



Technology



Yak leather—a rough diamond with inner strength and beauty

On the high plains in southern Sichuan in south west China travellers can see huge herds of yak roaming the countryside. In many ways this is reminiscent of the buffalo in the American West and even more so as they are managed by local Chinese farmers on horseback, looking to all the world like Western cowboys.

Sichuan and Tibet are adjacent provinces and there is now a train line running precariously over the permafrost linking Lhasa to the rest of China, and starting to accelerate the changing culture and daily life of Tibet, as more and more Chinese move in as holidaymakers or permanent residents. It is these high lands at around 4,000 metres that are home to the world's yak population. With warm summers and cold winters, with temperatures dropping to minus 40°C, few animals can survive and it is not surprising that the hide of the yak has adjusted over the centuries to offer some unique characteristics.

Yak is not a leather that often crosses the tanner's path, yet there are just over 14 million of them in the world today and they continue to play a vital role in many traditional societies in the world. Of this 14 million over 13 million are in China,

including Tibet, and about 0.6 million are in Mongolia. Smaller numbers exist in Russia, Bhutan, Nepal and Pakistan. On top of this there has been some interbreeding with local cattle and overall the numbers are said to be growing.

'A shelter for all seasons'

For some 10,000 years, the yak has evolved on the Qinghai-Tibetan Plateau. This area, known as the 'roof of the world', covers 2.5 million km² of Tibet and south west China.

On first inspection the yak hide is a poor material covered in mosquito bites, warble and scars from fighting with their large horns and from their use as draft animals, which all take their toll on this fine animal. Yet, living in the alpine ranges of the Himalayan Plateau, where few other animals can survive, the yak has evolved its hide into what is called 'a shelter for all seasons'—with thin, compact, woven collagen fibres and a fine, closed grain. As Danish footwear manufacturer ECCO states when describing its new yak products "no two hides are the same".

Wild yak are bigger than those in managed herds but, despite the tourist literature on Tibet and Mongolia, the

actual numbers in this category are quite low. Indeed the Food and Agriculture Organization (FAO) has published data indicating that truly wild yak may number only around 15,000 worldwide. If true this is a significant indication of the demands on the land and the changes going on today, even in the remotest parts of the world.

Yet the yak is integrally associated with the culture and social life of its herders, their families and communities. Historically the hides have mainly been used raw and, at the low temperatures found at these great heights, this has not been a problem. Even today driving the hour-long journey from the airport, visitors can see the large boats or coracles fashioned in raw hide on the Kyichu River that have allowed the Tibetans to navigate the fast flowing rocky waters. These modern day coracles may use up to ten hides and carry eight to ten people, yet they are relatively light to transport over the worst rapids and survive the lesser ones through their clever design and flexibility. Other major uses for the raw hides include protective coverings for goods and belongings, footwear and ropes and harnesses of various types. A tannage using rancid butter is also sometimes used. ►



YAK LEATHER—A ROUGH DIAMOND WITH INNER STRENGTH AND BEAUTY



The bovine kangaroo

All yak hides show the characteristics of a tough life but it is in the cross section that surprises can be seen. The fibres are long and very horizontal which give the hide great tensile strength, above that of the kangaroo, and two to three times higher than an equivalent bovine. As is illustrated through their continued use in coracles in a very tough environment, the hides are also very abrasion resistant.

ECCO has introduced a small line of casual footwear in yak which exploits these aspects. The leather is produced at lower substances than regular bovine and this extra light weight increases breathability and comfort. The designs are intended to incorporate the natural characteristics of the hide; to show that this animal has lived and worked yet has retained a rugged natural beauty.

Changes in society have meant that yak hides are increasingly collected and tanned industrially, with ECCO's gradual move into the category a typical example of the widening market. As with its tannery in Indonesia, where the company has worked very successfully with light weight local

hides, it seemed logical for ECCO to consider the suitability of using local material when building a plant in China.

