It has been said that the advent of women into the sport turned the serious business of skiing into 'just another fashion accessory'.

Lucy Johnston is a curator at London's Victoria and Albert museum, with particular responsibility for fashion from 1800 through to 1947. She has her own take on any ensuing debate.

Ski and She

Part 1: The development of women's skiwear 1890 to 1930

Today, over sixty-five million skiers can journey to thousands of resorts throughout the world, stretching from the Alps to the Andes and from New Zealand to Manchuria. The range of equipment and clothing from which they can choose is exhaustive and new technologies have helped to fashion the ultimate ski outfit.

During the second half of the 19th century groups of men and women began to transform skiing from a practical pastime into a highly sophisticated sport. Along with its growing popularity came progress in equipment and clothing to protect the body from the mountain extremes. These changes affected women as much as they did men, for, unlike many other activities, women were almost equal partners from the outset in the development of the sport of skiing.

The birth of the sport

The illustration from 1904 (right) gives an impression of requirements in ski fashions at the turn of the century. What is particularly striking about this image is the rudimentary and impractical nature of the skiing outfit. The woman appears to be wearing a bustled dress with long skirts which would have dragged in the snow. Hardly practical for such a physical activity. Note the single pole technique.

Skiing lagged in popularity behind tobogganing and ice skating, so there was little incentive to develop a particular outfit for this new and cumbersome sport. The inhabitants of St Moritz called it 'plank hopping' and the eminent skier and author Sir Arnold Lunn wrote: "In those early days a ski-runner was regarded as a blend of madman and clown". *(A History of Skiing, 1927)*

By 1908, however, the sport's practical techniques had advanced and with increasing skill came popularity. Ski clubs were founded, books were written and the use of a single ski pole was largely superseded by the two pole method, which greatly improved the experience of actual skiing.

Functional requirements

From the early days of recreational skiing, women proved they were the equal of men in this sport which depended on skill, fitness and stamina.



'A Fair Run', 1904.
V&A Picture Library

As with mountaineering, the physical demands of the sport and the dangers involved meant that women had to be properly clothed and equipped. Before 1930 there were no ski lifts or rope tows and usually the only way to have a good day's skiing was to climb on foot, unless the terrain was suitable for a sledge or the resort was near a mountain railway.

The conditions in which the sport is undertaken are crucial when examining the history of women's skiwear. The arduous nature of skiing meant that women could largely escape the codes laid down by conventional dress, or at least when on the slopes.

From the outset experienced skiers realised the importance of layering. This enabled them to take off or put on clothing as required, tailoring what they were wearing to the activity level and storing unwanted items in a rucksack. The layers comprised lightweight long underwear and stockings made of cotton or silk, a sweater or waistcoat and at least two pairs of woollen socks and woollen gloves, and the final outerwear including a weatherproof coat, belted at the waist, and breeches. To protect the eyes against the sun and snow blindness, smoked spectacles, black goggles or veils were worn.

In accordance with these principles many women adopted clothing that was similar to mountaineering dress. It included a skirt reaching to just below the knees, knickerbockers, a sweater and a loose jacket as detailed in this passage from a 1910 skiing manual:

'If one is going in seriously for skiing it is really worth while to get a good costume…To be



'Off to the hills for skiing', 1912.
V&A Picture Library

useful and at the same time becoming, it should consist of a coat, skirt and knickerbockers…The coat should be double-breasted, loose, and not too short, for the secret of making a satisfactory masculine costume for a woman lies in concealing the lines of her figure. There should be pockets large enough to hold such items as a knife, goggles, string, handkerchief, &c. The knickerbockers should be most carefully cut….The skirt should be short and as light as possible….To make movement easy in it when it is worn over the knickerbockers the front breadth might be lined with silk. As to what is worn under the coat…Some ladies will prefer a sweater, some a flannel shirt' *(Mabel Rickmers, 'Ladies on Ski' 1910)*

Impractical fashion

By 1910 skiing was becoming a society event. During the winter sports season which lasted from December until March, enthusiasts and socialites frequented mountain resorts to enjoy the slopes and cross-country ski-runs.

Magazines of the day made much of this new activity, but with their emphasis on 'correct' wear and fashionable styles they were often misleading.

Long skirts were impractical as the following excerpt from the Scottish Ski Club magazine of 1910 suggests:

"A very little experience will teach one that ordinary walking costume is unsuitable. The ordinary skirt, besides being inelegant while ski-running is quite unsuited for touring. Frequently forests have to be traversed, walls and fences have to be climbed, and rocky ground to be encountered. On such occasions the skirt is in the way." *(Mrs J Inglis Clark 'Ski-running for ladies', Scottish Ski Club Magazine 1910)*

An illustration of 1912 (above) highlights the continuing emphasis on femininity by the standards of the day. Granted that the ladies skirts are shorter – and therefore more practicable – but one must question the effect of melting snow on the fabrics involved.

