



# The Technological Turn: Skiing and Landscape Change in Vermont, 1930–1970

*Vermont's twentieth-century ski landscape was shaped by very real human choices about how best to use technology to overcome the demands of the state's natural environment as well as to better serve and profit from the nation's growing interest in recreation, tourist development, and winter sports.*

By BLAKE HARRISON

**O**n a January evening in 1934, a group of tired skiers from New York City sat around a table at the White Cupboard Inn in Woodstock, Vermont. As they replayed the day's activities and nursed their aching muscles, the topic of conversation turned to an inescapable reality of their sport: Without any form of mechanized uphill transport, they, like all skiers in the early 1930s, had to walk uphill before being able to ski back down. This uphill climb meant the loss of precious energy and precious hours of winter daylight, both of which might rather be devoted to the downhill run. So, with \$75 as an incentive, the guests at the White Cupboard challenged the inn's

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BLAKE HARRISON recently received a Ph.D. in geography from the University of Wisconsin–Madison. His dissertation, “Tourism and the Reworking of Rural Vermont, 1880s–1970s,” explores tourism and the construction of rural-landscape identity in Vermont. Harrison is an adjunct assistant professor of geography at Montana State University in Bozeman. Research for this article was funded by a 2001 Weston A. Cate, Jr. Research Fellowship from the Vermont Historical Society and an award from the New England Ski Museum in Franconia, N.H.

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owners to come up with a mechanical way to convey skiers uphill. The owners wasted little time in securing information on an obscure “rope tow” then in use on a small ski slope in Canada. With the help of a local inventor they managed to have their own \$500 rope tow up and running just a few weeks later on a hillside pasture on the nearby Gilbert farm. The tow was a modest contraption: Its 1,800 feet of continuous rope wound its way through a series of pulleys and was powered by an old Model T Ford. But as modest as Woodstock’s rope tow was, many have pointed to its opening as the birth of modern skiing, and to Woodstock as the “Cradle of Winter Sports.”<sup>1</sup> Although not all ski historians agree, there can be little doubt that what happened on Gilbert’s Hill in 1934 had monumental consequences for skiing and for the larger twentieth-century landscape of Vermont.<sup>2</sup>

This article explores connections between ski-related technologies such as rope tows and landscape change in mid-twentieth-century Vermont.<sup>3</sup> The broad historical-geographic perspective I adopt here differs from that of other scholars who have tended to explore technology’s role in ski history only in terms of its immediate impact on the sport itself.<sup>4</sup> By contrast, this work seeks to understand ski history by placing it within a wider discussion of technology and landscape change in Vermont. As the historian David Nye has asserted, all landscapes “are inseparable from the technologies that people have used to shape land and their vision.”<sup>5</sup> This has been particularly true in Vermont, where technologies associated with skiing such as trains, automobiles, rope tows, chairlifts, trail groomers, and snowmaking systems all transformed the spatial configuration of Vermont’s ski industry as well as Vermonters’ and visitors’ conceptions of their surrounding environments. It is important to mention at the outset, however, that ski technologies alone have not dictated Vermont’s ski or landscape histories. Machines, as Nye again reminds us, are not “autonomous” forces operating outside or beyond the reach of the societies in which they are developed and deployed.<sup>6</sup> Rather, Vermont’s twentieth-century ski landscape was shaped by very real human choices about how best to use technology to overcome the demands of the state’s natural environment, as well as to better serve and profit from the nation’s growing interest in recreation, tourist development, and winter sports.

To trace how this occurred, this analysis uses specific, geographical interpretations of “landscape.” As a traditional unit of analysis among historical and cultural geographers, the concept of landscape has had a long and often contested academic history.<sup>7</sup> In the broadest sense, landscapes are the visual scenes formed from the transformation of natural and cultural resources by human activity—or, as the geographer Michael

Conzen has suggested, landscapes are the “composite of the historical interaction between nature and human action.”<sup>8</sup> To the historical geographer, the study of past landscapes offers insights into not only their physical evolution, but also into the cultural meanings and values of those who created them.<sup>9</sup> To quote the geographer Peirce Lewis, landscapes can serve as “our unwitting autobiography, reflecting our tastes, our values, our aspirations, and even our fears in tangible, visible form.”<sup>10</sup> In Vermont, for instance, the state’s mid-century ski landscape developed within a national culture that placed a high premium on technology as well as on outdoor recreation and scenic rural landscapes. Ski industry officials deployed technologies to meet the challenges and recreational opportunities of the state’s physical landscape and to create an expansive and profitable ski industry in Vermont. That industry and the technologies that served it, I argue, centralized skiers, ski infrastructure, and capital investments on specific locations and, in the process, created new economic and social values for resources statewide. To be sure, changes in ski technologies between the 1940s and the 1960s altered the spatial dynamics of the state’s ski industry, but as the following pages suggest, the larger pattern of centralized skiing and the larger reinterpretation of resources continued well into the last decades of the twentieth century.

The first three sections of this article explore how these processes unfolded in mid-century Vermont by focusing first on trains and automobiles, then on ski lifts, and finally on snowmaking and trail grooming. It would be a mistake, however, to assume that everyone connected to these stories stood on common cultural ground or that everyone held the same opinions about ski-related technologies and their place within the Vermont landscape. Indeed, as recent works in historical and cultural geography suggest, cultures do not exist as neat, unified, or easily definable wholes. It is difficult, for example, to identify a specific Vermont culture, a tourist culture, or a culture of recreation with any degree of certainty or cohesion. Not all Vermonters shared the same opinions of outsiders, not all visitors to Vermont were avid skiers, not all recreationists shared the same interpretations of nature, and most importantly, not everyone shared the same opinions about the state’s technological ski landscapes or the directions in which it was headed. For most skiers that landscape was an essential and seemingly natural part of the ski experience. For ski-area owners and operators it was both an economic boon and a costly burden. And for local residents it was source of comedy, a source of economic opportunity, and a maddening challenge to the state’s preexisting ways of life. Vermont’s ski landscape must therefore be seen as a product not of a unified culture

but of a great diversity of social groups and of the social relations that existed between them. Any landscape, the geographer Richard Schein reminds us, is a “node” where a variety of different social groups intersect to create new physical environments that, in turn, reshape the ways in which those groups understand each other, their surroundings, and their own identities.<sup>11</sup>

By way of conclusion, the fourth part of this essay offers a very brief introduction to the social relations at work in this story. It focuses on the mid-century contrast between Vermont’s traditional image as a stable, timeless, rural refuge, and its newer reputation as an icon of modern tourist development and technological innovation. The ways in which ski-industry officials and promoters responded to that contrast, I argue, ultimately led to a new, socially constructed conception of rural Vermont—one where the tension between those who celebrated landscape stability and those who celebrated landscape change inspired many to re-think what it meant to be rural in twentieth-century Vermont.

#### GETTING THERE

When Woodstock’s first rope tow opened in 1934 Vermont’s reputation as a winter-sports destination was already established. Thanks to the state’s winter carnivals, to the promotional efforts of organizations such as the Dartmouth Outing Club and the Appalachian Mountain Club, and to the work of individual promoters and organizers such as Brattleboro’s indefatigable Fred Harris, the winter sports of tobogganing, snowshoeing, ski jumping, and downhill skiing had, for decades, been popular among locals and visitors alike. Prior to the 1930s Vermont’s nascent ski business remained confined to the state’s open pastures, logging roads, and hillside fields, and although largely noncommercial, it did generate limited amounts of revenue for services such as food, lodging, and transportation. By the early 1930s, that revenue had caught the attention of railroad-company officials eager to expand the seasonality of passenger markets. Tapping into this revenue stream, some railroad lines began running special “snow trains” from cities including Boston, New York, and Hartford to ski destinations across northern New England. Trains had long been important for Vermont’s summer tourist industry, but their service to skiing was an entirely new and deliberate attempt on the part of railroad officials to adapt an old technology to new seasonal uses and to new investment opportunities—a plan that must have seemed attractive in light of increased competition from automobiles. Some of New England’s snow trains ran as Sunday excursions only, while others set out on Friday evenings for more distant areas, dropping their passengers off on Saturday morning at ski centers in

the Berkshires, New Hampshire, and Vermont, and returning them home in time for a bleary-eyed workday on Monday. By the mid-1930s, tens of thousands of skiers were riding north from Boston and New York each winter. These passengers—typically young, urban, middle-class office workers eager for sociable, healthy, and challenging outdoor activities—helped build a popular reputation for skiing that carried the sport through the years of the Great Depression and that reinforced its potential for future development and profitability.<sup>12</sup>

The spread of snow trains into northern New England transformed the spatiality of Vermont's blossoming ski landscape. Prior to the 1930s, Vermont lacked organized "ski areas" in the sense that we understand them today. Instead, recreational skiing took place on an unorganized and dispersed network of logging roads and pastures, fitting unobtrusively into the state's preexisting rural structure. As one Vermonter recalled, Vermont's "farm and village hills were laced with ski runs." Local children skied for free wherever they pleased, while visitors traversed the state's hills and forests paying little, if anything, for the privilege.<sup>13</sup> By their very nature, however, railroad lines reversed this diffuse pattern of skiing by making possible the sport's centralization on or around established train stops such as Manchester, Brattleboro, Rutland, and Waterbury. In the process, they brought to these towns the promise of economic growth, setting off waves of private and public investment in future ski developments.

