

NOT LONG AGO, riders used bungee cords for bindings, relied on duct-taped Sorels for shred boots, and dug pipes by hand. It's easy to look back and laugh at their efforts. That is, until you realize people will someday look back at our kits and shred flicks and view them as strange things from the past. That's the nature of technology—the products and achievements it helps create often fade away. At times, however, this isn't the case. Things stick around, becoming new standards or old favorites.

Consequently, progression is the foundation on which the future is built. According to Andreas Wiig, "It's not only about going bigger, but it's also about how you portray snowboarding. It's not all about technical progression, but it's also about taking style further." For Absinthe co-owner Justin Hostynek, progression "can be a very small thing but doesn't apply to everything done on a snowboard just because no one has done it. Nollie-ing into a corked rotation, that's progressive. Eating a hot dog while nose-buttering down a Slip 'N Slide—not so much." No matter how you define progression, it's often inseparable from the technology on which it relies. For the technology of today, we'll have to wait to truly understand its impact on tomorrow. But in the meantime, here are a few tools helping riders push progression now.

BREAK

Fig.1 How Google, winches, and other tools are helping progress riding →



A diagram of a pulley system. A black rope is anchored to a fixed point on the left, extends diagonally down and to the right, passes under a bottom pulley, then diagonally up and to the right, passes over a top pulley, and finally extends diagonally up and to the right towards the top of the frame. The top pulley is connected to a black rectangular weight hanging from it. The background is a solid teal color.

THROUGH

TECH

↓
Fig.2

By Michael Sudmeier

OPENING NEW SPOTS

THE BIGGEST PROBLEM with hitting street spots has always been finding enough speed. Spots were doable only if you could work a bro tow, set up a drop-in ramp, or rely on a natural in-run. But bungees and winches have changed all that. Now finding features is more a limit of the imagination. "Banshees and tow-in machines have been really good for opening up new spots in the city," Eiki Helgason says. Bungees, like those made by Banshee, allow riders to easily get the speed necessary to hit rails, jumps, and gaps that otherwise wouldn't be possible. Still, for some spots a little more speed or consistency is needed than these elastic slingshots offer. For such features, riders increasingly rely on winches. "Once the winch came around, I started to look at things differently," Dan Brisse explains. "Now a winch is a critical piece in the urban rider's setup." He recently collaborated with New Trick Winches to develop a winch for hitting urban features. Weighing less than 40 pounds, his signature winch features a 350-volt, battery-powered motor, and several hundred feet of towrope. Using a digital display on the machine, riders can set the speed to which they wish to be towed and then use a thumb throttle on the tow handle to gradually reach this speed. As Joey Jones of New Trick explains, with winches "everything becomes accessible."

There's more to hitting urban spots than just speed though—the setup is critical. Riders like Brisse are throwing on hard hats and rocking heavy machinery to make better builds. "When it usually would take a few hours of shoveling for a crew of dudes, a Bobcat can handle pretty much anything no problem," Brisse says. "Plus, it's easy to look super official with a Bobcat—a few hard hats, vests, and dudes standing around looking like typical construction workers doing nothing!" With the help of some friends, Brisse occasionally uses front-end loaders for preparing features in his native state of Minnesota. Heavy machinery, he explains, "opened up the possibilities for the things I see now."

On hill, heavy machinery is just as crucial to building progressive parks. "The quality of what every rider has to play and practice on is directly part of the progress formula," Pat Malendowski, founder of Planet Snow Design, explains. For Malendowski and other builders, new equipment has been essential in creating better features. According to Mammoth Director of Terrain Parks, Michael Gregory, machinery like the Park Bully and the Bison-X have "allowed park builders to create

transitions and sculpt in ways that just weren't possible in the early days."

To take features to the next level, builders are also tapping into new tools for designing them. As Snow Park Technologies President Chris Gunnarson explains, "We have developed a more sophisticated design and planning process with much greater lead time." Before blowing snow, let alone climbing inside a Cat, builders are likely to geek out behind a computer screen. "We often use Google SketchUp and different computer-assisted design programs to conceptualize a feature idea before we take it to snow, whether that is a snow feature or a new jib," Gregory says. This design process has also led to safer jumps. As Gregory explains, "It's rare to see the 90-foot step-downs that were prevalent in competition five years ago, and much more common to see features that allow rider progression with minimal impact."

Riders are definitely appreciating these refined features. "The jumps are getting bigger, better, and safer," Mark McMorris explains. Needless to say, better features lead to better tricks. "The size of the jumps really helps the progression of the sport, and there are a lot of tricks that wouldn't be done if the jumps were the same size as before," Seb Toots says. And although jumps have grown in size, the increased emphasis on safety is challenging old assumptions. "Bigger is not always better," Sage Kotsenburg explains. "I think people have learned that having a 100-foot jump that is just super sketchy does not benefit you more than just a 75-foot jump with a step-over landing."

Advances in parks go beyond the tools used to build them. "Resort commitment has been the biggest advancement in general," Gunnarson offers. "Parks and pipes aren't cheap or easy to build." A shift in who holds the keys to equipment has also fueled progression. Increasingly, resorts are transforming experienced riders into seasoned Cat operators.

"The youth movement within Cat operators has been responsible for a strong progression in the quality of parks," Malendowski says. "Resorts developing operators and programs that are based around strong riders has been key." Gregory echoes, "This changed the game because those who were riding transitions were able to build it themselves." According to Gregory, riders already "had the eye and feel for it" and just needed to learn how to operate machinery in order to create the features they "were already dreaming about."

Fig.3 →

The way Brisse rides makes you wonder if he's not part machine already. Winch-powered step-over in Anchorage, Alaska.