Weatherproofing

The growth of retail ski business had more positive effects. The range of clothing was increasing and suitable outfits and equipment could be purchased from specialist manufacturers.

Burberry was one of the leaders in this field. The key to its success lay in the combination of an outer lining of gabardine with an inner lining of cloth or tweed that had been waterproofed.

Burberry was quick to market its success with equipment for Polar exploration (used by both Shackleton and Scott) by advertising the suitability of its outfits for all forms of winter sports. 'Burberry cloth' was widely recognised as the most suitable fabric for ski wear for men and women. The smooth surface of the gabardine prevented snow from clinging to it and the density of the weave provided a barrier to the wind. It was also relatively light and allowed the skin to breathe, thereby helping to prevent the body from overheating on long climbs and combining coolness with water-proofing. It was, however, expensive and many women made do with riding tweed, covert coating, fine whipcord, or a very closely woven serge.

The knickerbocker suit

There were also important developments in the fashionable acceptance components of the ski outfit. Both male and female experts were advocating that women dispense with the short skirt altogether and wear knickerbockers on their own, provided that they were carefully cut and made of a weather and snow proof fabric. Gradually women found it to be the most practical way of embracing the sport. It was, however, some time before this type of outfit became generally accepted.

The First World War

The outbreak of world war in 1914 brought snow sports to an end for the next five years. When skiing resumed it took some years for the winter resorts to recover and as long again for the fashion market to develop appropriate designs for women's skiwear.

Despite this 'disastrous' effect however, there were compensations, and in particular when skiing resurfaced as a recreational sport in the early 1920s, the design houses were ready with definitive changes in the styles for women's ski clothing.

During the war, women employed in the support services, such as the British Land Girls, sometimes wore tunics with breeches or the looser knickerbockers. Half-a-decade later ski outfits based on the design of these uniforms were rapidly adopted in winter resorts. The illustration on the right shows an example in yellow gabardine from the early 1920s.

The change in attitudes came about because of the respectability in working for the war effort. The social visibility of these uniformed women



British land girl, 1917.
V&A Picture Library

Ski outfit made of yellow gabardine lined with sateen. Knees and seat of the breeches lined with waterproofed reinforcements.
V&A Picture Library





The Rani of Pudukkottai and male companion, St. Moritz, 1926.

Bath and Northeast Somerset Council, Museum of Costume.

began to break down the taboos surrounding exposed legs and the wearing of breeches; more relaxed attitudes to fashion also made it easier for women to wear this type of clothing on the ski slopes without fear of criticism. Ex-servicewomen were even encouraged to adapt their erstwhile uniforms for skiing and this helped to break down the distinction between the sexes still further. By the early 1920s tailored breeches, fastened at the knee with a buckle or laces, had largely superseded the knickerbocker and skirt combination.

Of course not every change in fashion can be attributed to the war. Reforms in dress and relaxing of conventions were evolving during the years before 1914. What the war did was to act a catalyst, speeding up the processes and introducing important innovations in skiing attire.

Trousers!

Trousers were another important development in women's ski-wear. They encouraged freedom of movement because there was no tight binding at the knee. Great attention was paid to the cut with plenty of room at the seat and braces helped to prevent snow from seeping in around the waist.

Trousers rapidly became an accepted form of ski-wear, even for the very fashion conscious, who were no doubt helped in their decision by the descriptions and photographs in advertisements and magazines.

Both sexes now had similar advantages, not only in what they chose to do, but also in what they were expected to wear.

Standards and uniformity

By the mid 1920s a certain uniformity in dress was beginning to emerge replacing the rather improvised skiwear of earlier years. Elegant, shop-bought ski suits started to prevail such as the practical coat and trousers worn by this elegant woman at St Moritz (left).

One of the main reasons for the fashion cross-over was the growth of ski-tourism. New resorts, skiing schools and improved access to the lower slopes meant that the sport had become a burgeoning industry, attracting increasing numbers every year. The first Winter Olympics held in Chamonix in 1924, which included ski jumping and cross country races, were a major influence.

These developments encouraged more and more manufacturers to specialise in winter sportswear and to create fashionable ski outfits suited to the wide range of weather and snow conditions that might be encountered.

Fashion and skiwear

Some level of standardisation there may have been, but there was still plenty of opportunity for personal expression particularly in the choice of colour. Red and black were popular, although the list was long and included henna, tangerine, China-blue, jade, chestnut, aubergine, wine and purple. The wearing of bright colours had a safety aspect as well as aesthetic appeal because they made the wearer more visible to others. For the particularly fashion conscious there were the designer ski suits as, with the growing status of skiing as a fashionable sport, fashion designers created outfits designed for elegance on the slopes - combining freedom of movement with chic.

