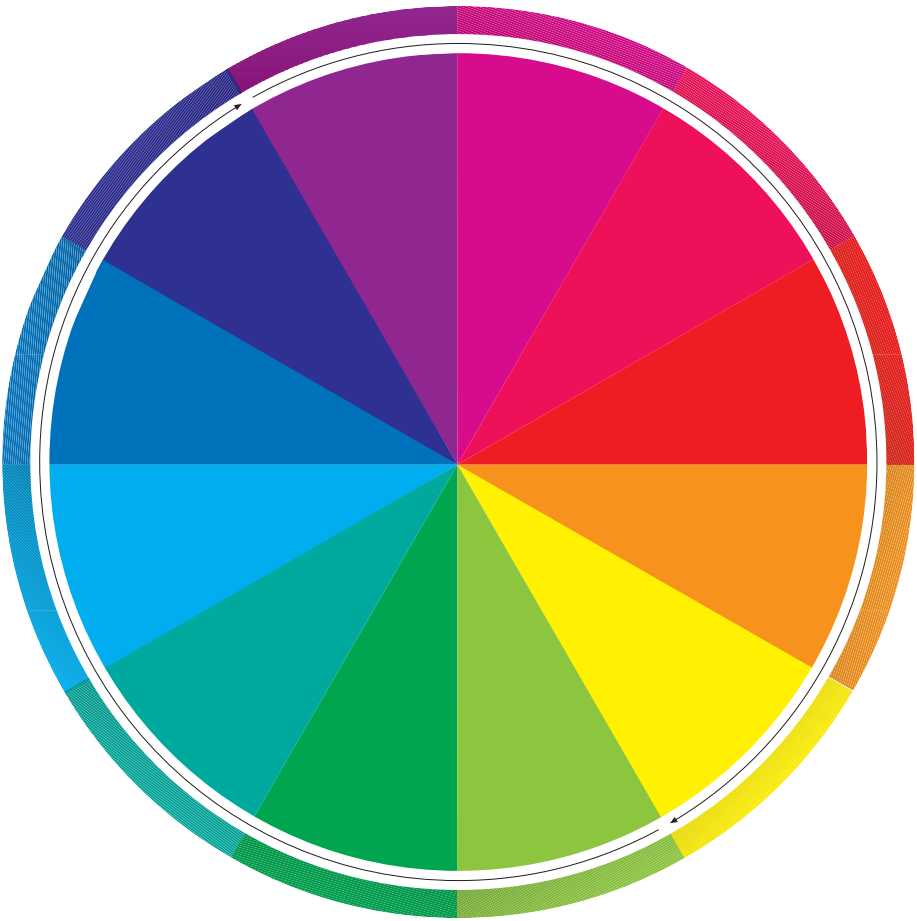


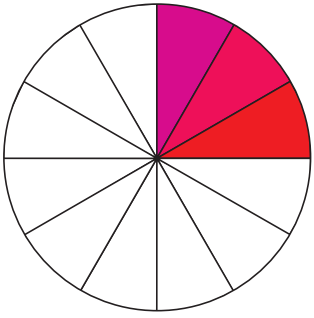
Complementary

Split complementary

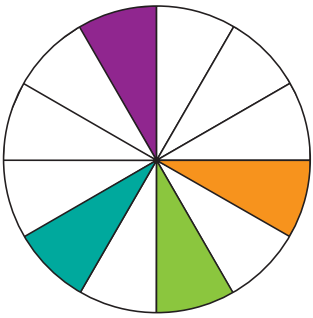
Triads

1

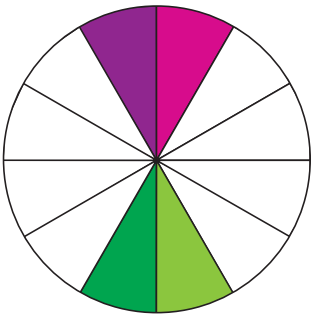




Analogous



Mutual complements



Double complements

Colour forecasting

Selecting colours – or, more specifically, the right colours for a particular season – is crucial in the fashion industry and can mean the difference between success and failure in terms of a label's image and sales. Fashion designers will often visit their suppliers to discuss colours for the coming season and will work closely with their textile partners to develop 'lab dips' and 'strike-offs' for printed textiles. Additionally, the global fashion industry is served by a network of trend and fashion forecasting companies that provide detailed colour analysis, colour direction and market-trend research for fashion and interiors up to two years in advance of the selling season. Companies such as Trendstop, Peclers, Li Edelkoort for Trend Union and Promostyl, among others, are well-respected authorities on colour, each producing a variety of specialist reports for their fashion clients. They also employ fashion-orientated illustrators who contribute to their publications with hand-drawn illustrations alongside CAD artwork and colour presentation flats.





1–2



3

1–8 Colour forecasting and catwalk trend images from Trendstop.

Lab dips
A process whereby a fabric swatch is test dyed to meet an exact colour standard. Lab dips are reviewed in a light box under controlled lighting conditions and may be analysed with a spectrometer.

Strike-offs
A strike-off is a small run of screen-printed fabric, which is used to test the integrity of the screen for accuracy and colour trueness. It also refers to fabric that is printed in new colours or on new grounds with existing screens before a production run.



4





5–6





7–8

Fabric rendering

1 Drawing by Howard Tangye.

The ability to draw fabric convincingly is a useful skill for any designer or fashion illustrator; it is often taught to fashion students as a means of broadening their drawing skills and their knowledge of fabrics. The process is usually referred to as fabric rendering. Of course, there are many different types of fabrics to draw and while some might have