



Soldiers skijour behind a small unit support vehicle (SUSV) 9 March 2017 as part of U.S. Army Alaska's Winter Games at Fort Wainwright, Alaska. The Army is in the process of replacing the SUSV, which has been in service for about forty years, with a family of all-weather, all-terrain vehicles. Replacement prototypes will be tested this year at the Cold Regions Test Center in Alaska. (Photo by John Pennell, U.S. Army)

# Future Mobility

## The Cardinal Principle in Northern Operations

Maj. Jari J. Karttunen, U.S. Army Reserve, Retired

*Armies were like plants, immobile as a whole, firm rooted, and nourished by long stems to the head. ...*

*... [Their antagonists,] the rebels had the virtues of secrecy and self control. They had the qualities of speed, endurance*

and independence of arteries of supply. And they had technical equipment enough to paralyze the enemy's communications.

—T. E. Lawrence

All arctic operations change into land operations even if they start airborne or seaborne.

—Alpo K. Marttinen

For U.S. and Canadian armies to comply with current northern operations doctrine, they must develop more mobile and less detectable ground forces. To control the vast and remote terrain of northern America, they will need fast forces with greater endurance and independence from petroleum supply lines. Waldemar Erfurth, in his post-World War II study *Warfare in the Far North*, stated,

Extensive pathless wasteland of the frontier region, the uneven terrain covered with loose rock and consequently passable only with difficulty, and negligible development of roads are not suited

to operations with large mass [of] troops mobility. Over broad stretches of country in many cases it is impossible to conduct operations involving large organizations, and in some instances, it is pointless.<sup>1</sup>

He continued, "Fighting [in this type] of environment, must necessarily assume the character of guerilla warfare."<sup>2</sup>

The roadless regions covering

nearly two million square miles of arctic and subarctic America have many similarities to archaeologist T. E. Lawrence's Arabia. Both theaters still contain large trackless wilderness occupied by nomadic people who have relied on animal husbandry and hunting skills to move and to survive. Until the advent of combustion engine vehicles in the nineteenth and twentieth centuries, human mobility in the Arctic and in Arabia was driven by the beating hearts of men and their domesticated animals.

## Adapting to Changing Realities and Anticipating Changes in the Environment

The following fact-based assumptions support a requirement for faster and quieter off-road combat capability in the North American Arctic. The intentions described in the Chinese White Paper of 2018 and the ongoing Russian military deployments foreshadow future resource and trade conflicts in the Arctic.<sup>3</sup> The Russian efforts follow a logical course as its arctic ice



(Left to right) Olavi Alakulppi, Erkki Lahdenperä, Juho Anttila, and Alpo K. Marttinen pose with a prototype of an ahkio under construction in 1948 at the U.S. Army Quartermaster Depot, Jeffersonville, Indiana. The ahkio was a versatile snow sled designed for transporting supplies in extreme cold-weather conditions. Marttinen was later the principal author of U.S. Army Field Manuals 31-70, *Basic Arctic Manual*, and 31-71, *Northern Operations*. (Photo used with permission by Col. Paavo Kairinen, U.S. Army)



An undated photo of then Lt. Col. Alpo K. Marttinen during combat operations in World War II (circa May-June 1944). On 23 June 1944, he received a battlefield promotion to become the youngest colonel in the Finnish Army. After the war, Marttinen joined the U.S. Army and later wrote an article for the December 1949 edition of *Military Review*, under the pen name Victor Suomalainen, detailing his wartime experiences, which was titled, "The Battle of Suomussalmi." To read this article, visit <https://cgsc.contentdm.oclc.org/digital/collection/p124201coll1/id/904/rec/3>. (Photo by Tauno Norjavirta, Finnish Army via Wikimedia Commons)

## The Battle of Suomussalmi

By Victor Suomalainen, an eyewitness,  
as told to  
Lieutenant Colonel Arthur J. Peterson, Field Artillery  
Instructor, Command and General Staff College

**T**HE FINNO-RUSSIAN Winter War of 1939-1940, considered as a whole, offers an excellent example for the study of Arctic warfare. In this war, two armies met under the most severe subarctic weather conditions imaginable. One of them, the Finnish Army, was familiar with and trained in arctic warfare. The Red Army at that time, from a practical standpoint, had almost completely neglected preparations for warfare under such conditions. To a surprising extent, the Russians depended on their superiority of numbers and material strength to secure a victory over a weaker opponent. In spite of this superiority, the Russians suffered a number of serious reverses at the hands of the Finns, who, although inferior in strength, were equipped for and more familiar with arctic conditions. This knowledge of the arctic was used by the Finns to great advantage.