Some of that private investment came from ski clubs, local developers, and even railroad officials themselves, all of whom added to the ongoing centralization of skiing by cutting networks of trails on mountains across the state during the 1930s.<sup>14</sup> Public investment in skiing occurred through the work of the Civilian Conservation Corps (CCC) whose efforts as a federal, depression-era relief agency were instrumental in the development and maintenance of many of Vermont's early ski trails. Most of these trails were little more than narrow tracks through the forest, and although many were not serviced by lifts during the 1930s they helped to build a foundation for the development of future resorts such as Bromley and Ascutney. Moreover, these trail networks contributed to the continued success of snow trains during the late 1930s. The town of Stowe, located at the base of Mount Mansfield, became the state's most popular snow-train destination as well as the most important epicenter for Vermont's early trail developments. During the 1930s, the CCC cut a number of trails through the Mount Mansfield State Forest. Coupled with regular snow-train service to nearby Waterbury, these trails helped win Stowe the popular title as the "ski capital of the East."<sup>15</sup>

By facilitating Vermont's winter accessibility and by boosting the

success and development of the state's commercial ski industry, snow trains also contributed to a widespread reevaluation of the value, use, and meaning attached to certain natural resources. Snow, for example, was dubbed "white gold" by the popular magazine *Vermont Life*, and it quickly took on all the economic trappings of a "commodity that can be enjoyed or sold to advantage."<sup>16</sup> In addition, other ski-industry observers commented on a perceived change in the economic value of winter. As one journalist noted, Vermonters who once accepted winter weather with little more than "resignation and despair" now felt "more kindly towards the season their forefathers dreaded."<sup>17</sup> Others suggested that this reinterpretation of winter had social benefits extending far beyond economics alone. As Charles Edward Crane wrote in his landmark book *Winter in Vermont* (1941): "The greatest boon that skiing has brought to Vermont isn't the new winter visitors or the income from entertaining them, but the improved morale of our own people in a season which heretofore was regarded as a depressing one."<sup>18</sup>

Winter travel by train in Vermont lost ground in the years immediately following the Second World War as Americans embraced the automobile as an icon of American culture. The larger processes of centralization and consolidation set in motion by railroads, however, continued under the influence of the automobile, albeit in very different ways. By comparison to the limited number and fixed location of railroad lines and railroad stations, the ubiquity and versatility of roads in Vermont made it easier for developers to open new ski areas in places not serviced by railroads, thereby spreading the sport into new regions of the state. Rail service to many places along the central spine of the Green Mountains, for example, was limited in the 1930s, yet it was exactly here that skiers could find the state's best snowfall and most challenging terrain. Mid-century consolidation and improvements along Vermont's interior north-south artery, Route 100, helped give motorists access to the central Green Mountains, thereby making it safer for investors to open new resorts or to expand preexisting ones along this so-called "skier's highway."<sup>19</sup> By the time the state's interstate highway system was constructed in the 1960s, most of Vermont's major ski resorts were already in place. Vermont's interstates did, however, offer easier accessibility to existing resorts, and they did provide a significant boost to the opening of the Bolton Valley ski resort in the late 1960s.<sup>20</sup>

Of course, new ski resorts mean little if people are unable to get to them or are unable to find the automobile services they need once they arrive. Toward those ends, developers, investors, and state politicians created a new ensemble of gas stations, parking lots, roads, and maintenance infrastructure designed to serve the needs of skiers who drove to

the slopes. Among those needs, road construction, road improvement, and winter maintenance were particularly important. Unlike other tourist and recreational activities, skiing is at its best at precisely the time of year when road and travel conditions are at their worst—a fact that made winter maintenance a significant challenge for town and state officials. Even by the 1930s, skiers and ski managers were beginning to grumble that ski areas built off Vermont's main highways were inaccessible after storms.<sup>21</sup> To meet such challenges and to promote their own personal business needs, ski-industry officials and developers worked hard to acquire state-sponsored support for road improvements. In so doing, they made implicit pleas to Vermonters to accept that public investment in private ski development was, in fact, for the good of the entire state. Local and state officials responded to such logic by investing public money in new maintenance infrastructure and in new promotional campaigns designed to reassure visitors that, as one magazine article put it, "All of the major skiing areas in Vermont are located on State highways, which are kept well plowed and sanded throughout the winter months."<sup>22</sup> In addition to plowing and sanding, other needs included improving older roads, laying down pavement where it never had been before, building parking lots for ski areas, hotels, restaurants, and stores, and in some cases, constructing entirely new "access roads" to connect resorts to main highways. By the mid-1960s, the Vermont legislature had already spent about one million dollars for such access roads into ski areas including Jay Peak, Killington, Okemo, and Mount Snow.<sup>23</sup>

#### GOING UP

As important as transportation technologies are to the historical geography of Vermont skiing, trains and automobiles did not uniquely influence this sport, and in many ways their value relative to skiing was dependent upon coincident technological developments occurring out on the slopes themselves. Among these, ski lifts have had perhaps the greatest impact on the Vermont landscape. Since the 1930s, ski-area developers across the United States have installed a complex variety of ski lifts, many of which are still in use today, and all of which were used in Vermont following the Second World War. These lifts can be summarized in rough order according to their cost and degree of technological sophistication. Surface lifts such as rope tows, t-bars, j-sticks, and "poma" lifts pull skiers uphill with their skis on the ground, either by providing skiers with a continuous rope to hold onto, or by providing bars or platters against which skiers lean for support as they are pulled along. By contrast, chairlifts convey skiers uphill in chairs suspended along a cable held well above the surface by a series of towers. Between the 1940s

and 1960s, chairlifts seated either one or two passengers at a time, and they were commonly regarded as the most efficient and advanced method of moving skiers uphill. Finally, gondolas and tramways convey skiers uphill in enclosed cars capable of holding either a handful (in the case of gondolas) to as many as sixty or seventy passengers at a time. Although quite popular in the 1960s, gondolas were far less common in Vermont than surface lifts and chairlifts.<sup>24</sup>

Like trains and automobiles, Vermont's first rope tows helped transform the state's tourist landscape, in part by reinforcing the ongoing centralization of skiing at established ski areas. By the 1930s, Vermont's early rope tows were shaping this centralization in very specific ways. For instance, as one observer noted in 1935, New England's handful of new rope tows had already created a new ski-area dynamic in which organized networks of trails now clustered around their attendant tows.<sup>25</sup> These trail networks started from the tops of rope tows, fanned out to either side on their way down, and returned skiers directly to the bottom of the tow for another ride up—a pattern that made ski lifts the visual and experiential focal points for all uphill as well as downhill movement on the slopes. This spatial pattern is precisely what developed in the Woodstock area during the 1930s where four distinct ski areas, including Gilbert's Hill and the popular Suicide Six, soon sprouted on local hillsides. Each of Woodstock's ski areas owed its existence and organizational structure to its new rope tows and to the new willingness of visitors to pay about one dollar a day for their use.<sup>26</sup>

Vermont's early rope tows had a number of valuable attributes. Because they were small and low to the ground, rope tows were relatively easy and inexpensive to construct, placing them within the means of private ski clubs, individuals, and municipalities. Consequently, tows spread quickly, and in terms of total numbers, they remained the dominant form of uphill transport for skiers in Vermont throughout the 1930s and 1940s. By 1948, rope tows still outnumbered chairlifts and all other surface lifts among the state's fifty-four ski areas by seventy-nine to ten.<sup>27</sup> In addition, rope tows fit nicely into the state's early ski landscape by matching and reinforcing the expectations of many of Vermont's first skiers. In contrast to trail systems cut in forested, high-elevation terrain, such as the CCC trails on Mount Mansfield, ski areas organized around rope tows were often developed on the popular "connected open snow fields with varying degrees of slope" found in lower elevations and in farming towns like Woodstock.<sup>28</sup> The rising popularity of such ski areas prompted many local farmers and entrepreneurs to reinterpret the economic value of Vermont's agricultural landscape. By merging new seasonal demands for recreation with new technologies and



utilizing preexisting pastures, many Vermonters discovered an entirely new value system for farmland. In some cases, that value was supplemental to traditional agricultural production. Farmers, for example, ran and owned a number of Vermont's new ski areas in the 1930s, and by 1948, over ninety percent of Vermont's ski areas still remained under the management of local residents.<sup>29</sup>

Ski areas built around rope tows had spatial characteristics that differed from areas built in the 1940s and 1950s around higher-capacity surface lifts (such as t-bars and j-sticks) and around more technologically sophisticated single- and double-seated chairlifts. As these advanced ski-lift technologies fanned across the state's mountainsides, they helped spawn new trends in ski-area development that ultimately ushered in Vermont's modern, full-scale ski resorts. These resorts were larger, busier, more diversified, more financed, and more managed than anything that had come before. Moreover, the lifts that served these new resorts transformed not only the physical surface of Vermont's landscape, but even the relationship between skiers and the natural world through which they passed.

When the CCC and others first built high-elevation ski trails in Vermont, they surged ahead of the sport's capacity to service those trails with uphill transportation. For instance, although a rope tow was installed on Mansfield's lower slopes in 1936, the rough terrain and the long distances associated with the mountain's upper elevations placed many of its trails beyond the reach of a conventional tow. Instead, skiers had to walk to the top of Mansfield, and as a result, they could only look forward to two or three downhill runs per day. But as more and more skiers traveled to Mansfield throughout the 1930s, it became clear that the mountain needed chairlift service to its top, and that this service might, in fact, be profitable. The nation's first chairlift had recently been installed at Sun Valley in Idaho, and it seemed only logical for the "ski capital of the East" to follow suit and keep up with changing skier demands. The trick, however, was to find someone who could finance and maintain such a lift. The Mount Mansfield Ski Club had long assumed responsibility for providing many basic services to Stowe's visitors, but a modern chairlift was beyond their financial and organizational capacity. A solution was reached in the late 1930s when Roland Palmedo, a Wall Street banker and president of the Amateur Ski Club of New York, consolidated a group of about fifty investors and industrialists from companies such as Standard Oil and the Central Vermont Railroad into the new Mount Mansfield Lift Company. Designed to finance the construction of a chairlift, to manage it once it was running, and to collect profits earned from selling rides to its top, Palmedo's company

represented the arrival of a powerful new force in the state's ski industry: the outside investor capable of bringing to the sport the capital and skill necessary to manage large-scale resorts and to transform the state's landscape in ways designed to meet the needs of skiers and the logic of a market economy. Palmedo's company set right to work by enlisting the American Steel and Wire Company to construct the lift and by negotiating a right-of-way through the Mount Mansfield State Forest. By 1940 they had "the world's longest" lift up and running on Vermont's highest peak at a cost of \$100,000. At a mile and a quarter in length, the lift took about twelve minutes to reach the summit, and it had the capacity to transport two hundred riders per hour. The cost to use the lift was about a one dollar per ride, and by all accounts, it began paying for itself in a hurry.<sup>30</sup>

Although small, locally owned rope-tow operations would persist in Vermont for years to come, other developers at ski areas such as Pico and Bromley soon followed Palmedo's lead by investing in new j-sticks, t-bars, and chairlifts of their own. As they did so, ski-area developers used technologically advanced lifts to produce a variety of spatial changes to the ski geography of Vermont. The spatial organization of ski trails offers a good example. The length of any given ski lift dictates both the vertical and lateral reaches of the trails that emanate from it. This fact is particularly noticeable when you compare rope-tow ski areas to those built around chairlifts and surface lifts like t-bars and j-sticks. Because rope tows are tiring and difficult to hold onto, and because they required smooth, even terrain on which to move skiers up the mountain, they averaged only about 1,000 feet in length by 1948 and they serviced an average vertical drop of only 275 feet. Consequently, trails accessed by rope tows were short and confined in their ability to spread laterally on their way from the top of the mountain back to the base of the tow. By comparison to rope tows, chairlifts, j-sticks, and t-bars serviced an average vertical descent in 1948 of 968 feet, allowing for longer ski trails and for a greater lateral spreading of trails to either side of the lift. Most importantly, however, such lifts provided skiers with access to higher elevations. In 1948, ski areas with chairlifts, t-bars, or j-sticks started at an average elevation of 1,811 feet above sea level and traveled to an average of 3,045 feet. By contrast, ski areas organized around rope tows started at an average elevation of 968 feet and traveled only to an average of 1,478 feet. This meant that Vermont's more technologically sophisticated lifts allowed ski areas to move up from valley farms and hillside pastures into higher mountain environments where snow was more reliable and where trails were longer and steeper.<sup>31</sup>