surface texture and pattern, others do not. Evaluate a fabric's inherent characteristics, properties and its weight in order to establish whether the fabric will drape over the body convincingly or whether it might present itself as more structured and firm to the touch. A designer sketch or linear fashion drawing should communicate a convincing understanding of the chosen fabric or fabrics. For more artistic illustrations the rendering process can be somewhat looser and more interpretative.

The best way to start is by copying a real fabric swatch. Much like drawing from life, this entails keen observation and evaluation of the fabric before starting the drawing process. Selection of appropriate media is critical: prepare a variety of colour media, which can be used in combination. To start with it is best to draw to the same scale as the fabric. The scale will later have to be considered when it is applied to a figurative drawing, but by establishing how to imitate the appearance of the fabric and what media to use in the first instance, the process of rendering the scale of the fabric to a fashion figure won't seem so daunting. To simplify things it can help to categorise fabrics into a select number of groups such as woollen and textured fabrics, shiny fabrics, sheer fabrics, knits, patterns and prints. It is worth attempting each group of fabrics, since they are all likely to be drawn at some time.



1

Textured fabrics

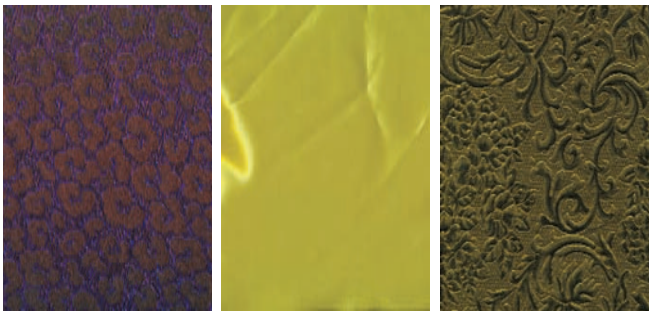
Woollens and textured fabrics form a good starting point. This category might include wool flannels, meltons, gabardine, suitings, wool challis and crêpes as well as camel hairs, Shetland wools and tweeds. Typically opaque, these sorts of fabrics are used in autumn/winter collections. Marker pens or gouache can be used to lay down the base colour as a wash effect, while colour pencil or a slightly dry brush can be added to create the desired texture or brushed appearance. Tweeds can be drawn with the addition of cross hatching and flecks; try pronounced twill weaves with a sharp pencil line. Wool plaids are typically built up in layers, starting with a base colour created as a wash followed by weft and warp colour bands. Darker layers are usually added later with finer lines towards the end, especially for the lightest colour, drawn in pencil.