The Battle of Suomussalmi is considered one of the most typical battles of the Finno-Russian war. It was fought between 11 December 1939 and 8 January 1940. In this area, the understrength Finnish III Division surrounded and destroyed the Ukrainian 16th Division, and at the same time, with a small portion of their force, the Finns overcame the 44th Moscow Rifle Division from coming to the rescue of the beleaguered Russian forces. After finishing off the 16th Division, the Finns then surrounded and annihilated the 44th Division.

### Firepower and Mobility

At the time of the Battle of Suomussalmi, there was a marked difference in the firepower of the Finnish and Russian divisions. The artillery firepower of the Russian Division was about three times that of the Finnish division, and that of its mortars and machine guns was about twice as great. The following table shows this comparative firepower. (The strength of a Russian division at that time was 12,000.)

	Finland	Russia
Artillery	100	300
Mortars	100	300
Machine guns	100	300
Heavy machine guns	100	300
Antiaircraft guns	100	300
Infantry	100	300

The most important difference between the Russian and the Finns, however, was in the mobility of their troops. This was most noticeable in their ability to make cross-country movements. It was an accepted principle in Finnish divisions that troops of all arms and services would be mounted on skis. Machine guns and mortars, together with their ammunition and tents for shelter, were transported by sleds. These sleds were also used to transport the wounded. Artillery pieces, and other heavy equipment, were transported on horse-drawn sleds. All were concentrated on the

recedes and makes Russia a coastal nation open to an ice-free northern sea. Rising expectations in economically liberated countries and a world population, which has doubled in the last half century, are also driving more competition for the natural resources in the arctic regions.<sup>4</sup>

Land access from the continental United States into North America's arctic regions remains limited to a few roads like the Alaska Highway. Absent a forward deployed, land combat force to defend against invaders, the isolated arctic coastal areas remain exposed to surprise invasion.

Any land operation to recover lost arctic areas needs to consider modern and World War II lessons, which demonstrate how dangerous ground action combined with air interdiction can be for road-bound forces. Quoting Maj. Gen. Bob Scales, "In Afghanistan the proportion of [U.S.] Infantry deaths at the hands of the enemy is even greater, 89 percent. Of those, more than 90 percent occurred within four hundred meters of a road."<sup>5</sup> A highly explosive blow-down of forests will create even more obstacles for ground forces operating in forested terrain.

Recently, nation states have used covert operations and tactics to seize key terrain while avoiding culpability under international law. These masked operations

help countries deny attribution and manage the risk of involvement by potentially superior enemies. In February 2014, the world witnessed the covert Russian occupation of Russified Crimea and the neighboring anthracite and ore production areas of eastern Donets Basin. The Russian operation resembled Operation Rentier, which was conducted by the German army in June

1941 when it took the nickel mining area of Pechenga, Russia. The latter operation was preceded by covert German reconnaissance.<sup>6</sup> Both operations seized coastal port areas near significant deposits of strategic minerals important to Russian and German war industries.

During World War II, Americans were forced to adapt to changing northern realities when Gen. Dwight Eisenhower, in his post-World War II book *Crusade in Europe*, commented about the prewar Louisiana maneuvers of 1941: "The efficiency of American trucks in the movement of troops and supply demonstrated so magnificently in the three years later in the race across France, was forecast on the roads of Louisiana in September 1941."<sup>7</sup> He then included an excerpt from a War Department correspondence on 7 April 1942 (two days before the surrender of Bataan in the Philippines): "Lieutenant General John L. De Witt requested authority to issue 3000 rifles to the Alaskan Territorial Guard."<sup>8</sup> Given the rapidly changing geographic situation in the North Pacific and Arctic, the above scenarios can echo again in the future.

