

Every element in a sleeping bag owes its performance to the textile industry. Improvements tend to come singly – with comfort as the only criteria. Small wonder that the latest products should be considered life-enhancing.

Swanky bags

Photo: Dream Sacks Inc.

Within the outdoor market it is undoubtedly the apparel designers who receive the majority of the plaudits. Their wizardry with shell and lining, with textile technology and differential cut, with coating or laminate - and the ability to make every consumer look the part of a hardened activist - leaves most other practitioners of equipment design staggering in their wake. Until, that is, it comes to the time for rest and recuperation when the quieter talents of the sleeping bag teams become of prime importance.

There can be little more satisfying than achieving a night's sleep when the temperature outside is below zero and wind-driven snow is bowing your tent poles. Prerequisites are a hot drink and a sleeping bag that warms quickly, retains the heat and packs easily the following morning. And if its basic design is complemented by a few tweaks and gizmos, so much the better for your comfort and overall satisfaction.

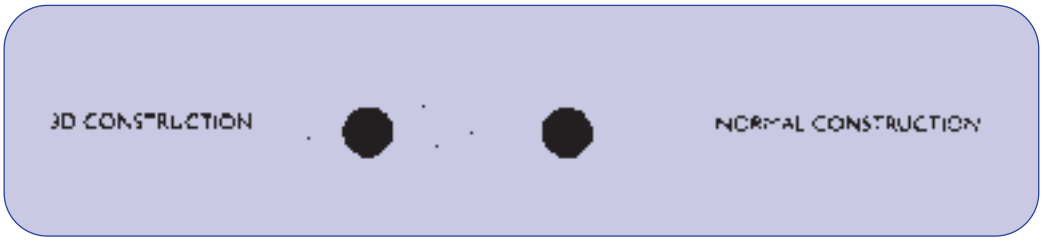
The Fall round of biannual trade shows presented but little in the way of product development to amaze and delight in this sector. Shell and lining fabrics seem to have peaked for the time being, although one did hear of modal derivatives being reconsidered despite earlier problems in makeup for this application. Closures also seem to have peaked and it is difficult to see where further improvements can be made within the restrictions of raw materials and the requirement for mass production techniques.

So we were left with fillings,space and comfort (of the 'touchy-feely' kind).

Warm comfort

Down remains the most popular insulation among backpackers. Despite the best claims of synthetic fill manufacturers, it is still twenty percent lighter, stuffs thirty percent smaller, feels luxurious, and is said to be at least three times more durable. Its major drawback is that when it's wet it has all the warmth retention of cold blancmange.

Justifiably, it is the last non-attribute which has given hope to the small army of international companies producing synthetic fill, although it is their bases in apparel and household textiles which have provided the underpinning for their work with sleeping bags. Developments in recent



The effect of additional side panels for AMG sleeping bags.

years have improved the stuffing capabilities, i.e., into a carrying format, and the ability to regain loft after compression or washing.

Several years ago a company, whose name seems to have left absolutely no impression on the collective memory, produced a hybrid sleeping bag-specific filling that was composed of equal measures of synthetic fill and down. The mixture was not quilted or bonded and was introduced into the bag by air-flowing it into the appropriate chambers. The premise was that should the bag become wet then the synthetic would provide a good measure of insulation and assist in the drying process by layering heat over the down. It failed because the development of synthetic fill was just not sufficiently advanced to avoid separation from the down nor to retain its own loft.

However, Albany International - the US-based manufacturer of PrimaLoft insulations, has released PrimaDown, a fibre cluster that is a mixture of a new PrimaLoft fibre and down that seems to have the answer to all those old problems. Albany says that the product is washable, durable and doesn't separate after laundering, retains its loft and is completely 'blowable' using existing down fill equipment. A number of manufacturers are said to be working with the product for releases in Fall 2001.

The on-going battle for the hearts and minds of outdoor activists in the context of the effectiveness of synthetic fillings seems to have hit a lull, but there is no doubt that this is only a temporary situation. Word is that we can expect the release of a number of ultra-high lofting fillings in the near future as the perceived gap between the performance of down and synthetics narrows.

Space - the first frontier

Sleeping bags suffer from a split personality - or they would if they were sentient. They are purchased initially for the ability to keep the user warm and ensure a good night's rest. Then it has been found that to achieve this they must fit fairly closely to the user's body, restricting movement and creating minor claustrophobia in some extreme cases. But if the bag is purchased with wide comfort in mind, then it won't be as warm as might be desired ...

