



Courtesy James Niehues

James Niehues, shown here with his initial sketch of Gunstock Mountain Resort, NH, is “semi-retiring” from his long-held profession of hand-painting ski area trail maps.

THE MOUNTAIN MAPPER: JAMES NIEHUES’ LONG RUN

BY LISA DENSMORE BALLARD

ASK JAMES NIEHUES WHY he’s carved a career out of mapping ski areas, and he gushes with a kid-like enthusiasm, “Maps are fun!” And necessary. Every ski area needs a trail map. It’s a standard handout at ticket windows, in hotel rooms, at the bottom of chairlifts, and at ski shows. It’s on the website, used for master planning, featured in marketing materials, and on display at the top of chairlifts. And it is arguably the most important visual portrayal of your mountain because it represents what makes your area unique and orients your guests.

In other words, the trail map is one of those things that you value as much as you take for granted. That’s why it’s a little unsettling to hear that Niehues—the pre-eminent illustrator of ski area trail maps throughout North America for the past three decades—is transitioning into retirement. Who’s going to render all those beautiful images of ski areas from now on? (We’ll get to that.)

Since the early 1990s, Niehues has created 350-plus maps for ski areas. It’s impossible to estimate how many visual impressions of his work have occurred over the years,

but it’s safe to say that anyone who’s ever visited a ski area or looked at one online has seen a Niehues map.

He’s not a cartographer per se. In fact, he says that when cartography students contact him to find out what programs he uses, he replies: “the gray matter.”

“I map a mountain in an artistic way,” Niehues said. “I show it from above, as a bird might look at it, then I change the perspectives. That’s the artist part. A traditional cartographer works with hard facts. He works with exact measures. He makes sure the relationships are correct mathematically. I play with distance and proportions. I show a mountain’s slopes how a skier experiences it.”

Interestingly, Niehues, an intermediate skier who prefers corduroy to powder, has only skied at about 10 percent of the ski areas he has painted. He bases his maps on aerial photos, usually shot out of a small plane, ideally from a high enough elevation in which the camera is at a 45-degree angle to the mountain.

If a ski area wraps around a mountain, has front or back sides, or multiple sections that can’t be seen from a straight-on

The Future of Ski Area Mapping

As the world moves toward a more digital, mobile, app-based society, so is ski area mapping. According to Dave Gibson, founder and president of Propeller Media Works, which has developed interactive trail maps for a number of ski areas, the key is to provide a map that remains crisp when people zoom in.

“People want to see names of things, that the ticket window is here or the ski school is there,” said Gibson. “The downside is you lose the detail that a brush stroke provides. You can’t see every tree, but good digital artists can still render an attractive ski area.”

To create a trail map that won’t pixelate regardless of size, it must be produced using “vector artwork,” i.e., an image created through points and math that can be scaled, rather than scanning an image to make a bitmap file. With vector-based maps, instead of Photoshopping a new trail onto an existing map, you can add it digitally. Vector-based maps also allow ski areas to include grooming reports, lists of open and closed trails, where snow is being made, where the moguls are, and other info, then share it with guests, retail outlets, and lodging partners.

North Pole Design is another firm that has developed interactive platforms for ski areas by applying

photos, videos, and other elements to icons. It emphasizes the 3-D look of its maps. The company started with base areas maps but now makes first-timers’ guides, kids’ trail maps, safety messaging, and terrain park maps in addition to overall ski resort maps.

“The trend is away from top-down views to 3-D,” said Senan Gorman, chief creative guy at North Pole Design. “A ski area map needs to be customer-centric with good visual reference points. For example, when guests find the clock tower, they know where they are.”

Gorman characterizes himself as an old-school freehand illustrator who now uses a combination of Adobe Illustrator software, Google Earth, aerial photos, and ground photos in his mapmaking.

“Everything—the buildings, the trees, the trails—is on its own layer, which lends itself to easier updating,” he said. “If a resort puts in a new base lodge, I can add it without a full redesign. The 3-D aspect of the software can render mountains with interesting, Hollywood-like lighting or make it cartoon-like for kids.... A ski area map speaks to customers before they arrive, and it helps ease confusion when they get there.”—LDB

90-degree perspective, Niehues manipulates the elements to get all trails possible to run down the page. If they have to run up the page, he shadows them so there is no doubt as to which way they are descending. He meticulously paints each map using watercolors, in large part because he finds the medium the easiest to change when a map needs updating.