The Russo-Japanese War during 1904 and 1905 may be used as an example of what the United States

can expect in a great-power northern conflict. In his memoirs published in 1951, Finnish Field Marshal C. G. E. Mannerheim observed that the Russians had to transport their army over five thousand miles on mostly single-track railway to the theater of war. In the first of his five wars, Mannerheim received his baptism by fire while leading Russian cavalry and covert Hunguz mercenaries in a losing contest over the Port Arthur-Mukden Railroad. U.S. President Theodore Roosevelt eventually mediated the Treaty of Portsmouth to end the war in 1905. In Mannerheim's words, "[America ensured] the stability of the Far East, which lasted for the next 30-years."<sup>9</sup>

## The Early Development of U.S. Army Northern Operations Doctrine

Before assuming that the American military is resourced to successfully maneuver in arctic and subarctic terrain, a review of the written and oral history of the original authors of the Army's northern doctrine is needed. Very few, if any, currently active soldiers have experienced mortal combat on tundra or in taiga. It can be assumed that peacetime training rarely simulates actual conditions like the ones experienced by the Cold War-era authors of the U.S. Army's northern operations manuals. The credibility of these arctic

combat veterans has a gravity supported by actual results.

In 1947, Finnish Army officers joined the U.S. Army after they were implicated in a secret plan to organize and equip a guerilla army against a possible Soviet occupation of Finland. These Finns were assisted in their legal entry and initial enlistment by U.S. Army Assistant Chief of Staff Gen. Albert C. Wedemeyer and former Office of Strategic Services Chief William J. Donovan.<sup>10</sup>

**Maj. Jari J. Karttunen, U.S. Army Reserve, retired,** served with the 7th Infantry Division (Light) and in various active and reserve Special Forces assignments. He retired from U.S. Customs and Border Protection (CBP) after working in the field, national headquarters, and the Commissioner's Office of Anti-Terrorism. He represented CBP in the Department of Homeland Security's post-Katrina Incident Management Planning Team and as an assistant attaché in Afghanistan.

Col. Alpo K. Marttinen served as the principal author of U.S. Army Field Manuals 31-70, *Basic Arctic Manual*, and 31-71, *Northern Operations*, published in October 1951.<sup>11</sup> He was assisted by Col. Erkki Lahdenperä, Col. Eino Lassila, and Lt. Col. Olavi Alakulppi.<sup>12</sup> Declassified, arctic ground combat lessons authored by the late Marttinen are archived at the U.S. Army Heritage and Education Center in Carlisle, Pennsylvania. Alakulppi, as a quartermaster branch officer, was the most highly decorated of the group. He received the U.S. Bronze Star, Finland's Mannerheim Cross, the German Gold Close Combat Clasp, and the Iron Cross 2nd Class.<sup>13</sup>

As a master sergeant under the nom de plume "Victor Suomalainen," Marttinen wrote an article for the December 1949 edition of *Military Review*.<sup>14</sup> During the Finno-Russo Winter War, he had been the thirty-year-old chief of staff of the Finnish 9th Infantry Division at the Battles of Suomussalmi and Kuhmo. Marttinen had prepared and signed many of the operations orders during the division's victories over the Soviet 44th and 54th Rifle Divisions and the 163rd Infantry.<sup>15</sup> During the battles, he effectively directed Finnish guerilla battalions to find and isolate the Soviet divisions and annihilate Soviet Col. Vjatseslav Dmitrievitch Dolin's ski brigade near Kuhmo. In the summer of 1944, Marttinen's 61st Infantry Regiment, using decisive artillery support, stopped the Soviet 97th Corps north of Viipuri, Finland, a city now known as Vyborg, Russia. As a result, Marttinen was telephonically promoted in the field by Mannerheim, becoming the youngest colonel in the Finnish Army.

Marttinen's 1952 report, "Comments on the Present Capability of the U.S. Army for Arctic Warfare," continued to hammer home that the U.S. Army was road-bound and subject to quick destruction by Soviet ski divisions. He emphasized the following:

- Actual war will decide which force is ready to win in the Arctic.
- All arctic operations change into land operations even if they start airborne or seaborne.
- The cardinal principle for arctic and subarctic land operations is mobility. The one with superior mobility sets the combat tempo in space and time.
- Inferior forces with greater mobility can, and have, overcome superior protection and firepower in the Arctic.<sup>16</sup>



In the report, Marttinen added that American mechanical ingenuity had improved arctic mobility [to a point beyond animal-borne transportation]:

Recent development of light over the snow and small amphibious vehicles has reached promising levels of capability. The new, smaller, off-road vehicles have reduced dependency on the limited arctic and subarctic road networks. They have also facilitated the greater dispersal of friendly forces in order to avoid enemy detection and fires. These new, off-road mobility means must be capable of carrying or towing enough soldiers, with shelter, heat, food, and fuel [energy,] along with ordnance to conduct operations in the arctic elements. ... Smaller detachments can now mass and disperse even faster than before.<sup>17</sup>