1

Shiny fabrics

Rendering shiny fabrics for the first time can often be more challenging than opaque fabrics and, since they reflect light, typically need to be considered in relation to a light source. Surfaces might be smooth or have a moiré effect. Shiny fabrics such as taffetas, charmeuse and satins should be drawn with a combination of dark, medium and light tonal values. Sometimes it is effective to leave white space to indicate where the light has the most pronounced effect on the surface of the fabric. This applies to pale or white fabrics, such as those used for evening or bridal wear; these fabrics have tonal variations. Marker pens, watercolour paints and Indian inks are all useful media for rendering shiny fabrics and can be used in combination with colour pencil for accents.



2

Sheer fabrics



3

Sheer fabrics, such as chiffons, georgettes and fine voiles, are characterised by their transparency and parts of the body may be visible beneath the fabric. Rendering these fabrics presents unique challenges as there can be many values of a colour depending on whether the fabric is layered or worn over the skin. Their general appearance should be light of touch without hard edges, drawn using media such as marker pens, blendable pastel chalks or watercolour. Colour pencils or chalks can be combined with other media to create the effect of transparency. Hems and seams should be understated.

Knitted fabrics



4

Knitted fabrics can be drawn to convey surface structure and texture and are typically defined by the inclusion of a ribbed edge or cable effect. A base colour wash in gouache or marker pen is effective and works well with the addition of pencil lines to define the knitted surface of the fabric. A dry brush effect can also be applied to represent courser yarns. This group also includes jersey knits, which can take on a more fluid appearance; this can be rendered in a tonal wash.



5

1–2 Drawing by Claire Bushey, shown with corresponding fabrics.

3–4 Drawings by Fiona Hillhouse.

5 Drawings by Miyuki Kitahara.

Patterns and prints

Rendering fashion fabrics with patterns and prints offers scope to use a variety of colour media, depending on the desired effect and base fabric quality. Prints can add a dramatic visual look when applied to a fashion drawing and need to be studied carefully. The most important aspects to consider are the repetition and scale of the print. Some prints are designed for borders, such as hems, while placement prints typically adorn the fronts of T-shirts. Most fashion prints are repeat prints so applying them to the scale of a human figure becomes a necessary consideration. Rendering a print on to a figurative drawing or illustration will require you to consider line quality in relation to an understanding of the garment. It is important that the print is drawn to look like it is printed on the surface of a fabric that has folds, drapes and is sewn together with seams. With this in mind, shading techniques can also be applied.



1–2 Illustrations by Wendy Plovmand.

3 Drawing by Howard Tangye.

1 2



3

Collage and mixed media

1–2 Mixed media illustrations by Holly Mae Gooch.

3–4 Collage compositions by Wendy Plovmand.

Derived from the French word *coller,* meaning to glue, collage was originally taken up by artists to describe the technique and process of assembling different forms to create a new work. In fashion design collage is synonymous with the term 'mixed media' and is used to describe a hybrid approach to creating artworks that might include a variety of papers, photographs, fabrics, buttons, ribbons, threads and other objects to either replace or supplement the drawing process. While collage was traditionally carried out by hand, with techniques such as cutting and pasting, it has now become widely embraced by fashion illustrators through digital formats such as Photoshop, with some exciting and diverse results that continue to push the boundaries of fashion illustration and presentation formats.



1

What makes collage and mixed media artworks for fashion so popular and visually engaging is their diversity, allowing you to work outside the usual conventions of art supplies and drawing media. Hand-made collages also encompass tactile and textural qualities that make the final drawings almost three-dimensional in character. Some even incorporate stitch. Collage and mixed media artworks for fashion often transcend and mutate the notion of the fashion ideal to something that is more abstract than a single drawing or photograph could communicate on its own.

Developing collage or mixed media illustrations for fashion is a creative process that allows for a high level of artistic expression. As with most approaches to creating artworks it is best practised and refined over time, but is underpinned by an inventive curiosity, a love of technique and good compositional skills. One might even be tempted to draw parallels between the appropriation of found objects to create fashion artwork and the notion of fashion continually reinventing itself. In this sense collage and mixed media for fashion take on a more poignant context.