This expansion of skiing also influenced the ways in which both visitors



*Ultra modern lift technologies, like this gondola at Sugarbush, carried skiers into higher mountain terrain and distributed the sport's impacts into entirely new ecosystems. "A scenic view showing Gondola at Sugarbush, Vermont." Postcard S.B. No 4. Forward's Color Productions, Manchester, Vt. (no date). Courtesy of Frank L. Forward.*

and locals understood and assigned values to higher-elevation terrain. For Vermonters, the state's highest ridgelines had long been fonts of beauty, sources of timber, and hindrances to transportation and communication. But for many locals and ski developers alike, they now represented a new source of economic opportunity, as land deals associated with the opening of new resorts mapped an entirely new set of recreational priorities and uses onto the state's highest terrain.<sup>32</sup> For skiers, the high-elevation spine of the Green Mountains represented an opportunity to ply their sport in adventurous wilderness environments unlike anything many of them had ever experienced before. One writer, for example, described Stowe's lift as being very much like "taking a rocket to the moon. Not that it moves fast, but it takes you up and up into what seems like another world . . . such as you might expect on another planet."<sup>33</sup> Skiing in high-elevation environments also forced participants to develop a new understanding of geography and a new familiarity with topography and map reading. Skiers, after all, had to figure out what kind of ski terrain they were getting into before hopping on the chairlift. The open slopes of smaller ski areas were often entirely visible from a single vantage point at the base of the rope tow,

but higher, longer slopes were not. These could only be interpreted by using a map. To address these needs, publicity agencies and individual resorts produced ski-area maps, snowfall maps, trail guides, and corresponding systems of signs and trail markers designed to guide skiers safely and efficiently to and from the state's ski lifts.<sup>34</sup>

On the other hand, surface lifts and chairlifts alike redefined skiers' relationships to the inescapable reality of gravity. As the environmental historian Richard White has noted, people have long developed an intimate understanding of the natural world by expending physical, muscular energy to match and overcome the energy of nature's resistance.<sup>35</sup> Similarly, early skiers in Vermont had no illusions about the powerful role that gravity and topography played in their sport. The skiers at the White Cupboard Inn who helped launch the first rope tow, for example, developed an intimate understanding of gravity's power in their tired muscles and in their frustration with having to climb uphill. Ski lifts, however, masked gravity's resistance to uphill movement, reduced the skier's knowledge of nature as derived through work, and eliminated what one journalist passed off as "the uninteresting part of skiing."<sup>36</sup> Chairlifts, in particular, gave skiers opportunities to sit down, to rest, and to save energy for a greater number of ski runs per day—all of which placed increased emphasis on the downhill experience, and accentuated the exhilarating push rather than the exhausting drag of gravity. Lifts became so commonplace as to transform skiers' landscape experiences entirely, setting in motion an enduring expectation that skiing should demand only as much human energy as needed for the downhill run. In this way, lifts helped set in motion a larger cultural transformation whereby technology came to mediate many Americans' recreational experiences during the second half of the twentieth century. Mechanical energy in the form of snowmobiles, motorboats, and all-terrain vehicles, for example, has replaced human energy for many outdoor enthusiasts, ultimately sparking debates over environmental issues and over the form and meaning of outdoor recreation in America.

Following a brief interruption during World War Two, new lift projects were soon underway again in the late 1940s and 1950s as skiers poured into Vermont and as fresh ski trails wound down the sides of mountains at new resorts including Mad River Glen, Mount Snow, and Madonna Mountain. The number of Vermont ski areas grew in this period from a handful in the early 1930s to 77 by 1970, while the total number of skier days (defined as "one skier, one day") rose from 400,000 in 1949 to over one million just ten years later. More skiers meant more riders for the state's lifts: In the 1946–1947 season, Mount Mansfield's lift carried 105,506 riders, a one-hundred-percent increase from the

previous year. And by 1953 skiers at Stowe were celebrating the chair's millionth rider.<sup>37</sup> Among resort developers and investors, numbers like these made clear the opportunity to expand; by the early 1960s, economists delighted in calling skiing "Vermont's fastest growing industry," and in pointing out the "ample evidence that the ever-accelerating pace of ski developments in the state continues at full force."<sup>38</sup> In 1961, state surveys counted 134 lifts (65 of which were rope tows) at 63 ski locations across the state. And by 1969, the state boasted 205 lifts (only 55 of which were rope tows) at 79 locations.<sup>39</sup> With such phenomenal growth in the numbers of lifts, it is perhaps not surprising that many observers attributed all of northern New England's postwar ski boom largely to advances in ski-lift technologies. *Travel* magazine, for one, argued that "probably most important" to this boom "has been mechanization—evolution of the modern ski lift. . . . More lifts mean more mountains transformed into winter playgrounds, easier ways to get to them, more vacationers captured by the lure of skiing, more lifts consequently needed, and so grows the cycle."<sup>40</sup>

Vermont's booming postwar ski industry brought with it an even greater financial, technological, and geographical consolidation of ski infrastructure. The state's original investors and farmer-managers did not typically bring a great deal of investment capital to the sport. As a consequence, the modest infrastructure associated with many small areas was not dramatically conspicuous nor was it on par with the work of other investors and developers such as Roland Palmedo. Longer, faster, and higher-capacity lifts, after all, cost a great deal of money to build and maintain, especially in comparison to rope tows. In 1948, for example, the state's total of seventy-nine rope tows cost operators only \$33,702 to run and maintain, while the state's ten other lifts produced a bill of \$44,868.<sup>41</sup> To cope with the rising costs and logistical challenges of running a ski area at Stowe, to cite only one example, investors in the late 1940s moved to consolidate the diverse business entities responsible for managing and providing services to the mountain's skiers. Mansfield's chairlift was owned and run by one group of investors, the area's ski school, ski patrol, and hotel services were owned or run by others, and land ownership on the mountain was divided between the state and a large lumber company, both of which received lease payments from the Mount Mansfield Lift Company. To make matters worse, it was beginning to look like the mountain needed another lift to handle the growing crowds. To impose order on this chaotic business environment, a millionaire insurance broker named Cornelius Starr joined forces with the head of Mansfield's popular ski school, Sepp Ruschp, to negotiate a series of deals that effectively consolidated the area's ski infrastructure

and management under a new entity known as the Mount Mansfield Company. Under Starr's watchful eye, Stowe evolved during the 1950s into a massive, integrated, and self-servicing resort. Additional lifts were added—including a much-celebrated double chairlift on the nearby Spruce Peak—new trails were built, and skiers were offered a host of improved and expanded services.<sup>42</sup>

At the same time that Starr and Ruschp were consolidating ski services at Mansfield, newer resorts were opening in other parts of Vermont with all the necessary services already integrated under one management team. During the 1950s and 1960s, these new full-scale resorts challenged the primacy of Stowe as Vermont's most popular ski area by touching off an era of technological expansion during which resort owners and operators found themselves locked into a competitive cycle that compelled them to build larger, more sophisticated, and more modern ski landscapes. Lift engineers from chairlift companies such as Hall, Poma, and Riblet pieced together ski lifts and gondolas at unprecedented rates during the 1950s and 1960s, and rising numbers of skiers from Massachusetts, Connecticut, New Jersey, and New York flocked northward to experience the new, technologically mediated experience now offered by Vermont's resorts. Perhaps the best example of this dramatic expansion and modernization occurred at southern Vermont's Mount Snow. When Mount Snow opened in 1954 on the pastures and wooded slopes of the former Snow family farm in West Dover, it did so not with a couple of rope tows or a small single chair, but with two double chairlifts, a large base lodge, and more lifts on the way. Under the direction of its president, Walt Schoenknecht, the resort grew rapidly in its first decade, adding layer upon layer of development and expansion until Mount Snow's nine chairlifts allowed its promoters to claim a lift capacity far outstripping its Vermont competitors. Schoenknecht's two-hundred-foot ice fountain, year-round outdoor swimming pool, space-age "sky cars" and bubble lifts, and his plans to create lift connections between mountains and villages across the Wilmington/Dover area, were all part of a larger effort to attract skiers and non-skiers alike, and to turn Mount Snow into a massive four-season resort.<sup>43</sup> By his efforts and the efforts of others like him, it had become clear to all industry observers that ski lifts were no longer a novelty but a powerful force for change in the state's larger landscape of tourism.

#### COMING DOWN

As Vermont's mid-century ski industry grew in size and popularity, resort owners and operators were forced to take steps designed, in the words of one member of the Mount Mansfield Ski Club, to "alleviate

the present overcrowding” that now plagued many of the state’s ski areas.<sup>44</sup> Indeed, the successful organization of Vermont’s ski industry was dependent not only on its new lift technologies, but on the existence of corresponding trail systems capable of funneling large numbers of skiers downhill in safe, interesting, and challenging ways. Throughout the 1940s and 1950s, developers met these needs by carving increasingly complex trail networks through the state’s forests, where skiers could stop, go, merge, and grant rights of way like automobile traffic in a regulated system of flow. Through this system, resort developers and trail designers created new ski experiences and new understandings among skiers of nature’s bounties and limitations relative to their sport. As ski promoter and trail builder A.W. Coleman reminded a gathering of engineers, “While [Vermont’s] terrain is naturally favorable for winter sports, certain developments must be made before the possibilities may be realized fully.” Reiterating similar points in an article for *Vermont Life*, Coleman added: “Although Nature provides the basic ingredients, her unaided efforts are not quite enough. . . . The hills are honeycombed with open fields, lumber roads, foot trails and pastures over which the snow drifts invitingly. The mountains, however, for the most part are heavily wooded and there the trails for skiing must be carefully designed and laboriously cleared.”<sup>45</sup>

Sentiments like these suggest a recognition among trail builders of the need for a new logic of landscape design—one intended to manage crowds, to shape skiers’ experiences, and to impose a new economic order on the state’s forested and mountain environments. To meet these objectives, ski-trail developers produced scores of articles and manuals from the 1930s onward detailing trail-construction techniques and proper trail dimensions.<sup>46</sup> Indeed, reshaping Vermont’s hillsides to meet the logic of trail design required significant planning and a judicious use of technological force. The most outlandish proposal came from Walt Schoenknecht, who publicly lobbied the Atomic Energy Commission for the peacetime use of a small atomic bomb to enlarge and improve his mountain’s skiable terrain.<sup>47</sup> Far more realistic and common, however, was the technological application of what *Vermont Life* described as “dynamite, bulldozers, and thousands of man hours of hard work.”<sup>48</sup> Perhaps the best example is found in the work of Fred Pabst at Bromley Mountain. As heir to the Pabst brewing fortune of Milwaukee, Wisconsin, Fred Pabst brought influential outside capital to the state, as well as a powerful promotional campaign that made him Vermont’s best-known dynamiting trailblazer. Because of earlier efforts by the CCC and private trail builders, Bromley Mountain was already laced with a small network of ski trails by the time Pabst began developing a massive new