His views posed questions for future arctic combat leaders: Are the past observations still valid today? What improvements have been made to help arctic vehicles evade and/or deceive an adversary's sensors? Is current ground battle doctrine founded on historically sound facts and assumptions about arctic and subarctic warfare? Do northern operations doctrines

An advancing Soviet T-26 tank moves against Finnish forces on the eastern side of the Kollaa River 17 December 1939 during the Battle of Kollaa in Finland. (Photo courtesy of Finnish Wartime Photograph Archive via Wikimedia Commons)

have to be appropriately and jointly revised for modern multi-domain environments?

## Arctic Land Mobility

Mobility is defined in the U.S. Army's manuals as a cardinal principle for victory in northern operations.<sup>18</sup> The prevailing climate and terrain help defeat unprepared forces when they are cut off from supply lines. Ground transportation networks in a trackless arctic—when interdicted by turning movements, guerillas, and air forces—give northern warfare its uniquely lethal character. Conventional turning movements have been the primary way of defeating road-bound and heavier forces in the tundra and the taiga. Modern technology may supersede that technique in the future.

Lahdenperä was a relentless advocate for better off-road mobility and innovation, perhaps owing to

his experiences fighting the Germans near Rovaniemi, Finland. On 13 October 1944, after a nightlong march through boreal swamps, Battle Group Kurenmaa (consisting of three light infantry battalions) cut the Ranua-Rovaniemi Road behind a German rear guard. Two battalions commanded by Lahdenperä moved south along the road to attack the encircled Germans. In a surprise move, a German armored force counterattacked along the road from Rovaniemi. The Panzer wedge struck the rear of Lahdenperä's unit and scattered it off the road and into the surrounding woods. The Germans were able to evacuate their rear guard in a thirty-vehicle column, albeit with four truckloads of dead and wounded. The Germans then destroyed and mined the road behind them. Lahdenperä's unit would enter Rovaniemi three days later. One of the decisive reasons for the failure to cut off the German rear guard was the lack of munitions due to delayed supplies that were dragged through the swamps by horse-drawn travois.<sup>19</sup>

Experiences in war have shown that relatively slow and logistically light forces can move on foot through the boreal swamps and muskeg of the tundra without getting bogged down. Yet, these units lack the organic ability to carry enough supplies to sustain operations against enemies with heavier combat power.

In his June 1960 *Military Review* article, Lahdenperä commented:

An example of endless experimentation and testing without standardization is the search for a perfect over-snow vehicle which would be suitable for reconnaissance and communication, and have a limited cargo carrying or towing capability. If the ground pressure of a vehicle is very low, the carrying or towing capability

is limited. If this capability is increased too much, the vehicle becomes a through snow vehicle or perhaps an "under-snow" vehicle. It is possible that the tests conducted will not produce a "perfect" vehicle soon. Therefore, we should have one test vehicle standardized and made available for training. Training of drivers and mechanics in the [northern tundra, forests, and swamps] is more important than small differences in machines.<sup>20</sup>

## Exploit Fleeting Opportunities through America's Strengths, Human Ingenuity, and Enthusiasm

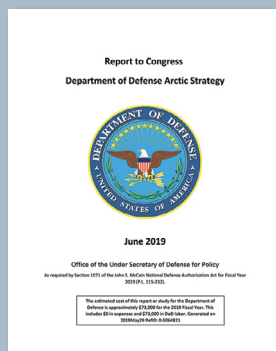
The popularity of off-roading and a robust motor racing culture continues to create obvious advantages for recruitment of qualified North American operators and mechanics. A large percentage of North American resources including people, technology, and industries are concentrated in the midwestern United States and southeastern Canada. These areas remain ideal as support areas for the private and public development of silent, electric off-road capability and capacity.

Training and development carried out by off-road enthusiasts in the northern states can also more economically prepare recruit-cohorts for a changing arctic terrestrial environment. The climate and terrain in northern states are seasonally similar to the subarctic environment and can help innovation and adaptation.