Lhasa leather factory

In spite of Western companies such as ECCO establishing yak tanneries, the Lhasa leather factory, sitting on the river Tolungchu on the outskirts of Lhasa itself, probably remains the most significant yak tannery in the world. The tannery was set up back in 1960 when it was moved from Golmud in the Qinghai province by the Chinese government. Both a tannery and a shoe factory complex were built, designed to produce footwear for the large numbers of Chinese soldiers who came

into Tibet following the 1958 uprising. It gives every appearance of having been a primitive place where effluent was passed largely untreated into one of the purest, highest and most beautiful rivers in the world.

In 1988 during a visit to Lhasa the then German Chancellor Helmut Kohl visited the factory and committed some €8 million to its redevelopment. This included a state-of-the-art effluent plant, some concrete mixer type drums and a great deal of other new equipment. Technical and marketing assistance was also provided. During the 1990s the plant prospered and at one stage captured nearly 40% of the local footwear market. Exports



YAK LEATHER

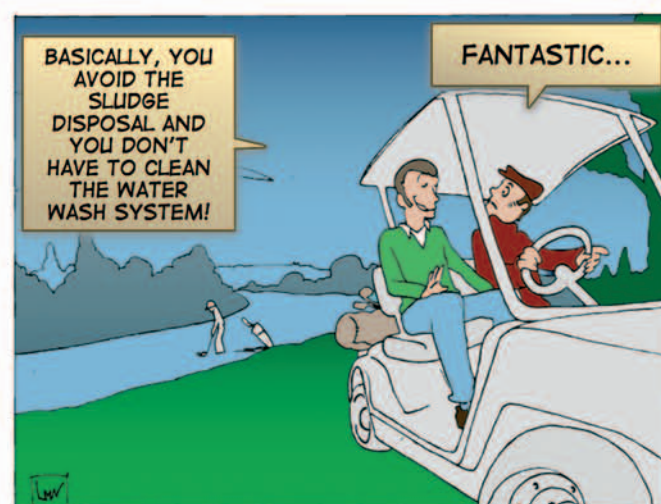


were difficult as there was no railway, only a poor road infrastructure and little access to airports to make use of. This has now changed as it is clear that Tibet is being overwhelmed with both Chinese people and Chinese brands and Lhasa has many of the top Chinese footwear and sports footwear companies now fighting for market share. In the future links to Europe and sales in Austria and Germany of leathergoods made either in Tibet or Germany look set to increasingly dominate the tannery's business.

Today Chen Xiao Yun, deputy manager, explains that the tannery processes some 10,000 yak hides and 100,000 sheepskins on an annual basis, so the large plant now looks a little bare as the visitor walks around. Most of the yak hides come salted from Nakchu, 360 kilometres to the north, and the newly-opened railway is now used to transport them. The factory, which now employs 180 staff, is set up on an estate system with multiple individual buildings, each housing part of the tanning process or being used for footwear or leathergoods production. The hide is tanned either with a chrome or vegetable process, but has to be handled carefully to avoid the looseness inherent in a horizontal fibre structure. If the consumer can be persuaded to accept the natural defects for what they are they will find a very fine grain and a piece of leather with a good feel. In general it performs and looks much better if aniline finished rather than being covered in pigment to hide 'defects'. Lhasa leather generally uses good filling retannages as much of its production is used in leathergoods made in Germany.

Experts such as Hans-Otto Mattuck of Smoky Agency in Germany (RBA Trading) are typical of Lhasa's high-end customers, producing fine leathergoods items such as 'smoker's leathergoods' and 'gent's accessories' designed and completely made in Germany using high-grade leathers including the exclusive 'Yak-Leather' from the Himalayan region. Mattuck is a holder of the very limited number of German licences for yak leather goods. Zwilling is another Lhasa customer and German licence holder, which manufactures leather manicure cases in this unique material. Lhasa leather factory also maintains its own shop in Lhasa selling a wide range of footwear and an interesting collection of other leather items.

Although it is well-situated for access to the raw material, the Lhasa leather factory will have to work hard to compete on a global basis, if other established tanners spot the potential, and the demand for yak leather continues to improve. The yak itself, on the other hand, faces no such problem, as its uniqueness—with its rugged tough appeal and strong, attractive interior—will make it forever interesting and desirable. 🌐



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