The British company AMG Outdoor, brand owner of Phoenix and Vango equipment, has developed the problem out of its products with the introduction of what it calls '3D construction'. This provides two extra full-length panels sewn into the bag to create near-vertical sidewalls, which are said to support the top of the bag, create additional loft and increase the overall performance.

The warmth-retaining mummy shape has been kept and the additional wall height grants the 'shuffle and stretch' room vital to personal tranquillity.



Mountain Hardwear of California, USA, offers a clever option. Based on the possibility of building on to suit the conditions, it has developed the Quantum Expander bag - a series that features an enlarged draught excluder or baffle behind the main zipper. Depending on the prevailing conditions, the user can adjust the girth of the bag by eight inches for the full length or at a variety of points along the side. Fully open the bag is cooler (for use at lower altitudes or when car camping) and there is additional room; fully closed and the performance is optimised for colder conditions. The Expander adds just three ounces to the weight of the unmodified bag. A similar optional extra is offered by Rab Carrington, of Sheffield, UK, which zips into all the company's Rab product range.

Boulder, Colorado, USA, is the home of GoLite - a company with a mission. Promoting ultra-light as an outdoor equipment philosophy, it has produced a range of clothing, backpacks and overnight gear that can be accommodated within a ten-pound all-up weight. Designing the bedding requirements in context gave rise to a sleep system consisting of a quilt and a sleeping pad, weighing a maximum of 2.8 pounds for the largest size, that is said to be effective down to minus 6°C.

The Polarguard 3D filled quilt has a shaped and zippered foot, while the upper section fastens firmly to the sleeping pad with hook'n'loop tabs around the perimeter. The pad is a polyethylene/EVA blend for maximum insulation.

GoLite is already working on a development of its system which it says is even more streamlined without losing the advantages of the current models. Once again low weight and a smaller pack size are the driving forces.

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Softly come and softly go (Meta Orred)

Silk is the standard by which all other forms of soft textile are measured.

Lightweight, strong and durable, as a sleeping bag liner it offers a level of apparent luxurious comfort that can turn even the most mundane inner fabric into a blissful night's sleep. The evocatively named DreamSacks Inc, of Oregon, USA, has been marketing these for a while now and has recently extended its range to include pillowcases and legwear.

Silk liners and travel sheets produced by the Australian company Sea to Summit are available in two weights, the lighter being in a natural unbleached colour as an economic option.

New Zealand specialists Arthur Ellis Limited market the Fairydown brand. It also includes silk in its range of liners, but improves the options by adding cotton, nylon taffeta and Polartec 200. Many of the heavier weight products are shaped to match the 'mummy' profile of Fairydown sleeping bags.

Soft Touch Technology was pioneered by Kelty, again of Boulder, Colorado, and patented in 1988. It has been reintroduced this year and it's worth revising our knowledge of the features of something that makes a measurable contribution to quiet sleeping. Essentially it is a liner that has a generous cut to facilitate a good fit to the body, backed by a stretch tricot knit layer to provide a warm hug without restriction. Kelty says that the system reduces dead air space and speeds up the warming process.

'Softie' is the name given to a range of sleeping bags produced by UK-based Snugpak. In this instance the title refers to the filling employed - which the company says has a down-like softness - and the moisture management properties of the Paratex and Pertex fabrics used for the inner and outer shells. The combination results in an extremely comfortable lightweight, small packed-size sleeping bag.

Ultimately

For those of a more senior disposition who may prefer a greater measure of personal comfort, objective research has uncovered the ultimate in sleeping bag systems. The Genesis by Justin Charles is the unwieldy name for a product from Mathews Inc, of Wisconsin, USA, that has just about every comfort extra it is possible to incorporate into the specification. Fully fitted it weighs in at about 11 pounds, but Hey, who cares, it's going into the trunk of your car - not on your back.

Starting on the inside, there is a 9.5-ounce fleece liner surmounting two 4-ounce layers of PrimaLoft One, over an open pocket which accommodates a 2-inch thick foam pad. Next there is a flap filled with one 4-ounce layer of PrimaLoft Lite and one 4-ounce layer of PrimaLoft One. Above that there is a further, outer flap filled with another 4-ounce layer of PrimaLoft One. The whole Genesis system operates down to minus 29°C, but, because of the flap system, it can be adjusted for a series of temperature levels.A built-in pillow pocket flaps in or out depending on the height of the sleeper.

The flaps are connected at the bottom of the bag so that they cannot be 'lost' in the night, but - without the application of any zips - they can be applied individually to accommodate the sleep patterns and warmth levels of any user. Now that's what should be termed $500 bliss.

Tom Williamson



Sea to Summit's silk liners compress into their own stuff sacs.



The GOLITE sleeping quilt filled with Polarguard 3D.