Design features

Despite its popularity, or perhaps because of it, skiing was still a potentially dangerous sport. As Sir Arnold Lunn advised: 'in winter the danger zone begins at the hotel door'.

Increasing awareness of the affects of adverse conditions had a positive impact on the design details of the ski-suit. The main technical advances were seen in small design features which could make a major difference in weatherproofing and retaining warmth. As most skiers discovered, a fall could cause great discomfort if wrist and ankle cuffs, collars and front openings were not properly designed to be tightly sealed.

Ski suits were constructed with what were then thought of as special devices - double buttoned cuffs at the wrist for example. This enabled the wearer to tighten the cuff onto the second button and so help seal it from the effects of the snow. A wide variety of adjustable

Ski suit made of red gabardine lined with woollen cloth, Burberry, 1929.

V&A Picture Library



storm collars helped seal the neck and keep out the wind and cold. They could also be undone to create lapels.

Zip fastenings were introduced onto ski-wear in the late 1920s. They proved much more effective at sealing openings on trousers, jackets and pockets than buttons or laces. It was also much easier and quicker to unzip and zip up when wearing bulky gloves. They were also lighter than buttons or buckled tabs, too many of which tended to weigh the skier down. Another important innovation was the insertion of rubberised reinforcements into the parts of the outfit where the skier was most likely to have contact with snow on a fall or run, namely the knees and the seat.

By the early 1930s, the looser cut of jackets and trousers allowed for even more freedom of movement. La Marquise de Polignac is seen here (right) wearing a short, loose-fitting jacket, and trouser outfit which was described in 1930 as 'Norwegian' and 'in a very new style'.



La Marquise de Polignac, 1930.
V&A Picture Library

Pointers to a future

Significant changes had taken place in the style of, and attitudes towards, women's ski wear in the first thirty years of the twentieth century. To the contemporary skier they might appear minor in the light of recent developments in fabrics and ski design. But, if one considers the technology available and prevalent attitudes towards women's dress, the achievements were considerable. Women had shown that they were equal partners with men, not only in how they performed, but in what they wore on the slopes. In a relatively short period of time a revolutionary female ski suit had evolved, setting new examples in function and style and helping to shape the future of winter sportswear.

An extended version of this feature will appear in the 2004 Journal of the Costume Society of Britain.

WSA SHE AND SKI: PART TWO

In contrast to the potential in developments in women-specific ski designs, skiwear for women is not new at all. Ask manufacturers when they started to produce women's ski clothing, and some cannot even remember. To most of them, women's skiwear has always been there.
Till Gottbrath took his pen to the slopes.



Ski and She

Part 2: The latest innovations in women's skiwear

In direct contrast to the way that women have had to wait to be able to select from a variety of ski hardware, their options for clothing hold up a mirror for the potential in diversification. Urs Egli, product manager for skiwear at Swiss brand-owner Mammut reports: "During a recent weekend in Zermatt, I was really surprised to see how many women were using technical skiwear."

It is no surprise that skiers – female or male – who consider themselves as deep powder 'freaks' or free skiers, want to be different from the 'mass' on the pistes. The 'mass' use skis from the classic brands such as Atomic, Fischer, Head, Rossignol, or Völkl. And they wear apparel from equally classic brands such as Anzi Besson, Bogner, Colmar, Frencys, Goldwyn, Phenix, Schöffel, Spyder, Sunrise, or Ziener.

Cool it must be

For the young and wild it would be a personal disaster to clip these brands to their feet. So they go for something cooler; skis from Dynastar, K2, Salomon, Scott, Stöckli, Volant, or the newcomers such as Armada, Black Diamond, or Extreme. It is the same with their clothes. They love technical brands, preferably those new to skiwear and ideally with some kind of a 'hardcore' outdoor background: Arc'Teryx, Haglöfs, Helly Hansen, Jack Wolfskin, Mammut, Marmot, Patagonia, Peak Performance, Salewa, The North Face, Vaude, or Wild Roses.

These manufacturers have a long-term experience with the layering system: 'Base layer + warmth layer + outer shell' is a formula readily accepted and understood by their customers. Ev Wimmer, sport division manager for the German manufacturer Bogner, stated: "In North America the layering system is more popular by far than in the Alps. But we can see it growing in popularity here. Even Bogner, which typically serves the more traditional user with insulated jackets and pants, offers some styles without a synthetic fibre filling". Francesca Picciafuochi, public relations officer for Colmar in Italy, agrees: "Colmar will show (at ISPO) a special range of garments with a free-ride mood and a comfortable fit". These garments will be without insulation. 'Free-ride mood', of course, refers to the accepted attitude of mind cultivated by snow boarders, a sport which has achieved a very high level of popularity since its inclusion in the 2000 Winter Olympics.