## Innovation

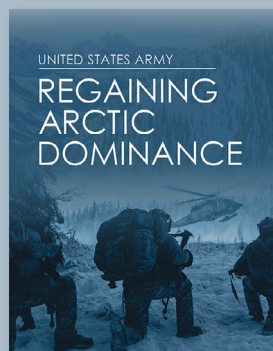
The production of relatively quiet, electric-powered, all-terrain vehicles has growing potential. As a catalyst,

selected arctic light cavalry, infantry, and Special Forces units need to be equipped with standardized prototype electric amphibious vehicles. Innovation derived from field testing can then take place at forward modification sites, as was done during World War II.



To view the *Report to Congress, Department of Defense Arctic Strategy*, June 2019, Office of the Under Secretary of Defense for Policy, visit <https://media.defense.gov/2019/Jun/06/2002141657/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF>.

To view *Regaining Arctic Dominance, The U.S. Army in the Arctic* by Headquarters, Department of the Army, 19 January 2021, visit <https://api.army.mil/e2/c/downloads/2021/03/15/9944046e/regaining-arctic-dominance-us-army-in-the-arctic-19-january-2021-unclassified.pdf>.





Small hydrogen storage and fuel-cell generators using available resources such as water, wind, and wood to charge batteries can supplement energy needs for troops operating independently in the Arctic. Adapting fast aircraft to drop supplies to mobile ground teams will increase the marginal utility of the planes into the future. Modular energy packages can also be pre-positioned and cached according to mobilization plans.

Swamp mobility and logging for corduroy roads has also evolved in the Gulf states of the southern United States.<sup>21</sup> Combining the resources of the southern and northern states by unifying swamp and over-the-snow mobility innovation can help advance the common defense in the subarctic areas.

## Manufacturing Power

The North American industrial base can take advantage of recent improvements in electric amphibious vehicle technology. Battery-powered, all-terrain vehicles are now relatively quiet and produce smaller electromagnetic signatures than their gas-powered variants. Smaller, remote hydrogen generation and storage sites continue to evolve

Soviet equipment and fallen soldiers cover the landscape 1 January 1940 after a Finnish Army ambush at Raate Road, Suomussalmi, Finland. (Photo courtesy of the Finnish Wartime Photograph Archive via Wikimedia Commons)

through entrepreneurial efforts and promise an untethered energy capability for arctic residents. Locating the design, testing, and development sites near underutilized bases and automotive factories will facilitate rapid modification, assembly, and deployment of vehicles.

It will be a tall order to create enough small off-road vehicles that move quieter and faster with greater endurance in the trackless arctic wilderness. Yet, it must be done in order to deter adversaries from raising the strategic stakes in the resource rich and environmentally sensitive northern regions.

Although mobility is only one element of combat power, its relative effect is magnified in the remote and less populated north. History and combat proven doctrine demand that future arctic soldiers need to be properly equipped and trained with the best off-road maneuver resources that a nation can produce.

## The Alakulppi Caveats

As vital as the need for advanced arctic mobility may be, its proponents must also allow for cautionary views. Perhaps none are harsher than those stated by Alakulppi during a 1988 interview with the author. As he reminisced about his combat experiences against both Soviet and German forces in Lapland, he included the following thought for future arctic soldiers: "War is the hardest game one can engage in."<sup>22</sup> He warned against reckless mobility after witnessing a German ambush of Finnish bicycle scouts in October 1944, calling the action "the kind only the Germans could devise."<sup>23</sup> He added, "If you fall in love with the saddle, you will die in the saddle."<sup>24</sup>

## Acknowledgment

U.S. Army Maj. Stephen T. Uurtamo's legacy lives in this article. In March 1948, then a captain, he translated and edited the original drafts of the Army's northern operations doctrine.<sup>25</sup> In December 1950, Uurtamo died in captivity after he was captured by Chinese communist forces near the Chongson River in North Korea. In June 2018, Uurtamo's recovered remains were interred at the Arlington National Cemetery.<sup>26</sup> Ironically, perhaps with Soviet advice, the Chinese communist forces used off-road envelopment tactics against Uurtamo's 2nd Infantry Division that were similar to ones Marttinen had orchestrated against three Soviet divisions at the Battles of Suomussalmi and Kuhmo a decade earlier. ■

## Notes

**Epigraph.** T. E. Lawrence, *Seven Pillars of Wisdom* (1935; repr., New York: Doubleday, 1966), 163, 167.

**Epigraph.** Alpo K. Marttinen, "Comments on the Present Capability of the U.S. Army for Arctic Warfare" (unpublished manuscript, 1952), 1.

