The rapid decline of hides in recent years has provoked fears of raw-material scarcity, with tanneries for the East suffering most. This shortage has encouraged innovation in alternatives, pioneered from substitute materials and the reuse of industry offcuts and leftovers.

New developments in synthetic skins and finishing techniques have enabled the engineering of performance qualities, as well as increasing the versatility of application across the fashion and interior industries.

The upsurge in aqua-farming and scientific advancements has resulted in new natural materials retrieved from waste or grown from cells, which offer a viable alternative to animal-based leather.

Premium leathers promote the importance of craft with elaborate embellishment techniques inspired by Islamic geometries and Victorian lace. Innovative hybrids reduce the qualities of leather required for products.
New developments in synthetic skins provide sophisticated alternatives to conventional leather. Ultrafabrics, the pioneer of polyurethane leather, has changed the perception of synthetic skins by offering performance qualities superior to cattle hide. Modern Meadow, a Brooklyn-based biotech startup, uses cells sourced from animals to grow leather in labs, while EcoDomo Andeline composes skins from pre-consumer leather mixed with natural latex and Acacia tree bark as a binding agent.
Aquaculture fish production has skyrocketed in recent years, which means tonnes of discarded skin is now available as an alternative to leather. Leading supplier Atlantic Leather continues to enable brands and designers such as The Campana Brothers to use fish skins in innovative products. Designer Jorge Penadés has also developed a new material made from industry offcuts and leftovers that are mouldable and dimensional as opposed to flat, with no need for chemical tanning.
New developments in dyeing and finishing techniques have increased the versatility of leather applications. The dynamic Kromatafor tanning process developed by Dutch ECCO Leather produces a colour-changing leather responsive to direct or indirect temperature change. Further developments by the same tannery also include the use of indigo dye for denim-imitation skins. Leather used in products by The Unseen uses chameleonic ink which changes colour via electrical conductivity.
In recent years, new natural materials have began to offer a viable alternative to animal-based leather. Palmleather by Tjeerd Veenhoven makes use of leaves for products that are biodegradable while Piñatex uses waste pineapple-leaf fibres to create an innovative material. Fruit waste is an area with great potential for natural product development. Designers from Rotterdam collect waste from markets to develop a process of making candy-like pieces of fruit fabric called Fruitleather.
The importance of craft has prompted the rise of bespoke premium leather works which are created with exquisite precision using laser-cutting, etching and appliqué techniques. Moore & Giles’ Mojave designs aim to imitate lace through intricate etching and embossing, whereas the Campana Brothers mimic tooling techniques through elaborate appliqué. London-based Genevieve Bennett creates engraved and embossed wall coverings inspired by Islamic tiles and Victorian lace patterns.
Fine kid and nappa skins are increasingly spliced with other premium materials such as lace, faux fur and wool to create innovative hybrids with contrasting handles and textures across both the fashion and interiors worlds. Designers experiment with bonding, appliqué and stitch to fuse skins with plush fibres for added tactility or stretch lycra to manipulate properties. Products within lighting and furniture also introduce leather features to be juxtaposed with materials such as glass and metal.