On the slopes in stylish Colmar women's ski wear.
Fischer.

No wait to insulate

On the other hand, even the technology-freaks at companies such as Arc'Teryx recognise the need for insulated apparel. This Canadian-based



Cerise ski jacket from Chiemsee's 2003/04 Winter range.
Chiemsee.



The American ski manufacturer K2, has developed the T:nine series for the booming female market. Tailored to women's physical attributes the T:nine range are light weight carving skis with a softer flex.

K2.

company delivered its Primaloft-insulated Gore-Tex shells to the retailers last year in readiness for an early call-off. And Stefan Lörke, product manager at Schöffel, confirms: "I am convinced, that insulated pants and jackets will not disappear at all. Many people do not ski to such a high aerobic level that they get too warm. And women tend to feel colder anyway."

When the demands on properties of fabrics are considered, there seem to be no major, new general trends for performance textiles in women's skiwear: just a soft and flexible hand, low weight and lots of stretch - the more the better. Obviously, there is nothing fresh there.

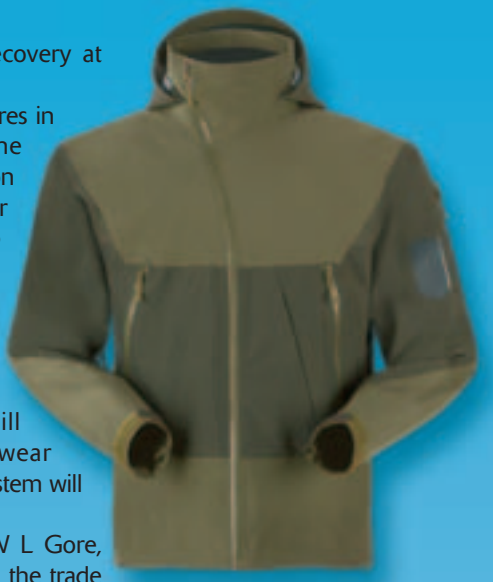
Various, and all, forms of stretch is the key fabric property throughout. No matter who the author asked among the fabric suppliers, they all reported that manufacturers ask for stretch. "For skiwear it should preferably be a mechanical stretch," says Claudia Wagner, fitness and outdoor marketing for Toray, "Obviously manufacturers have recognised the advantages of bi-component fibres over elastane blends." Silke Keller, marketing manager for the active/outdoor sector with Invista, totally agrees: "We see an increasing demand for stretch fabrics in skiwear. Lycra T400, the latest multi-component stretch offering from Invista, is an ideal product for this segment: unique comfort stretch and recovery for ideal freedom of movement and crease recovery at high tensile and tear strength level."

Elasticity is also one of the key features in softshell. In spite of the fact that the outdoor industry is unable to agree on what softshell actually is, skiwear manufacturers have willingly picked up the savoury new category. "Every product manager wants us to show them our softshell fabrics," says Stefan Cont, CEO of Tomen Germany, "and many of them place an order." Invista's Keller again confirms: "Softshell will represent a significant part of skiwear garments but the traditional layering system will still continue to be important."

The softshell trend continues with W L Gore, which launches its Gore-Tex softshell to the trade at the next Winter ISPO. This fabric, with a brushed tricot on the inside, can be tape-sealed and is 100% waterproof. Gore gives a ret rating between 8 and 13 while the rct rating is said to be 2–3 times higher than standard XCR and 4–5 times lower than fleece. Toray will also be showing a tape-able softshell fabric with a 20,000 mm static head.

Eschler from Switzerland, one of the world's leading suppliers for fabrics for ski racing suits, notes that an increasing number of fashion-oriented manufacturers use its 'no-membrane' fabrics for general skiwear. Product manager Andreas Jack says: "We have very good fleece, we are experts in acrylic bonding, and we can deliver some unique fabrics in this category that offer a very different look."

Considering all these different concepts, the question is: 'Where does softshell finish and where does hardshell begin?' We are convinced that nobody can give a straight answer, but the story opens up new opportunities for the industry and provides a whole range of exciting new products for the consumer.



Sidewinder SV jacket in Gore-Tex XCR fabric from Arc' Teryx.

Arc' Teryx.

Finally – for the general trends

- Brilliant, intense colours, but not shiny.
- Less matt and more semi-matt surfaces.
- Gloss and two-tone possibilities.
- More membranes, less coatings.
- Ultra-lightweight 2 or 3 layer laminated fabrics with a print on the membrane or coating.
- Designs that convert readily from the slopes to the bar.
- A revised interest in wool as an outer layer.
- Sleeves generally tighter.



Women's Matrix jacket by Wild Roses using Polartec Power Shield fabric for body-hugging freedom of movement.

Malden Mills.