Snowboarding features & technology have come a long way

As snowboarding gained popularity and acceptance throughout the 1980s, construction and equipment features changed to accommodate and encourage potential snowboarders – and ski areas – to join the sport's growing numbers.

The 1970s and '80s demonstrated a high level of creativity in snowboard construction and design. Winterstick's Roundtail and Swallowtail models were a major evolution as they had foot straps, leashes, sidecut and P-Tex (polyethylene) bases. Robert Weber's Incredible Flying Banana was high-density polyethylene with a skateboard deck attached. Skosh prototypes used hydraulically laminated Baltic birch plywood veneers from Russia with fiberglass in between layers for flexibility and durability.

Surf and skateboard theory played heavily in snowboard construction. Jake Burton experimented with surfboard style construction in prototypes, using foam and fiberglass, rounded top rails, fins, and various tails. Tom Sims used fiberglass, different bases (including a red polyester resin base), and his 1985 Terry Kidwell Roundtail Pro Model brought a distinctive skate-inspired style to snowboarding with a revolutionary kick tail design.

Snowboard construction took on a series of unique features, continuing to draw from other sports. Snowtech used golf spikes for traction and two rubber straps as a foot hold, and in 1979 incorporated camber, a slight kick tail and "wings" inspired by a boat design. Their Omega model drew from the Olin Mark IV Competition ski, featuring a laminated wood deck and fiberglass 'runner.'

Gnu kept their design emphasis on riding hard pack and carving turns on edge, using a channeled base, ski-inspired shape and several fins. Gnu's deep sidecut would later be adopted across the entire industry and gave them an incredible edge for resort riding. Burton's Powder Gun 1984 experimental series is the first Burton board to ever have metal edges, also important for hard pack performance.

Looking to build an "indestructible" snowboard, Mike Troppman and Butch Bendele built Ultimate Control Boards from a single sheet of Tivar 1000, pure ultra-high molecular weight polyethylene. Early 1980s Avalanche boards were made of mahogany door skin veneers with Formica tops and bases, and Myron Knapschafer created a non-stick surface, Hiper-Slick, for snowboard bases instead of P-Tex.

Bindings have evolved dramatically, with many early boards using creative solutions for foot retention; the Sims 150 Pro Model Skiboard in the late 1970s used a bungee cord strap. However, the 1980s ushered in an era of binding experimentation and improvement. Binding systems for use with hard shell boots were developed by Avalanche and Myron Knapschafer of Hiper Snowboards. Additionally, the Snowtech Quantum used an integrated track binding system inspired by windsurf binding technology.

The mid-1980s proved to be a turning point for binding systems, as several different innovators developed highbacks. Louis Fornier experimented with integrated, fold-down highbacks in eastern Canada. Prop Highback Bindings, an early design, were created by Matt Donovan. Jeff Grell made 30 Hi-Baks, a device worn on the ankle over the boot, which inspired Sims to include integrated highbacks on his boards. Matt Nipper built a skiboard with one of the earliest examples of an integrated highback binding. Years later, Technine developed a binding meant to create a loose, skateboard style ride, allowing the board to flex completely.

Many companies were widening boards, including the Burton Backhill, a 1983 Gnu 5-Fin prototype, and mid-1980s Swift snowboards, to allow for flotation in powder. By the

1990s, board length was increasing as well, seen in Quinn Sandvold and Perry Coleman's 1992 board Nitro Diablo 186. Aggression's TR70 Tarquin Robbins Pro Model, following the longer length trend, helped launch the new school "skate style" movement with an asymmetrical design and deeper cut on the heel side than on the toe side.

More recently, Lib Tech (formed by Gnu's Mike Olson and Pete Saari) introduced a serrated edge concept in 1997 and received a patent for Banana Technology in 2005, their unique combo of rocker and camber.

With so much change in technology and equipment design, snowboarding evolved a great deal throughout the '80s and into the '90s, using experimentation, creativity and innovation.

Boards and equipment mentioned in this article are on display at the Colorado Ski & Snowboard Museum, generously on loan from the collections of:
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Steve Link
Brooke Long
Matt Nipper
Mike Olson/Pete Saari
Jarrett Packer
Chris Pappas
Quinn Sandvold
Tom Sims

Sources included Colorado Ski & Snowboard Museum archives, Paul J. MacArthur, Wiley Asher