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In 1912, Lieutenant K. B. E. E. Eimeleus, an instructor at the Nicholas Cavalry School, St. Petersburg, Russia, published *Lyži v voennom dele*, which William D. Frank translates as *Skis in the Art of War*. Frank also provides commentary, as does E. John B. Allen. Eimeleus was a Swedish-speaking Finn who served in the Kiev Hussars before attending the Main Gymnastics-Fencing School in 1910 and then joining the Nicholas Cavalry School faculty. Eimeleus wrote his work, as he put it, “to acquaint the Russian military with the theory of skiing and, in particular, the application of skis to the army” (p. 7).

Skis and skiing were quite unknown to most Europeans outside of Scandinavia at the time. Thus, after the first section cautioned about not getting too chilled while skiing, Eimeleus devoted the following sections to a short history of skiing, the evolution and various types of skis, and the materials for skis, recommending ash wood. He went on with sections on the fabrication, maintenance and storage, and repairs of skis, before describing types of snow and their effects on skiing. Eimeleus then discussed gear, a subject near and dear to every serious skier's heart. He wrote a section on poles, using either one or two, and another on boots and bindings. Eimeleus identified two broad groupings of bindings, free bindings for running, what we could call cross country, and fixed bindings for mountain skis, closer to today's backcountry touring skis. Eimeleus recommended boots to be large enough to wear two pairs of socks while still allowing the toes to wiggle, preventing frostbite. A skier's clothing should be loose and lightweight, worn in layers, and preferably made of wool. A light cap, snow goggles, and leather mittens over wool gloves completed the ensemble.

Eimeleus then turned to techniques of skiing, what he called “ski-running,” as was common at the time. These focused on what we would consider cross-country skiing techniques, initially just walking on skis, sliding them forward, then moving on to longer strides and gliding with two, three, and four step cadences, all initially without poles to instill balance. He then taught kick-turns and climbing hills on skis using techniques we today recognize as herringbone steps and sidesteps, along with reindeer skins attached to the base of the ski and “brakes” or ski crampons. For descending, Eimeleus recommended the telemark position, with one foot slightly ahead of the other and knees bent. To stay in control the skier braked with their poles or braked with their skis in what today's skiers would recognize as a snowplow and snowplow turn. Eimeleus only
taught the Christiana or step turn and the telescopic turn, as the skis had no edges.

Eimeleus finally reached the military uses of skiing, beginning with a discussion of troop physical exercises before individual skiing instruction and then group instruction. He provided a section march and battle formations for a ski detachment up to a company in strength (250 men in Eimeleus’s day). He laid out a schedule of instruction with forty one-hour lessons drawing on the book’s previous sections, taking just over one month to complete. The lessons began with “movement without poles over flat terrain” in Lesson 1 and ended with Lesson 40 on “military marksmanship in winter” (pp. 98, 101). Eimeleus also provided guidance for ski platoons and companies on the march, typically using single files on narrow trails and double files on wider trails, with six paces between men on the flats and uphill and twenty paces on the downhill. In a time of war, Eimeleus argued, ski detachments could operate in winter guard duty, reconnaissance, communications carrying messages, and guerrilla actions. Ski detachments, he noted, could play a part in battle by pursuing an enemy afterward and recovering the wounded before they froze using sled litters.

Eimeleus concluded his tract by looking at how other countries were developing military skiing. The Norwegians, Swedes, and recently disbanded Finnish armies all had deep reserves of knowledgeable civilian skiers on which to draw. Switzerland also could benefit from a large number of civilian skiers. Austro-Hungarians, the French, and Italians had all instituted military skiing, particularly among their mountain troops. Germany nearly alone took no interest in military skiing. Eimeleus finished by arguing that Russia needed to use skis, introducing it into military academies and schools and holding military ski competitions with cash prizes to maintain interest.

*Skis in the Art of War* is effectively a translated primary source, so it is fair to ask what historians could benefit from it or into what historiography it should be placed. Frank the translator/commentator and Allen the commentator make it clear that they reprinted Eimeleus’s work as a contribution to skiing history and in particular to the history of Russian biathlon, a ski sport. But Eimeleus should also be considered part of military history, in particular the history of modern mountain warfare.

Mountain warfare includes combat operations under conditions of steep terrain, high altitudes, arctic winds, cold temperatures, and persistent snow. To effectively maneuver in mountain warfare, units must adapt to these conditions and be mobile. Unique among forms of warfare, the essential techniques and technologies for survival and mobility in mountain warfare are best found in the civilian mountaineering and skiing communities. Eimeleus is thus one of the best examples we have of the early adaptation of civilian skiing to military use and one of the few available in English. For this it should be added to our reading lists and libraries.
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