2



3



4

Digital colouring and rendering

1–3 Digital colour illustrations by Wendy Plovmand (1 and 3) and Aaron Lee Cooper (2).

Continuing developments in digital graphics software has enabled fashion illustration to be redefined alongside more traditional hand-drawing techniques. Today many designers and fashion illustrators combine both formats for a contemporary drawing style.

Digital colouring, rendering and collage describe a variety of bitmap (raster) applications and vector graphics. These include scanning and retouching hand-drawn illustrations as well as creating digital freehand drawings using either a mouse or a graphics tablet and pen. These processes can be applied to a fashion illustration or used for creating colour-enhanced presentation flats.

Scanning a hand-drawn sketch or illustration is an effective means of creating a digital fashion image for editing and retouching. You may wish to resize or enhance the artwork for digital storage, using a number of artwork effects from the software's graphics toolbox, which are represented by icons such as a pen tool, brush tool, scale tool, eraser and stroke, and colour fill boxes.



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2





3

Digital colour

Understanding colour schemes is essential for working with digital colour swatches. In this regard there are two main colour models to consider: RGB and CMYK. RGB is a colour model in which the additive primary colours of red, green and blue light are added together to reproduce a broad spectrum of colours. The main purpose of the RGB colour model is the representation and display of images in electronic systems such as scanners, digital cameras and computers. RGB is generally faster to work with than CMYK and well-suited to screen display. However, RGB images need to be converted to CMYK for commercial printing purposes. CMYK is a subtractive colour model used in colour printing, which applies cyan, magenta, yellow and key (black) to the printed surface.

Also worth a mention is Pantone, a US-based global colour authority that serves the fashion industry and other sectors with a comprehensive colour classification and matching system. The Pantone Color Matching System is a standardised colour reproduction service that enables designers, printers and manufacturers to all work together to exact colour specifications across Pantone's wide range of spot colours. Pantone's spot colours cannot be simulated with CMYK but require base pigments, including white and black, to be mixed in specified amounts.

Today, all digital graphics software offers a comprehensive range of colours, textures, gradients and patterns that can be applied to a drawing and edited through the use of palettes and layers. Palettes display editing and monitoring options such as working with RGB or CMYK colour. Layers allow users to separate different elements of an image so that each layer can be saved and edited independently. This is particularly useful when building up an image and adding elements such as colour or texture. In addition, specific fabrics, patterns and surface textures can be scanned from original sources and added to palettes or taken from computer-generated fabrics.

1 CMYK colour model.

2 RGB colour model.

3–4 Digital colour flats by Witney Cramer.



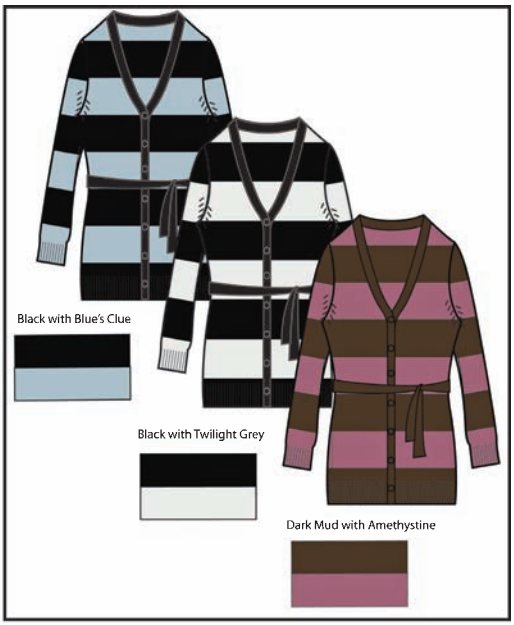
1



2

Soft Plush with Stripe





3

CHUNKY MULTI COLORED STRIPE

3GG





4

Petra Börner, fashion illustrator



1

Please outline your current job and your career path
Although I trained and worked many years in fashion, design and illustration, commissions now involve clients within interior design, publishing, editorial, packaging and advertising. Current projects include limited edition packaging design for Swedish Liljeholmens, collaborating with Heal's for their 2010 bicentenary campaign, designing crockery for a Japanese client and creating embroideries for Jonathan Adler Interiors. I have been a visiting lecturer at Central Saint Martins College of Art and Design since 2001, mainly in fashion illustration.