*The straight line of ski lifts and the clusters of ski trails on Vermont mountains like this at Pico transformed not only the nature of skiing, but the visible form of Vermont's rural landscape. "Aerial view of Pico Peak Ski Area. On U.S. Route 4, 9 miles east of Rutland, Vermont." Postcard VT732, Forward's Color Productions (no date). Courtesy of Frank L. Forward.*

network in 1938. Here at Bromley, Pabst boasted, novices and experts alike could fan out over 1,000 acres of skiable terrain, all of which was crisscrossed by ten wide, diverse, and well-sculpted slopes. Indeed, one writer claimed of Bromley, it was "possible to ski . . . all weekend without covering the same areas twice."<sup>49</sup>

Pabst and other ski-industry promoters were quick to point out that high-mountain trail systems moved skiing into elevations with more reliable snowfall, thereby silencing the "complaint on the part of the skier that Vermont has a short season."<sup>50</sup> But despite predictable climatic gradients across elevation and latitude, and despite assurances about the reliability of snowfall in the often-cited "120-inch snow-belt" along the crest of the Green Mountains, none of Vermont's ski areas has ever been immune from drought or warm winter temperatures. For example, one study conducted after the winter of 1937–1938 found some Vermont ski areas reporting as much as 105 days of good skiing, while others could claim only ten. Statewide, the average number of skiing days in December of 1937 was eleven, and in February of 1938, only nine and a half.<sup>51</sup> From the standpoint of building a reliable, profitable ski industry in Vermont, these were not entirely encouraging numbers.



Ideally, what industry officials needed were ways to match unpredictable variations in the weather to the predictable periods of high skier demand during winter holidays and weekends. It was easy to forget about bad winters when the snow was good, but when slopes lay bare and brown during weekends or through the traditionally busy Christmas season, people who depended on skiing for their livelihood began getting nervous.

If Vermont's owners and operators during the 1930s and 1940s remained at the mercy of the weather, they could at least take measures designed to husband snow by making the most of what they did have, or by making snow last as long as possible. One way to do so was through trail design, and here again, Pabst led the way. Because many of Bromley's trails faced directly south, they were exposed to an intensified degree of solar radiation—a fact that placed Pabst at an even greater risk to lose his most precious commodity when temperatures rose to near the melting point or when the sun rose higher in the sky during late February and March. In an effort to mitigate the effects of this south-facing slope, Pabst developed a program of meticulous trail maintenance designed to allow Bromley to open its trails with only a few inches of snow cover. As Pabst described it, "The idea was to grade all our skiing areas—take out the rocks, stumps, and everything else that would get in the way—so a minimum of snow would cover everything." In addition, he planted a mat of grasses such as redtop and timothy that both smoothed the surface and provided a harvestable commodity during the summer. As a result, in an era when most ski trails required at least ten inches of snow for safe skiing, Pabst claimed to have gotten his mountain "smoothed out so thoroughly that four inches—just four little inches—of packed snow would cover it completely."<sup>52</sup>

Other ways to husband snow depended less on trail design, and more on using grooming, crust-breaking, and snow-packing technologies to increase the longevity, predictability, and safety of snow-covered trails. The process of packing fresh snowfalls not only makes skiing easier, it also makes snow cover denser, which in turn decreases the rate of snow-melt by reducing air circulation through the snow. Vermont's ski-area operators had been packing their trails for years: Even as far back as the 1930s, for example, local kids had sidestepped trails at Woodstock's Suicide Six in exchange for free skiing.<sup>53</sup> But by the 1950s, resorts had begun adopting a series of ever-more complex grooming technologies designed to "cultivate" snow for greater longevity. With origins in agricultural machinery and in World War Two-era snow-transport vehicles, early groomers (or "snow cats") were little more than tractors mounted on tank treads. Newer models developed in the 1950s and 1960s, however,

added increased power, mobility, and stability, as did a host of front-end plows and pull-behind attachments designed to push, pulverize, grind, smooth, and otherwise pamper the snow surface. A quick scan through any trade journal or ski-resort publication from the 1960s reveals a tremendous number of advertisements and articles praising the benefits of grooming equipment for skiers and resort owners alike. Machines such as the “Tucker Sno-cat,” for example, provided “safer, better-groomed, longer-lasting ski slopes,” while attachments like the Spryte “hydraulic mogul cutter” leveled “unwanted mounds of hard snow for smooth follow up packing.”<sup>54</sup>

By the 1960s, a rising number of machines prowled Vermont’s slopes by day and night, breaking the forested winter silence with the roar of their engines and shaping and reshaping an ephemeral snow surface to meet the changing demands of nature and skiers alike. In doing so, the state’s landscape of manicured ski slopes transformed skiers’ relationships to their sport. Groomers standardized snow surfaces, making it easier for skiers to navigate the downhill run. They increased the number of skier days by packing snow, by minimizing hazardous snow conditions, and by redistributing snow from drifted areas to bare patches. In these ways, grooming technologies raised skiers’ expectation about the quality of the snow surface, which in turn transformed the logistics of ski-area management by saddling owners and operators with the added costs and managerial challenges of planning for new employees and new types of equipment. As in the case of ski lifts, owners and operators were now forced to expand their grooming fleets and capital expenditures for trail maintenance to meet changing skier expectations and the expanding technological scope of the sport.

Although grooming technologies increased snow’s longevity and improved the reliability and quality of snow surfaces, they did nothing to address the fact that a snowless winter or a strong thaw could lead to seasonal or even permanent financial ruin for Vermont’s resort owners and operators. As the numbers of skiers in Vermont increased and as levels of capital investment in resorts grew during the 1940s and early 1950s, ski-industry officials began looking for means of climate control that would guard more decisively against high points in the annual temperature curve and their corresponding low points in the yearly profit curve. Starting in the early 1950s, many turned to the production of “artificial snow” to control precipitation and to stockpile snow as insurance against Vermont’s inevitable wintertime warm spells.<sup>55</sup> Credit for some of New England’s early “snowmaking” experiments goes to Walt Schoenknecht, who, before opening Mount Snow, used crushed ice in 1950 to cover trails at his small ski area in Connecticut.<sup>56</sup> The technique

was costly and not very effective, but it met with enough success to whet the appetites of others with an interest in artificial snow. To meet their needs, manufacturing and agricultural engineering companies in Connecticut and Massachusetts quickly began producing more advanced and more cost-effective snowmaking systems. These systems used pipes, special nozzles, and air compressors to spray a fine mist into the air, which, under the right temperatures, froze into “snow” on its way back to the ground. Thanks to their efforts, Schoenknecht had a new, \$25,000 snowmaking system in place by 1951 that was capable of producing up to an inch of snow coverage per hour of operation. Other resort owners were soon to follow.<sup>57</sup>

Snowmaking technology operates on essentially the same principles as irrigation technology, except that snowmaking systems must move water over terrain far more rugged and varied than the average farm field. Such systems require networks of permanent piping, movable hoses and nozzles (or “snow guns”), and large air compressors capable of pumping water up and across hills. They require reliable water sources—which in many cases meant the construction of new reservoirs and the diversion of streams in Vermont—and they require extra staff to move or adjust the angle of snow guns periodically and to smooth, redistribute, and groom piles of new snow. All of this means that snowmaking systems are not cheap to install and maintain, a fact that prevented many resort officials in Vermont from installing them as quickly as one might expect. But against a backdrop of investment protection, growing demands among skiers for reliable snow surfaces, and enticing trade-journal advertising campaigns, some resort owners in Vermont did begin installing systems as early as the mid to late 1950s. Mount Ascutney’s early pioneers in snowmaking had a system in operation by 1957 capable of producing an inch of snow per hour over 2,000 square feet of mountain terrain.<sup>58</sup> Other resorts in southern Vermont such as Stratton and Mount Snow started small, but greatly expanded their systems in early 1965 after a debilitating drought cut into crucial holiday-season profits.<sup>59</sup>

Snowmaking’s popularity soon gained ground across Vermont amidst a host of other gimmicky experiments, snow alternatives, and off-season skiing that included everything from special skis for grass skiing to covering trails and practice slopes with sand, wood chips, Styrofoam pellets, skiable plastic sheeting, and even cornflakes.<sup>60</sup> By the late 1960s, resorts such as Sugarbush and Stratton could advertise snowmaking coverage for a mile or two of trails, while Bromley, with its south-facing slopes, had installed coverage for 77 percent of its skiable terrain. As owners and operators expanded snowmaking systems at Vermont’s resorts, often by annual increments of a trail or two at a time, they



*Even on clear, sunny days, clouds of precipitation from high-pressure “snow guns” like these at Killington can strategically blanket Vermont’s mountain trails. Loud and visible at great distances, snowmaking creates a sensory landscape that reaches far beyond the slopes themselves. Photograph by Bob Perry. Used by permission of the estate of Bob Perry, courtesy of Special Collections, Bailey/Howe Library, University of Vermont, Burlington, Vt.*

imposed a new technological order on Vermont’s mountain environment, hydrologic cycle, and climatic patterns. In this way, snowmaking technologies created a new sense of reliability and control in the state’s ski industry: “Modern snowmaking at many resorts,” one brochure claimed in 1969, “assures every skier delightful skiing.”<sup>61</sup> This new sense of climatic immunity made it possible for skiers to plan vacations farther in advance, and allowed resort owners to predict future profits and expenditures with greater certainty by enabling them to open earlier in the season, to stay open longer, and to guard against nature’s uncooperative downturns.