1. Department of the Army Pamphlet 20-292, *Warfare in the Far North* (Washington, DC: Department of the Army, October 1951), 7.

2. *Ibid.*, 19.

3. "China's Arctic Policy," 1st ed. (white paper, Beijing: State Council Information Office of the People's Republic of China, 26 January 2018), accessed 16 February 2021, [http://english.gov.cn/archive/white\\_paper/2018/01/26/content\\_281476026660336.htm](http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm); Todd South, "A New Cold War: How the Army Is Preparing for a Fight in the Arctic," *Army Times* (website), 30 July 2018, accessed 2 February 2021, <https://www.armytimes.com/news/your-army/2018/07/30/a-new-cold-war-how-the-army-is-preparing-for-a-fight-in-the-arctic/>.

4. "U.S. and World Population Clock," U.S. Census Bureau, accessed 2 February 2021, <https://www.census.gov/popclock/>.

5. Bob Scales, *Scales on War: The Future of America's Military at Risk* (Annapolis, MD: Naval Institute Press, 2016), 14, Kindle.

6. Harri Paarma, *Salaisen Tiedustelun Partiot 1940-1945* [Secret reconnaissance patrols] (Hämeenlinna, Finland: Karisto OY, 1972), 160–61.

7. Dwight D. Eisenhower, *Crusade in Europe* (1948; repr., Baltimore: The Johns Hopkins University Press, 1997), 12.

8. *Ibid.*, 11–12, 37.

9. C. G. E. Mannerheim, *The Memoirs of Marshal Mannerheim* [in Finnish], vol. 1 (Helsinki: Otava, 1951), 38–39, 45.

10. Pasi Tuunainen, "Training the US Army to Fight the Red Army in Winter—Former Finnish Officers and Military Knowledge Transfer from Finland to the United States During the Early Cold War, 1947–1964," *The Journal of Slavic Military Studies* 29, no. 1 (2016): 116, <http://dx.doi.org/10.1080/13518046.2016.1129877>.

11. Pasi Tuunainen, *Marttinen: Kahden Armeijan Soturi* [Soldier in two armies] (Helsinki: Kustannus OY Otava, 2012), 227.

12. Paavo A. Kairinen, *Marttisen Miehet Aseätkijäveljet* [Arms-caching brotherhood] (Porvoo-Helsinki-Juva, Finland: Werner Söderström Osakeyhtiö, 1988), 289.

13. Kari Kallonen, *Guerrilla Lieutenant—Olavi Alakulppi: Knight of the Mannerheim Cross and World Skiing Champion*, trans. Mika Roinila (2008; repr., Jyväskylä, Finland: Revontuli, 2017), "Military Medals and Honors."

14. Victor Suomalainen [Alpo K. Marttinen], "The Battle of Suomussalmi," *Military Review* 29 (December 1949): 54–62.

15. Veikko Karhunen, *Raatteen Tie* [Raatteen road] (Porvoo, Finland: WSOY, 1970), attachments 4 and 5 (operations orders).

16. Marttinen, "Comments on the Present Capability of the U.S. Army for Arctic Warfare," 1–12.

17. *Ibid.*

18. Field Manual 31-71, *Northern Operations* (Washington, DC: U.S. Government Printing Office, 1971), para. 1-2.b.

19. Albert Puroma and L. Hj. Sonck, *Sotatoimet saksalaisia vastaan Pohjois-Suomessa 1944–1945*, vol. 8 of *Suomen Sota 1941–1945* [Operations against Germans in Northern Finland 1944–1945, Book 8] (Kuopio, Finland: Kustannus Osakeyhtiö Kivi, 1958), 472–73.

20. Erkki Lahdenperä, "Winter Warfare," *Military Review* 40, no. 3 (June 1960): 49.

21. Merriam-Webster, s.v. "corduroy road (n.)," accessed 16 February 2021, <https://www.merriam-webster.com/dictionary/corduroy%20road>.

22. Olavi Alakulppi, interview with the author, March 1988, Petersburg, Virginia, photographs on file with author.

23. *Ibid.*

24. *Ibid.*

25. Tuunainen, *Marttinen*, 226.

26. Don Babwin, "Chicago Soldier Killed in Korea Finally Being Laid to Rest," Associated Press, 17 June 2018, accessed 2 February 2021, <https://apnews.com/article/8a7bdb7b792742069a0cd869f7b-6f2be>.