“I paint the best representation of a ski area on a sunny day with perfect snow,” Niehues said. “I resist over-exaggeration or caricatures, though I do exaggerate, edit, and distort to some degree to get the opposite side of slopes. The important element is that all runs seem to ski exactly as portrayed. I try to show the mountain as it really is to a skier. If you simply take a satellite image from Google Earth and then lay in the trails, they look much narrower and un-ski-able. My job is to re-proportion a trail to reflect how skiers feel on that run.”

Niehues learned his craft by apprenticing to another ski area mapmaking legend, Bill Brown. Trained as a graphic artist, Niehues looked up Brown in 1988 when he moved to Denver and needed income. “I was a struggling artist with

four kids,” Niehues recalled. “I had a job drawing displays for courtroom lawyers, but also I looked for freelance work. Bill happened to have an illustration due—of Mary Jane for Winter Park—and he asked me to do it. I didn’t sign it. Winter Park thought it was his.”

Brown informed the resort that the illustration was painted by Niehues, who then signed it, the first of many to come. Niehues has signed every one of his maps in a position near trails that would unlikely be covered up by copy blocks. His signature is both his calling card and his motivation to do the best he can on a project. “Bill always said, ‘Don’t think you can change a map once a client has it. It represents you for a long time. They’ll use it forever,’” Niehues said. “I took that to heart.”

Because an original trail map image can cost \$3,500 to \$15,000 depending on the size of the resort, whether it has lots of trees, and the complexity of its trail system, ski areas don’t often commission an entirely new map. A very complex ski mountain and base facilities takes anywhere from three weeks to a month to compose and paint but are designed ▶



Courtesy James Niehues

to withstand the test of time. “I used to fear I would paint myself out of the market,” said Niehues with a laugh. “Some of my very first maps are still in use 20-some years later.”

The first map Niehues did on his own was for Boreal, Calif., 28 years ago. “They called last year asking for the computer file,” he said. “I didn’t have it because in those first days I sent them the original and a transparency. Soon I would retain a transparency in my files and also retain the original. Today, most ski areas go in with a computer, year to year, to add a trail or a new building, but eventually they need a new [trail map].”

Niehues recently completed a new map for Breckenridge, Colo. In addition to ski area trail maps, he also has done regional maps for organizations such as chambers of commerce and images for National Park hiking maps. His retirement is really more of a “semi-retirement.” Instead of painstakingly rendering 12 to 20 trail maps per year, he plans to do one to five, leaving himself time to paint landscape oils—his first love as an artist and what led to his education in graphic design.

“Creating maps is in my blood,” he said. “A map must be rendered realistically so the viewer trusts it and connects

with it on some level. If it’s cartoonish or a lifeless mechanical image, it will get them down the hill, but they won’t believe in it.”

The map also serves as a source of ski area pride—a visually pleasing encapsulation of all the little nuances and characteristics that distinguish one area from another. “The map is the resort’s most often reflected-upon image,” Niehues said. “A photo of a skier on a slope could be anywhere, but a trail map does a lot to promote a ski area. People get on the Internet to check out the map, so it needs to portray the ski area well.”

We owe James Niehues a great debt of gratitude for presenting ski areas in all their wintery splendor over the years—and for inspiring us to plan, reminisce, and tell stories over beers and a well-worn trail map that more often than not was illustrated by him. ■

*After 16 years, Lisa Densmore Ballard finally updated her book, *Ski Faster! Guide to Racing and High Performance Skiing* (www.LisaDensmore.com). She visits 20-plus ski resorts each winter, hosting women’s and racing clinics and would be lost without a trail map.*

Modern Map Makers

Need a new map of your mountain? Here are some of the leading map providers working with ski resorts:

North Pole Design

www.northpoledesign.com

Contact: Senan Gorman

Specializes in overview maps, including mobile applications, for ski resorts, amusement and waterparks, golf resorts, towns, cities, etc. Emphasizes 3D approach to mapmaking, with clear zoom-in capability.

Propeller Media Works

www.propellermediaworks.com

Contact: Dave Gibson

Specializes in mobile-friendly interactive maps based on (digital) vector-based artwork that retains clear resolution regardless of size.

nxtConcepts

www.nxtconcepts.com

Contact: Samantha Rufo

Specializes in modernizing old ski area maps for print, digital, and interactive uses as part of a broader offering of marketing services.

Rad Smith

www.radsmithillustration.com

Resorts that prefer the old-school, hand-painted approach for their trail map may contact Rad Smith, a commercial artist specializing in technical illustration. Smith has apprenticed with James Niehues.

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