#### AN ENSEMBLE AND AN IMAGE

Vermont’s snowmaking systems were put to their biggest test during the warm and snowless winter of 1979–1980 when many resorts had

nothing to offer skiers but artificial snow. Snowmaking's success that year in staving off financial ruin for many resort owners increased its popularity, and prompted a corresponding increase in the demand for and economic value of water in Vermont. Total water usage varies by the size and type of snowmaking systems, but most systems by the early 1970s required about fifty to one hundred gallons per minute, per snow gun.<sup>62</sup> With some resorts running dozens of snow guns at a time, resort owners came under new pressures to control the source, storage, and distribution of water—a fact that ultimately produced a number of bitter environmental conflicts during the 1980s and 1990s at resorts including Mount Snow, Sugarbush, and Killington. On one side of the fence, scientists, environmentalists, and local activists charged that the hydrologic restructuring required by snowmaking damaged the integrity of local ecosystems. On the other side, industry officials argued that snowmaking was essential to the survival of the ski industry, which by extension was beneficial for the state as a whole.<sup>63</sup>

These conflicting interpretations of the environmental impacts of snowmaking call to mind two important points about ski-related technologies and landscape change in Vermont. First is the degree to which landscape changes associated with skiing grew beyond the property lines of Vermont's immediate ski areas. As the sport grew in popularity, ski-related infrastructure such as parking lots, roads, hotels, restaurants, shopping facilities, and vacation-home developments soon dotted many towns statewide, producing what the geographer Karl Raitz has referred to as a sports-landscape "ensemble."<sup>64</sup> Some industry observers were quick to trace the genesis of this broad ensemble back to the technologies that served the sport. Reflecting on ski developments in 1970, the popular Vermont author and historian Ralph Nading Hill attributed a great diversity of changes to the state's ski lifts:

Thus it came to pass that at the foot of the ski tows were constructed great parking lots for the cars that brought the people to engage in their struggle against gravity. . . . And around the ski tows grew clusters of buildings to feed and amuse these people, and on the roads near these tows arose lounges, chalets, A-frame cottages and every manner of structure where these thousands could rest and dress their wounds between campaigns; and in the stores of the towns near these tows was piled apparel of every description and paraphernalia to bind the feet of the thousands to their boards. And thus, a great industry, where a few decades before there had been none, was born in the mountains.<sup>65</sup>

As Hill's quote suggests, many of the resources associated with this ski-landscape ensemble were devoted to servicing basic needs like food and shelter. The number of hotels and ski lodges in Vermont increased

by two hundred percent during the 1950s.<sup>66</sup> In Stowe alone, heavy investments in lodging brought the town's total number of beds by 1951 to 14,000.<sup>67</sup> This service-sector expansion had dramatic consequences for other Vermont towns such as Wilmington and Dover, where ski lodges and other ski-related businesses multiplied dramatically during the 1950s. "Sure, Wilmington was a nice enough town [before the 1950s]," one journalist wrote in *Yankee* magazine, "but let's face it, nothing much happened there." By 1958, however, all that had changed as "ski lodges, restaurants, ski shops and dance halls sprang up like magic. You had a hard time parking your car on the main street of the town and you had to step lively to avoid being run over. Wilmington had changed!"<sup>68</sup> Vacation-home developments increased dramatically as well, particularly during the 1960s. Property values rose in resort towns such as Stowe, Ludlow, Wilmington, and Dover, where many farmers cashed in on the new economic value of land by selling property to developers who, in turn, built thousands of second homes statewide, often with little regard for their impacts on the environment or the social fabric of pre-existing communities.<sup>69</sup>

Second, the extensive reach of this ski-landscape ensemble drew a diversity of groups and individuals into close contact with one another, sparking new sets of social relations and new debates about the future of Vermont's rural landscape. This diversity is perhaps best revealed by exploring mid-century changes to Vermont's popular representation as a rural refuge from the uncertainty and instability that seemed to plague the rest of the nation. Since the late nineteenth century, Vermont had served as an important national icon for American rural identity. Scenes of white-steeped villages set in pastoral surroundings, for instance, had long been popular symbols of America's pre-industrial heritage, carrying with them, in geographer Donald Meinig's words, "connotations of continuity . . . of stability, quiet prosperity, cohesion and intimacy."<sup>70</sup> By the early years of the twentieth century, sentimentalized rural scenes of winter sleigh rides and snow on village greens had become standard images for tourist promotions that depicted Vermont as unspoiled by contemporary change. Indeed, for many Americans, Vermont's seemingly stable and timeless landscape was what they envisioned when they heard the word "rural."<sup>71</sup>

Mid-century promoters and ski-industry officials, however, transformed representations such as these by introducing modern resources and modern technologies to the state's traditional rural mix: Popular birds-eye shots of ski resorts and the now ubiquitous trail map featured arrow-straight lift lines thrusting upwards amidst curving trails and contoured mountain terrain; electric power lines unwound against the sky, providing

electricity for night skiing and for ever more powerful lift motors; new work roads were hewn across mountain faces, granting access for crews of mechanics and engineers; and new maintenance shops, storage buildings, and salvage yards now dotted the state's resort landscape. By the 1950s and 1960s, images of change associated with space-age lifts, colorful lodges, and snow-irrigated mountainsides had become powerful new tools for drawing visitors to Vermont and for creating a public image that emphasized innovation and technological change more than quiet pastoral charm. This contrast was not lost on contemporary observers, such as one who noted the differences between Vermont's new ski landscape and the traditional "Currier and Ives reproduction of the old-timey, happy agrarian life."<sup>72</sup> In reality, owners and operators were not necessarily creating radically new and innovative technologies; cable transport and irrigation systems were by no means new in the United States. But the ways in which they deployed these technologies and the landscapes they produced in the process were indeed new for Vermont, especially when viewed in comparison to the state's more traditional iconography. If developments at places such as Mount Snow seemed "strikingly modern" to some, or like something "out of the next century" to others, that was largely because they stood in such sharp contrast to the rural stability that to many seemed the very definition of Vermont.<sup>73</sup>

Not everyone shared the same interpretation of Vermont's changing public image. As the 1960s progressed, new attitudes toward change emerged, as did new social conflicts pitting environmentalists against developers, locals against outsiders, and even tourists against tourists or locals against locals. For example, as more and more farms gave way to new ski-landscape ensembles, many residents began to worry that the state's reputation for innovation and modern development had fallen terribly out of step with its older reputation for quiet rural stability and scenic beauty. To be sure, many welcomed the jobs and money offered by the growth of skiing: Even as early as 1948, 83 percent of every ski dollar was spent not on lift tickets, but on needs such as transportation, equipment, entertainment, food, and lodging.<sup>74</sup> Other residents, however, were less inclined to celebrate the state's technologically reordered landscape. Although the construction of Vermont's ski landscape was a boon to some, it also represented the passing of older economic and social structures as many residents were forced to make the transition from an agrarian to a service-centered way of life. Some resented such changes, bemoaning the loss of farmland, the growing crowds on local roads, the unfamiliar faces in local stores, and the increased crime levels and tax rates that followed skiers into the state. Still others

cursed ski trails as scars on the state's hillsides and cursed the aesthetic and environmental impacts of rapid development on towns and ecosystems statewide.<sup>75</sup> Opinions differed among visitors as well. For many, Vermont's iconography of farms, villages, and covered bridges remained a primary reason for visiting the state. This was true even among skiers, many of whom wanted technological resorts to remain surrounded by vestiges of a rural American past. Some skiers scorned the carnival-like displays found at resorts such as Mount Snow, citing gimmicky promotions as a dilution of the sport's purity. On a national level, others targeted ski lifts as a perversion of the "noble challenge" of the mountains. "With the loss of this quality," one ski journalist wrote, "skiing has ceased to give us the full sense of accomplishment it once did." Instead, ski lifts had "obliterated the skier's only chance to fathom by his striving the greatness of the mountains and to become aware of the minuteness of himself."<sup>76</sup>

Ski-industry officials and tourist promoters recognized the value of both the old and the new in mid-century Vermont, not merely for attracting tourists with both modern and nostalgic sensibilities, but for winning the hearts and minds of local residents as well. One approach to reconciling diverse perspectives on skiing, technology, and landscape



*With the white village of West Dover in the foreground and the modern trails of Mount Snow in the background, scenes like this one reinforced a sense of compatibility between skiing and traditional rural iconography in Vermont. "Mount Snow and West Dover." Photograph by Lewis R. Brown (no date). Courtesy of Dover Free Library, Dover, Vt.*



change was to create a public reputation for Vermont that merged and balanced all the best of the past, present, and future into a new, socially constructed conception of the state's rural landscape. This merging of old and new, of rural stability and rural change, turned up in marketing and promotional efforts even as early as 1937, when one writer remarked: "Woodstock is the village which probably more than any other in Vermont has reverently preserved both the physical setting and the spiritual flavor of an earlier day. Long one of the favorite summer resorts in the State and recently a center of winter sports development, Woodstock has nevertheless retained the somewhat astringent quality of its native personality."<sup>77</sup> By the 1950s similar representations were becoming more common as the state's ski-landscape ensemble spread and as older images of quiet rural pastoralism came into contact with newer scenes of landscape change. In addition to modern accommodations and access to some of the nation's best and most advanced skiing, owners of ski lodges promised visitors an opportunity to connect with a sense of unspoiled rural charm. The owners of the Green Mountain Inn at Stowe, for example, promised "the atmosphere and charm of an 1833 New England Inn," while in Wilmington and Dover, Mount Snow skiers could expect to find accommodations among the region's "Valley of the Inns," where lodging and dining opportunities were described as everything from rustic, charming, authentic, traditional, and historic on the one hand to modernized, gourmet, dramatic, unique, and exotic on the other.<sup>78</sup> Local boarding houses also promised "a rich nostalgic experience" for visitors "who enjoy skiing hard, smelling bread baking in a wood-fired oven, and pausing over the iron grating above the furnace to let the hot air dry their damp clothes."<sup>79</sup> And at Stowe, where ski developments had left virtually no stone unturned, visitors were assured that they could "still get the feeling of finding yourself in a clean-scrubbed, church-spired New England village."<sup>80</sup> For many then, Old Vermont's famed "way of life" and New Vermont's mantra of modern ski development mixed and mingled into what seemed to be an entirely logical and natural assemblage of disparate resources. "Snow lies deep in the winter meadows and banks the village sidewalks," one journalist wrote. "As if it had been planned that way from the start, the pastoral valleys and the tiny settlements give way at intervals to the white squiggle of ski runs dropping down from the peaks and to the straight, white lines of 67 ski lifts rising up to the rime frost and the dazzling sparkle of trees on the summits."<sup>81</sup>

## CONCLUSION

Despite all their efforts to merge old and new into a successful new image for rural Vermont, ski-industry officials could escape neither the

physical realities of change in the state nor the growing number of social conflicts erupting among environmentalists, developers, locals, and visitors. Indeed, by the late 1960s many towns were in a state of crisis as they contended with rapid economic changes, greater demands for public services, quarrels among neighbors, unscrupulous developers, unsightly growth, erosion, and raw sewage in local streams. For many, it was becoming clear that the idea of reconciliation between those who favored the more traditional character of rural Vermont and those who favored the fast-paced dynamism of ski-related growth was untenable, and that legislative steps would be required to determine the future of landscape change in Vermont. Acting within a national climate of roadside beautification, historic preservation, and the emerging environmental movement, Vermonters passed a variety of state and local land-use legislation during the late 1960s and early 1970s, the centerpiece of which was the state's famous and contentious "Act 250." As the nation's strongest state-level environmental legislation, Act 250 forced all land-use projects and developments of over ten acres through a series of environmental reviews designed to monitor and control their direction, pace, and environmental effects. Although Act 250 did not target ski-related growth alone, and although it often has been criticized as an anti-growth measure, its goal was never to put a definitive end to the changes associated with skiing or other developments in Vermont. Rather, Act 250 was intended to reconcile the urge to protect and maintain rural-landscape stability with the urge to develop, promote change, and create a new, legislatively dictated vision of what it meant to be rural in mid-century Vermont.<sup>82</sup>

Whatever one's perspective on Act 250, its initial passage underscores the pace and degree of landscape change associated with skiing and ski-related technologies. Technologies such as trains and automobiles had made it easier for people to get to Vermont, to develop new resorts, and to redefine the state's winter resources as valuable recreational assets. Ski lifts expanded the sport into new regions of the state, transformed the spatiality of ski trails, boomed ski-area development, and restructured skiers' conceptions of nature and work relative to their sport. Grooming and snowmaking technologies standardized ski surfaces, forced owners into a new web of technological development, and removed a degree of uncertainty from the sport by lengthening the ski season and by diminishing the hassles of an uncooperative natural environment. Each of these technologies centralized skier activity, development, and investment on structured ski resorts whose growing numbers produced a wider sports-landscape ensemble and whose forms and representations were shaped by a diversity of social groups in Vermont.

