Some folks are better at navigating than others. Some know instinctively where they are and in which direction they're facing. Others can get lost just crossing the street in their capital city. Unfair and infuriating are words that spring to mind in such opposing circumstances.

The story of O?

Orienteering (or O-ring) is the sport of navigating on land while using a number of different means of locomotion. Participants take a map, a compass and a set of directions and navigate their way around a course devised by minds infused with degrees of cunning ranging from kindergarten teacher through to positively satanic. Needless to say the latter have the most fun. There are various O-ring disciplines, self-descriptively Ski-O, Trail-O, MTB-O, but it's Foot-O that is the most common. Typically set in park, forest or moorland - for these events courses vary in length from about 2km for beginners and children to over 12km for experienced adult orienteers.

It is perfectly possible to enjoy the activity dressed in average outdoor clothing and a pair of reasonable shoes. But, as the skills improve and the speeds become increasingly competitive, it soon becomes obvious that the serious activist is going to need the right clothing and footwear. Bearing in mind that these people are athletes, exercising their bodies as well as their minds, it is perhaps surprising that the clothing designs are all developed to protect rather than facilitate unhindered movement of the trunk and limbs. However, when you've thrashed your way through a few thorny thickets, scrambled into and out of unsuspected gullies and thrust a passage through several kilometres of wet, waist-high vegetation, maybe protection is not such a bad idea.

Essentially, O-suits are simple designs with few performance frills. Full-length trousers complement long or short-sleeved tunic tops; fastenings are hook 'n loop or drawcords depending on the placing and security requirements. The anticipated logical requirements for moisture management, waterproof breathability or air conditioning appear to play little part in the specifying process - nylon in various guises being the primary fabric of choice.

This is because of the relatively short time that competitors take to complete their courses, 45 minutes to an hour on average, and in a circular out and home format that brings them back to the comfort of insulating clothing for the warming down process. Angela Houghton, of Compass Point - the UK's main distributor for manufacturer Silva Sweden AB - adds, "Competitors work up a sweat, but only for a short period of time. Which means that the perspiration itself acts as insulation for as long as the wearer keeps moving." It also acts as a lubricant in that the textile slides over the skin easily, leaving the arms and legs free to move without grab and subsequent abrasion.

For use during periods of high humidity, or in those parts of the world where the condition is normal, the suit designs contain knit mesh panels on the upper half of the body and the full length of the sleeves. Some pant designs also specify mesh panels on the inseams for ventilation, a system favoured by Joseph Huberman of USA-based Treklite. The company's ThornKnickers feature densely woven 70-denier nylon, doubled in the front panels and with a three-inch wide mesh insert on the inseam to promote cooling. Many pant specifications feature spandex yarns for the crotch area or to the rear. The elasticity confers a freedom of movement, particularly in wet conditions when even the slickest of nylon fabrics will cling to the thigh area. Training suit pants often feature drawstrings at the knee to create a form of plus-two effect for greater comfort.

Conversely, and giving the lie to the earlier comment about performance input, The Compass Needle company of New Hampshire, makes maximum use of DuPont Supplex because of its breathability and strength under attack from thorns and rock. Owner Jeanne Walsh comments: "Occasionally I do get a pair of pants or a shirt back for repair, but I feel that the product is superior because of the Supplex fabric that we use." An original Supplex shirt made during the start-up period of the company five years ago is still in operation - if a trifle faded.

Jeanne added that the company had tried specifying polyester mesh, but with only limited success because of the way that the fabric clings to the skin. The Compass Needle also felt that there are questions of polyester's durability in context, although it can report a certain amount of success in the use of Malden Mills Power Dry mesh, primarily because of the benefits in moisture management.

Many manufacturers produce spandex tights as a popular option, this despite some

Map: Bartholomews



Photo: Silva Sweden

obvious question marks over longevity when in regular contact with brush and thorns. But they are warm and quick drying, offering an acceptable alternative for late-season competitions.

Most O-activists will use lightweight gaiters for shin and ankle protection. The common denominator is a wodge of foam padding at the front, enclosed in nylon, offering a variety of fastenings to suit taste and anticipated quality of the terrain. The detailed practice is more complicated and depends on the national ethos of the manufacturer. The Scandinavians, or at least Silva Sweden, use nylon 66 to enclose the moulded foam pads, with spandex fabric at the back. Where zips are fitted they are located at either the back or side of the gaiter. Silva's JM model has no zip, but uses the combination of a foot stirrup and a rubberised grip on the upper calf to hold position on the legs.

Treklite's North American psyche demands DuPont Cordura at 1000 denier backed by a solid half-inch of foam padding to back the promise of "no more painful shin bruises". These, the company's Thornrunner gaiters, then specify 70-denier nylon at the sides and spandex to the rear for breathable, close-fitting, comfort. The catalogue even offers explicit instructions for fitting and removal, leaving nothing to chance. Lighter models offer a lesser foam density or even knit mesh fabric to cope with varying degrees of required comfort and the quality of the courses.

The specific operating conditions for O-ring call for equally specific apparel designs, and the research for this feature highlighted a common problem for apparel manufacturers operating in relatively esoteric markets - that of projected textile purchases being too small and too irregular to justify favourable pricing and guaranteed stock holding. It can be suggested with some certainty that the same factors mitigate against the use of performance fabrics; in what is a low-cost sport for the individual competitor the premium that must be charged for moisture-management, breathability, phase change technology and similar textile goodies, on a low call-off will inevitably mean a lack of desire to offer the end-products by either manufacturer or retailer. Some of the more fashionable track and field athletic wear is possibly capable of adaptation, but is the small additional turnover enough to excite the interest of the major multi-nationals?

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