PHOTO: ANDY WRIGHT





PHOTO: ANDY WRIGHT

Shooting From The Sky

A handful of filmmakers and photographers are tapping into UAVs—unmanned aerial vehicles—to create fresh images and shoot in areas that weren't possible before. These UAVs range from military-grade drones to remote-controlled helicopters capable of toting cameras. For photographer Jeff Patterson, this technology provides a means to "get those shots I've always had in mind." Using a small craft

known as a multicopter, Patterson is able to shoot from the sky using a DSLR camera.

For certain projects, Brain Farm also uses UAVs. These radio-controlled helicopters provide a safer and less expensive shooting platform that can fit into tight quarters like narrow chutes. Despite the tools in his quiver, Morgan is quick to emphasize that technology is no substitute for creativity.



CONTESTS KICK THINGS UP

WHETHER IN THE BACKCOUNTRY, out in the streets, or at resorts, contests fuel progression. As an example, Scotty Lago cites the Olympics. "Every four years you see a huge jump in progression because people are doing whatever it takes to make the team," he explains. According to Mark McMorris, contests are also challenging riders to become well rounded. He notes that landing on the podium at slopestyle contests will take 1080s, 1260s, and double corks, as well as better rail work. McMorris offers, "Guys who stand out will not only have sick jump tricks but also progressive rail tricks."

Athlete-driven events are also creating new terrain and embracing shifts in shredding. As Lago explains, "Events like Supernatural have changed the way we have contests. The caliber of our venues is so high now that riders are given the space they need to be creative and throw down." Located at Baldface Lodge in BC, the course for Supernatural looks like the lovechild of top riders and cracked-out lumberjacks. Designed to reward riders capable of slaying all terrain, it blends natural and manmade features, including pillow lines, sculpted kickers, transfers to log ladders, and wooden rails inspired by the streets.

For Supernatural, Event Director Liam Griffin tapped into a laundry list of the latest technology. Using Google Earth, Griffin and his team exported information on the terrain at Baldface and then used Google SketchUp to create schematics for the entire venue. Griffin explains, "Being able to take point-to-point measurements for remote feed equipment, check on line-of-sight for wireless antennas, and check out the view from the potential judge locations are all things that could be done in a virtual environment and then confirmed on a site visit."

The technology used to plan for Supernatural was equally important in making the event happen, as the judging and filming for the contest also relied on it. Thanks to the modeling made possible by Google Earth and Google SketchUp, Griffin and his team were able to work with Brain Farm to determine two angles for shooting the event via helicopter. The resulting footage is "broadcast live in venue via the remote feed network, so judges, riders, media, and staff can watch runs from multiple locations," Griffin explains. The venue also features a wireless network that enables judges' scores to be available as soon as runs are completed. "This allows us to run the event live, which really changes the energy level—even though the audience is limited to the riders, judges, and staff," Griffin says.



← Fig.4

SPT takes virtual park setups and makes them reality. Stale Sandbeech knows what to do from there.

FAR FROM CITY STREETS, riders are using technology to scope new lines, coordinate trips, and keep them safe. As lead guide for projects like *The Art Of Flight* and *Brothers On The Run*, Clark Fyans is responsible for keeping people alive in the backcountry. As if this weren't demanding enough, he also collaborates with riders and filmmakers to find new terrain.

Before traveling to a remote locale, Fyans does his homework. "Google Earth has become a *huge* resource for us as we explore new mountains," Fyans says. Using a blend of satellite imagery, aerial photographs, and GIS (geographic information systems) data, Google Earth can be used to model and calculate information for backcountry travelers. "We can look at elevations, aspects, flight distances, and sometimes we even discover actual faces that could be good riding," Fyans says.

John Jackson is also quick to tout its benefits. "I use Google Earth all the time," he reveals. "A lot of dreaming goes down on there."

In the midst of trips, Fyans relies heavily on the Internet. "I use it multiple times a day in order to monitor pressure gradient maps, jet stream trends, winds, and temperature," he explains. This often involves tapping into local and national forecasts, as well as studying data from private and governmental weather stations. Using this data, he carefully studies minute changes in things like wind speed and direction, temperature, new snow, and its water content.

When it's time to get to the goods, riders continue to benefit from evolving technology. Just ask Kevin Jones. With a pro career that spans nearly 20 years, he's seen a lot of changes. "Snowmobiles are nothing like when I started," he says. "They can get to so many places now if you even kind of know how to ride one. This is probably the thing that has really helped the most as far as getting to spots easier or finding new spots." Access from the air also continues to improve. "The helicopters we use these days are more powerful, so we can land a bit higher and access new terrain that we have had our eye on," Fyans says.

Yet riders don't always need engines to explore new zones. Sometimes technology takes a simpler form. "Having a splitboard that rides as well as a solid has changed everything for me," Jeremy Jones says. "What I used to think was unreachable is now very reachable, and I am now going to places I never thought I could get to."

No matter the setting or riders, progression is largely fueled by technology. Whether slaying rails in Minneapolis, making first descents in Alaska, or documenting these feats, riders and filmmakers are constantly looking for new advantages and fresh perspectives. To do this, Dan Brisse says, "You have to be all the way in or you'll get left behind."

BACKCOUNTRY GAME CHANGERS

Fig.5 →

Finding lines from a laptop is one thing.
Dropping into them is another. John
Jackson, Tordillo Mountains, Alaska.

Stacking The Odds

On the snow, riders are taking on new terrain with improved safety equipment like airbag systems. Built into a backpack or vest, the system features a rip cord that a rider can pull if caught in a slide. This inflates bags that provide flotation, preventing the rider from being trapped beneath the snow and also protecting the rider from body trauma. Whereas transceivers, shovels, and probes increase the chance of locating and rescuing a victim, airbag systems increase one's odds of surviving the slide itself.



PHOTO: SCOT SERFAS