How would you describe your drawing style?
I work with references or themes in simple compositions, using mixed techniques such as drawing, collage, sewing and painting. My cut paper compositions have sometimes been described as looking like wood-cuts and a significant Scandinavian characteristic is distinguishable in my work.

I try not to determine the outcome before the work is created, leaving the process of making art spontaneous and fun. This enjoyment is most apparent when working from a life model (essentially with some really good music).

Through my work I aim to express an identifiable individual rhythm or handwriting, which is perhaps plain or elegant in its interpretation of chosen subjects or scenes.

Subject matters vary from working to set commissions with defined starting points, to artwork that derives from a simple curiosity to find a way to draw something new or specific. In my opinion, natural references or photography (a 'raw' base) lend themselves better to visual interpretation than a cleverly designed or functional object (such as a mobile phone), which has already reached a solution. However, there are exceptions, as I'm fond of drawing cars and robots.

Tell me about your collaborations with fashion houses
My main experience of fashion design came through running my own business and in 2004, when I decided to be a full-time illustrator, this experience gave me vital confidence in collaborations with fashion houses.

One of my first commissions in fashion was with Clements-Ribeiro for Cacharel on the A/W06 collection. They acquired a dozen of my artworks to be transformed into fashion prints and I remember being delighted by seeing my work projected as the backdrop of the catwalk in Paris. I enjoy being involved in varied types of collaborations and I find fashion fits perfectly well with advertising jobs, interior design or book-cover illustrations. The process of these collaborations is much the same; sometimes the starting point is specified, sometimes open-ended, but with fashion I consider colours, placement, the look of the repeat and the scale of the design carefully.

1 **Yellow field print, an original artwork for Cacharel, by Petra Börner.**

2 **Embroidered artwork by Petra Börner.**



2

Digital colouring and rendering > **Petra Börner**

Petra Börner, fashion illustrator



1

What type of colour media do you like to use in your artwork?
I work in a variety of media, but at most starting points, thoughts of colour and composition are central. For example, if I am creating an illustration in cut paper I tend to select the colours of the paper as my starting point and from there imagine the development of the structure. I also use paint, ink, thread and, at times, digital manipulation to modify colours according to the needs at hand. The beauty of colours created or assembled by hand seems superior and more refined than any digital work I create. The fine-tuning of achieving harmony between colours is an intuitive process to me.

How important is colour in your work?
Colours are central to all my work and an artwork disappoints if colours of an illustration or print are manipulated after the artwork has been created. This is an element that can be a concern in collaborations with clients, who often work towards strict colour structures and have to consider the blend with other products. I enjoy the element and possibilities given by working with colours and seldom rely solely on contrasts between black and white. I often involve tones or shades of the same hue within an artwork to create depth or as a way to play with the focal point. To me, the mastering of colour is the more challenging part of illustration and art, more than the composition.

What advice do you have for fashion students who want to create colour artwork?
It's a good idea to create basic colour compositions and analyse the result. I would try to find an enjoyable and useful method to work with (mixing paint, using DIY paint cards, cutting paper, stickers, wood, metal, photography, stitching, knitting) and then create interesting, attractive, perhaps unusual combinations. As with drawing, repetition is key to define the colours that represent your identity.

Who or what inspires you?
I'm attracted to work that combines charm, spontaneity, skill and confidence; art that feels part of a circumstance and is clearly representing the artist's self, with an effortless vitality achieved only by the urge of repetition through time.

1–4 Cocoa bean dress for Cacharel A/W06 (1) and pieces from Cacharel's S/S07 collection (2, 3 and 4), all featuring Petra Börner's print designs.

2



3



4