All that was challenged in the early 1970s, however, when a “new” sport emerged on the ski scene that placed itself in direct opposition to some of the basic assumptions and patterns associated with technology and tourism in Vermont. While millions of skiers rode up Vermont’s chairlifts each year and skied back down on artificial snow, a growing number of others began taking up cross-country skiing, often within a largely decentralized network of open fields, forested hills, and country lanes. Cross-country skiing, of course, had been around a lot longer than modern downhill skiing, but its rediscovery in the late 1960s and early 1970s provides a glimpse into many tourists’ feelings about technology, skiing, and landscape change in Vermont. For those to whom downhill skiing had become too technical, too expensive, or simply too big for its own good, and for those to whom the new winter sport of snowmobiling was an offensive technological juggernaut, cross-country skiing offered an inexpensive escape to an entirely different geography: one of quiet solitude, of communion with nature, and of the personal challenge of using one’s own energy to propel oneself through space. By leaving behind the bustle of downhill skiing many cross-country skiers placed themselves in opposition to a larger landscape of modernity—the “giant lift complexes” and the “subway-rush-hour lift lines,” as one author put it—and in support of the peaceful rural landscapes that people had long sought in Vermont.<sup>83</sup> What they resisted was a winter-sports landscape of technology, and as one cross-country enthusiast put it, the “machine-dominated life here in America.”<sup>84</sup> And what they produced were new sets of social relations between winter-sports enthusiasts, as well as entirely new ways to organize, experience, and assign meaning to the rural landscape of Vermont. On the surface, these patterns differed from those produced by downhill skiing, but at their core, they reflected a continuing contrast between those who favored more traditional patterns of land use and those who embraced modern patterns of technological change. However it was expressed, that contrast became a defining feature of what it meant to be rural in mid-century Vermont.

#### NOTES

<sup>1</sup> On the history of the Woodstock tow, see Ellen Lesser, *America’s First Ski Tow, Commemorative Album* (South Pomfret, Vt.: Teago Publishing Company, 1983), 11–13; Charles Edward Crane, *Winter in Vermont* (New York: Alfred A. Knopf, 1941), 201–210; John McDill, “Woodstock: Cradle of Winter Sports,” *Vermont Life* 2 (Winter 1947–1948): 19. \$75 is roughly equivalent to \$1,000 in today’s economy.

<sup>2</sup> Vermonters have long been proud to claim Woodstock’s tow as the nation’s first. However, recent scholarship published by the International Skiing History Association has challenged this claim, citing the existence of a similar tow in Truckee, California during the 1920s. See Bill Berry, “Eyewitness to History: The First American Tows,” *Snow News* 4 (August 1992): 6. One of the

society's founding members has even angrily chastised Vermonters for continuing to believe in the Woodstock story. See Robert O. Baumrucker to the Vermont Historical Society, 29 September 1992, in the "Ski Tow Controversy File" at the Woodstock Historical Society, Woodstock, Vermont.

<sup>3</sup> Mid-twentieth-century tourism in Vermont has not yet received the same scholarly attention as nineteenth- and early-twentieth-century tourism. For examples of works that do explore twentieth-century tourism and skiing in Vermont, see Jan Albers, *Hands on the Land: A History of the Vermont Landscape* (Cambridge, Mass.: The MIT Press, 2000); Thomas A. Rumney, "The Development of a Winter Sports Landscape in Vermont: Late Nineteenth and Early Twentieth Centuries," *Proceedings: New England-St. Lawrence Valley Geographical Society* 25 (1995): 198–201; Joe Sherman, *Fast Track on a Dirt Road: Vermont Transformed, 1945–1990* (Woodstock, Vt.: The Countryman Press, Inc., 1991); Perry Merrill, *Vermont Skiing: A Brief History of Downhill and Cross Country Skiing* (Montpelier, Vt.: By the Author, 1987); Harold Meeks, *Time and Change in Vermont: A Human Geography* (Chester, Conn.: The Globe Pequot Press, 1986). For a specific look at ski landscapes in Vermont, see Blake Harrison, "Tracks Across Vermont: Vermont Life and the Landscape of Skiing, 1946–1970," *Journal of Sport History* 28 (Summer 2001): 253–270. On regional and American ski history, see Hal Rothman, *Devil's Bargains: Tourism in the Twentieth Century American West* (Lawrence: University Press of Kansas, 1998); E. John B. Allen, *From Skisport to Skiing: One Hundred Years of an American Sport, 1840–1940* (Amherst: University of Massachusetts Press, 1993); E. John B. Allen, *New England Skiing, 1870–1940* (Charleston, S.C.: Arcadia Publishing, 1997); Stan Cohen, *A Pictorial History of Downhill Skiing* (Missoula, Mont.: Pictorial Histories Publishing Company, Inc., 1985).

<sup>4</sup> For works that explore skiing and technology, see Allen, *From Skisport to Skiing*; Cohen, *A Pictorial History of Downhill Skiing*; LeRoy J. Dresbeck, "The Ski: Its History and Historiography," *Technology and Culture* 8 (October 1967): 467–479. Also see Leonard S. Reich, "Ski-Dogs, Pol-Cats, and the Mechanization of Winter," *Technology and Culture* 40 (July 1999): 484–516, and Jeffrey R. Leich, "Technology of Alpine Ski Resorts: Lifts, Snowmaking and Grooming, Excerpted from the Museum's 2001 Exhibit, Part One," *New England Ski Museum Newsletter* Issue 55 (Winter 2002): 4–33; Jeffrey R. Leich, "Technology of Alpine Ski Resorts: Lifts, Snowmaking and Grooming, Excerpted from the Museum's 2001 Exhibit, Part Two," *New England Ski Museum Newsletter* Issue 56 (Spring 2002): 4–31.

Historical and cultural geographers have been slow to explore ski landscapes. They have, however, produced a great deal of work on other tourist landscapes. For examples, see Steven Hoelscher, *Heritage on Stage: The Invention of Ethnic Place in America's Little Switzerland* (Madison: University of Wisconsin Press, 1998); John Towner, *An Historical Geography of Recreation and Tourism in the Western World, 1540–1940* (New York: John Wiley, 1996); Patrick McGreevy, *Imagining Niagara: The Meaning and Making of Niagara Falls* (Amherst: University of Massachusetts Press, 1994); John Jakle, *The Tourist: Travel in Twentieth-Century North America* (Lincoln: University of Nebraska Press, 1985).

<sup>5</sup> David Nye, "Technologies of Landscape," in *Technologies of Landscape: From Reaping to Recycling*, ed. David Nye (Amherst: University of Massachusetts Press, 1999), 3.

<sup>6</sup> David E. Nye, *Narratives and Spaces: Technology and the Construction of American Culture* (New York: Columbia University Press, 1997), 2.

<sup>7</sup> For a concise and challenging introductory overview of this history see Don Mitchell, *Cultural Geography: A Critical Introduction* (New York: Blackwell Publishers, 2000). For other significant and representative works among landscape studies, see Paul Groth and Todd W. Bressi, eds., *Understanding Ordinary Landscapes* (New Haven, Conn.: Yale University Press, 1997); George F. Thompson, ed., *Landscape in America* (Austin: University of Texas Press, 1995); Michael P. Conzen, ed., *The Making of the American Landscape* (Boston: Unwin Hyman, 1990); Denis E. Cosgrove and Stephen Daniels, eds., *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments* (Cambridge: Cambridge University Press, 1988); John Brinkerhoff Jackson, *Discovering the Vernacular Landscape* (New Haven, Conn.: Yale University Press, 1984); John R. Stilgoe, *Common Landscapes of America, 1580–1845* (New Haven, Conn.: Yale University Press, 1982); Donald Meinig, ed., *The Interpretation of Ordinary Landscapes: Geographical Essays* (New York: Oxford University Press, 1979).

<sup>8</sup> Michael P. Conzen, "Introduction," in *The Making of the American Landscape*, 2. For works that explore landscapes and people-environment relations in Vermont, see Albers, *Hands on the Land*; Christopher McGrory Klyza and Stephen C. Trombulak, *The Story of Vermont: A Natural and Cultural History* (Hanover, N.H.: University Press of New England, 1999); John Elder, *Reading the Mountains of Home* (Cambridge, Mass.: Harvard University Press, 1998); Tom Wessels, *Reading the Forested Landscape: A Natural History of New England* (Woodstock, Vt.: The Countryman Press, 1997); Nancy Price Graff, ed., *Celebrating Vermont: Myths and Realities* (Middlebury, Vt.: The Christian A. Johnson Memorial Gallery, Middlebury College, 1991); Meeks, *Time and Change in Vermont*; Charles C. Brown and Howard B. Reed, Jr., eds., *Visions, Toil and Promise: Man in Vermont's Forests*



(St. Johnsbury, Vt.: The Fairbanks Museum and Planetarium, 1985); William C. Lipke and Phillip N. Grimes, eds., *Vermont Landscape Images, 1776–1976* (Burlington, Vt.: Robert Hull Fleming Museum, 1976).

<sup>9</sup> For a useful discussion of methods in landscape analysis, see Deryck W. Holdsworth, "Landscape and Archives as Text," in *Understanding Ordinary Landscapes*, 44–55. For an historiographical review of historical geography, see Michael P. Conzen, "The Historical Impulse in Geographical Writing about the United States, 1850–1990," in *A Scholar's Guide to Geographical Writing on the American and Canadian Past*, eds., Michael P. Conzen, Thomas Rumney, and Graeme Wynn (Chicago: University of Chicago Press, 1993), 3–90. For recent reviews of current work in historical geography, see Richard H. Schein, "Re-Placing the Past?" *Historical Geography* 29 (2001): 7–13; Deryck W. Holdsworth, "Historical Geography: The Ancients and the Moderns—Generational Vitality," *Progress in Human Geography* 26 (October 2002): 671–678.

<sup>10</sup> Peirce F. Lewis, "Axioms for Reading the Landscape," in *The Interpretation of Ordinary Landscapes*, 12.

<sup>11</sup> Richard H. Schein, "The Place of Landscape: A Conceptual Framework for Interpreting an American Scene," *Annals of the Association of American Geographers* 87 (December 1997): 660–680. For good overview of this approach to landscapes, also see Mitchell, *Cultural Geography*, 91–144.

<sup>12</sup> On the history of snow trains, see E. John B. Allen, "The Making of a Skier: Fred Harris 1904–1911," *Vermont History* 53 (Winter 1985): 5–16; Crane, *Winter in Vermont*, 226–232; Allen, *From Skisport to Skiing*, 104–109; Cohen, *A Pictorial History of Skiing*, 129–138.

<sup>13</sup> Craig O. Burt, quoted from the April 1962 issue of *Mount Mansfield Skiing* on page 29 of Perry Merrill's manuscript in the folder labeled "Multiple Use of Forest Lands, esp. Skiing," in the Perry Merrill Papers in the Wilbur Collection, Bailey/Howe Library, University of Vermont (hereafter referred to as UVM).

<sup>14</sup> Allen notes on page 108 of *From Skisport to Skiing* that railroad officials invested in the development of skiing at Mount Mansfield.

<sup>15</sup> On early trail developments and the CCC, see Perry Merrill, *Roosevelt's Forest Army: A History of the Civilian Conservation Corps, 1933–1942* (Montpelier, Vt.: By the Author, 1981), 183; Merrill, *Vermont Skiing*, 4–6; A. W. Coleman, "Vermont Ski Runs," *Appalachia* 20 (December 1934): 224–230. Other early clusters of trails were located at Bolton, Lyndonville, and Randolph.

<sup>16</sup> For quotes on snow, see McDill, "Woodstock: Cradle of Winter Sports," 19; A. W. Coleman, "White Gold," *Vermont Life* 1 (Winter 1946–1947): 2–9. For a comprehensive look at snow in American culture, see Bernard Mergen, *Snow in America* (Washington, D.C.: Smithsonian Institution Press, 1997).

<sup>17</sup> Coleman, "White Gold," 8.

<sup>18</sup> Crane, *Winter in Vermont*, 200.

<sup>19</sup> Route 100 received a great deal of press coverage. For examples and discussions, see Mort Lund, "Route 100," *Ski* 26 (December 1961): 72–75, 136; Paul Robbins, "Vermont's Skier's Highway," *Travel/Holiday* 151 (January 1979): 44–47, 80–81; Hal Burton, "Ski 100," *Vermont Life* 17 (Winter 1962–1963): inside cover, 1, 4–11.

<sup>20</sup> Although ski areas certainly benefited from the interstates, I have found nothing to suggest that decisions for the placement of Vermont's interstate highway system were made specifically to benefit preexisting ski areas. Interstates 89 and 91 follow paths dictated more by physical-geographic opportunities and limitations than by their proximity to resort centers.

<sup>21</sup> This trend is noted in Vermont State Planning Board, *Report on Winter Sports Development* (n.p. [Montpelier, Vt.]: [The Board], 1938), 7. Also see Joseph G. Galway, "Snow Removal One of State's Biggest Jobs," *Eastern Skier* 3 (15 January 1951): 4.

<sup>22</sup> William F. Corry, "Winter Highways," *Vermont Life* 1 (Winter 1946–1947): 28.

<sup>23</sup> Merrill, *Vermont Skiing*, 7; Robert B. Williams to George T. Mazuzan, 19 March 1964, in the reference file, "Skis and Skiing—Vermont—History," UVM. Access roads received considerable attention in Vermont newspapers such as *The Burlington Free Press* during the 1960s. This was especially true in the case of the Bolton Valley resort.

<sup>24</sup> Although New England's first enclosed tramway was constructed at Cannon Mountain in New Hampshire during the late 1930s, enclosed cable cars were not all that common in this country until the 1960s. According to records provided to the author by the Vermont Tramway Division, only Killington, Mount Snow, Sugarbush, and Stowe had gondolas by 1970, while Jay Peak had the state's only large, two-car tram comparable to Cannon Mountain's.

<sup>25</sup> Ted Cooke, "Ski Tows," *Appalachia* 20 (November 1935): 405–407.

<sup>26</sup> For more on Woodstock's early resorts, see Lesser, *America's First Ski Tow*; Crane, *Winter in Vermont*, 210–212.

<sup>27</sup> For statistics, see Research Division of the Vermont Development Commission, *Vermont Ski Facilities* (n.p. [Montpelier, Vt.]: [The Commission], 1948), 2.

<sup>28</sup> Vermont State Planning Board, *Report on Winter Sports Development*, 2.

<sup>29</sup> Research Division of the Vermont Development Commission, *Vermont Ski Facilities*, 6.

<sup>30</sup> On the history of early skiing at Mansfield and the construction of the mountains' lift, see "World's Longest Chair Lift Opens at Mt. Mansfield," *Ski News* 3 (13 December 1940): 5; Robert Hagerman, *Mansfield: The Story of Vermont's Loftiest Mountain*, second edition (Canaan, N.H.: Phoenix Publishing, 1975), 67–71; George T. Mazuzan, "'Skiing is not merely a schport': The Development of Mount Mansfield as a Winter Recreation Area," *Vermont History* 40 (Winter 1972): 57–59; Edwin Bigelow, *Stowe Vermont: Ski Capital of the East, 1763–1963* (Stowe, Vt.: The Stowe Historical Society, 1964), 152–163. As further evidence of state-sponsored support for ski areas, the Mount Mansfield Lift Company also convinced the state to prohibit the construction of another lift within a ten-mile radius of the lift on Mount Mansfield.

<sup>31</sup> For statistics, see Research Division of the Vermont Development Commission, *Vermont Ski Facilities*, 2–3.

<sup>32</sup> This pattern is expressed with remarkable detail in the Roland Palmedo papers at the New England Ski Museum. These papers detail Palmedo's land deals and wartime acquisition of high-elevation acreage for the construction of Mad River Glen.

<sup>33</sup> Crane, *Winter in Vermont*, 214.

<sup>34</sup> For good examples of the state's ski-area maps see the 1938 map, "Winter Sports Development" produced by the Vermont State Planning Board, and issued by the Vermont Department of Publicity, and see "Ski Areas in Vermont" *Vermont Life* 13 (Winter 1958–1959): 7.

<sup>35</sup> Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1995). Also see Paul C. Adams, "Peripatetic Imagery and Peripatetic Sense of Place," in *Textures of Place: Exploring Humanist Geographies*, eds., Paul C. Adams, Steven Hoelscher, and Karen Till (Minneapolis: University of Minnesota Press, 2001), 186–206.

<sup>36</sup> "The Mount Mansfield Chair Lift," *Mt. Mansfield Skiing* 7 (December 1940): first page.

<sup>37</sup> For this collection of statistics and further discussions, see Dawn Francis and Fred Schmidt, *Ski Area Capacities in Vermont: An Historical Comparison* (n.p. [Burlington, Vt.]: Center for Rural Studies, 1982), 7; Central Planning Office, State of Vermont, *The Ski Industry in Vermont*, January 4, 1965; E. C. Nichols to Robert C. Lane, in the folder "Skiing—General Data" from Box 7 of "Vermont Travel Division/Development Department [1879–1950]: Statistics, Surveys, reports, etc.," Vermont State Archives, Office of the Secretary of State, Montpelier, Vermont (hereafter referred to as VSA); "Millionth Rider on Chair Lift," *Eastern Ski Bulletin* 1 (2 March 1953): 2.

<sup>38</sup> "Skiing Called Vermont's Fastest Growing Industry," *Burlington Free Press*, 15 April 1961, 10.

<sup>39</sup> For these statistics, see "New Slopes, Facilities Opened in State, Old Areas Improved," *Burlington Free Press* 20 November 1961, 2; "Ski Areas" binder from Box 1 of "Vermont Travel Division/Development Department [1879–1950]: Statistics, Surveys, reports, etc.," VSA.

<sup>40</sup> William Gilman, "Ski Key: New England," *Travel* 105 (January 1956): 7. This lift boom was not confined to Vermont or New England alone. Fifty-one new lifts were constructed in North America in 1957, and seventy-four the following year. For discussions, see "Lift Bonanza," *Ski* 22 (November 1957): 50–51; "74 New Ski Lifts Now Being Built in North America," *Ski* 23 (November 1958): 88–89; "New Lifts in the East," *Ski* 21 (December 1956): 77–97.

<sup>41</sup> Research Division of the Vermont Development Commission, *Vermont Ski Facilities*, 5. For an additional, primary discussion of ski-resort financing in Vermont, see Rockwell Stephens, "Anatomy of the Ski Resort Biz," *Vermont Skiing* (Fall 1966): 22–26. Many early resort developments were financed by what Stephens calls "tycoon money" (or single investors), such as in the examples of Stowe and Bromley. Later resorts were typically organized as public companies and financed by the sale of stocks.

<sup>42</sup> For the consolidation and expansion of Stowe, see Hagerman, *Mansfield*, 71–72; Hal Burton, "Mr. Starr and His Pampered Mountain," *Saturday Evening Post* 226 (6 March 1952): 32–33, 56, 60, 62; Sepp Ruschp, "Spruce Peak's New Double Chair-Lift: A Dream Come True," *American Ski Annual and Skiing Journal* 39 (November 1955): 34–35; Mazuzan, "Skiing is not merely a schport," 59–63.

<sup>43</sup> Mount Snow received a great deal of regional and national coverage in ski periodicals and beyond. For descriptive examples, see "Million-Dollar Area Opened in the East," *National Skiing* 7 (15 December 1954), 1–15; "Sun Valley in Vermont," *Yankee* 19 (February 1955): 38–39; "The Scamp of the Ski Slope," *Life* 54 (8 February 1963): 93–94; "Wizard of Palms, Pools, Mt. Snow Jobs," *Vermont Skiing* 4 (Fall 1967): 39–41; "The Jolly Green Giant Gets Even Bigger," *Ski Week* 1 (1 March 1967): 6–7, 11.

<sup>44</sup> Committee meetings of the Mount Mansfield Ski Club, 26 April 1945, in the folder "Ski Trails—Etc.," from the Albert Gottlieb Papers, UVM.

<sup>45</sup> A. W. Coleman, "The Development of Winter Sports Facilities," reprinted in Vermont State Planning Board, *Report on Winter Sports Development*, 10; Coleman, "White Gold," 4. Not all ski enthusiasts were happy with the process of widening trails, so common after World War Two. For an example, see "Art" Goodrich, "Woodsman Spare That Tree!" *Mount Mansfield Skiing* 16 (14 January 1950): 3, 6.



<sup>46</sup> Good early examples of trail construction guides include Arthur C. Comey, "Ski Trail Standards," *Appalachia* 19 (June 1933): 427–431; Charles N. Proctor, "Ski Trails and Their Design," *Appalachia* 20 (June 1934): 88–103; Robert W. Vincent, "Downhill Ski Trails," *The American School and University* 11 (1939): 244–248; Vermont State Planning Board, *Report on Winter Sports Development*, 8. Trade magazines also provided managers with information on trail maintenance and design. See also Glen M. Wood, Paul Winkelaar, and John J. Lindsay, *Guide to Vermont Ski Trail Construction and Management* (Burlington: Agricultural Experiment Station, University of Vermont, n.d. [1972?]).

<sup>47</sup> Pat Orvis, "Atom Bomb to be Used in Vermont? Schoenknecht Has Asked Permission," *Burlington Free Press*, 15 March 1963, 4.

<sup>48</sup> Pat Harty, "The Story of Bromley Mountain," *Vermont Life* 7 (Winter 1952–1953): 20.

<sup>49</sup> For quote, see "New Big Bromley Area to Have Mile-Long Lift," *Ski News* 5 (11 December 1942): 7. Also see Merrill, *Vermont Skiing*, 5; Arthur Zich, "A Brewer's Good Old Mountain Brew: Big Bromley," *Sports Illustrated* 17 (19 November 1962): M7–M12; Robert M. Coates, "My First Pair of Skis," *American Ski Annual and Skiing Journal* 39 (November 1955): 43–49; Pat Harty, "A Man and His Mountain," *American Ski Annual and Skiing Journal* 37 (November 1953): 54–57.

<sup>50</sup> Fred Pabst to H. H. Chadwick, 8 November 1943, in the folder "Winter—General, 1941–42–43, Gas Shortage" from Box 7 of "Vermont Travel Division/Development Department [1877–1950s]; Statistics, Surveys, Reports, Etc.," VSA.

<sup>51</sup> Vermont State Planning Board, *Report on Winter Sports Development*, 4.

<sup>52</sup> For quotes, see Coates, "My First Pair of Skis," 47. For required depth of snow cover, see Federal Writers Project, *Skiing in the East: The Best Trails and How to Get There* (New York: M. Barrows and Company, 1939), 13. Charles Edward Crane also noted in *Winter in Vermont* (208–209) that many of Woodstock's ski-slope pastures had long since had their stumps and stumps removed to facilitate snow coverage. Similar meticulous trail work was undertaken at other resorts during the 1940s. For example, see "Wanted—Snow Like in 1947 and 1948," *Burlington Free Press*, 1 November 1950, 2.

<sup>53</sup> Harry Ambrose recalls local boys packing snow in his book, *The Horse's Mouth: The Story of the Birth of Modern Skiing at Woodstock, Vermont, and the Saga of Woodstock High School's Vermont Interscholastic Championship Teams of 1940, 1941, and 1942*, second edition, ed. Tom Bourne, Jr. (Houston, Tex.: A. & E. Products Co. Inc, 1997), 33.

<sup>54</sup> For a good discussion of an early groomer, see Arthur G. Draper, "Belleayer Packer May Prove Boon to Other Areas," *American Ski Annual and Skiing Journal* 38 (November 1954): 75–76. For the example advertisements, see *Ski Area Management* 1 (Fall 1962), and *Ski Area Management* 7 (Summer 1968).

<sup>55</sup> For a useful discussion of snowmaking, see Mergen, *Snow in America*, 108–114.

<sup>56</sup> "Walt Sprays 450 Tons of Ice Over Bare Mohawk Slope, Breaks Even," *Eastern Skier* 2 (1 February 1950): 1.

<sup>57</sup> Florence Zuckerbraun, "Snowmaking is 'Practical,'" *Eastern Skier* 3 (15 January 1951): 1–2; Harold F. Blaisdell, "Pipe the Snow!" *American Ski Annual and Skiing Journal* 36 (November 1952): 69–72.

<sup>58</sup> "New Future for Skiers in the East and Midwest," *Ski* 22 (December 1957): 69–70.

<sup>59</sup> "Ski Areas to Make Snow," *Brattleboro Daily Reformer*, 15 January 1965, 1; "Snowmaking—It Pays on a Big Hill Too," *Skiing Area News* 1 (June 1966): 26–28.

<sup>60</sup> For examples of such gimmicks see Stuart James, "Snowless Skiing on Tank Treads," *Popular Mechanics* 124 (October 1965): 140–141; "Recreation: Snowless Skiing, Iceless Skating," *Time* 92 (15 November 1968): 94–95; "Why Pine for a Snow Maker? Stock Up on Rugs and Cereal," *Eastern Skier* 4 (15 December 1951): 8. The possibility of coloring artificial snow by adding food coloring to snowmaking water was also raised a number of times in the 1960s as a gimmicky promotion.

<sup>61</sup> *Ski Vermont: America's First* (Montpelier, Vt.: Vermont Development Department, n.d. [1969]), 2, 19.

<sup>62</sup> Peter Alford, "Snowmaking: Getting it all Together," *Ski Area Management* 11 (Spring 1972): 31–33, 60.

<sup>63</sup> For valuable industry insights into these conflicts and debates, see the many publications produced by the Vermont Ski Areas Association, a trade group designed to promote skiing in Vermont. For representations of environmentalist perspectives, see works produced by the Vermont Natural Resources Council. Publications from both organizations can be found at UVM.

<sup>64</sup> Karl B. Raitz, "The Theater of Sport: A Landscape Perspective," in *The Theater of Sport*, ed. Karl B. Raitz (Baltimore: Johns Hopkins University Press, 1995), 21–27; Harrison, "Tracks Across Vermont."

<sup>65</sup> Ralph Nading Hill, "Came the Revolution," *Vermont Life* 19 (Winter 1964): 10–11.

<sup>66</sup> "Lodging for Skiers Expands Greatly," *Burlington Free Press*, 6 February 1963, 36. Many ski lodges were built in converted buildings or were in people's homes that were simply opened up to skiers. Many others were brand new additions to the landscape.

<sup>67</sup> "For 2.6 Million Stowe Investors Got 14,000 Beds, 13,000 Feet of Ski Lifts," *Eastern Skier* 3 (1 February 1951): 2.

<sup>68</sup> Lawrence Willard, "Look What Happened to Wilmington!" *Yankee* 22 (December 1958): 55–56.

<sup>69</sup> On second homes, see Vermont Agency of Environmental Conservation, *Vermont Vacation Home Inventory, 1973* (Montpelier, Vt.: The Agency, 1974); Edwin L. Johnson, *Effect of Second Home Development on Ludlow, Vermont, 1973* (Springfield, Vt.: Southern Windsor County Regional Planning and Development Commission, 1973); Robert O. Sinclair and Stephen B. Meyer, *Nonresident Ownership of Property in Vermont* (Burlington: Agricultural Experiment Station, University of Vermont, 1972).

<sup>70</sup> Donald Meinig, "Symbolic Landscapes: Some Idealizations of American Communities," in *The Interpretation of Ordinary Landscapes*, 165.

<sup>71</sup> On connections between traditional rural landscape imagery and the tourist industry of Vermont, see C. Clair Hinrichs, "Consuming Images: Making and Marketing Vermont as a Distinctive Rural Place," in *Creating the Countryside: The Politics of Rural and Environmental Discourse*, eds. E. Melanie DuPuis and Peter Vandergeest (Philadelphia: Temple University Press, 1996), 259–278.

<sup>72</sup> Huston Horn, "New Sugar in an Old State," *Sports Illustrated* 19 (18 November 1963): 31. For a valuable discussion of Vermont's pastoral imagery in the twentieth century, see William Lipke, "From Pastoralism to Progressivism: Myth and Reality in Twentieth-Century Vermont," in *Celebrating Vermont: Myths and Realities*, 61–88.

<sup>73</sup> For quotes, see Bradford Smith, "Boarder Flavor," *Vermont Life* 17 (Summer 1963), 27; Curtis W. Casewit, "Top U.S. Ski Spots," *Travel* 124 (December 1965): 29.

<sup>74</sup> Research Division of the Vermont Development Commission, *Vermont Ski Facilities*, 6.

<sup>75</sup> The diversity of sentiments as represented here were expressed to the author in a number of interviews with local residents of the Wilmington and Dover area, where even today, many look back on Walt Schoenknecht's ethic of expansion and on the modern ski landscape he created at Mount Snow with a mix of bemusement and anger. Also see Goodrich, "Woodsman Spare That Tree!"

<sup>76</sup> Heinz Herrmann, "The Case against the Ski Tow," *Colorado Quarterly* 2 (Spring 1954): 448–449.

<sup>77</sup> Federal Writers Project, *Vermont: A Guide to the Green Mountain State* (Boston: Houghton Mifflin, 1937), 151–152.

<sup>78</sup> Broadside by Perry Parker, host of the Green Mountain Inn, May 2, 1955 (located in the Vermont Historical Society broadside collection). Examples for Wilmington and Dover can be found in advertisements in *Vermont Skiing* (Winter 1964–1965).

<sup>79</sup> "Skiers Go Back to the Farm," *Skiing* 19 (December 1966): E26–E27.

<sup>80</sup> Casewit, "Top U.S. Ski Spots," 46.

<sup>81</sup> Burton, "Ski 100," 1.

<sup>82</sup> On Act 250, see Phyllis Myer, *So Goes Vermont: An Account of the Development, Passage, and Implementation of State Land-Use Legislation in Vermont* (Washington, D.C.: The Conservation Foundation, 1974). Perhaps not surprisingly, a great deal of the impetus for the passage of Act 250 evolved out of visits by Governor Deane C. Davis to towns in southern Vermont, such as Wilmington and Dover, where unregulated ski-area development had left the region's water quality, scenery, and sense of community in tatters. For discussions of and insights into the situation in Wilmington and Dover during the late 1960s and early 1970s, see Wallace, McHarg, Roberts, and Todd, *An Ecological Planning Study for Wilmington and Dover, Vermont* (n.p.: n.p., 1972); Steve Chontos, *The Death of Dover, Vermont* (New York: Vantage Press, 1974).

<sup>83</sup> "Cross Country Craze," *Life* 72 (1 January 1972): 64. Also see Martha Canfield, "X-C Skiing: Coping with the Elements," *Burlington Free Press*, 2 February 1972, 6; "Vermont Step by Step," *Skiing* 22 (February 1970): 62–69.

<sup>84</sup> Woody Woodhall, "Ski the Quiet Way in Vermont," *Burlington Free Press*, 7 January 1972, 8A.